

CALIFORNIA HORSE RACING BOARD  
1010 HURLEY WAY, SUITE 300  
SACRAMENTO, CA 95825  
(916) 263-6000  
FAX (916) 263-6042



## REGULAR MEETING

of the California Horse Racing Board will be held on Thursday, February 17, 2011, commencing at 9:30 a.m., in the Baldwin Terrace Room at the Santa Anita Park Race Track, 285 West Huntington Drive, Arcadia, California. The audio portion only of the California Horse Racing Board regular meeting will be available online through a link at the CHRB website ([www.chrb.ca.gov](http://www.chrb.ca.gov)) under "Webcasts."

### AGENDA

#### Action Items:

1. **Approval of the minutes of January 20, 2011.**
2. **Public Comment:** Communications, reports, requests for future actions of the Board. **Note:** Persons addressing the Board under this item will be restricted to **three (3) minutes** for their presentations.
3. Discussion and action by the Board regarding the **proposed amendment of CHRB Rule 1844, Authorized Medication**, to reduce the permitted level of phenylbutazone in an official test sample from five nanograms per milliliter of blood plasma or serum to two nanograms per milliliter of blood plasma or serum, and to reduce the permitted level of flunixin in an official test sample from 50 nanograms per milliliter of blood plasma or serum to 20 nanograms per milliliter of blood plasma or serum.
4. Discussion and action by the Board regarding the **proposed addition of CHRB Rule 1844.1, Suspension of Authorized Medication**, to allow the Board to suspend the authorization for any authorized medication after notification at a properly noticed public hearing.
5. Discussion and action by the Board regarding the **proposed addition of CHRB Rule 1500.1, Random Drug Testing**, to allow random drug testing of jockeys and apprentice jockeys under specified conditions, and the **proposed amendment of CHRB Rule 1498, Physical Examination**, to require drug screening during the annual jockey physicals.
6. Discussion and action by the Board regarding the **proposed amendment of CHRB Rule 1433, Application for License to Conduct a Horse Racing Meeting**, to revise the form CHRB-17, Application for License to Conduct a Horse Racing Meeting, and the form CHRB-18, Application for License to Conduct a Horse Racing Meeting of a California Fair.

7. Discussion and action by the Board regarding the feasibility of amending CHRB Rule 1634, Claiming Option Entry.
8. Discussion and action by the Board regarding a plan by the Commerce Casino Minisatellite Wagering Facility to expand its facility to include an adjacent building.
9. Discussion and action by the Board regarding the allocation of the balance of the 2011 Southern California thoroughbred race dates.
10. Discussion and action by the Board regarding the status of the labor negotiations with the advance deposit wagering (ADW) providers.
11. Discussion by the Board regarding a report concerning the revenue stream; the takeout dollar in California, where it goes, how it is used and the sources of handle.
12. Closed Session: For the purpose of receiving advice from counsel, considering pending litigation, reaching decisions on administrative licensing and disciplinary hearings, and personnel matters, as authorized by section 11126 of the Government Code.
  - A. The Board may convene a Closed Session to confer with and receive advice from its legal counsel regarding the pending litigation described in the attachment to this agenda captioned "Pending Litigation," as authorized by Government Code section 11126(e).
  - B. The Board may convene a Closed Session to confer with and receive advice from its legal counsel regarding the pending administrative licensing or disciplinary matters described in the attachment to this agenda captioned "Pending Administrative Adjudications," as authorized by Government Code section 11126(e).

Additional information regarding this meeting may be obtained from the CHRB Administrative Office, 1010 Hurley Way, Suite 300, Sacramento, CA 95825; telephone (916) 263-6000; fax (916) 263-6042. This notice is located on the CHRB website at [www.chrb.ca.gov](http://www.chrb.ca.gov). \*Information for requesting disability related accommodation for persons with a disability who require aid or services in order to participate in this public meeting, should contact Jacqueline Wagner.

**CALIFORNIA HORSE RACING BOARD**

Keith Brackpool, Chairman  
David Israel, Vice Chairman  
Jesse H. Choper, Member  
Bo Derek, Member  
John C. Harris, Member  
Jerry Moss, Member  
Richard Rosenberg, Member  
Kirk E. Breed, Executive Director

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PENDING LITIGATION  
FEBRUARY 2011

CASE

- A. Glen Hill Farm, LLC v. CHRB, et al.  
Los Angeles County Superior Court of California, Case No. BS116655  
Court of Appeal, Second Appellate District, Division One - No. B221010
  
- B. Jamgotchian, Jerry v. CHRB, Kirk Breed and Ingrid Fermin  
Los Angeles County Superior Court of California, Case No. BS123038

PROCEEDINGS of the Regular Meeting of the California Horse Racing Board held at the Santa Anita Park Race Track, Baldwin Terrace Room, 285 West Huntington Drive, Arcadia, California, on January 20, 2011.

Present: Keith Brackpool, Chairman  
David Israel, Vice-Chairman  
Jesse H. Choper, Member  
Bo Derek, Member  
John C. Harris, Member  
Jerry Moss, Member  
Richard Rosenberg, Member  
Kirk E. Breed, Executive Director  
Robert Miller, Staff Counsel

#### MINUTES

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Chairman Brackpool asked for approval of the minutes of the Regular Meeting of January 20, 2011. Commissioner Rosenberg motioned to approve the minutes. Vice-Chairman Israel seconded the motion, which was unanimously carried.

#### PUBLIC COMMENTS

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Chairman Brackpool stated the allocation of the remainder of the 2011 race dates would be on the agenda of the February 2011 Regular Board Meeting. He added discussions regarding the allocation of the dates were fruitful, and he believed the issue could be resolved in February. With regards to the issue of the California Thoroughbred Trainers' (CTT) letter about its fiduciary responsibility to the backstretch pension plan and the incremental purse increases under Senate Bill 1072, an ad-hoc committee would be formed to attempt to resolve the issue. Chairman Brackpool added the Board would be available to help the parties if they could not work through some of the issues. Chairman Brackpool stated there had been some strong accusations about purse account misappropriations. He said the CHRB recently concluded an

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inquiry into the matter. He asked Staff Counsel Robert Miller to summarize the current status of the inquiry. Mr. Miller stated the CHRB concluded an inquiry into allegations of misallocation of funds received by the Thoroughbred Owners of California (TOC), and within a week, the CHRB would issue a formal letter with comprehensive finding regarding its inquiry. The CHRB found no misallocation of funds. The funds received by the TOC were never intended for purses, and there was no violation of Business and Professions Code section 19613.05. Mr. Miller added the TOC was remiss in not providing expenditures as required by Business and Professions Code section 19613.2; however, the Board received reports for the years 2006 through 2009. Laura Rosier of San Luis Rey Downs (SLRD) spoke about SLRD's efforts to engage with Southern California Off Track Wagering, Inc. (SCOTWINC) to arrive at an equitable solution to SLRD's request for SCOTWINC stabling and vanning funding. Gary Holman, a horseman and horse racing fan, spoke about his concerns regarding the increase in the takeout from exotic wagers on thoroughbred races. Jerry Jamgotchian, a horse owner, spoke about his concerns regarding the general state of horse racing in California. Michael Wellman, a horse owner and breeder, read a letter he sent to members of the Board on January 10, 2011.

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DISCUSSION AND ACTION BY THE BOARD REGARDING THE PROPOSED AMENDMENT OF CHRB RULE 1974, WAGERING INTEREST, TO 1) PROVIDE THAT A HORSE THAT IS REMOVED FROM THE WAGERING POOL IN ERROR SHALL RUN AS A NON-WAGERING INTEREST FOR PURSE ONLY, AND THE FOLLOWING AFFECTED REGULATIONS: CHRB RULE 1954.1, PARLAY WAGERING ON WIN, PLACE OR SHOW; 1957, DAILY DOUBLE; 1959, SPECIAL QUINELLA (EXACTA); 1976, UNLIMITED SWEEPSTAKES; 1976.8, PLACE PICK (N); 1976.9, PICK (N) POOL; 1977, PICK THREE; 1978, SELECT FOUR; 1979, TRIFECTA; AND 1979.1, SUPERFECTA, 2) AND THE PROPOSED AMENDMENT OF CHRB RULE 1606, COUPLING OF HORSES, TO REPEAL THE PROVISION THAT REQUIRES TWO OR MORE HORSES TO BE COUPLED AS A SINGLE WAGERING INTEREST WHEN SUCH HORSES ARE OWNED IN WHOLE OR IN PART BY THE SAME PERSON OR PERSONS, AND TO PROVIDE THAT THE RACING ASSOCIATION INFORM THE PUBLIC WHEN TWO OR MORE HORSES ENTERED IN THE SAME RACE ARE OWNED IN WHOLE OR IN PART BY THE SAME PERSONS OR PERSONS, OR ARE TRAINED BY THE SAME TRAINER.

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Jacqueline Wagner, CHRB staff, said the proposed amendment to Rule 1974, Wagering Interest, would allow a horse removed from the wagering pool in error to run for purse only if the error were not the fault of the owner and/or the trainer. The proposed amendment to Rule 1606 would eliminate coupling of horses in California and would require that the racing association take actions as necessary to adequately inform the public when two or more horses running in the same race were owned in whole or in part by the same owner or were trained by the same trainer. Ms Wagner added the name of Rule 1606 would be changed to "Association to Disclose Ownership." In addition, the proposed amendment to Rule 1974 and Rule 1606 would require the amendment of the following rules that were affected by the changes: Rule 1954.1, Parlay Wagering on Win, Place or Show; 1957, Daily Double; 1959, Special Quinella (Exacta); 1976, Unlimited Sweepstakes; 1976.8, Place Pick (n); 1976.9, Pick (n) Pool; 1977, Pick Three; 1978, Select Four; 1979, Trifecta; and 1979.1, Superfecta. Ms. Wagner stated staff recommended the Board direct staff to initiate a 45-day public comment period regarding the proposed amendments. Chairman Brackpool said the proposed amendments reflected the Board's

discussion of coupling and related issues at its December 2010 Regular Meeting. During a public comment period the Board would learn whether it should approve or modify the proposals. Commissioner Choper motioned to direct staff to initiate a 45-day public comment period regarding the proposed amendments to Board Rule 1974, Rule 1606 and the pari-mutuel regulations, as previously listed. Commissioner Harris seconded the motion, which was unanimously carried.

**DISCUSSION AND ACTION BY THE BOARD REGARDING THE PROPOSED AMENDMENT OF CHRB RULE 1876, FINANCIAL RESPONSIBILITY, TO ADD FINANCIAL RESPONSIBILITY COMPLAINTS FROM EQUINE MEDICAL HOSPITALS, SERVICES BY HORSE FARMS THAT ARE DIRECTLY RELATED TO HORSE RACING WHERE THE DEBT EXCEEDS \$1,000.00, THOROUGHBRED HORSE AUCTION SALES, AND WAGE DISPUTES BETWEEN LICENSEES.**

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Jacqueline Wagner, CHRB staff, said the proposed amendment to Rule 1876, Financial Responsibility, would eliminate the current requirement that a complainant obtain a civil judgment prior to filing a financial complaint. In addition, the proposed amendment would add to the regulation as complaints that will be heard by the stewards: financial responsibility complaints from equine medical hospitals, horse farm services of \$1,000 and over that were directly related to the respondent's horse racing operations, authorized horse auction sales, and wage disputes between licensees,. Ms. Wagner stated the standardbred industry indicated it wished to have its horse auction sales included in the regulation, so "thoroughbred" would be dropped, and the phrase "horse auction sales" would be used. Doug Burge of the California Thoroughbred Trainers stated his organization supported the proposed amendment. Commissioner Rosenberg asked if the language of the proposed regulation meant a horse farm could not submit a complaint regarding a horse that was standing at the farm for breeding

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purposes. Ms. Wagner stated if the horse owner were not a licensee of the Board, it would not have jurisdiction. Commissioner Harris said the regulation would cover a brood mare at a farm if it was owned by someone who intended to race the progeny. He stated the word "directly" could be deleted. Commissioner Rosenberg said the phrase "horse racing" should be deleted as it implied it was only related to race horses or turnouts. Jerry Jamgotchian, a horse owner, spoke about his concerns regarding the proposed regulation. Commissioner Derek motioned to direct staff to initiate a 45-day public comment period regarding the proposed amendment to Rule 1876. Commissioner Moss seconded the motion, which was unanimously carried.

### DISCUSSION AND ACTION BY THE BOARD REGARDING AN UPDATE ON THE PROGRESS OF RANDOM DRUG TESTING OF PERSONS WHO HOLD SPECIFIED CLASSES OF OCCUPATIONAL LICENSE.

Jacqueline Wagner, CHRB staff, said since the December 2010 Regular Board Meeting significant progress had been made on the proposed regulation. Staff met with a Jockey's Guild (Guild) representative to discuss what the proposed regulation would contain and to address the Guild's concerns. Ms. Wagner stated the regulation would be on the agenda of the February 2011 Regular Board Meeting. Darrell Haire of the Guild said his organization wished to make it clear that it favored the regulation, but it opposed any expense jockey might incur in testing. Ms. Wagner said there would be no expense to jockeys in the initial testing. However, if a jockey tested positive and wished to have his or her split sample tested, the jockey would be responsible for the costs associated with testing the split.

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**DISCUSSION AND ACTION BY THE BOARD REGARDING THE DISTRIBUTION OF RACE DAY CHARITY PROCEEDS OF THE HOLLYWOOD PARK RACING ASSOCIATION IN THE AMOUNT OF \$110,000 TO 22 BENEFICIARIES.**

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Jacqueline Wagner, CHRB staff, said the Hollywood Park Racing Association (HPRA) was requesting to distribute race day charity proceeds in the amount of \$110,000 to 22 beneficiaries. Ms. Wagner commented 53 percent of the proceeds would go to racing related organizations. She stated staff recommended the Board approve the request as presented. Chairman Brackpool motioned to approve the request by HPRA to distribute race day charity proceeds. Commissioner Choper seconded the motion, which was unanimously carried.

**DISCUSSION AND ACTION BY THE BOARD REGARDING ADOPTION OF PROPOSED RECOMMENDATIONS FOR INCLUSION IN THE 2009/2010 ANNUAL REPORT.**

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CHRB Executive Director Kirk Breed said the Board's annual report to the governor and the legislature was mandated by the Business and Professions Code to report the activities of the Horse Racing Board and to make recommendations. Staff formulated a series of recommendations to be included in the upcoming 2009/2010 annual report. The recommendations included the expansion of the necropsy program to determine the cause of an injury, as opposed to simply determining what happened to the horse. This would include investigating and analyzing racing and training accidents, injuries and fatalities; monitoring, analyzing and making recommendations to improve veterinary and training practices; developing and adopting safety standards for evaluation and control of track surfaces, monitoring, analyzing and making recommendations to improve track surface material and maintenance procedures; developing, continuing education programs for licensees responsible for horse care. Mr. Breed

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stated the recommendations also included actions to ensure adequate funds were being devoted to marketing California horse racing. In addition, the recommendations included developing and implementing a strategy to increase attendance at California's brick and mortar wagering facilities. Chairman Brackpool stated the applications for license to conduct a horse racing meeting would be on a future agenda for amendment. At that time the Board could look at the existing applications and discuss proposals for new additions that would help accomplish the recommendations. He commented that did not mean existing responsibilities would be deleted. Chairman Brackpool motioned to adopt the proposed recommendations for inclusion in the 2009/2010 annual report. Vice-Chairman Israel seconded the motion, which was unanimously carried.

DISCUSSION AND ACTION BY THE BOARD ON A REPORT FROM CHRIMS REGARDING ITS ANNUAL ACTIVITIES AND PLANS FOR 2011 AND BEYOND.

Mark Thurman of California Horse Racing Information Management Systems (CHRIMS) spoke about the role played by CHRIMS in the California horse racing industry. He stated CHRIMS was and industry service bureau that was unique, as no other state had a full service data base. CHRIMS provided information to the CHRB, the racetracks and the horsemen, as well as many different services to the industry. CHRIMS primary purpose was to take the different totes' data files on a daily basis and download it and process it so it was usable. Mr. Thurman explained the CHRIMS' various services, and how they enabled the industry to work more efficiently and save money. Commissioner Choper asked if CHRIMS could calculate the amounts wagered on conventional wagers through advance deposit wagering (ADW) and where such wagers were placed. Mr. Thurman said with ADW the data was downloaded separately. The data indicated

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where wagers were made by zip code. Commissioner Choper asked how offshore wagering fit into the CHRIMS picture. Could CHRIMS identify the source of every dollar that entered the system? Mr. Thurman said that was correct; however, what entered CHRIMS went through the tote system, so it did not include unlicensed entities. He added CHRIMS was working on a nationwide clearinghouse for accounting and calculating host fees, etc. Commissioner Rosenberg stated there was a memorandum of understanding between CHRIMS and the CHRB that clarified the relationship between the entities. He asked, however, if CHRIMS was wholly owned by CHRIMS or was there another entity? Mr. Thurman stated Northern California Off Track Wagering, Inc. and Southern California Off Track Wagering, Inc. were the two members of CHRIMS. Commissioner Rosenberg asked what the sources of CHRIMS other revenues were. Mr. Thurman said CHRIMS had out-of-state customers. CHRIMS was also paid by California racing associations for its services. Commissioner Rosenberg commented that CHRIMS was a tremendous resource for California but it was important that it was transparent. The system could be very complicated for an ordinary person to figure out. He added it was a good idea to post data at the Cal Racing site. It would provide numbers that everyone could agree on, as some of the numbers in the Racing Form and Equibase did not necessarily tie-in to the true numbers. Mr. Thurman stated CHRIMS was a data base that reflected California Horse Racing Law, so if one wished to run a report, but did not know how to ask a question, one would get erroneous numbers. That was why it got complicated. Commissioner Harris said the public basically wanted to know how much was wagered at the various venues and online. Mr. Thurman stated CHRIMS needed to develop a database application for Cal Racing to reflect where horses were running and what the handle was. It would not provide information about the accounting aspect. Commissioner Harris commented, however, if one wished to really look at

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the numbers, they were available. The average person might not be concerned, but CHRIMS was somewhat of a public entity and it did not wish to create the idea that information was unavailable. Mr. Thurman said there were a couple of issues with opening the system to anyone with a query. Most people would not know how to ask a question, so they would get bad numbers, and CHRIMS did not have the staff to train the public. However, upon request CHRIMS could provide data. Commissioner Harris stated there was not a policy of hiding information; it was just a matter of presenting it in a manner that allowed the public to understand it. Vice-Chairman Israel said CHRIMS seemed to be running a \$100,000 to \$200,000 annual deficit. He asked how CHRIMS funded its deficits. Mr. Thurman said CHRIMS raised money. Its largest revenue source was unclaimed vouchers, but that had dropped from \$800,000 to about \$375,000 as wagering moved to the internet. To make up the deficits CHRIMS expanded its out-of-state business, which currently covered approximately 50 percent of its revenue. Another way CHRIMS offset its deficits was supplemental billing to the racetracks and the various users of CHRIMS. Vice-Chairman Israel said one suggestion for increasing on-track attendance was to offer the customer a better deal at the racetrack than an ADW or satellite customer received. Perhaps the Win Place Show takeout could be reduced. He asked if CHRIMS would have difficulty developing software for such a scenario. Mr. Thurman said it could be done, but there would be different payouts at locations other than the racetrack, which might confuse patrons. Vice-Chairman Israel stated the idea was to get patrons to go to the racetrack because they would get a better deal. John Bucalo of the Barona Casino asked if any of the monies used to fund the CHRIMS deficits came from the funds dedicated to promotion of satellite wagering facilities. Mr. Thurman said CHRIMS had a contract with the California Marketing Committee to provide services, but that funding was no longer there. Peter

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Miller, a trainer and horse racing fan, spoke about late odds changes and asked what was being done to ensure the integrity of the pools. Mr. Thurman stated CHRIMS was involved in a project to centralize how the pools were closed so there could be an accurate audit of when closure occurred. The problem was that the national industry used different computer systems that were collecting wagers then shipping them into a common pool. When that occurred there was a lag time, and that created the odds changes after a race was off. One initiative the industry undertook was to go to 10 to 12 second commingling of the monies in the last minute of a wagering cycle. That helped immensely with late odds changes.

DISCUSSION AND ACTION BY THE BOARD ON THE APPLICATION FOR LICENSE TO OPERATE A SIMULCAST WAGERING FACILITY AT THE SYCUAN CASINO, EL CAJON, CALIFORNIA SUBMITTED FOR THE PURPOSE OF RE-LOCATION OF THE WAGERING AREA AT ITS SIMULCAST FACILITY.

Jacqueline Wagner, CHRB staff, said the Sycuan Casino notified staff that it was initiating a \$27 million renovation and it would be moving the simulcast wagering location during the remodel. The new location would have additional seating and would be upgraded. The Sycuan Casino submitted an application to operate a simulcast wagering facility to reflect the changes to the existing facility, and to inform the Board of the changes. Vice-Chairman Israel stated he was in favor of the expansion, but he found it difficult to read the drawing of the new facility. Tim Briggs of the Sycuan Casino stated the new simulcast facility would have sixteen televisions with expanded seating. Commissioner Moss asked if the simulcast facility was a successful operation for the Sycuan Casino. Mr. Briggs said it was a success, and with the remodeling it would have a few more seats. The renovation itself would draw more business. Vice-Chairman Israel asked if the casino showed ball games during the weekend to attract people to its facility.

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He commented that would build traffic and have the ancillary effect of more wagering on horse racing. Mr. Briggs stated the casino renovation would include a sports grill. It was in a different location, but it would drive traffic. Commissioner Harris said there were numerous Indian gaming casinos that did not have simulcast facilities. He asked if Mr. Briggs had any ideas that would help expand horse racing into those locations. Mr. Briggs said he did not have any suggestions, but he commented the simulcast was a "low headache" operation because the off track wagering organization took care of all the logistics. Commissioner Harris added it would take amended compacts, and that was a problem. Vice-Chairman Israel asked how many wagering terminals were currently in the casino. Mr. Briggs said there were 13 terminals. Commissioner Moss asked how many tellers were employed by the Casino. Mr. Briggs stated there was a manager, and depending on the day, up to three tellers. Commissioner Moss motioned to approve the application for license to operate a simulcast wagering facility of the Sycuan Casino. Commissioner Choper seconded the motion, which was unanimously carried.

**DISCUSSION AND ACTION BY THE BOARD REGARDING THE REQUEST FROM LOS ALAMITOS RACING ASSOCIATION TO AMEND THE NOVEMBER 9, 2010 APPLICATION FOR LICENSE TO CONDUCT A HORSE RACING MEETING TO INCLUDE IMPLEMENTATION OF THE PROVISIONS OF BUSINESS AND PROFESSIONS CODE SECTION 19601.3.**

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Jacqueline Wagner, CHRB staff, said at the November 2010 Regular Meeting the Board heard and approved the application for license to operate a race meeting of the Los Alamitos Racing Association (LARA). The application was predicated on the takeout rates that were then being used at LARA. At that time it was not made clear that the takeout rates under Business and Professions Code section 19601.3 would also apply to the 2011 meeting. Ms. Wagner stated the

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LARA resubmitted its application so it could be formally amended to reflect the takeout rates. Chairman Brackpool stated the application did not contain any new information. Ms. Wagner said the item was an administrative function. Commissioner Harris asked if the LARA increase in takeout rates would be used to increase purses. Chairman Brackpool said the increase would not be directed to purses. It was a continuation of the rates used by LARA in 2010, so nothing would change. Roger Way of Horseplayers Association of North America (HANA) spoke about his concerns regarding the increase in takeout at LARA and its effects on the handle. Rod Blonien, representing LARA, stated his organization experienced an increase in handle in all venues. He added a portion of the increase was directed to the night satellites, some of which would otherwise close. LARA believed the increase was good for the industry and it strongly encouraged the Board to approve the application. Commissioner Choper stated there was no shortage of statistics. If some of the energy that went into discussion of the statistics could be devoted to a rational presentation and dispassionate analysis, perhaps others may be persuaded. The Board voted for the increase for one reason, and that was to present a better racing product to the public. That was done because horses were leaving the state for larger purses. The general feeling was that if something was not done, California would continue to lose horses, which was not a good thing. However, the data that was presented to the Board was conflicted. The Board needed to determine the true effects of the increase in a systematic way. Chairman Brackpool stated the increase was not a top-down decision. The Board debated and approved the racing association's application. After the presentation of the first set of statistics, Board staff and California Horse Racing Information Management staff met with the president of HANA and LARA, and they came back with different numbers. The Board did its best to look at the numbers, but in addition to wanting to do the right thing, the Board had to listen to the

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racetracks. A balanced conversation was needed. Los Alamitos should provide the Board with its numbers and in the coming months the Board would reexamine numbers from both organizations to try to determine a direction forward. Chairman Brackpool added it was pretty compelling for the Board to hear LARA state its numbers and its attendance was up. Mr. Blonien stated the LARA horsemen supported the application. He added LARA was please its numbers were up in 2010, and it did not believe the increase would be detrimental to the 2011 racing program. Mr. Way stated the Board consistently listened to the racetracks and ignored customers. He stated that when the Board would not pay attention, there was little purpose in customers presenting statistics. Chairman Brackpool said the Board would listen to the numbers and factual information. Commissioner Harris motioned to approve the request for LARA to amend its application for license to conduct a horse racing meeting. Commissioner Rosenberg seconded the motion, which was unanimously carried.

DISCUSSION AND ACTION BY THE BOARD ON THE APPLICATION FOR APPROVAL TO CONDUCT ADVANCE DEPOSIT WAGERING (ADW) OF ODS TECHNOLOGIES, L.P., DBA TVG, FOR AN OUT-OF-STATE MULTI-JURISDICTIONAL WAGERING HUB, FOR A PERIOD OF UP TO BUT NOT EXCEEDING TWO YEARS.

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Jacqueline Wagner, CHRB staff, said at the December 2010 Regular Meeting TVG was missing one item from its application for approval to conduct advance deposit wagering (ADW). That item was the bond to cover the proposed term of license ending December 31, 2011. Ms. Wagner stated TVG extended its bond through the required period, so its application was complete. John Hindman of TVG spoke about the ADW industry. He stated it seemed some believed the ADWs were pillaging the industry and were laughing all the way to the bank while

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the industry burned; that was not the case. TVG was heavily invested in the industry. In 2010 TVG made cash distributions to the California racing industry totaling over \$50 million. TVG invested millions more in television, producing and distributing television and it sponsored several races in California. TVG's sponsorship of the Pacific Classic helped it remain a \$1 million race. Mr. Hindman said the takeout on any ADW wager was 20 percent on a blended basis and TVG's commission was 5 percent for a takeout total of 25 percent. All the ADW providers kept five percent, but they sent 75 percent of the total handle back to the racing industry while bearing 100 percent of the cost. He commented ADW was not such a bad deal. Commissioner Harris stated the law allowed the ADW providers to retain 6.5 percent. He asked if the 5 percent were negotiated down from the statutory limit. Mr. Hindman said that was correct. He added TVG also paid some of the highest host fees to California tracks of any provider in the country. If one was wagering out-of-state, California was better off if the wager was placed through an ADW provider. Mr. Hindman stated there had been a lot of talk about the first three weeks of the Santa Anita meeting. He said he looked at the California Horse Racing Information Management Systems (CHRIMS) numbers and found that all ADW providers were down in total wagering by California residents. That meant wagers by California residents on California tracks and on out-of-state tracks. He said the problem was not related to one particular thing, but California's struggling economy probably had something to do with the downturn. Commissioner Harris asked if the ADW providers would forward the 2 percent increase in exotic wagers. Scott Daruty of MI Developments said Monarch represented all of the California racetracks in the sale of their simulcast signals. He stated all four licensed California ADW providers agreed to pay 100 percent of the takeout increase from California wagers back to the tracks. So a wager from a California resident through any of the ADW companies would

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result in 100 percent of the increase returning to California thoroughbred overnight purses. With respect to out-of-state wagers, every interest outside of California – including casinos in Nevada, racetracks across the United States and the ADW providers – agreed to make a payment to the racetracks for overnight purses. The ADW providers agreed to make payments in excess of any other location. Chairman Brackpool asked if the negotiations resulted in a higher or lower overall recovery than had been projected. Mr. Daruty stated the recovery was higher than expected. One hundred percent of the California wagers would be recovered and over 50 percent of all out-of-state wagers would be recovered going forward. He added the ADW providers were paying more than the brick and mortar facilities. Vice-Chairman Israel commented at the December 2010 Regular Meeting TVG and XpressBet indicated they would pay California 100 percent of the incremental increase on out-of-state and in-state wagers. He asked what had changed. Mr. Daruty stated it was important to the California industry to treat every entity fairly. So, if more than one entity was taking the signal, the industry wanted to ensure a fair, appropriate pricing policy that was applied consistently to all parties. There was one ADW provider that refused to pay back 100 percent of the incremental increase. So, through negotiation, it was determined that California would take less than 100 percent, and that all ADW providers needed to be treated comparably. Vice-Chairman Israel asked if Monarch considered refusing to do business with the recalcitrant entity. Mr. Daruty said there was a balance between maximizing revenue and not doing so at the expense of limiting distribution of the signal. In every negotiation one had to decide if loss of distribution versus higher prices would leave California better or worse off. In the case of the ADW providers it was decided that on balance the distribution was important. Chairman Harris asked if the specific rates were available to the public. Mr. Daruty stated the rates were not public. Monarch did not believe it was in the

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interest of the California racetracks to have the outcome of every negotiation published. If that information became available, every entity would demand the lowest rate, which would be detrimental to purses. Mike Wellman, a horse owner and breeder, spoke about his concerns regarding the ADW providers and the incremental increase. Jerry Jamgotchian, a horse owner, spoke about his concerns regarding ADW and the possibility that the California signal was being misused. Dave Elliott of Cal-Expo stated at the December 2011 Regular Meeting his organization requested the Board's assistance in convincing TVG to broadcast a couple of Cal-Expo's late harness races. The Board asked TVG to negotiate with Cal-Expo, but to date, no negotiations have taken place. Mr. Elliott stated a letter from TVG, dated January 10, 2011, was sent to the CHRB. The letter stated Cal-Expo elected not to enter into an agreement to compensate TVG for placing the signal on its network. He said Cal-Expo had never been asked to enter into such an agreement. In addition, the letter talked about Cal-Expo's promotion with TwinSpires, and it indicated that TVG's customers would have to pay a takeout rate that TwinSpires customers would not. Mr. Elliott stated the TwinSpires agreement was a bonus program and TVG had every opportunity to give the same prize to its customers. The TwinSpires bonus program came out of Cal-Expo's pocket. Commissioner Choper asked if Cal-Expo would do the same promotion with TVG. Mr. Elliott said Cal-Expo could not do the promotion with TVG because of its agreement with TwinSpires. The TwinSpires agreement ran through June 2011; however, TVG could do any promotion it chose. In addition, the promotional prize had a limit of \$500 on any winning ticket. Commissioner Harris stated the real issue was that Cal-Expo wanted to see its races broadcast by TVG. He said TVG should look at it as an opportunity to increase revenue, and it was not clear why it was a problem. Chairman Brackpool stated the issue was something the parties should negotiate. Cal-Expo

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made its points. It should respond to the TVG letter and send a copy to the Board. The Board was not going to dictate which races an ADW provider should broadcast. Mr. Elliott stated a precedent was set in 2008 when the Board helped Cal-Expo negotiate with TVG. At that time, TVG would not sign a deal with Cal-Expo, but the Board stepped in and a deal was struck – including broadcasting of Cal-Expo races. Commissioner Rosenberg said TVG had an obligation to promote horse racing. TVG was taking the Australian signal and refusing to take a California signal. He asked how much it could cost to broadcast two races a night from Cal-Expo. Mr. Hindman stated TVG broadcast 24,000 races a year and most of the races were from California. TVG invested millions of dollars in televising California racing and it would continue to do so. TVG would try to work with Cal-Expo, and it would attempt to get its races on the air. Mr. Hindman said the TVG letter explained its concerns. He added that TVG's competitor never showed a single race from Cal-Expo, and it was not even on air at that time of night. The ADW providers had the right to make such choices. However, TVG would sit down with Cal-Expo and it would attempt to broadcast some of its races. Commissioner Harris commented the California harness industry was in trouble, and any exposure would be helpful. Commissioner Moss said the Board was obligated to promote California racing. All ADW contracts should contain such requirements, as well as the same rate so there would be no real negotiation under such situations. He added the ADW providers might be taking some business from the tracks, but they also expanded wagering by allowing those who wished to stay home and wager or those who could not travel an opportunity to enjoy the sport. Chairman Brackpool said that if the Board wished to mandate a level of exposure for every California track, there had to be an agreement wherein TVG and HRTV had a mutual understanding that they were both responsible. He stated the Board was clear that the TVG and Cal-Expo should talk and reach an

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agreement. Chairman Brackpool said a lot of valid points regarding ADW providers were raised, but they were not working against the industry. The reality was that a lot of people could not make it to a brick and mortar facility on a daily basis, and the ADW providers were the way of the future. Chairman Brackpool motioned to approve the application for approval to conduct ADW of TVG for a one-year period through December 31, 2011, and that during the one-year period the Board initiate in-depth discussions about the necessary restructuring issues that it and the industry believed were necessary. Commissioner Choper seconded the motion, which was carried with Vice-Chairman Israel abstaining.

DISCUSSION AND ACTION BY THE BOARD ON THE APPLICATION FOR APPROVAL TO CONDUCT ADVANCE DEPOSIT WAGERING (ADW) OF CHURCHILL DOWNS TECHNOLOGY INITIATIVES COMPANY, DBA TWINSPIRES.COM, FOR AN OUT-OF-STATE MULTI-JURISDICTIONAL WAGERING HUB, FOR A PERIOD OF UP TO BUT NOT EXCEEDING TWO YEARS.

DISCUSSION AND ACTION BY THE BOARD ON THE APPLICATION FOR APPROVAL TO CONDUCT ADVANCE DEPOSIT WAGERING (ADW) OF YOBET.COM, INC., FOR A CALIFORNIA MULTI-JURISDICTIONAL WAGERING HUB AND APPROVAL FOR AN OUT-OF-STATE MULTI-JURISDICTIONAL WAGERING HUB, FOR A PERIOD OF UP TO BUT NOT EXCEEDING TWO YEARS.

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Jacqueline Wagner, CHRB staff, said the applications for approval to conduct advance deposit wagering (ADW) of Twinspires and Youbet.com (Youbet) had a number of outstanding items. She stated staff received the horsemen's approval for the two race meetings that commenced in December 2010. Staff understood hub agreements were in place, but it had not received the documents. In addition, staff had not received labor agreements. She added there was one outstanding licensing issue for an employee. Brad Blackwell, representing Twinspires and Youbet, said a hub agreement was in place. Twinspires was prepared to submit the agreement

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but hesitated to make sure it was not interfering with other issues in California. Chairman Brackpool commented that at the December 2010 Regular Meeting Twinspires argued it did not have to have a labor agreement because it was not notified within the statutory time period, but with regards to the hub agreement, Twinspires seemed to be arguing the opposite way. Mr. Blackwell said Twinspires had no issue with a labor agreement, and it had one for the past three years. It was Twinspires position that the issue should not interfere with the license process. He stated Twinspires had no problem entering into a labor agreement that specifically addressed the statutory requirements, or in extending the agreement it had over the last three years. Commissioner Choper asked Mr. Blackwell to address the union letter dated January 18, 2011. Mr. Blackwell stated he received a copy of the letter via email. The letter stated the Pari-Mutuel Employee's Guild Local 280 (Local 280) entered into an agreement with TVG that was different from the agreements of the other three licensed California ADW providers. The letter introduced a new concept of requiring the ADW provider to agree not to subcontract jobs unless it had the approval of the union. Mr. Blackwell said two-and-a-half years ago Twinspires contracted with a third party in Oregon to provide telephone service to accept wagers. That was how Twinspires was set up, and it was initiated before Twinspires had a California license. According to Twinspires reading of the California ADW statute, the issue was outside the scope. Commissioner Choper asked if the third party in Oregon accepted and processed wagers for which a California ADW license was required. Mr. Blackwell said they would process wagers from California residents. Commissioner Choper asked if the Oregon third party workers were covered by the union agreement. Mr. Blackwell stated the Oregon workers were covered by the agreement Twinspires entered into three years ago, and they would continue to be covered by the agreement. Commissioner Harris asked if they were actually union employees. Mr. Blackwell

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said they were not union employees, but they were covered by the agreement. Commissioner Choper asked what the dispute was about if the subcontractor met the qualifications and was covered by the union agreement. Mr. Blackwell stated the issue was the introduction of the requirement that Twinpires not contract with a third party without union approval. Twinpires was already contracting with a third party, and that was made clear to the union three years ago. He stated the California statute, Business and Professions Code section 19604, stated the agreement required would not be conditioned by either party upon the other party agreeing to matters outside the requirements of subparagraph (b). The introduction of the new concept by Local 280 was outside the agreement that Twinpires had over the last three years, and outside the scope of the statute. Commissioner Choper said the issue only covered those who accepted or processed wagers, so would Twinpires be willing to add a provision to its contract even though it was effectively covered. If Twinpires did not cover the workers in Oregon it would be in breach of the contract. The union was concerned with Twinpires or another party not that provision. However, there was some real doubt under the constitution regarding its lawfulness. Perhaps that was what was stopping Twinpires from agreeing, and if that was the case, Twinpires ought to persuade the union that it was not worth the effort if Twinpires continued to abide by the ADW statute. Mr. Blackwell stated Twinpires was willing to enter into a union agreement if it abided by the requirements of the statute. Richard Castro of Local 280 stated when the ADW statute was drafted his organization understood the Oregon workers were in a union, and it agreed not to interfere if the bargaining unit was in another union. However, Local 280 subsequently learned the workers were not in a union, but that was not why Local 280 wanted Twinpires to agree to the addition to the contract. The addition stated the parties agreed that the contract was applicable to all employees that accepted and processed wagers in

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California, and they would not subcontract the services of any such employee to a third party entity without the written consent of Local 280. The addendum to the contract was the result of OakTreeBets.com and DelMarBets.com. The union felt the entities violated the law. Commissioner Choper asked if Mr. Castro were talking about Twinspires. Mr. Castro stated TVG signed the agreement and Local 280 asked Twinspires to also sign. He said he was speaking about Churchill Downs. Chairman Brackpool said he understood the issue the union had with Churchill Downs was the same problem it had with XpressBet. Mr. Castro said they also would not sign the addendum. Vice-Chairman Israel commented as it related to Twinspires and Youbet the union's concerns were hypothetical and there was no activity. Mr. Castro said Local 280 was not aware of activity, but the XpressBet application was another matter. Vice-Chairman Israel commented the issue before the Board was the entities owned by Churchill Downs. Commissioner Choper asked why Local 280 did not think it had the Oregon workers covered when Twinspires agreed it would cover them under its contract. If Twinspires suddenly contracted with an independent company to have California wagers processed, that would void the contract. However, Twinspires covered its Oregon workers. Mr. Castro said Local 280 believed the change to its collective bargaining agreement with ADW companies would not allow for what happened with DelMarBets.com and OakTreeBets.com. Chairman Brackpool stated the labor issue would be put to one side to allow for resolution of the two other issues before the Board. He asked why the hub agreement was not delivered to Thoroughbred Owners of California (TOC) pursuant to the statute. Mr. Blackwell stated when the agreement was signed Twinspires asked if it should be forwarded to the TOC. Jack Liebau of Hollywood Park stated his organization gave a one year hub agreement to Twinspires so that negotiations could continue. Hollywood Park believed that Twinspires would deliver the agreement to TOC.

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Chairman Brackpool stated the CHRB asked for an agreement to be delivered so staff could examine the agreement and inform the Board if it complied with the law, so that was the purpose of the delivery provisions. Mr. Liebau said it was Twinspires hub agreement, which was required by law. So, Hollywood Park assumed Twinspires would deliver the agreement. Chairman Brackpool stated the Board was being told Hollywood Park told Twinspires not to deliver the agreement. Mr. Liebau said that was not the case. Chairman Brackpool commented the hub agreement was like being issued a permit or license, but the Board had not seen it, and neither had TOC. Chairman Brackpool motioned to approve the Twinspires ADW license through December 31, 2011 subject to the hub agreement being reviewed by staff and by TOC and found acceptable. If the hub agreement were not acceptable, the license would be revoked until any issues were resolved. The hub agreement was to be delivered immediately, and there would be a ten day period in which to review the document. The simulcast agreement with Monarch also had to be delivered under the same conditions. By the February 2011 Regular Meeting Twinspires must inform the Board if it has reached a labor agreement. If, at that time, the parties had not reached an agreement, the Board would hear the matter at its March 2011 Regular Meeting and make a ruling. Commissioner Rosenberg seconded the motion, which was carried with Vice-Chairman Israel voting "no." Chairman Brackpool commented that item 13, the ADW application for Youbet, was withdrawn. Mr. Daruty said that was correct.

DISCUSSION AND ACTION BY THE BOARD ON THE APPLICATION FOR LICENSE TO CONDUCT ADVANCE DEPOSIT WAGERING (ADW) OF XPRESSBET, LLC, DBA

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XPRESSBET.COM, DELMARBETS.COM AND OAKTREEBETS.COM FOR A CALIFORNIA MULTI-JURISDICTIONAL WAGERING HUB, FOR A PERIOD OF UP TO BUT NOT EXCEEDING TWO YEARS.

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Jacqueline Wagner, CHRB staff, stated the application for license to conduct advance deposit wagering (ADW) of XpressBet.com (XpressBet) was missing the labor agreement and the surety bond. Staff received notice that the surety bond was executed, and that it would cover the period through December 31, 2011. The Bond was for \$50,000. Commissioner Harris stated the bond was an issue that needed to be addressed for all ADW providers. Ms. Wagner said the ADW applications would be amended and at that time, the bond would be modified. Chairman Brackpool commented the bond requirement was on the applications, which were ten years old, and that was one reason the ADW providers were not licensed beyond one year. He stated that if the outstanding issue was the labor agreement, and if the issue that prevented an agreement from being executed was the same as that discussed under the Twinspires application, he would make the same motion giving the parties one month to reach an agreement. Greg Scoggins of XpressBet said the issues were essentially the same. Chairman Brackpool stated the Board did not have the expertise to resolve the issues and make a determination; it would need counsel. Mr. Scoggins said he did not think the issue could immediately be resolved. Commissioner Choper asked if XpressBet believed all employees who accepted and processed wagers were subject to the ADW statute. Mr. Scoggins said XpressBet agreed. Commissioner Choper asked if that applied whether or not the employees were direct employees or subcontracted out to another company. Mr. Scoggins stated XpressBet had two relationships that needed to be clarified. The Pari-Mutuel Employees Guild Local 280 (Local 280) believed XpressBet subcontracted with a third party to conduct ADW activities for OakTreeBets.com and DelMarBets.com. He said Local 280 believed those jobs should have been California jobs, and

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that by XpressBet providing those services under a marketing agreement, the ADW statute was subverted. However, XpressBet did not subcontract; it entered into a marketing agreement to utilize the Oak Tree and Del Mar trademarks for the purposes of signing up XpressBet customers. XpressBet used XpressBet employees to service the marketing agreements. Vice-Chairman Israel stated that meant XpressBet was like Ford, who made Taurus and Mustangs, and was going to build Explorers and Escapes. It was still Ford, but it was just using different labels on the vehicles. He asked if XpressBet was using union employees. Mr. Scoggins said XpressBet employees were not unionized, but it had agreed to let Local 280 do a card check to determine if the employees wished to be unionized. Commissioner Choper asked what did Local 280 want that XpressBet had not given it. Mr. Scoggins stated Local 280 wanted to have approval over Ford making another type of vehicle that was still a Ford. He said the employees would still be XpressBet employees and they would be subject to the XpressBet agreement. Chairman Brackpool said that meant that during the Del Mar or Oak Tree meetings, persons calling DelMarBets.com or OakTreeBets.com were actually calling XpressBet and talking to XpressBet employees. Craig Fravel of Del Mar thoroughbred Club (DMTC) said there was currently an arbitration going on between Local 280, DMTC and Oak Tree Racing Association (OTRA) regarding the issue. The issue was whether DMCT and OTRA could enter into the marketing agreement with XpressBet. He stated DMTC was not operating as an ADW provider; it was party to a marketing agreement that allowed XpressBet to accept wagers through a branding called DelMarBets.com. All the employees were XpressBet employees and they were subject to the statute. Chairman Brackpool said he understood there was not unanimous agreement on what the subject of the arbitration should be, but if the issue was going to arbitration, it should remain on that course. Mr. Fravel stated the arbitration would not start until

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August 2011. Richard Castro of Local 280 stated the union believed the marketing agreement violated its contract, and that was the issue to be arbitrated. He said he wanted to make it clear that Local 280 was not going forward with arbitration over what the ADW statute said or meant, which is what DMTC and OTRA wanted. Commissioner Choper asked if Local 280 could card check the persons processing wagers at DMTC races under the marketing agreement. Mr. Castro said "no." Local 280 believed that if a California business in California wanted to create DelMarBets.com anyone wishing to telephone in a wager should be able to talk to a California employee, not an XpressBet employee in Oregon. Mr. Castro stated the original intent of the ADW statute was California jobs, but labor had been left out of the equation. Chairman Brackpool asked why the arbitration was moved to December 2011. Mr. Fravel said he did not know why the date was moved. It may have had to do with the availability of the arbitrator. Mr. Scoggins said the arbitration did not involve XpressBet. It was an issue between Local 280 and DMTC and OTRA and the racing associations' collective bargaining agreements. The issue was whether or not, under the racing associations' collective bargaining agreements, DMTC and OTRA acted appropriately. XpressBet was not a party to the arbitration. Mr. Fravel said he agreed XpressBet was not a party to the arbitration, but the issue was that the ADW providers would not engage in white label type activities with licensees. Vice-Chairman Israel commented Local 280 was also asking for DMTC and OTRA to create infrastructures (that were not really practical) to handle the wagers in California. He said the point was marketing and improving and creating jobs. Unless the horse racing business was expanded in small, incremental ways, which included getting patrons to call and place wagers on the XpressBet system through the two promotional venues (OakTreeBets.com and DelMarBets.com) horse racing would continue to lose jobs and would contract. The marketing agreements were attempting to expand horse racing

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and to create jobs, yet Local 280 was fighting them, which made no sense. If the union insisted on DMTC and OTRA creating infrastructures to process a small number of wagers, the racing associations would walk away and any additional business would be lost. Mr. Fravel said he had informed Local 280 that if DMTC hired one clerk to handle the phones there would not be enough income to pay the clerk's salary. He stated he would be happy to share information on the amount handled with anyone. The marketing agreement was not a huge success, but it created a lot of turmoil with Local 280. Commissioner Choper asked if the persons who processed the wagers were subject to the statute. Mr. Fravel said the employees were subject to the law and would have the same requirements under their labor agreements. Chairman Brackpool motioned to approve the license for XpressBet through December 31, 2011 subject to signing a labor agreement. If the labor agreement was not signed within 21 days, the item would be heard at the March 2011 Regular Board Meeting. Commissioner Derek seconded the motion, which was carried with Vice-Chairman Israel abstaining. Mr. Fravel stated DMTC and Local 280 had been discussing the issue for a year-and-a-half, and he doubted that any solution would be reached by February 2011. He said DMTC would stipulate to a set of facts to avoid a lengthy discussion at a future Board meeting. Chairman Brackpool stated that would be helpful. If it were necessary to stipulate the facts after the 21-day period, the parties could notify the Board.

MEETING ADJOURNED AT 12:59 P.M.

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A full and complete transcript of the aforesaid proceedings are on file at the office of the California Horse Racing Board, 1010 Hurley Way, Suite 300, Sacramento, California, and therefore made a part hereof.

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Chairman

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Executive Director

CALIFORNIA HORSE RACING BOARD

FEBRUARY 17, 2011  
REGULAR BOARD MEETING

There is no board package material for Item 2

STAFF ANALYSIS  
DISCUSSION AND ACTION BY THE BOARD REGARDING  
THE PROPOSED AMENDMENT OF CHRB RULE 1844, AUTHORIZED MEDICATION,  
TO REDUCE THE PERMITTED LEVEL OF PHENYL BUTAZONE IN AN OFFICIAL TEST  
SAMPLE FROM FIVE NANOGRAMS PER MILLILITER OF BLOOD PLASMA OR  
SERUM TO TWO NANOGRAMS PER MILLILITER OF BLOOD PLASMA OR SERUM,  
AND TO REDUCE THE PERMITTED LEVEL OF FLUNIXIN IN AN OFFICIAL TEST  
SAMPLE FROM 50 NANOGRAMS PER MILLILITER OF BLOOD PLASMA OR SERUM  
TO 20 NANOGRAMS PER MILLILITER OF BLOOD PLASMA OR SERUM.

Regular Board Meeting  
February 17, 2011

BACKGROUND:

CHRB Rule 1846, Racing Soundness Examination, requires all horses racing in California to undergo a pre-race soundness exam by either the racing or official veterinarian or CHRB Rule 1853, Examination Required, restates that requirement.

CHRB regulations prohibit the administration of drugs, substances and medications after entry time with a small number of specific exceptions. Three non-steroidal anti-inflammatory drugs (NSAID's) are one of those exceptions allowed under Rule 1844 (c) for phenylbutazone, flunixin or ketoprofen. These drugs are not allowed under international rules of the International Federation of Horseracing Authorities where those racing jurisdictions have less than half of the racing fatality rate as seen in California. Just in the United States, California racing fatality rates exceed national averages reported in the Jockey Club Equine Injury Database. The issue is effects jockey welfare and safety as well as equine. Many if not most jockey injuries occur on when horse sustain fatal musculoskeletal injuries. Sam Thompson, the last jockey fatality in California died from injuries he sustained when his mount fell after she suffered a fracture and Juan Briano is paralyzed from a spinal cord injury he sustained when his mount sustained a fatal fracture while racing.

The CHRB/CAHFS-UC Davis necropsy program has shown a large majority of horses suffering fatal musculoskeletal racing fatalities have pre-existing pathology at the site of the fatal injury. Dr. Sue Stover of the JD Wheat Orthopedic Research Laboratory at UC Davis School of Veterinary Medicine estimates over 90% of all fatal musculoskeletal racing fatalities have pre-existing pathology at the site of the fatal injury. Why are the racing and CHRB official veterinarians not identifying those pre-existing injuries at their pre-race examinations? Current permitted threshold levels of phenylbutazone, flunixin and ketoprofen may be compromising pre-race examinations and putting horse and rider at risk.

In 2009 the ARCI Regulatory Veterinarian's committee submitted a letter to the Racing Medication and Testing Consortium (RMTC) and Association of Racing Commissioners International (ARCI) outlining their concern current medication regulations were compromising pre-race examinations. "The racing regulatory veterinarians reiterated their concern that the

permissive non-steroidal anti-inflammatory (NSAID) policies in the United States are compromising the examining veterinarian's ability to identify horses at risk for catastrophic injury. The examining veterinarians are concerned NSAID levels at the time of the pre-race inspections mask the clinical signs of inflammation and pain." (Subsequently the RMTC Scientific Advisory committee assigned Dr. Larry Soma of the University of Pennsylvania a review of the scientific literature on phenylbutazone (PBZ). All members of the RMTC Scientific Advisory committee were encouraged to provide any comments to Dr. Soma. The conclusion was:

This review presented an historical prospective and examined the information presented in 4 different models used to determine the effects of NSAIDs, especially PBZ. They included naturally occurring lameness, reversible induced lameness, and indirect plasma and tissue models studying the suppression of the release of arachidonic-derived mediators of inflammation. The majority of studies suggest an effect of PBZ at 24 hours at a dose of 4.4 mg/kg. This reflects and substantiates the opinion of many clinical veterinarians, many of whom will not examine a horse for a pre-purchase lameness examination unless the horse is shown to be free of NSAIDs and glucocorticoids. This remains the opinion of many Commission Veterinarians in that they wish to examine a horse pre-race without the possibility of a NSAID or corticosteroid interfering with the examination and masking a possible musculo-skeletal condition. Based on scientific reports and the impression of clinical veterinarians, residual effects of PBZ remain at 24 hours. The impact of this sustained effect on the health and welfare of the horse remains problematic.

Pre-race examinations are usually performed the morning of the race on the day the horse is racing. The examination can be as much as 12 hours prior to race time. To evaluate the phenylbutazone and flunixin levels at exam time California and Kentucky racing and official veterinarians were asked to obtain blood samples for NSAID analysis at the time of their examinations. Analysis showed approximately 20% of the samples would have been violations in a post race test at current permitted NSAID levels.

Most horses already meet the 2ug/ml threshold even though the CHRB threshold. In the first 3 weeks of the current Santa Anita meet 184/217 (85%) post race blood samples met the proposed 2ug/ml level. At the fall Hollywood Park 394/472 (84%) met the proposed 2ug/ml level and at Los Alamitos over the last 10 the proposed 2ug/ml level weeks 401/447 (90%) met the proposed 2ug/ml level. During this same time period for horses working for removal from the veterinarians list from Hollywood Park and Santa Anita tracks the percentage over 2ug/ml was 30%. Horses on the veterinarian's list are required to pass an examination by racing or CHRB veterinarians for them to be declared fit to race. An analysis of NSAID level and injuries in Kentucky (Dirkolou) found horses injured while racing had higher NSAID levels than horses that were not injured.

After thoroughly reviewing the issue the RMTC, ARCI, American Association of Equine Practitioners, The Jockey Club, Thoroughbred Owners and Trainers Association, have all recommended a 2ug/ml threshold for phenylbutazone. As of January 1, 2012, the American

graded Stakes Committee will require races to be run under a 2ug/ml phenylbutazone level to maintain their graded stakes eligibility. Graded stakes have a significant impact on the prestige of a race and the subsequent value of graded stakes winners and placed horses. California's 50ng/ml threshold on flunixin is not in compliance with neither RMTC nor ACRI model rules for flunixin. A reduction to the ARCI recommended 20ng/ml would put California in agreement with the majority of other states.

The proposed amendment to CHRB Rule 1844 will reduce the permitted level of phenylbutazone in an official test sample from five nanograms per milliliter of blood plasma or serum to two nanograms per milliliter of blood plasma or serum, and to reduce the permitted level of flunixin in an official test sample from 50 nanograms per milliliter of blood plasma or serum to 20 nanograms per milliliter of blood plasma or serum.

**RECOMMENDATION:**

Staff recommends the Board direct staff to initiate a 45-day public comment period for the proposed amendment of Rule 1844.




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821 CORPORATE DRIVE · LEXINGTON, KY 40503 · PHONE: 859-224-2844 · FAX: 859-296-3033 · WWW.RMTCNET.COM

February 7, 2011

Mr. Kirk Breed  
 Executive Director  
 California Horse Racing Board  
 1010 Hurley Way, Suite 300  
 Sacramento, CA 95825

Dear Mr. Breed,

I would like to submit this letter on behalf of the Racing Medication and Testing Consortium Board of Directors in support of the California Horse Racing Board rule proposal changing the allowable threshold for phenylbutazone from 5 mcg/ml to 2 mcg/ml in serum or plasma.

The RMTC studied this issue for 16 months after receiving a request from Racing Commissioners International to address the concerns raised by commission veterinarians across the country that the current use of non-steroidal anti-inflammatory drugs was compromising their ability to evaluate horses at risk for injury during their pre-race examinations. The issue was first brought to the attention of the RMTC Board in February of 2009. The Board was uncomfortable issuing a recommendation at the time so the task was sent to the RMTC's Scientific Advisory Committee for further review.

The review process employed by the Scientific Advisory Committee was extensive and exhaustive. The Committee consists of the top scientific minds in the racing industry and its members include:

- Dr. Rick Arthur, Equine Medical Director for the California Horse Racing Board;
- Dr. Tom Brokken, practitioner, past-president AAEP,
- Dr. Robert Lewis, surgeon, past-president AAEP;
- Dr. Ted Hill, Senior Steward, New York Jockey Club
- Dr. Al Kind, Laboratory Director, Iowa State University;
- Dr. Richard Sams, equine pharmacologist and Laboratory Director, HFL Sport Sciences
- Dr. Scott Stanley, Laboratory Director, Ken Maddy Equine Analytical Laboratory
- Dr. Larry Soma, Professor Department of Clinical Studies, University of Pennsylvania New Bolton Center;
- Dr. Thomas Tobin, University of Kentucky Gluck Equine Science Center

The Committee met via conference calls and one face-to-face meeting throughout the course of 2009. All committee members were encouraged to voice their opinions and submit relevant published science for review by the entire committee in support of any particular position. The possible outcomes for discussion included:

1. The adoption of the European screening limits and detection times based on the pharmacokinetic/pharmacodynamic model described by Dr. Pierre Louis Toutain. This would result in a withdrawal time of 7 days for phenylbutazone;
2. The adoption of a 48-hour withdrawal time for the permitted NSAIDS phenylbutazone, flunixin and ketoprofen. This was the original recommendation by the commission veterinarians and would create uniformity with Canadian regulations;
3. A reduction in the permitted threshold for phenylbutazone from 5 mcg/ml to 2 mcg/ml. This would allow the continued use of phenylbutazone at 24 hours but by tightening the threshold would not allow administration of the drug within 24 hours;
4. No change to the existing model rule.

After much initial discussion it was determined by the Committee that an extensive review of the existing published science on the pharmacologic actions of the non-steroidal anti-inflammatory drugs in the horse be conducted to guide the development of a consensus on one of the above recommendations.

Dr. Larry Soma volunteered to perform the review which was based on over 120 peer-reviewed scientific publications on the administration, effects and duration of effects of the NSAIDS in the horse. The review was conducted in a scientifically sound manner and was not done to support any specific recommendation. Dr. Soma received no compensation, financial or otherwise, for his time. The resulting document is also now being submitted for publication in a peer-reviewed scientific journal.

Once the Committee had a chance to study and comment on the review, a consensus emerged that the concerns of the commission veterinarians were valid based on the pharmacologic effects of the NSAIDS and the duration of action of those effects. There was significant support for the recommendation to shift the permitted withdrawal period from 24 hour to 48 hours for phenylbutazone, flunixin and ketoprofen. Concerns, however, were raised that the industry might be unable to regulate a true 48-hour withdrawal for flunixin and ketoprofen in plasma due to their rapid metabolism and excretion from the body. In addition, concerns about horsemen and veterinarians shifting to more frequent intra-articular administrations of corticosteroids were also expressed.

Because of these concerns, the Committee focused on the recommendation to reduce the permitted concentration of phenylbutazone from 5 mcg/ml to 2 mcg/ml and eliminate the threshold for oxyphenbutazone. Support of this recommendation was based on the following rationales:

1. The existing administration guidelines currently in the model rules allows for a single, intravenous administration of 2 grams of phenylbutazone, 24 hours prior to the race. The

- average concentration (cited in several studies) based on this route of administration and time point is 0.8 mcg/ml in serum or plasma;
2. The existing 5 mcg/ml threshold would allow a trainer or veterinarian to administer a single, intravenous dose of phenylbutazone well within the 24 hour period prior to the race. Given the duration of pharmacologic effects of this dose and route, the administration of phenylbutazone in this manner could significantly impact the pre-race examination yet not result in a positive post-race test;
  3. When the history of the 5 mcg/ml threshold was studied, it was determined that the concentration was largely a political creation and had very little science to support the continued use of the threshold;
  4. The recommendation would allow the continued use of a single NSAID at 24 hours prior to post so no significant impact on current practices (with the exception of those trainers and veterinarians who choose not to follow the guidance existing in the model rule) would be noticed;
  5. Concern was expressed on the part of some practitioners that the oral use of phenylbutazone was "out of control" and a reduction in the permitted concentration would help to rectify this;
  6. The reduction in the phenylbutazone threshold would bring its regulation more closely in line with those of flunixin and ketoprofen in which are tightly regulated based on the 24-hour withdrawal period;
  7. Several jurisdictions are currently regulating a 2 mcg/ml without any negative impact. This includes one state which moved from 2 mcg/ml to 5 mcg/ml based on the original recommendation only to see an increase in catastrophic injuries. The state has since switched back to a 2 mcg/ml threshold without any negative impact on horsemen and veterinarians and has also seen a drop in catastrophic injuries;
  8. The threshold for oxyphenbutazone is no longer warranted since there is no commercially available preparation of oxyphenbutazone on the market and the use of its threshold could result in a violation in a sample which was under the permitted concentration of phenylbutazone.

After close to one year of discussion and debate, the recommendation to reduce the permitted concentration of phenylbutazone from 5 mcg/ml to 2 mcg/ml was approved without objection by the Scientific Advisory Committee. The Committee agreed that it be clear that the recommendation was an initial step and that once a comprehensive plan to regulate the intra-articular use of corticosteroids was developed that the 24-hour withdrawal recommendation for NSAIDS would be reevaluated.

The RMTC Board was given updates on the progress and process employed by the Scientific Advisory Committee during its two subsequent Board meetings in 2009. Any concerns or criticisms could have been raised at any of those meetings or expressed directly to me. No concerns or criticisms were expressed at any point in the 16 months during which this issue was being deliberated. The recommendation forwarded to the RMTC Board by the Scientific Advisory Committee was approved by a supermajority vote at its meeting on April 12, 2010.

The new rule has since been approved by the RCI Drug Testing Standards and Practices and Model Rules Committees.

In conclusion, the RMTC supports the rule change proposed by the California Horse Racing Board. Please feel free to contact me for any additional information.

Sincerely,

A handwritten signature in cursive script, appearing to read "Scot A. Waterman". The signature is fluid and includes a long horizontal flourish at the end.

Scot A. Waterman, DVM  
Executive Director



**American Association of Equine Practitioners**

4075 Iron Works Parkway • Lexington, KY 40511

859.233.0147

Fax: 859.233.1968

[www.aaep.org](http://www.aaep.org)

August 31, 2010

Mr. Ed Martin, President  
Association of Racing Commissioners International  
1510 Newtown Pike, Suite 210  
Lexington, KY 40511

Dear Ed,

The purpose of my letter is to offer support on behalf of The American Association of Equine Practitioners for the Racing Medication and Testing Consortium's recommendation to lower the acceptable threshold of phenylbutazone from 5 micrograms to 2 micrograms per milliliter of serum or plasma.

As has been recently cited by other industry groups, and, most recently at the Jockey Club Round Table Conference in Saratoga Springs, NY, there is concern on the part of the AAEP, and our regulatory members in particular, that current allowable levels of phenylbutazone compromise their ability to properly evaluate the soundness of horses on the day of the race.

Recent studies conducted in California and Kentucky have substantiated these concerns, indicating that under the current 5 microgram phenylbutazone policy therapeutic levels of phenylbutazone are present in some horses at the time of the pre-race examinations. This science supports the proposed rule change.

The AAEP strongly urges the Model Rules Committee of the ARCI to approve this change as soon as possible to further improve the safety and welfare of our human and equine athletes.

Sincerely,

David L. Foley  
Executive Director

## 2010 Jockey Club Roundtable, Saratoga Springs, NY

### Racing Medication and Testing Consortium



Dr. Rick Arthur - Equine Medical Director, California Horse Racing Board

**Stuart S. Janney III:** Dr. Rick Arthur and Alan Foreman are board members of the Racing Medication and Testing Consortium. They are here today to report on very important progress from the RMTC and its Drug Testing Initiative.

Rick is going to start us off ...

**Dr. Rick Arthur:** Thank you, Stuart, Dinny.

Good Morning. It's a pleasure to be here. Even though this would be a cold winter rain at Santa Anita, yesterday was beautiful.

Over the next few minutes Alan Foreman and I are going to be discussing several of the RMTC's recent efforts. The Racing Medication and Testing Consortium was formed in 2003. Their purpose was to encourage national uniform medication policies and to promote industry cooperation on drug testing and related issues.

One of the RMTC's first recommendations was a 5 micrograms/milliliter (ug/ml) threshold in blood for phenylbutazone. Phenylbutazone is ubiquitously known as "bute." It is a non-steroidal anti-inflammatory drug commonly used in racehorses in the U.S. Phenylbutazone is not allowed in international racing competition under IFHA rules. If I slip and say bute, I am referring to phenylbutazone.

Was there are scientific basis for the 5ug/ml level? No. It was a political calculation of what could be accomplished at the time — and it worked. About a third of the states had 2ug/ml, most of the rest were 5ug/ml and some states were virtually unregulated. In the end, horse racing had as close to a national uniform medication policy for phenylbutazone as for any medication.

The RMTC is now recommending the permitted phenylbutazone level be reduced to 2ug/ml across the country. What's changed since 2003?

Barbaro, Eight Belles, and an industry and public who are paying attention.

The NTRA Safety Alliance, The Jockey Club Safety Committee, the Grayson-Jockey Club Welfare and Safety Summit, and other initiatives have been undertaken to enhance and refine our safety and animal welfare programs. This has not been PR posturing, but substantive efforts.

With all the review of our safety procedures what is clear is pre-race examination is a key safety check, if not the key safety check, for our horses. Pre-race examinations are challenging under the best circumstances, but let me go right to the heart of the issue: our examining veterinarians have expressed concern our current medication policies compromise their ability to properly evaluate the soundness of in-today horses.

California has an extensive necropsy program. All horses dying within CHRFB enclosures are necropsied — that's autopsied — by pathologists associated with the UC-Davis School of Veterinary Medicine. That's over

5,000 necropsies since the program began less than 20 years ago, a sobering number by any measure. What is clear and has been clear for some time is that 90% of all horses suffering fatal musculoskeletal injuries have pre-existing pathology at the site of their fatal injury.

This is important so let me repeat: 90% of all horses suffering fatal musculoskeletal injuries racing or training have pre-existing pathology — a prior injury — at the site of their fatal injury.

Why are our examining veterinarians missing those pre-existing injuries? That is the question.

The examining veterinarians are concerned with two classes of drugs commonly used in racing in the U.S.: corticosteroids and non-steroidal anti-inflammatory drugs. Both are anti-inflammatories. Corticosteroids are cortisone drugs; phenylbutazone and other non-steroidal anti-inflammatories are drugs like Advil and Tylenol. The public knows non-steroidal anti-inflammatories as painkillers. That's how they are advertised to the public, because they are painkillers. Obviously, our horses can't talk. Veterinarians — trainers and jockeys for that matter — evaluate a horse's well-being and soundness by clinical signs, signs that are masked by analgesics, that's painkillers, and anti-inflammatories. These drugs are not allowed in IFHA rules in places like Ireland, England, France, Dubai, Australia, Hong Kong, Japan, and other countries, but they are allowed in the U.S.

Racing fatality rates in the U.S. are two- to three-times higher than other major racing countries that don't allow phenylbutazone and other drugs. My international colleagues have no doubt our medication policies, especially in phenylbutazone, are the cause of this disparity. I'm not convinced it is that simple, but there is no question medication regulation is the most glaring difference between U.S. and other major racing countries.

The RMTC has been working on corticosteroids for several years. These are a complex group of drugs. Tremendous strides have been made in corticosteroid detection methodology both in the U.S. and internationally — these are a problem for all of us. The consensus of the RMTC's Scientific Advisory Committee is improved sensitivity is needed before a comprehensive corticosteroid program is ready for the U.S. That improved sensitivity is just around the corner.

Dr. Larry Soma from the University of Pennsylvania's New Bolton Center reviewed the scientific literature on phenylbutazone for the RMTC. All members of the Scientific Advisory Committee had input. The bottom line is this:

There is overwhelming scientific evidence that the regulatory veterinarian's concerns are justified.

I practiced on the racetrack for 30 years. I know something about examining horses. The first thing I would do when I was asked to look at a horse is enquire whether the horse was on bute — or any other medication for that matter. Why? Because bute affects a veterinarian's — or a trainer's or a jockey's — ability to evaluate soundness. Dr. Tom Brokken, a well respected racetrack practitioner from Florida and a member of the RMTC's Scientific Advisory Committee, stated he thought bute in training was a bigger problem than bute in racing. Why? For the same reason: Trainers don't know where their horses are at in terms of soundness when they are on bute. Remember: 90% of all fatal musculoskeletal racing and training fatalities have pre-existing pathology at the site of their fatal injury.

Medication issues always raise the blood pressure of horsemen, but the hysteria over this modest reduction is ridiculously overblown. In California 85% of horses already meet the 2ug/ml level under the 5ug/ml rule currently in place. In Kentucky it's 91%; in Florida it's 90%. All but a handful of trainers already meet the 2ug/ml level under a 5ug/ml regulation. Do we really want to set policies so a handful of trainers can push the limit — as when they are trying to get a questionable horse past the examining veterinarian? That's crazy. It's crazy for the horse and it's crazy for horse racing.

Don't let anybody tell you this is a radical move; it isn't. New York and many other states operated at 2ug/ml for years. Certainly Dr. Soma, who reviewed the science, and Dr. Tom David of the ARCI's regulatory veterinarian committee, which represents the examining veterinarians, wanted to see a lower level than 2ug/ml. On a purely scientific basis, I have to agree with them; to eliminate all concern, the correct level is that used internationally, and that's zero.

The professionals we task with the final safety check of our sport tell us they can't do their job with current regulations. And to be clear, this isn't just about horses. Since I have been Equine Medical Director in California, I have had a dead jockey, a paralyzed jockey and just last month a jockey with a broken neck but fortunately no paralysis. All were on horses suffering fatal musculoskeletal injuries in races.

The ARCI is taking up the 2ug/ml phenylbutazone regulation next month. Their Drug Testing Standards and Practices committee has already unanimously endorsed the 2ug/ml level. This is an opportunity for the ARCI to demonstrate horse racing can implement a national uniform medication policy.

Moving quickly to the next issue...

The RMTC has directed considerable effort on withdrawal time research for therapeutic medications. Just so everyone knows this same type of research is going on internationally in jurisdictions with IFHA's no medication rules. Why? For the same reason: positives from therapeutic medications are the most frequent drug violations. We are collaborating with our international colleagues to share information, coordinate research and avoid redundant efforts.

In my four years as Equine Medical Director, excluding TCO2 violations, I can count on one hand, certainly two hands, the positives where trainers have actually tried to take a shot. All but a small number of all drug positives are misunderstandings or management mistakes for routinely used medications with no intention of influencing the outcome of a race.

Most of the headlines for drug violations, the headlines the public and our fans see, are simply mistakes. We spend an inordinate amount of time, effort, money and public goodwill on these unfortunate and unnecessary positives. The purpose of the withdrawal time research is to give horsemen information to help them avoid those positives. We hope to have recommendations on nine of the most problematic medications — as measured by the frequency of drug violations — by this fall and another four within the following six months with other medications to follow on a regular basis. These will be announced and posted on the RMTC website as they become available.

# Bute Not in Racing's Best Interest - By Dr. Rick Arthur

*Originally published in the Sept 18, 2010 issue of The Blood-Horse magazine.*

Earlier this year the Racing Medication and Testing Consortium recommended the phenylbutazone blood level allowed in racehorses be dropped to 2 micrograms per milliliter. Phenylbutazone is a potent non-steroidal anti-inflammatory drug (NSAID) prohibited under international rules but allowed in the United States.

Phenylbutazone (Bute) and flunixin (Banamine) are NSAIDs commonly used in horses; ibuprofen (Advil) and acetaminophen (Tylenol) are their human equivalents. All these drugs have analgesic (pain-killing) activity. Phenylbutazone is seldom prescribed in humans because of its serious side effects.

Horses can't talk. They can't tell us their right ankle is hurting or that they hurt anywhere else. We can only determine if our horses have a problem by the signs they show such as lameness, heat, swelling, or other clinical indications of a problem. What do NSAIDs do? They hide pain and reduce inflammation. Both of these are important signs for anyone caring for horses.

I was a racetrack veterinarian for 30 years. The first thing I would do when I was asked to examine a horse was to inquire whether the horse was on Bute or other medication. I did so because many drugs, and especially Bute, interfere with a veterinarian's ability to do a meaningful clinical examination.

This masking of clinical signs doesn't apply to veterinarians alone. The jockey and trainer are in the same predicament. The horse feels fine to the jockey and looks fine to the trainer, whether the horse is fine or not. Dr. Tom Brokken, a well-respected racetrack practitioner from Florida and a member of the RMTC's scientific advisory committee, believes the use of phenylbutazone is a bigger problem in training than it is in racing because trainers cannot get an accurate assessment of the soundness of their horses.

A key safety check in our system is the pre-race examination of horses by our track and state veterinarians. Pre-race examinations can be challenging. There are too many horses, too few veterinarians, and not enough time. After several years of discussion and consideration, the Association of Racing Commissioners International's regulatory veterinarian committee publicly expressed concern to both the RMTC and ARCI that current phenylbutazone threshold levels compromise the pre-race veterinary soundness evaluation.

Dr. Larry Soma, from the University of Pennsylvania and a member of the RMTC scientific advisory committee, volunteered to review the scientific literature on phenylbutazone; all members of the committee had opportunity for input.

The bottom line of Dr. Soma's review: the regulatory veterinarians' concerns were justified. The preponderance of scientific evidence indicates phenylbutazone at levels currently permitted in U.S horse racing compromises clinical evaluation. Dr. Soma's review is available on the RMTC website ([www.rmtcnet.com](http://www.rmtcnet.com)).

In fact, an honest analysis of the published literature suggests if horse racing is to completely eliminate the problem of phenylbutazone masking injury, U.S. racing would need to adopt a minimum 48-hour withdrawal time for blood testing or the long-standing international rule based on urine testing. Until such time as the drug-testing laboratories in this country can improve sensitivity for cortisone drugs, the RMTC scientific advisory committee believes the 2ug/ml level for phenylbutazone is the best option today for U.S. racing.

California has had an extensive necropsy program for 20 years. All horses dying within a CHRB racing enclosure are necropsied (autopsied) by pathologists associated with the UC-Davis School of Veterinary Medicine. What is clear, and has been clear for some time, is that 90% of all horses suffering fatal musculoskeletal injuries have pre-existing pathology at the site of the fatal injury. Why are our examining veterinarians missing these pre-existing injuries? For that matter, why are the trainers?

The veterinary professionals we task with the final safety check for our sport tell us they can't do their jobs to the best of their ability with current regulations. This isn't just about horses. Most jockey injuries are collateral damage from catastrophic racing injuries suffered by horses.

In the final analysis, this issue is about pain-killing drugs, horse fatalities, and injured jockeys. We need to do what is best for our horses, our jockeys, our fans, and our sport. Treating horses with pain killers before they are examined or compete is not in the best interests of any of those groups.

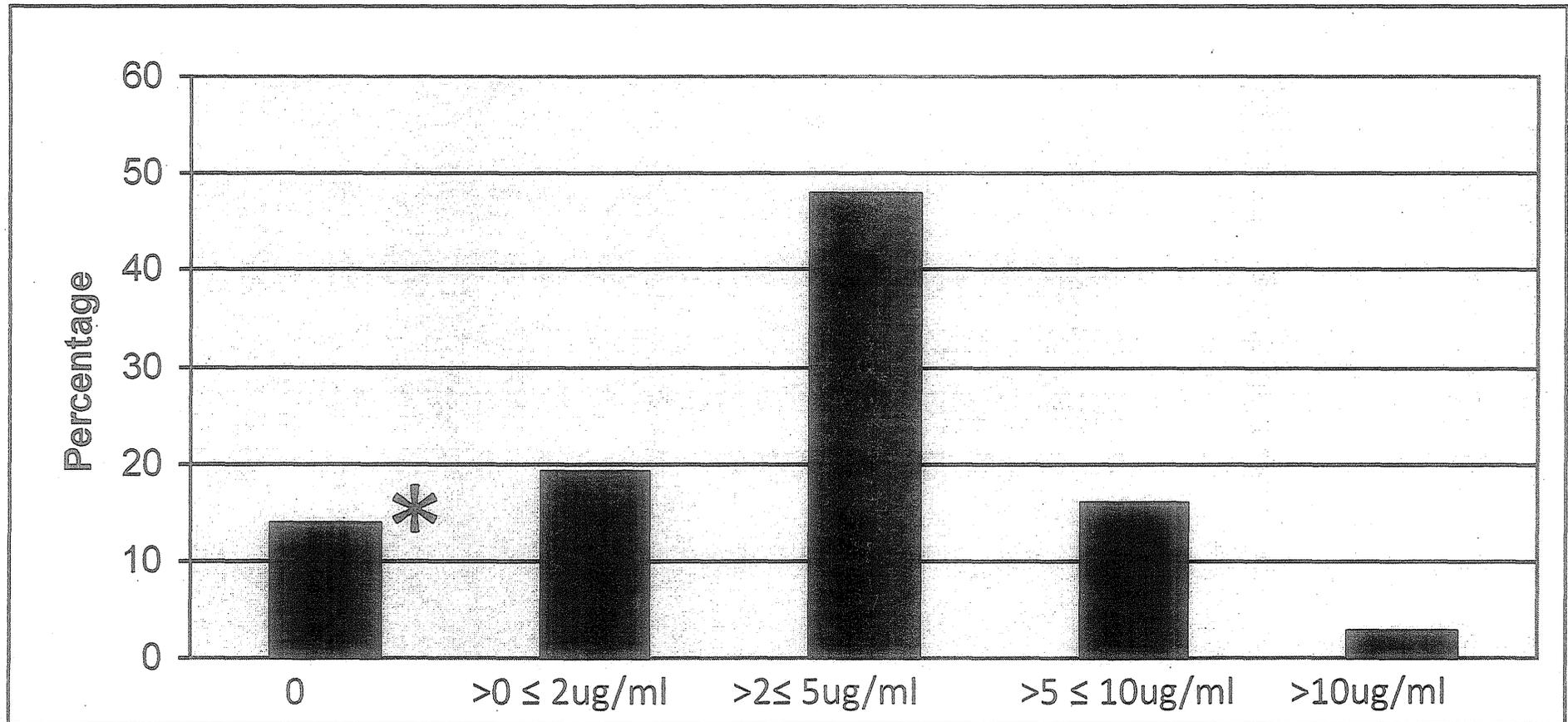
Dr. Rick Arthur is the Equine Medical Director fro the California Horse Racing Board

# Pre-race Exam Time Phenylbutazone Levels

Blood samples were drawn at the time of the pre-race examination in CA & KY. Samples were analyzed by the standard protocols for NSAID testing for KY (Univ of Florida) and CA (UCD-Maddy)

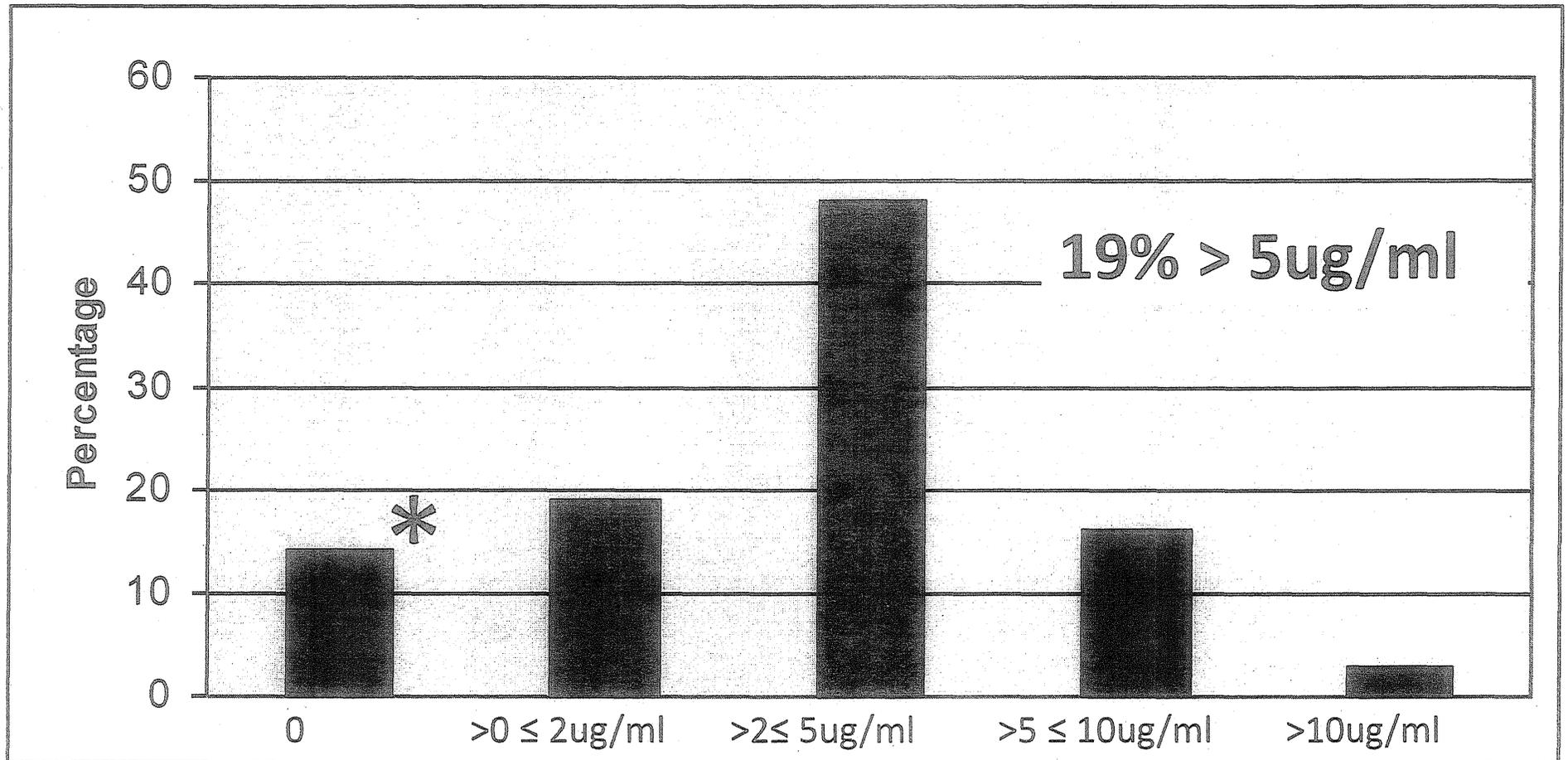
Rick M. Arthur, DVM  
Equine Medical Director (CHRB)  
School of Veterinary Medicine  
University of California  
Davis, CA

# CA & KY Exam Time Samples (n= 214)



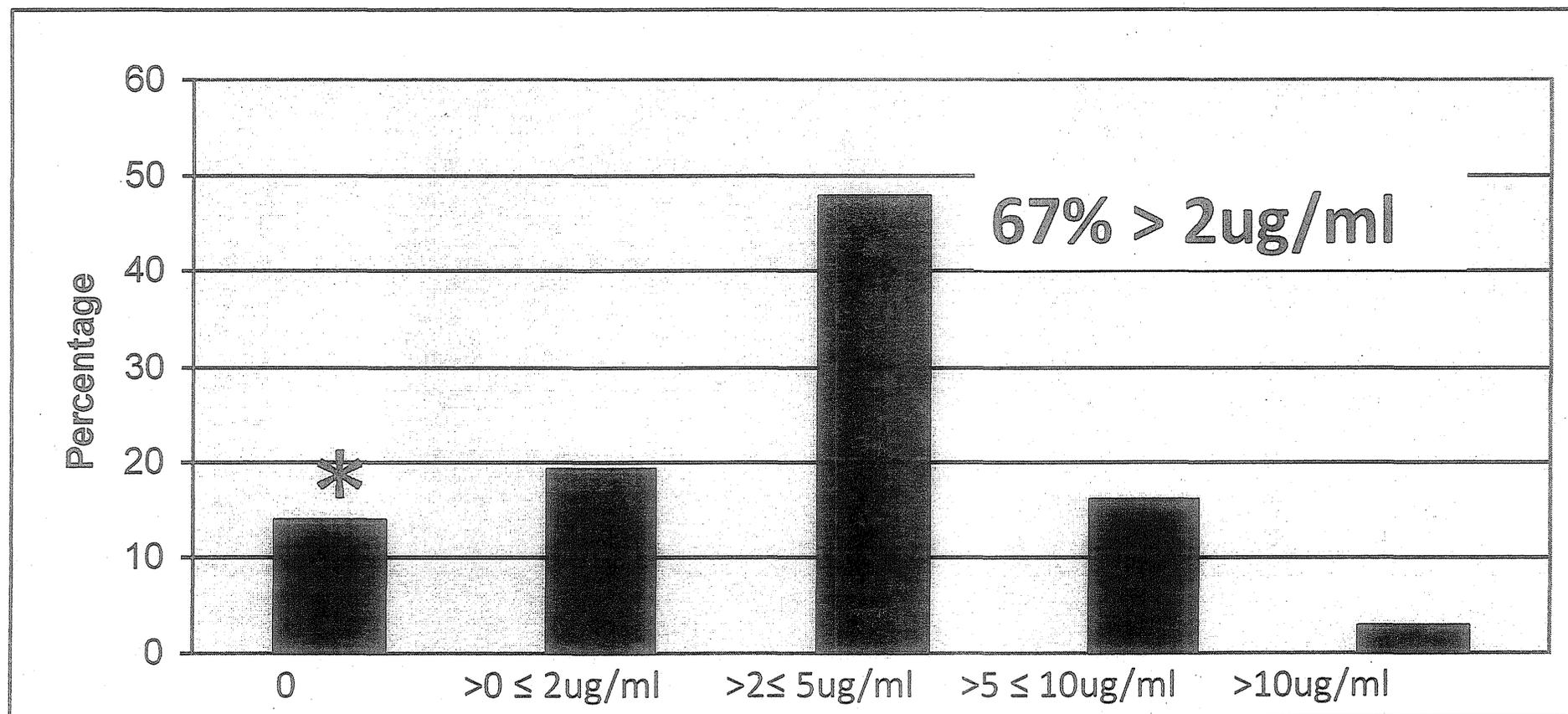
Includes 10 samples with flunixin in excess of regulatory threshold

# CA & KY Exam Time Samples (n= 214)



Includes 10 samples with flunixin in excess of regulatory threshold

# CA & KY Exam Time Samples (n= 214)



\* Includes 10 samples with flunixin in excess of regulatory threshold

Lawrence R. Soma, VMD,  
University of Pennsylvania,  
School of Veterinary Medicine.

This review was undertaken at the request of the Racing Medication and Testing Consortium, Medication Advisory Committee.

**Review: The use of phenylbutazone in the horse**

This review presents a brief historical prospective of the genesis of regulated medication in the US racing industry of which the non-steroidal anti-inflammatory drug phenylbutazone (PBZ) is the focus. It presents some historical guide posts in the development of the current rules on the use on PBZ by racing jurisdictions in the US. Based on its prevalent use, PBZ still remains a focus of attention. The review examines the information presented in a number of different models used to determine the effects and duration of PBZ in the horse. They include naturally occurring lameness and reversible induced lameness models that directly examine the effects and duration of the administration of various doses of PBZ. The review also examines indirect plasma and tissue models studying the suppression of the release of arachidonic acid-derived mediators of inflammation. The majority of studies suggest an effect of PBZ at 24 hours at 4.4 mg/kg. This reflects and substantiates the opinion of many clinical veterinarians, many of whom will not perform a pre-purchase lameness examination unless the horse is shown to be free of NSAID. This remains the opinion of many Commission Veterinarians in that they wish to examine a horse pre-race without the possibility of a NSAID interfering with the examination and masking possible musculoskeletal conditions. Based on scientific studies, residual effects of PBZ remain at 24 hours following administration. The impact of sustained effect on the health and welfare of the horse and its contribution to injuries during competition remains problematic.

## Historical Prospective

Phenylbutazone (PBZ) is second only to aspirin as one of the oldest non-steroidal anti-inflammatory drugs (NSAID). It was introduced into veterinary medical practice in the 1950s and still remains one of the more commonly used non-steroidal anti-inflammatory drugs in the horse (Tobin, Chay et al., 1986). In 1959 it was approved for use in racing by the State of Colorado and some attribute this ruling as the beginning of the era of controlled medication in racing (Tobin, 1981). Phenylbutazone became news worthy in 1968 when Dancers' Image won the Kentucky Derby and the post-race urine tested positive for PBZ. By the early 1970's it was legalized in most states and became well established by the mid 70's (Gowen & Lengel, 1993). In some racing jurisdictions as long as the sum of the combined urine concentration of PBZ and its metabolite, oxyphenbutazone (OPBZ), did not exceed a prescribed concentration, the horse was not in violation of the medication rules. In 1977 the National Association of State Racing Commissioners Veterinary-Chemist Advisory Committee concluded that "PBZ does not change a horse's innate ability to race, but by relieving inflammation it may enable the horse to race closer to maximum capabilities" (Gabel, Tobin et al., 1977). In the late 1979, the use of PBZ came under scrutiny which resulted in the publication of the book "The Misuse of Drugs in Horse Racing: a Survey of Authoritative Information on Medication of Race Horses" by the Illinois Hooved Humane Society. This publication stirred controversy on the use of PBZ especially on race day and many jurisdictions revised their rules on race day use of PBZ. In 1982 a Committee appointed by the National Association of State Racing Commissions recommended  $2\mu\text{g/ml}$  as the decision or regulatory plasma/serum concentration of PBZ. Thin layer chromatography was the primary method of drug screening in urine at this time. This proposed concentration ( $2\mu\text{g/ml}$ ) was based on the concerns of racing chemists that high PBZ blood concentrations would produce urinary PBZ and metabolites that would interfere with or "mask" detection of other drugs (Gabel, Tobin et al., 1977). Subsequent to this, further studies indicated that the "masking effect" was not a concern (Woods, Chay et al., 1985; Woods, Chay et al., 1985; Tobin, Chay et al., 1986; Woods, Weckman et al., 1986) and following further review the suggested upper plasma/serum threshold concentration was increased to  $5\mu\text{g/ml}$ . Complete uniformity does not exist among racing jurisdiction many have remained at  $2\mu\text{g/ml}$  and others are at  $5\mu\text{g/ml}$ , or at some concentration in between.

### Clinical opinions on the use of phenylbutazone.

Phenylbutazone is considered valuable in the training of sore horses to maintain fitness in those with early joint or ligament problems. The use of a NSAID such as PBZ enables a horse to continue training or return to training in a shorter period of time. On the other hand a major drawback to the use of PBZ is the veterinarians' inability to evaluate the degree of lameness with this medications present in the horse's system (Cannon, 1973). It was also the opinion of many veterinarians that PBZ would allow a horse to compete with mild chronic arthritic changes, but did not possess sufficient anti-inflammatory activity to allow a horse with a serious injury to compete. Non-steroidal anti-inflammatory drugs can be used to restore normal performance in a horse debilitated by some injury to joints, tendons, or muscle achieved by its anti-inflammatory

actions and relief of pain. The short-term effects are not in doubt, but the long-term merits of continuous administration of PBZ in many cases are problematic. The cynical remark that some therapies, such as corticosteroids and NSAID allow the patient to walk to the post-mortem room is an overstatement but the veterinarian must consider the long-term effect of therapy and that resting the horse maybe the best approach (Sanford, 1983). Many veterinarians consider the use of NSAID justified in show-horses, show-jumpers, and combined training and have presented opinions on the use of PBZ based on the activity of the horse (Dunn, 1972). The United States Equestrian Federation rules allow higher concentration during competition compared to racing industry rules. There is great therapeutic value in the use of PBZ in the treatment of acute inflammatory conditions or in older horses in a non-racing environment for the treatment of chronic osteo-arthritis where it can extent the useful life of the horse (Barragry, 1973).

An ethical and moral dilemma confronts the practicing veterinarian when prescribing PBZ or other medications for the treatment of the varied musculoskeletal condition in competition horses especially race horses; will the medication allow a horse to maintain a training schedule thereby allow the animal to function or is the medication contributing to further injury to the detriment of the horse? This is especially true in younger horses with a fresh injury and an unsuspecting owner administering an NSAID and inflicting further damage. Many veterinarians agree that the use of anti-inflammatory drugs could mask unsoundness in horses being examined in a pre-purchase examination for soundness (Dunn, 1972). Non steroidal anti-inflammatory drugs including PBZ, have masked clinical signs that have resulted in cecal perforation (Ross, Martin et al., 1985). Masking of existing musculoskeletal condition is the concern of Racing Commission Veterinarians who are examining horses on a daily basis knowing that the examination is not in a medication-free horse.

In a multicentre field study, PBZ and suxibuzone, a pro-drug of PBZ, were equally effective in the treatment of a number of acute, chronic, nonspecific lameness in which all horses were consistently lame upon trotting. Approximately 50% of the horses showed an improvement within 3 days of treatment with 30% showing an additional improvement at 6 days (Sabate, Homedes et al., 2009). This study illustrated the concern of many veterinarians as to the duration of administration of PBZ; if significant improvement had not occurred within 4 to 5 days re-evaluation should be performed (Jeffcott & Colles, 1977; Reilly, 2000).

Toxicity of PBZ in the horse and ponies has been reviewed and several factors may predispose towards PBZ toxicity in the horse, including breed and age, but high dose is considered to be particularly important (Lees & Higgins, 1985). Clinical experience suggests that PBZ can be administered to horses in modest doses for a prolonged period of time without detectable side-effects.(Tobin, Chay et al., 1986). Blood dyscrasias commonly described in man have not been reported in the horse and despite the lack of documented evidence, toxicity of PBZ in the horse is considered to be lower than that in human. Phenylbutazone should not be administered if there are signs of gastro-intestinal ulceration, clotting defects or any cardiac, renal or hepatic dysfunction (Jeffcott & Colles, 1977). Despite the apparent lack of toxicity, adverse effects on the gastrointestinal track have been reported when administered at high doses

(Karcher, Dill et al., 1990; Meschter, Gilbert et al., 1990; Meschter, Gilbert et al., 1990). Possible toxic effects of NASID are not limited to PBZ. Multiple daily administration of therapeutic doses of ketoprofen (2.2 mg/kg), flunixin meglumine (1.1 mg/kg), or PBZ (4.4 mg/kg) IV, every 8 hours, for 12 days produced changes in the glandular portion of the stomach which was the area of the gastrointestinal tract most severely affected. Results of CBC, serum biochemical analyses, and fecal occult blood tests were not different from those of control horses with the exception of PBZ-treated horses that had a significant decrease in serum total protein and albumin concentrations. Moderate to severe ulcerative colitis was diagnosed during necropsy, exploratory celiotomy and biopsy; it was concluded that the ulcerative lesions may have gone unreported due to the anti-inflammatory effects of NSAID's (Karcher, Dill et al., 1990). Renal papillary necrosis has been reported in horses to which PBZ was administered (Gunson, 1983) and medullary crest necrosis was reported in horses placed on maintenance doses of PBZ (Read, 1983). Renal crest necrosis has also been reported in horses to which flunixin and PBZ were administered (MacAllister, Morgan et al., 1993). In horses on daily doses of 8.8mg/kg for 21 days plasma albumin concentrations decreased significantly from days 10 to 21, treatment also caused neutropenia. No other clinical or hematologic abnormalities were detected for PBZ or control horses (McConnico, Morgan et al., 2008). A retrospective study of 269 horses administered less than or equal to 8.8 mg/kg/day PBZ for 4 days or the lower dose of 2 to 4 mg/kg of body weight/day for up to 50 days remained clinically normal (Collins & Tyler, 1984).

The current lack of toxicity and observable side-effects was based on the realization that the loading dose (4.4mg/kg twice for 4 days) recommended by the manufacturer could be reduced. A revised schedule of 4.4 mg/kg twice daily for one day followed by 2.2mg/kg twice daily for four days, then 2.2 mg/kg daily or as needed increased the margin of safety as no changes in clinical biochemistry or hematology were observed (Taylor, Walland et al., 1983). This modified dose regimen did not compromise clinical efficiency (Taylor, Verrall et al., 1983). The American Association of Equine Practitioners recommends a dose of 2.2mg/kg daily with the last dose not more than 24 hours prior to post time (Harvey, 1983). Clinical use of PBZ for many years suggests that with adequate care, hydration, and the use of the lower therapeutic doses of PBZ can be used safely without clinically detectable side-effects. The exception is the administration of a combined treatment of PBZ with flunixin to horses as detrimental effects may outweigh any potential benefits. Gastrosocopy of 4 horses revealed substantial gastric ulcers when administered the combination NSAID treatment (Reed, Messer et al., 2006).

In the equine, a dose-finding study for PBZ has not been reported, that is the evaluation of the improvement in clinical conditions at various doses. The current dose schedules are based on years of clinical use by many or administered doses to meet regulatory requirements of the industry. Based on the opinions and observations of veterinarians, investigators conducted a number of studies to determine the plasma PBZ concentrations 24 hours following various dosing schedules, formulations, and dosages (Soma, Gallis et al., 1983; Chay, Woods et al., 1984; Houston, Chay et al., 1985; Soma, Sams et al., 1985). Following completion of these

studies, the recommended dosing schedule was as follows: oral administration of 4.4 mg/kg (2 g) for 3-4 days followed by a single IV dose of 4.4mg/kg 24 h prior to racing. If these dosing recommendations were followed, plasma PBZ concentrations on race day should not exceed 5µg/ml. However, these studies did not attempt to determine the pharmacological effect of PBZ at 24 hours or the pharmacological effects of a plasma concentration of 5µg/mL, and this was the major drawback in the study.

A prime consideration in the continuous use of PBZ or other NSAID is the possible contribution to catastrophic and non-catastrophic injuries. In the human sport medicine, which also applies to the veterinary field there is a lack of high-quality evidence to guide practitioners in their use and the possible adverse effects that have clinical relevance. Potential negative consequences on long-term use and the healing process are slowly growing (Fournier, Leal et al., 2008). Specifically, NSAID are not recommended in the treatment of completed fractures, stress fractures or chronic muscle injury. The only exception may be very short-term use for analgesic purposes or as an adjunct to other analgesics. Judicious use of NSAID may be more appropriate in the management of acute muscle and ligament sprains, tendinitis, and muscle injury. However, length of treatment should always be kept as short as possible (Mehallo, Drezner et al., 2006). Cyclooxygenase activity is involved in the healing of many skeletal tissues, either directly or indirectly through modulation of the inflammatory response. Consequently, pharmacological manipulation of cyclooxygenase using NSAID can profoundly affect skeletal health. All of the NSAID should be not be painted with a broad brush as having negative effects on healing and recovery of all types of injuries. In particular, NSAID use does not appear to have a long-term negative effect on tendons and ligaments and NSAID therapy may inhibit adhesion formation during tendon healing, which leads to a better functional recovery (O'Connor, Lysz et al., 2008). There is limited information on the use of PBZ and other NSAID on healing and synovial membrane health in the horse and many of the studies were conducted in-vitro.

Oral administration of PBZ for 14 days significantly decreased proteoglycan synthesis in articular culture explants from healthy horses; these authors suggested that PBZ should be used judiciously in equine athletes with osteoarthritis, because chronic administration may suppress proteoglycan synthesis and potentiate cartilage damage (Beluche, Bertone et al., 2001). It has been suggested that the use of PBZ early in the post operative period may interfere with bone healing (Rohde, Anderson et al., 2000). In horses with experimentally induced osteoarthritis the use of a COX-2 inhibitor, diclofenac, induced significantly less radial carpal bone sclerosis and overall gross cartilage erosion, compared with PBZ. Results obtained suggest that diclofenac had both clinical sign-modifying and disease-modifying effects. Only clinical sign-modifying effects were detected in association with PBZ administration (Frisbie, McIlwraith et al., 2009).

The effects of NSAID, including PBZ, were investigated on lip polysaccharide-challenged and unchallenged equine synovial membrane in terms of production of prostaglandins E<sub>2</sub> (PGE<sub>2</sub>) and hyaluronan, viability, and histomorphologic characteristics. These investigators concluded that the commonly used NSAID suppress induced synovial membrane PGE<sub>2</sub> production without detrimental effects on synovial membrane viability and function (Moses,

Hardy et al., 2001). Results of studies have also suggested that hyaluronan and carprofen might exert an anti-arthritic action through stimulation of PG synthesis and there is possible justification for therapeutic administration of enantiomeric rather than racemic carprofen (Freen, Abraham et al., 1999). Others have also suggested that use of carprofen in osteoarthritis horses may induce beneficial changes in articular cartilage matrix (Armstrong & Lees, 1999).

Catastrophic injuries remain an unavoidable but public relations nightmare in the racing industry, despite the fact that injuries in athletic competition are expected. The immediate perception in racing is that the injury is drug-related, when in fact there are many horse-related and external factors that contribute to musculoskeletal injuries. One study did conclude that higher concentrations of PBZ and other NSAID did contribute to a higher incidence of racetrack injury (Dirikolu, Woods et al., 2009). The plasma concentrations of PBZ in this report were higher than are currently allowed in most racing jurisdictions. Racing jurisdictions allow plasma concentrations of PBZ or flunixin; therefore, many horses are competing at plasma concentrations near the allowable limits. About 20% of the plasma samples exceeded 5ug/ml at time of pre-race examination (Arthur, 2009). The question that still remains is what are the long-term effects of the continuous use of NSAID on the musculoskeletal health of the horse? Are the short-term benefits of allowing the horse to compete under the influence of an NSAID worth the long-term risks? The veterinarian does have a greater choice of NSAID than just PBZ for the treatment of osteoarthritis in horses (Goodrich & Nixon, 2006) and it is inevitable that a horse may have to compete on a residual concentration of drug used during training. It may be of benefit to the horse to expand the veterinarian's regimen of allowable residual concentration of a more diverse list of NSAID.

#### **Phenylbutazone and performance.**

Results from performance studies suggested that PBZ had no clear effect on the performance of normal, healthy horses (Sanford, 1974). Plasma concentration of prostaglandins were increased in human (Demers, Harrison et al., 1981) and equine during exercise (Birks, Gory et al., 1991; Mitten, Hinchcliff et al., 1995). These exercise-induced increases in cyclooxygenase activity was inhibited by the administration of PBZ, but PBZ did not produce detectable changes in systemic hemodynamic or acid-base variables in either standing or running horses (Hinchcliff, McKeever et al., 1994). In exercising horses, the effect of inhibition of cyclooxygenase activity on the hemodynamic response was examined. Administration of PBZ abolished the exertion-induced increases in plasma 6-ketoprostaglandin F<sub>1</sub> alpha and TXB<sub>2</sub>. Phenylbutazone treatment resulted in significantly higher heart rates and right atrial pressures than control. There was no effect of PBZ on carotid or pulmonary arterial pressures, oxygen consumption, carbon dioxide production, blood lactate concentrations, or plasma volume during exertion. These results suggest that cyclooxygenase products likely mediate or modulate some of the systemic hemodynamic responses to exertion in horses (Mitten, Hinchcliff et al., 1996), but there is no evidence that the administration of PBZ and/or the suppression of cyclooxygenase products alters performance. In a similar study, the administration of PBZ (4.4mg/kg) to the horse did not show significant differences from control horses in heart rate, right atrial, and

pulmonary vascular pressures during high speed treadmill studies (Manohar, Goetz et al., 1996). Endurance-like exercise (12km/h for 3 hours) did not affect the kinetic disposition of PBZ and dexamethasone. The conclusion of these authors was that resting horse can be used for determination of pharmacokinetics as no differences were noted in the disposition kinetics and the plasma-concentration time curves for the horse when at rest or sampling during exercise (Authie, Garcia et al., 2010).

### **Pain perception**

Pain experience and expression is difficult to determine in the horse as it is influenced by many factors such as species, breed, individual variations, and environmental characteristics. Equally difficult to assess is the alteration of pain by analgesic drugs. Latency to the onset of flexion of the limb in response to a noxious thermal stimulus and heat-evoked skin twitch have been reliable and reproducible measures of pain threshold and a nociceptive end-point for analgesic studies in the horse (Kamerling, Weckman et al., 1985). Thermal-evoked skin-twitch reflex and thermal evoked hoof withdrawal reflex have been used to compare analgesic activity of procaine, mepivacaine and PBZ. Compared to procaine and mepivacaine, PBZ failed to alter pain thresholds over a 36 hours post-administration (Kamerling, Dequick et al., 1984). This type of stimulation produces an acute pain response and can be objectively used to compare the duration of regionally administered anesthetic agents and other drugs used to reduce the perception of pain. In the horse, PBZ was indistinguishable from saline controls when using a thermal stimulus (Kamerling, DeQuick et al., 1983). Phenylbutazone was not an effective drug when used to block thermal and specific nociceptive pain stimuli. UU

### **Post-operative pain.**

Post-operative pain can be considered primarily a nociceptive pain produced by trauma to tissues due to direct intervention and disruption of these tissues. Inflammation due to surgical trauma is a part of the pain response and the use of NSAID has been promoted for this purpose post-operatively. Minimal differences were noted between PBZ and placebo administrations in a group of horses undergoing arthroscopic surgery (Raekallio, Taylor et al., 1997). In a similar post-operative study, flunixin, PBZ or carprofen was administered intra-operatively just prior to the end of anesthesia. The time following surgery when additional analgesic drugs were required post-operatively were; 8.4 hours, 11.7 hours and 12.8 hours for PBZ, carprofen, and flunixin, respectively. Horses that were administered the opioid, butorphanol, during surgery needed significantly fewer analgesic agents post-operatively (Johnson, Taylor et al., 1993).

In a double-blind, randomized, prospective study of human patients undergoing arthroscopic surgery, those who were administered a prostaglandin inhibitor (naproxen sodium) had significantly less pain, less synovitis, less effusion and faster recovery (Ogilvie-Harris, Bauer et al., 1985; Rasmussen, Thomsen et al., 1993) than those without. In equally as large a prospective study, no advantages were observed over control group of patients when compared to physical therapy and administration of the NSAID diclofenac (Birch, Sly et al., 1993).

The use of NSAID in combination with more potent opioids for high-intensity pain and the weaker opioids for moderate-to low-intensity pain has been the topic of numerous

publications discussing emerging trends in pain management (Schug, Manopas et al., 2007; Fischer, Simanski et al., 2008; Huang, Wang et al., 2008; Layzell & Layzell, 2008). Despite the use of PBZ postoperatively on a routine basis similar studies in the total management of post operative pain using NSAID combined with the opioids are lacking in the equine. The role of NSAID in the management of post-operative pain was suggested in an early publication (Mather, 1992) and authors still suggest they may contribute to improved functional outcomes without significant adverse effects (Reuben & Reuben, 2007).

#### Central nervous system effects and crossing of the 'blood brain barrier'UU.

Phenylbutazone has no known spinal or central nervous system (CNS) effects that are involved in the suppression of pain. The effects are primarily thought to be peripheral in action without CNS action or any noticeable sedation. To exert a central effect NSAID have to cross the blood-brain barrier. Transfer across the blood-brain barrier is controlled by simple physico-chemical factors. Oxyphenbutazone, indomethacin, ketoprofen are characterized by high lipophilicity. At steady state, their free plasma concentrations correspond to their cerebral spinal fluid concentrations. (Bannwarth, Netter et al., 1989). The presence of these NSAID in the brain may explain the antipyretic properties and some side effects of the NSAID. Concentrations of OPBZ in spinal fluid are similar to corresponding concentrations of unbound free OPBZ in plasma, which is approximately 5% of the total concentration of OPBZ in plasma (Gaucher, Netter et al., 1983). Similarly, cerebral spinal fluid concentrations of ketoprofen reflect the unbound plasma ketoprofen concentrations and were in equilibrium with the plasma concentration from 2 to 13 hours after administration (Netter, Lopicque et al., 1985). Ibuprofen, flurbiprofen, and indomethacin rapidly cross the blood-brain barrier. Plasma protein binding limits the driving force for uptake of NSAID into the brain by reducing the free fraction of NSAID in plasma (Parepally, Mandula et al., 2006). The observation that long-term treatment of patients with ibuprofen results in a reduced risk and delayed onset of Alzheimer's disease suggests that it crosses the blood-brain barrier, has a central effect, and reduces inflammation in the Alzheimer's disease brain (Dokmeci & Dokmeci, 2004). Attempts to correlate the CSF concentrations of indomethacin with its regional inflammatory suppression and analgesic activity have not been successful (Bannwarth, Netter et al., 1989). The assumption that all NSAID relieve pain only through an inhibition of prostaglandins synthesis, have no antinociceptive effects, central effects, and all actions are peripheral in nature have been challenged (McCormack & Brune, 1991).

#### Concentrations of PBZ in Synovial Fluid

The efficacy of NSAID in joint diseases depends on their concentrations within the joint as the cells within the joint are the major site of action (Furst, 1985). There is no barrier to the diffusion of unbound NSAID into the joint cavity and their therapeutic effectiveness is determined by passage across the synovial membrane which can depend on the degree of inflammation of the joint and on the pharmacokinetic properties of the drugs. Most NSAID are weak acids with a  $pK_a$  between 3 and 6 and the un-ionized forms are lipid soluble. The NSAID are primarily in the ionized form as the  $pK_a$  values are much lower than the pH of blood. The

proportion changes to un-ionized as the environment becomes more acidic as in the stomach, kidneys and more importantly inflamed tissues (Day, Graham et al., 1987). Inflamed joints concentrate NSAID's because the pH of the synovial fluid is much lower than non-inflamed joints. For example, the synovial concentration of OPBZ was higher in human patients with severe inflammation than in those with no or little inflammation (Gaucher, Netter et al., 1983). Similar observations were made in an inflammatory carrageen rat paw model where the concentrations of C<sup>14</sup>PBZ was approximately 800 fold greater than plasma (Graf, Glatt et al., 1975).

NSAID are highly protein bound, but effect of protein-binding may be more apparent than real as bound drug will dissociate as fast as free drug diffuses out (Simkin, 1988). In inflammatory joint diseases albumin-bound fraction diffuses better due to the increased capillary permeability to proteins (Netter, Bannwarth et al., 1989). Therefore the concentration of the NSAID will be higher in inflamed tissues.

NSAID have been classified in 2 categories on the basis of their half-lives. Drugs with a short half-life, shortly after administration, the concentration in synovial fluid is lower than in plasma but is reversed as the plasma concentration declines. In the horse, ketoprofen was no longer detectable in plasma after 5 h whereas synovial fluid concentrations were detected for 8 hours. In the same study carprofen with a half-life 10 times longer than ketoprofen, the concentrations in synovial fluid were significantly lower than plasma at all time points (Armstrong, Tricklebank et al., 1999). In rheumatoid patients on chronic therapy this may be a possible reason for the drug's extended duration of action of drugs with apparent short elimination half-lives in plasma (Fowler, Shadforth et al., 1983). On the other hand, drugs with a longer half-life such as PBZ, the peak concentrations in synovial fluid were lower than plasma, remain lower and decrease in a parallel with the plasma concentration (Netter, Bannwarth et al., 1983). This difference in the pharmacokinetics based on elimination half-life was observed in horses with no joint disease. Following the IV administration of naproxen, synovial concentrations peaked at ~8 hours; were lower and followed a parallel decline in plasma and synovial fluid concentrations for up to 36 hours. There were no differences in the secondary disposition rate constant for plasma and elimination rate constants for the synovial fluid indicating a parallel decline in both concentration of naproxen (Soma, Uboh et al., 1995). Although this study has not been performed for PBZ in the horse similar relationships would be expected as the pharmacokinetics are similar (Soma, Gallis et al., 1983).

These differences based on the pharmacokinetic characteristics of the drug, delays in achieving synovial fluid concentrations and more importantly in assessing the effects of the administered drug to a diseased subject make it difficult to establish correlations between plasma concentrations and therapeutic response (Famaey, 1985). In human patients with osteoarthritis the synovial fluid concentrations of PBZ were lower than plasma, but correlated well. In human patients with rheumatoid arthritis synovial PBZ concentrations were higher based on the greater inflammatory nature of the disease and a higher synovial fluid protein concentration (Fari,

Hawkins et al., 1982). In clinico-pharmacological study in humans a relationship was present between dose, plasma concentration and clinical effects of PBZ (Brooks, Walker et al., 1975).

Many authors have suggested that the plasma concentrations of NSAID do not correlate well with assessments of therapeutic response. This may reflect weaknesses in experimental design, capability of determining the changes in pain levels and inflammation, and in clinical studies the variability in the diseases being studied. It may be that concentrations in plasma bear only a distant relationship to those in the inflamed tissues where NSAID presumably act (Famaey, 1985; Grennan, Aarons et al., 1985; Simkin, 1988). Compared to the CNS, NSAID readily penetrate the joint and the concentrations are not limited to the unbound fraction and will vary with the synovial environment. Studies in non-diseased joints are useful to describe the relative relationships and pharmacokinetics of the drug, but may have little relationship in the diseased joint. Despite the many studies and years of its use in the horse, plasma synovial relationships in the non-diseased and naturally occurring diseased joint have not been reported.

**Naturally occurring osteoarthritis.**

In a randomized controlled clinical trial, efficacy and safety of paste formulations of firocoxib (Equioxx<sup>®</sup>) and PBZ in horses with naturally occurring osteoarthritis were compared. Horses were treated with firocoxib (0.1 mg/kg, orally every 24 h) or PBZ (4.4 mg/kg, orally every 24 h) for 14 days. Clinical improvement was defined as a reduction of at least 1 lameness score grade or a combined reduction of at least 3 points in scores for pain during manipulation or palpation, joint swelling, joint circumference, and range of motion. Results obtained suggested some greater improvement in some categories tested than others following firocoxib, but overall clinical efficacy of firocoxib and PBZ in horses were comparable (Doucet, Bertone et al., 2008).

Horses with naturally occurring forelimb and hind limb lameness were exercised on a treadmill and the degree of lameness evaluated by the use of kinematic analysis while horses were trotting on the treadmill. Horses entered into the study were judged to have AAEP lameness scores of 1 to 3 based on a scale of upper severity score of 5 (Ross, *Lameness in the Horse* et al., 2003). In a cross-over study, PBZ paste was administered at 2.2 mg/kg (orally every 12 h for 5 days), alone or in combination with flunixin meglumine administered at 1.1 mg/kg, (IV every 12 h for 5 days). Lameness evaluations were performed before and 12 hours after administration of two NSAID treatment regimens. Administration of a combination of the two NSAID alleviated lameness more effectively than did oral administration of PBZ alone. Based on the authors' conclusion, when evaluating all 28 horses, there was a significant clinical improvement after the administration of both drugs in all horses except 5 with forelimb lameness. PBZ alone did not result in significant clinical improvement in all horses. Results of this study suggested that the use of combinations of NSAID (stacking) did have a better effect at 12 hours and would have a greater effect at 24 hours and the "stacking of drugs" should be a real concern. (Keegan, Messer et al., 2008).

The analgesic effects of PBZ in 9 horses with chronic forelimb lameness were studied. The horses were administered saline for control or PBZ at 4.4 and 8.8 mg/kg IV daily for 4 days. Peak vertical force (force plate) was measured and AAEP clinical lameness scores were assigned

before initiation of each treatment. All horses were evaluated 6, 12, and 24 hours after the final dose. The vertical force was significantly increased at all post-treatment evaluation times after PBZ compared to control horses. Clinical lameness and vertical force scores were significantly decreased at 6 and 12 hours at both doses and no differences were observed between the low or high dose. Scores were significantly decreased 24 hours after treatment only when PBZ was administered at the high dose (Hu, MacAllister et al., 2005).

Force plate analysis and the AAEP lameness scoring system were used to evaluate the analgesic efficacies of flunixin (1.1 mg/kg), PBZ (4.4 mg/kg), or physiologic saline solution administered IV in 12 horses with navicular syndrome. Medications were administered once daily for 4 days with a 14-day washout period between treatments. At 6, 12, and 24 hours after the fourth treatment, AAEP lameness evaluations and force plate data indicated significant improvement in lameness from baseline values in horses treated with flunixin or PBZ, compared with saline-treated control horses. The effect of flunixin or PBZ was maintained for at least 24 hours but no differences from control were noted at 30 hours. Flunixin meglumine and PBZ appear to have similar analgesic effects in horses with navicular syndrome (Erkert, MacAllister et al., 2005).

The analgesic effects of the NSAID, ketoprofen at 2.2 and 3.63 mg/kg and PBZ at 4.4 mg/kg were compared in 7 horses with bilateral forelimb chronic laminitis. Hoof pain was quantified objectively by means of an electronic hoof tester and lameness was subjectively graded on a modified Obel scale (Obel, 1948). Ketoprofen administered at 3.63 mg/kg (equimolar to 4.4 mg/kg of PBZ) reduced hoof pain and lameness score to a greater extent than the 2.2 mg/kg dose of ketoprofen or the 4.4 mg/kg of PBZ. These data suggest that ketoprofen at 1.65 times the recommended therapeutic dose was more potent than PBZ in alleviating chronic pain and lameness in horses. Phenylbutazone (4.4 mg/kg) and high dose of ketoprofen were still effective at 24 h (Owens, Kamerling et al., 1995).

Horses (12) with navicular syndrome were fitted with 3 degrees heel-elevation horseshoes and a force plate was used to measure baseline peak vertical ground reaction force (PVGRF) of the forelimbs. Vertical force was measured 24 hours and 14 days after shoeing and 24 hours following the administration of PBZ (4.4 mg/kg, IVq 12 h) for 5 days. There was further significant improvement in vertical force measured 24 hours following PBZ treatment. Heel-elevation shoeing alone and in combination with PBZ administration quantitatively decreased lameness in horses with navicular syndrome; injection of distal interphalangeal joint with triamcinolone acetonide did not significantly improve the vertical force measurements (Schoonover, Jann et al., 2005).

#### **Induced lameness models.**

The objective was to test the hypothesis that PBZ alleviates lameness in an adjustable heart bar-shoe model of equine foot pain following a single IV dose of 4.4 mg/kg. Heart rate and lameness score (1-5) were assessed every 20 min for 2 h and then hourly through 9 h. A lameness grade of 4 was produced for the study and no lameness was observed following the study when the set screw was removed. In the PBZ-treated horses the lameness score was lowest

between 4-5 h post-treatment when the score was reduced from 4 to 1.5 compared to control horses. Phenylbutazone was efficacious in alleviating lameness in this model. The PBZ plasma concentrations were approximately 15 and 7  $\mu\text{g}/\text{ml}$  at 4 and 8 hours, respectively. The study period did not include observations beyond 9 hours, but the lameness score had not recovered to baseline values at that time (Foreman, Barange et al., 2008).

Lipopolysaccharide-induced synovitis was produced in horses and treated with PBZ (4.4 mg/kg, IV, q12h), or etodolac (23 mg/kg, IV, q12h). Both reduced synovial fluid white blood cell counts at 6 and 24 hours. In addition, both drugs significantly reduced  $\text{PGE}_2$  levels at 6-h, but  $\text{TXB}_2$  was only reduced by PBZ (Morton, Campbell et al., 2005). Using a standardized lameness model, flunixin was studied and PBZ was used in the same model as a positive control. At a dose of 4.4 mg/kg of PBZ and 1.1 mg/kg of flunixin peak effect occurred at 8-12 and 12 hours, respectively. Flunixin analgesic activity persisted for 30 hours and PBZ for 24 hours (Houdeshell & Hennessey, 1977).

An induced arthritis model was developed to establish the relationship between the plasma concentration of PBZ and its pharmacological effects. Using experimental parameters, a dose-effect relationship was shown for PBZ with an absence of effect for the 1 mg/kg dose and a maximum effect at about 2 mg/kg; at higher PBZ doses, the maximum effect was not modified, but its duration was increased from 8 h with a 2 mg/kg dose to about 24 h with an 8 mg/kg dose (Toutain, Autefage et al., 1994). This study and others cited in this review came to the same conclusion that the maximum dose was 2.2 mg/kg and higher doses did not increase the effect except the duration. Similar results were noted in humans, a dose-finding study determined that most efficacious dose was 300 mg/day. Doses below this did not produce full benefit and no further improvement occurred with higher doses (Bird, Leatham et al., 1983).

The production of muscle inflammation by the injection of Freud's adjuvant did not affect the plasma kinetics and when administered 5 weeks apart there was no within horse variability indicating that the administration of PBZ did not affect the plasma kinetics of subsequent doses (Mills, Ng et al., 1996). This is verified by clinical observations that the plasma concentrations in a large population of horses are consistent post-race when a routine administration schedule was established in a horse and previous administrations do not affect subsequent doses.

#### **Indirect assessment of duration of NSAID effects**

It has been shown that the mechanism of the action of aspirin-like compounds was a direct inhibition of prostaglandin synthetase, thereby preventing prostaglandin biosynthesis (Vane, 1971; Moncada, Ferreira et al., 1974; Vane & Botting, 1987). These products of prostaglandin biosynthesis such as prostaglandins and prostacyclin produce hyperalgesia associated with inflammation and may cause pain and incapacity in some inflammatory conditions by sensitizing the chemical receptors of afferent pain endings to other inflammatory mediators such as bradykinin and histamine. NSAID are potent inhibitor of the conversion of arachidonic acid to arachidonic acid-derived mediators of inflammation. The site of action of NSAID is the cyclooxygenase pathway, therefore, blocking the synthesis and release of several chemical mediators of inflammation, collectively known as eicosanoids. Non-steroidal anti-

inflammatory drugs in the normal therapeutic doses do not block the lipoxygenase pathways which may be responsible for the reduction of leukocyte migration into the inflammatory site and the reduction of edema (Higgs, 1980).

Cyclooxygenase (COX-1) was the first enzyme recognized for catalyzing the synthesis of prostanoids from arachidonic acid, since this initial description a second isoform COX-2 has been described. Phenylbutazone is primarily a non-selective COX inhibitor; *in vitro* analysis in horse blood showed a greater COX-1 selectivity determined by the depression of TXB<sub>2</sub>, compared to COX-2 selectivity determined by the depression of PGE<sub>2</sub> (Beretta, Garavaglia et al., 2005). This observation confirms that in the horse, PBZ is a more selective inhibitor of COX-1 than COX-2. This is relevant in that species difference have been noted in the concentrations of the stable metabolite TXB<sub>2</sub> released by COX-1 activation and the concentration of PGE<sub>2</sub> release by lipopolysaccharide activation of COX-2 and the selective inhibition by various NSAID (Brideau, Van Staden et al., 2001).

There have been considerable advances in the development of pharmacokinetic/pharmacodynamic (PK/PD) models in veterinary and human medicine and investigators have studied the effects of the drug and concurrent changes in plasma or tissue concentrations of inflammatory mediators. Modern PK/PD studies link the effect(s) of the drug to its corresponding concentration in plasma (Lees, 2004; Lees, Cunningham et al., 2004; Lees, Giraudel et al., 2004; Toutain & Lees, 2004). General PD/PK models have been developed for describing drug actions on various active metabolites and hormones (Krzyzanski & Jusko, 2001; Puchalski, Krzyzanski et al., 2001).

A number of studies have used the reduction in the metabolic products of inflammation as indirect models of the actions of PBZ and other NSAID at the molecular level to determine the degree and duration of action. Three types of models have been used:

1. Suppression of the release of inflammatory mediators in blood samples. A number of PK/PD models have been developed using this technique (Lees, Ewins et al., 1987; Soma, Uboh et al., 1992; Lees, Giraudel et al., 2004; Lees, Landoni et al., 2004).
2. Suppression of the release of inflammatory mediators in tissue cage and sponge models in which a sterile carrageen solution was injected into the cage or sterile carrageen-soaked polyester sponge strips were inserted subcutaneously. Both were based on the creation of a mild, reproducible and reversible inflammatory reaction that causes minimal distress to the experimental animals. The acute inflammatory exudates have been shown to contain proteins, white blood cells, and eicosanoids all as a result of the inflammatory reaction (Higgins & Lees, 1984; Lees & Higgins, 1984; Higgins, Lees et al., 1987; Lees, Higgins et al., 1987).
3. More recently, models in humans have used flow through methods to harvest inflammatory exudates. *In-vivo* human bioassay can be used to study human volunteers and patients. Samples are collected from pertinent tissue sites such as the skin via aseptically inserted micro dialysis catheters. These experiments measured inflammatory

substances in interstitial fluid collected from non-inflamed and experimentally inflamed skin (Angst, Clark et al., 2008; Angst, Tingle et al., 2008).

#### Indirect Plasma Models

A study involving the inhibitory actions of NSAID on TXB<sub>2</sub> following a single dose of flunixin (1.1 mg/kg) or PBZ (4.4 mg/kg) was used to determine the duration of action of these drugs. Flunixin and PBZ produced similar degrees of reversible inhibition of TXB<sub>2</sub> at 4 (98% and 88%), 8 (77% and 76%), and 24 (63 and 50%) hours, respectively. At 48 hours, inhibition of TXB<sub>2</sub> was no longer apparent (Lees, Ewins et al., 1987).

In a similar study the concurrent administration of flunixin meglumine (1.1 mg/kg, IV) and PBZ (2.2 mg/kg, IV) on the pharmacokinetics of each drug indicated that the pharmacokinetic variables calculated for each drug when administered alone and in combination were similar. Serum TXB<sub>2</sub> production was significantly suppressed for 8, 12, and 24 hours after administration of flunixin and PBZ in combination. When these drugs were administered alone, the TXB<sub>2</sub> concentrations were not significantly different from control values at 24 h. Note in this study that the dose of PBZ was 2.2 mg/kg. (Semrad, Sams et al., 1993).

#### Indirect Tissue Models.

Distribution of PBZ and its active metabolite, OPBZ, into tissue fluids was studied by measuring concentrations in plasma, tissue-cage fluid, peritoneal fluid and acute inflammatory exudates harvested from a polyester sponge model of inflammation in ponies. Phenylbutazone and OPBZ readily penetrated into inflammatory sites. After six hours, the concentration of PBZ was higher in exudates than in plasma and remained so at 24 hours. Mean concentrations of OPBZ in all fluids were lower than those of PBZ at all times, but OPBZ readily entered body fluids, especially into inflammatory exudates; suggesting that OPBZ may contribute to the anti-inflammatory effect. The estimated elimination half-life of PBZ from exudates was 24 h compared to 5 h from plasma. These authors suggested that the persistence of PBZ and OPBZ in tissues exudates extended the duration of PBZ effectiveness (Lees, Taylor et al., 1986). Other studies have shown that flunixin was also cleared more slowly from equine tissue inflammatory exudates than from plasma (Higgins, Lees et al., 1987).

Acute inflammation was induced in 7 ponies by subcutaneous implantation of sterile carrageen-soaked polyester sponge strips. Treatment comprised a single therapeutic dose of 4.4 mg/kg of PBZ administered intravenously at the time of sponge implantation. Exudates were harvested at 6, 12 and 24 hours and examined for leukocyte and erythrocyte numbers. Leukocyte numbers were significantly increased from 6-hour values at 12 and 24 hours in both control and PBZ-treated animals but differences between control and treated ponies were not significant. The administration of PBZ produced significant reductions in exudate concentrations of PGE<sub>2</sub> and 6-keto-PGF<sub>1</sub>α, the stable products of prostacyclin at 6, 12, and 24 hours. Concentrations of PBZ and OPBZ in exudates exceeded the plasma concentrations in plasma at 12 and 24 hours. Concentrations of TXB<sub>2</sub>, the stable products of TXB<sub>2</sub>, were reduced in treated animals but these changes were not significant. Study results suggested an effect at 24

hours based on the reduction of the two measured eicosanoids PGE<sub>2</sub> and 6-keto-PGF<sub>1</sub>α (Higgins, Lees et al., 1984).

In a 12-day treatment schedule, 5 ponies were administered an oral paste formulation of PBZ and 5 matched ponies were administered equivalent doses of a placebo paste. On day 12, a mild, non-immune inflammatory reaction was induced subcutaneously. Exudates were collected at 4, 8, 12, and 24 hours. There were no significant differences in exudate protein concentration and leukocyte numbers between the treatment groups, but exudate concentrations of 6-ketoF1α were reduced at 4, 8, and 12 hours and those of TXB<sub>2</sub> at 8, 12, and 24 h in the PBZ treatment group. The increases in surface skin temperature were significantly less in PBZ-treated than in placebo-treated ponies between 4 and 24 hours (Lees & Higgins, 1986).

The hypothesis of prostaglandin synthetase inhibition is the most widely accepted mode of action for NSAID. In one hand, leukocyte and erythrocyte accumulation in exudates is a part of the inflammatory process was not significantly affected by the NSAID in any of the tissue cage and exudates studies (Lees & Higgins, 1984; Lees & Higgins, 1986). In the other hand, in-vitro studies have shown that flunixin, PBZ, OPBZ, and indomethacin suppress leukocyte migration of which flunixin was the most potent of the 4 drugs studied. The obvious difference between in-vivo and in-vitro studies is the more complex environment of the inflamed joint compared to the controlled environment of an in-vitro study (Dawson, Lees et al., 1987).

#### SUMMARY:

This review presented an historical prospective and examined the information presented in 4 different models used to determine the pharmacological effects of NSAID, especially PBZ. They included naturally occurring lameness, reversible induced lameness, and indirect plasma and tissue models studying the suppression of the release of arachidonic-derived mediators of inflammation. The majority of studies suggest a persistent effect of PBZ at 24 hours at 4.4 mg/kg. This reflects and substantiates the opinion of many clinical veterinarians, many of whom will not examine a horse for a pre-purchase lameness examination unless the horse is shown to be free of NSAID and glucocorticoids. This remains the opinion of many Commission Veterinarians in that they wish to examine a horse pre-race without the possibility of NSAID or corticosteroid interfering with the examination and masking a possible musculo-skeletal condition. Based on scientific reports and the impression of clinical veterinarians, residual effects of PBZ remain at 24 hours. The impact of this sustained effect on the health and welfare of the horse remains problematic.

#### REFERENCES

- Angst, M.S., Clark, J.D., Carvalho, B., Tingle, M., Schmelz, M. & Yeomans, D.C. (2008). Cytokine profile in human skin in response to experimental inflammation, noxious stimulation, and administration of a COX-inhibitor: a microdialysis study. *Pain*, 139(1), 15-27.

- Angst, M.S., Tingle, M., Schmelz, M., Carvalho, B., Yeomans, D.C., Angst, M.S., Tingle, M., Schmelz, M., Carvalho, B. & Yeomans, D.C. (2008). Human in-vivo bioassay for the tissue-specific measurement of nociceptive and inflammatory mediators. *Journal of Visualized Experiments*, 22.
- Armstrong, S. & Lees, P. (1999). Effects of R and S enantiomers and a racemic mixture of carprofen on the production and release of proteoglycan and prostaglandin E2 from equine chondrocytes and cartilage explants. *Am J Vet Res*, 60(1), 98-104.
- Armstrong, S., Tricklebank, P., Lake, A., Freat, S. & Lees, P. (1999). Pharmacokinetics of carprofen enantiomers in equine plasma and synovial fluid - a comparison with ketoprofen. *Journal of Veterinary Pharmacology & Therapeutics*, 22(3), 196-201.
- Arthur, R. (2009). Personal communications.
- Authie, E.C., Garcia, P., Popot, M.A., Toutain, P.L. & Doucet, M. (2010). Effect of an endurance-like exercise on the disposition and detection time of phenylbutazone and dexamethasone in the horse: application to medication control. *Equine Veterinary Journal*, 42(3), 240-247.
- Bannwarth, B., Netter, P., Pourel, J., Royer, R.J. & Gaucher, A. (1989). Clinical pharmacokinetics of nonsteroidal anti-inflammatory drugs in the cerebrospinal fluid. *Biomedicine & Pharmacotherapy*, 43(2), 121-126.
- Barragry, T.B. (1973). Phenylbutazone in equine practice: a review. *Irish Veterinary Journal*, 27(8), 143-147.
- Beluche, L.A., Bertone, A.L., Anderson, D.E. & Rohde, C. (2001). Effects of oral administration of phenylbutazone to horses on in vitro articular cartilage metabolism. *Am J Vet Res*, 62(12), 1916-1921.
- Beretta, C., Garavaglia, G. & Cavalli, M. (2005). COX-1 and COX-2 inhibition in horse blood by phenylbutazone, flunixin, carprofen and meloxicam: an in vitro analysis. *Pharmacological Research*, 52(4), 302-306.
- Birch, N.C., Sly, C., Brooks, S. & Powles, D.P. (1993). Anti-inflammatory drug therapy after arthroscopy of the knee. A prospective, randomised, controlled trial of diclofenac or physiotherapy.[see comment]. *Journal of Bone & Joint Surgery - British Volume*, 75(4), 650-652.
- Bird, H.A., Leatham, P.A., Lowe, J.R., Downie, W.W., Fowler, P.D. & Wright, V. (1983). A phenylbutazone dose-finding study in rheumatoid arthritis. *European Journal of Clinical Pharmacology*, 24(6), 773-776.
- Birks, E.K., Gory, S.N., Li, C. & Jones, J.H. (1991). Effect of exercise on plasma prostaglandins and thromboxane B2. . In: *Equine Exercise Physiology*. edited by S.G.B. Persson, A. Lindholm, and L.B. Jeffcott. Davis, CA: ICEEP Publications., 3, 374-379.
- Brideau, C., Van Staden, C. & Chan, C.C. (2001). In vitro effects of cyclooxygenase inhibitors in whole blood of horses, dogs, and cats. *American Journal of Veterinary Research*, 62(11), 1755-1760.

- Brooks, P.M., Walker, J.J. & Dick, W.C. (1975). Phenylbutazone: a clinico-pharmacological study in rheumatoid arthritis. *British Journal of Clinical Pharmacology*, 2(5), 437-442.
- Cannon, J. (1973). The use of phenylbutazone on the race track. *Proceedings of the nineteenth annual convention of the American Association of Equine Practitioners. December 10th through 12th*, 347-349.
- Chay, S., Woods, W.E., Nugent, T.E., Weckman, T., Houston, T., Sprinkle, F., Blake, J.W., Tobin, T., Soma, L.R., Yocum, J. & et al. (1984). Population distributions of phenylbutazone and oxyphenbutazone after oral and i.v. dosing in horses. *Journal of Veterinary Pharmacology & Therapeutics*, 7(4), 265-276.
- Collins, L.G. & Tyler, D.E. (1984). Phenylbutazone toxicosis in the horse: a clinical study. *Journal of the American Veterinary Medical Association*, 184(6), 699-703.
- Dawson, J., Lees, P. & Sedgwick, A.D. (1987). Actions of non-steroidal anti-inflammatory drugs on equine leucocyte movement in vitro. *Journal of Veterinary Pharmacology & Therapeutics*, 10(2), 150-159.
- Day, R.O., Graham, G.G., Williams, K.M., Champion, G.D. & de Jager, J. (1987). Clinical pharmacology of non-steroidal anti-inflammatory drugs. *Pharmacology & Therapeutics*, 33(2-3), 383-433.
- Demers, L.M., Harrison, T.S., Halbert, D.R. & Santen, R.J. (1981). Effect of prolonged exercise on plasma prostaglandin levels. *Prostaglandins & Medicine*, 6(4), 413-418.
- Dirikolu, L., Woods, W.E., Boyles, J., Lehner, A.F., Harkins, J.D., Fisher, M., Schaeffer, D.J. & Tobin, T. (2009). Nonsteroidal anti-inflammatory agents and musculoskeletal injuries in Thoroughbred racehorses in Kentucky. *Journal of Veterinary Pharmacology & Therapeutics*, 32(3), 271-279.
- Dokmeci, D. & Dokmeci, D. (2004). Ibuprofen and Alzheimer's disease. *Folia Medica (Plovdiv)*, 46(2), 5-10.
- Doucet, M.Y., Bertone, A.L., Hendrickson, D., Hughes, F., Macallister, C., McClure, S., Reinemeyer, C., Rossier, Y., Sifferman, R., Vrins, A.A., White, G., Kunkle, B., Alva, R., Romano, D., Hanson, P.D., Doucet, M.Y., Bertone, A.L., Hendrickson, D., Hughes, F., Macallister, C., McClure, S., Reinemeyer, C., Rossier, Y., Sifferman, R., Vrins, A.A., White, G., Kunkle, B., Alva, R., Romano, D. & Hanson, P.D. (2008). Comparison of efficacy and safety of paste formulations of firocoxib and phenylbutazone in horses with naturally occurring osteoarthritis. *Journal of the American Veterinary Medical Association*, 232(1), 91-97.
- Dunn, P.S. (1972). A clinician's views on the use and misuse of phenylbutazone. *Equine Veterinary Journal*, 4(2), 63-65.
- Erkert, R.S., MacAllister, C.G., Payton, M.E., Clarke, C.R., Erkert, R.S., MacAllister, C.G., Payton, M.E. & Clarke, C.R. (2005). Use of force plate analysis to compare the analgesic effects of intravenous administration of phenylbutazone and flunixin meglumine in horses with navicular syndrome. *American Journal of Veterinary Research*, 66(2), 284-288.

- Famaey, J.P. (1985). Correlation plasma levels, NSAID and therapeutic response. *Clinical Rheumatology*, 4(2), 124-132.
- Farr, M., Hawkins, C.F., Kendall, M.J. & Willis, J.V. (1982). Some observations and speculations on the factors influencing the concentration of phenylbutazone in synovial fluid. *International Journal of Clinical Pharmacology, Therapy, & Toxicology*, 20(12), 589-594.
- Fischer, H.B., Simanski, C.J., Sharp, C., Bonnet, F., Camu, F., Neugebauer, E.A., Rawal, N., Joshi, G.P., Schug, S.A., Kehlet, H., Group, P.W., Fischer, H.B.J., Simanski, C.J.P. & Neugebauer, E.A.M. (2008). A procedure-specific systematic review and consensus recommendations for postoperative analgesia following total knee arthroplasty. *Anaesthesia*, 63(10), 1105-1123.
- Foreman, J.H., Barange, A., Lawrence, L.M. & Hungerford, L.L. (2008). Effects of single-dose intravenous phenylbutazone on experimentally induced, reversible lameness in the horse. *Journal of Veterinary Pharmacology & Therapeutics*, 31(1), 39-44.
- Fournier, P.E., Leal, S., Ziltener, J.L., Fournier, P.-E., Leal, S. & Ziltener, J.-L. (2008). [Sports injuries and NSAID]. *Revue Medicale Suisse*, 4(166), 1702-1705.
- Fowler, P.D., Shadforth, M.F., Crook, P.R. & John, V.A. (1983). Plasma and synovial fluid concentrations of diclofenac sodium and its major hydroxylated metabolites during long-term treatment of rheumatoid arthritis. *European Journal of Clinical Pharmacology*, 25(3), 389-394.
- Frean, S.P., Abraham, L.A. & Lees, P. (1999). In vitro stimulation of equine articular cartilage proteoglycan synthesis by hyaluronan and carprofen. *Res Vet Sci*, 67(2), 183-190.
- Frisbie, D.D., McIlwraith, C.W., Kawcak, C.E., Werpy, N.M. & Pearce, G.L. (2009). Evaluation of topically administered diclofenac liposomal cream for treatment of horses with experimentally induced osteoarthritis. *Am J Vet Res*, 70(2), 210-215.
- Furst, D.E. (1985). Synovial fluid kinetics of non-steroidal anti-inflammatory drugs. *Agents & Actions - Supplements*, 17, 65-78.
- Gabel, A.A., Tobin, T., Ray, R.S. & Maylin, G.A. (1977). Phenylbutazone in Horses: A Review. *J. Eq. Med. Surgery*, 1, 221-225.
- Gaucher, A., Netter, P., Faure, G., Schoeller, J.P. & Gerardin, A. (1983). Diffusion of oxyphenbutazone into synovial fluid, synovial tissue, joint cartilage and cerebrospinal fluid. *European Journal of Clinical Pharmacology*, 25(1), 107-112.
- Goodrich, L.R. & Nixon, A.J. (2006). Medical treatment of osteoarthritis in the horse -- a review. *Veterinary Journal*, 171(1), 51-69.
- Gowen, R.R. & Lengel, J.G. (1993). Regulatory Aspects of Drug use in Performance Horses. *Veterinary Clinics of North America: Equine Practice*, 9(3), 449-460.
- Graf, P., Glatt, M. & Brune, K. (1975). Acidic nonsteroid anti-inflammatory drugs accumulating in inflamed tissue. *Experientia*, 31(8), 951-953.
- Grennan, D.M., Aarons, L. & Salisbury, R. (1985). Problems with demonstrating NSAID concentration-response relationships. *Agents & Actions - Supplements*, 17, 163-168.

- Gunson, D.E. (1983). Renal papillary necrosis in horses. *Journal of the American Veterinary Medical Association*, 182(3), 263-266.
- Harvey, S.K. (1983). Statement by Dr. S.K. Harvey. *American Association of Equine Practitioners, Newsletter*, 2, 25-26.
- Higgins, A.J. & Lees, P. (1984). Arachidonic acid metabolites in carrageenin-induced equine inflammatory exudate. *Journal of Veterinary Pharmacology & Therapeutics*, 7(1), 65-72.
- Higgins, A.J., Lees, P. & Sedgwick, A.D. (1987). Development of equine models of inflammation. *Veterinary Record*, 120(22), 517-522.
- Higgins, A.J., Lees, P., Sharma, S.C. & Taylor, J.B. (1987). Measurement of flunixin in equine inflammatory exudate and plasma by high performance liquid chromatography. *Equine Veterinary Journal*, 19(4), 303-306.
- Higgins, A.J., Lees, P. & Taylor, J.B. (1984). Influence of phenylbutazone on eicosanoid levels in equine acute inflammatory exudate. *Cornell Veterinarian*, 74(3), 198-207.
- Higgs, G.A. (1980). Arachidonic acid metabolism, pain and hyperalgesia: the mode of action of non-steroid mild analgesics. *British Journal of Clinical Pharmacology*, 10 Suppl 2, 233S-235S.
- Hinchcliff, K.W., McKeever, K.H. & Muir, W.W., 3rd (1994). Effect of phenylbutazone on the haemodynamic, acid-base and eicosanoid responses of horses to sustained submaximal exertion. *Research in Veterinary Science*, 56(3), 352-362.
- Houdeshell, J.W. & Hennessey, P.W. (1977). A new nonsteroidal, anti inflammatory analgesic for horses. *Journal of equine medicine and surgery*. .
- Houston, T., Chay, S., Woods, W.E., Combs, G., Kamerling, S., Blake, J.W., Edmundson, A.G., Vessiney, R. & Tobin, T. (1985). Phenylbutazone and its metabolites in plasma and urine of thoroughbred horses: population distributions and effects of urinary pH. *Journal of Veterinary Pharmacology & Therapeutics*, 8(2), 136-149.
- Hu, H.H., MacAllister, C.G., Payton, M.E., Erkert, R.S., Hu, H.H., MacAllister, C.G., Payton, M.E. & Erkert, R.S. (2005). Evaluation of the analgesic effects of phenylbutazone administered at a high or low dosage in horses with chronic lameness. *Journal of the American Veterinary Medical Association*, 226(3), 414-417.
- Huang, Y.M., Wang, C.M., Wang, C.T., Lin, W.P., Horng, L.C., Jiang, C.C., Huang, Y.-M., Wang, C.-M., Wang, C.-T., Lin, W.-P., Horng, L.-C. & Jiang, C.-C. (2008). Perioperative celecoxib administration for pain management after total knee arthroplasty - a randomized, controlled study. *BMC Musculoskeletal Disorders*, 9, 77.
- Jeffcott, L.B. & Colles, C.M. (1977). Phenylbutazone and the horse--a review. *Equine Veterinary Journal*, 9(3), 105-110.
- Johnson, C.B., Taylor, P.M., Young, S.S. & Brearley, J.C. (1993). Postoperative analgesia using phenylbutazone, flunixin or carprofen in horses. *Vet Rec*, 133(14), 336-338.
- Kamerling, S., DeQuick, D.J., Crisman, M., Weckman, T., Nugent, T.E. & Tobin, T. (1983). Phenylbutazone: Lack of Effect on Normal Cutaneous Pain Perception in the Horse.

- Proceedings, 5th International Conference of Drugs in Race Horses. Toronto, Canada, 8589.
- Kamerling, S.G., Dequick, D.J., Weckman, T.J., Sprinkle, F.P. & Tobin, T. (1984). Differential effects of phenylbutazone and local anesthetics on nociception in the equine. *European Journal of Pharmacology*, 107(1), 35-41.
- Kamerling, S.G., Weckman, T.J., DeQuick, D.J. & Tobin, T. (1985). A method for studying cutaneous pain perception and analgesia in horses. *Journal of Pharmacological Methods*, 13(3), 267-274.
- Karcher, L.F., Dill, S.G., Anderson, W.I. & King, J.M. (1990). Right dorsal colitis. *Journal of Veterinary Internal Medicine*, 4, 247-253.
- Keegan, K.G., Messer, N.T., Reed, S.K., Wilson, D.A., Kramer, J., Keegan, K.G., Messer, N.T., Reed, S.K., Wilson, D.A. & Kramer, J. (2008). Effectiveness of administration of phenylbutazone alone or concurrent administration of phenylbutazone and flunixin meglumine to alleviate lameness in horses. *American Journal of Veterinary Research*, 69(2), 167-173.
- Krzyzanski, W. & Jusko, W.J. (2001). Indirect pharmacodynamic models for responses with multicompartmental distribution or polyexponential disposition. *J Pharmacokinetic Pharmacodyn*, 28(1), 57-78.
- Layzell, M. & Layzell, M. (2008). Current interventions and approaches to postoperative pain management. *British Journal of Nursing*, 17(7), 414-419.
- Lees, P. (2004). Veterinary advances in PK/PD modelling. *Journal of Veterinary Pharmacology & Therapeutics*, 27(6), 395.
- Lees, P., Cunningham, F.M. & Elliott, J. (2004). Principles of pharmacodynamics and their applications in veterinary pharmacology. *Journal of Veterinary Pharmacology & Therapeutics*, 27(6), 397-414.
- Lees, P., Ewins, C.P., Taylor, J.B. & Sedgwick, A.D. (1987). Serum thromboxane in the horse and its inhibition by aspirin, phenylbutazone and flunixin. *British Veterinary Journal*, 143(5), 462-476.
- Lees, P., Giraudel, J., Landoni, M.F. & Toutain, P.L. (2004). PK-PD integration and PK-PD modelling of nonsteroidal anti-inflammatory drugs: principles and applications in veterinary pharmacology. *Journal of Veterinary Pharmacology & Therapeutics*, 27(6), 491-502.
- Lees, P. & Higgins, A.J. (1984). Flunixin inhibits prostaglandin E2 production in equine inflammation. *Research in Veterinary Science*, 37(3), 347-349.
- Lees, P. & Higgins, A.J. (1985). Clinical pharmacology and therapeutic uses of non-steroidal anti-inflammatory drugs in the horse. *Equine Veterinary Journal*, 17(2), 83-96.
- Lees, P. & Higgins, A.J. (1986). Effects of a phenylbutazone paste in ponies: model of acute nonimmune inflammation. *American Journal of Veterinary Research*, 47(11), 2359-2363.

- Lees, P., Higgins, A.J., Sedgwick, A.D. & May, S.A. (1987). Applications of equine models of acute inflammation. The Ciba-Geigy Prize for Research in Animal Health. *Veterinary Record*, 120(22), 522-529.
- Lees, P., Landoni, M.F., Giraudel, J. & Toutain, P.L. (2004). Pharmacodynamics and pharmacokinetics of nonsteroidal anti-inflammatory drugs in species of veterinary interest. *Journal of Veterinary Pharmacology & Therapeutics*, 27(6), 479-490.
- Lees, P., Taylor, J.B., Higgins, A.J. & Sharma, S.C. (1986). Phenylbutazone and oxyphenbutazone distribution into tissue fluids in the horse. *Journal of Veterinary Pharmacology & Therapeutics*, 9(2), 204-212.
- MacAllister, C.G., Morgan, S.J., Borne, A.T. & Pollet, R.A. (1993). Comparison of adverse effects of phenylbutazone, flunixin meglumine, and ketoprofen in horses. *Journal of the American Veterinary Medical Association*, 202(1), 71-77.
- Manohar, M., Goetz, T.E., Griffin, R. & Sullivan, E. (1996). Pulmonary vascular pressures of strenuously exercising thoroughbreds after administration of phenylbutazone. *American Journal of Veterinary Research*, 57(9), 1354-1358.
- Mather, L.E. (1992). Do the pharmacodynamics of the nonsteroidal anti-inflammatory drugs suggest a role in the management of postoperative pain? *Drugs*, 44 Suppl 5, 1-12; discussion 13.
- McConnico, R.S., Morgan, T.W., Williams, C.C., Hubert, J.D., Moore, R.M., McConnico, R.S., Morgan, T.W., Williams, C.C., Hubert, J.D. & Moore, R.M. (2008). Pathophysiologic effects of phenylbutazone on the right dorsal colon in horses. *American Journal of Veterinary Research*, 69(11), 1496-1505.
- McCormack, K. & Brune, K. (1991). Dissociation between the antinociceptive and anti-inflammatory effects of the nonsteroidal anti-inflammatory drugs. A survey of their analgesic efficacy. *Drugs*, 41(4), 533-547.
- Mehallo, C.J., Drezner, J.A., Bytomski, J.R., Mehallo, C.J., Drezner, J.A. & Bytomski, J.R. (2006). Practical management: nonsteroidal antiinflammatory drug (NSAID) use in athletic injuries. *Clinical Journal of Sport Medicine*, 16(2), 170-174.
- Meschter, C.L., Gilbert, M., Krook, L., Maylin, G. & Corradino, R. (1990). The effects of phenylbutazone on the intestinal mucosa of the horse: a morphological, ultrastructural and biochemical study. *Equine Veterinary Journal*, 22(4), 255-263.
- Meschter, C.L., Gilbert, M., Krook, L., Maylin, G. & Corradino, R. (1990). The effects of phenylbutazone on the morphology and prostaglandin concentrations of the pyloric mucosa of the equine stomach. *Veterinary Pathology*, 27(4), 244-253.
- Mills, P.C., Ng, J.C. & Auer, D.E. (1996). The effect of inflammation on the disposition of phenylbutazone in thoroughbred horses. *Journal of Veterinary Pharmacology & Therapeutics*, 19(6), 475-481.
- Mitten, L.A., Hinchcliff, K.W. & Pate, J.L. (1996). Phenylbutazone increases right atrial pressure and heart rate of running horses. *Journal of Applied Physiology*, 81(1), 312-317.

- Mitten, L.A., Hinchcliff, K.W., Pate, J.L., Kohn, C.W. & McKeever, K.H. (1995). Effect of exercise intensity on plasma prostaglandin concentrations in horses. *American Journal of Veterinary Research*, 56(1), 122-126.
- Moncada, S., Ferreira, S.H. & Vane, J.R. (1974). The blockade of the local generation of prostaglandins explains the analgesic action of aspirin. *Polish Journal of Pharmacology & Pharmacy*, 26(1), 77.
- Morton, A.J., Campbell, N.B., Gayle, J.M., Redding, W.R., Blikslager, A.T., Morton, A.J., Campbell, N.B., Gayle, J.M., Redding, W.R. & Blikslager, A.T. (2005). Preferential and non-selective cyclooxygenase inhibitors reduce inflammation during lipopolysaccharide-induced synovitis. *Research in Veterinary Science*, 78(2), 189-192.
- Moses, V.S., Hardy, J., Bertone, A.L. & Weisbrode, S.E. (2001). Effects of anti-inflammatory drugs on lipopolysaccharide-challenged and -unchallenged equine synovial explants. *American Journal of Veterinary Research*, 62(1), 54-60.
- Netter, P., Bannwarth, B., Monot, C., Royer, R.J. & Gaucher, A. (1983). Passage of nonsteroidal anti-inflammatory agents across the synovial membrane. *Presse Medicale*, 12(33), 2049-2052.
- Netter, P., Bannwarth, B. & Royer-Morrot, M.J. (1989). Recent findings on the pharmacokinetics of non-steroidal anti-inflammatory drugs in synovial fluid. *Clinical Pharmacokinetics*, 17(3), 145-162.
- Netter, P., Lopicque, F., Bannwarth, B., Tamisier, J.N., Thomas, P. & Royer, R.J. (1985). Diffusion of intramuscular ketoprofen into the cerebrospinal fluid. *European Journal of Clinical Pharmacology*, 29(3), 319-321.
- O'Connor, J.P., Lysz, T., O'Connor, J.P. & Lysz, T. (2008). Celecoxib, NSAIDs and the skeleton. *Drugs of Today*, 44(9), 693-709.
- Obel, N. (1948). Studies on the Histopathology of Acute Laminitis. *Almqvist and Wisells Boktryckeri AK, Uppsala, Sweden.*
- Ogilvie-Harris, D.J., Bauer, M. & Corey, P. (1985). Prostaglandin inhibition and the rate of recovery after arthroscopic meniscectomy. A randomised double-blind prospective study. *Journal of Bone & Joint Surgery - British Volume*, 67(4), 567-571.
- Owens, J.G., Kamerling, S.G., Stanton, S.R. & Keowen, M.L. (1995). Effects of ketoprofen and phenylbutazone on chronic hoof pain and lameness in the horse. *Equine Veterinary Journal*, 27(4), 296-300.
- Parepally, J.M., Mandula, H., Smith, Q.R., Parepally, J.M.R., Mandula, H. & Smith, Q.R. (2006). Brain uptake of nonsteroidal anti-inflammatory drugs: ibuprofen, flurbiprofen, and indomethacin. *Pharmaceutical Research*, 23(5), 873-881.
- Puchalski, T.A., Krzyzanski, W., Blum, R.A. & Jusko, W.J. (2001). Pharmacodynamic modeling of lansoprazole using an indirect irreversible response model. *J Clin Pharmacol*, 41(3), 251-258.

- Raekallio, M., Taylor, P.M. & Bennett, R.C. (1997). Preliminary investigations of pain and analgesia assessment in horses administered phenylbutazone or placebo after arthroscopic surgery. *Veterinary Surgery*, 26(2), 150-155.
- Rasmussen, S., Thomsen, S., Madsen, S.N., Rasmussen, P.J. & Simonsen, O.H. (1993). The clinical effect of naproxen sodium after arthroscopy of the knee: a randomized, double-blind, prospective study. *Arthroscopy*, 9(4), 375-380.
- Read, W.K. (1983). Renal medullary crest necrosis associated with phenylbutazone therapy in horses. *Veterinary Pathology*, 20(6), 662-669.
- Reed, S.K., Messer, N.T., Tessman, R.K., Keegan, K.G., Reed, S.K., Messer, N.T., Tessman, R.K. & Keegan, K.G. (2006). Effects of phenylbutazone alone or in combination with flunixin meglumine on blood protein concentrations in horses. *American Journal of Veterinary Research*, 67(3), 398-402.
- Reilly, F.K. (2000). Questions duration of treatment with phenylbutazone. *American Journal of Veterinary Research*, 61(7), 728.
- Reuben, S.S. & Reuben, S.S. (2007). Update on the role of nonsteroidal anti-inflammatory drugs and coxibs in the management of acute pain. *Current Opinion in Anaesthesiology*, 20(5), 440-450.
- Rohde, C., Anderson, D.E., Bertone, A.L. & Weisbrode, S.E. (2000). Effects of phenylbutazone on bone activity and formation in horses. *American Journal of Veterinary Research*, 61(5), 537-543.
- Ross, M.W., *Lameness in the Horse*, E.M.W.R.a.S.J.D., Saunders, & 60-73., P.p. (2003). Movement. In: *Diagnosis and Management of Lameness in the Horse*. Eds: M.W. Ross and S.J. Dyson, Saunders, Philadelphia., 60-73.
- Ross, M.W., Martin, B.B. & Donawick, W.J. (1985). Cecal perforation in the horse. *Journal of the American Veterinary Medical Association*, 187, 249-253.
- Sabate, D., Homedes, J., Salichs, M., Sust, M. & Monreal, L. (2009). Multicentre, controlled, randomised and blinded field study comparing efficacy of suxibuzone and phenylbutazone in lame horses. *Equine Veterinary Journal*, 41(7), 700-705.
- Sanford, J. (1974). Doping of Horses. *British J. of Sports Medicine*, 8, 176-180.
- Sanford, J. (1983). Effects of drugs on performance of the Horse. In: *Pharmacological Basis of Large Animal Medicine*. Edited by, Bogan, J.A, Lees, P., Yoxall, A.T *Blackwell Scientific Publications, Boston, MA*, 495-510.
- Schoonover, M.J., Jann, H.W., Blaik, M.A., Schoonover, M.J., Jann, H.W. & Blaik, M.A. (2005). Quantitative comparison of three commonly used treatments for navicular syndrome in horses. *American Journal of Veterinary Research*, 66(7), 1247-1251.
- Schug, S.A., Manopas, A., Schug, S.A. & Manopas, A. (2007). Update on the role of non-opioids for postoperative pain treatment. *Best Practice & Research Clinical Anaesthesiology*, 21(1), 15-30.
- Semrad, S.D., Sams, R.A., Harris, O.N. & Ashcraft, S.M. (1993). Effects of concurrent administration of phenylbutazone and flunixin meglumine on pharmacokinetic variables

- and in vitro generation of thromboxane B2 in mares. *American Journal of Veterinary Research*, 54(11), 1901-1905.
- Simkin, P.A. (1988). Concentration-effect relationships of NSAID. *Journal of Rheumatology - Supplement*, 17, 40-43.
- Soma, L.R., Gallis, D.E., Davis, W.L., Cochran, T.A. & Woodward, C.B. (1983). Phenylbutazone kinetics and metabolite concentrations in the horse after five days of administration. *American Journal of Veterinary Research*, 44(11), 2104-2109.
- Soma, L.R., Sams, R., Duer, W., Tobin, T., Woodward, C. & McDonald, J. (1985). Plasma and serum concentrations of phenylbutazone and oxyphenbutazone in racing Thoroughbreds 24 hours after treatment with various dosage regimens. *American Journal of Veterinary Research*, 46(4), 932-938.
- Soma, L.R., Uboh, C.E., Rudy, J. & Fegely, J. (1992). Plasma concentrations of flunixin in the horse: its relationship to thromboxane B2 production. *Journal of Veterinary Pharmacology & Therapeutics*, 15(3), 292-300.
- Soma, L.R., Uboh, C.E., Rudy, J.A. & Perkowski, S.Z. (1995). Plasma and synovial fluid kinetics, disposition, and urinary excretion of naproxen in horses. *American Journal of Veterinary Research*, 56(8), 1075-1080.
- Taylor, J.B., Verrall, J.H., Chandler, N., Jones, R.D. & Parker, J. (1983). Clinical efficacy of a revised dosage schedule of phenylbutazone in horses. *Veterinary Record*, 113(8), 183-184.
- Taylor, J.B., Walland, A., Lees, P., Gerring, E.L., Maitho, T.E. & Millar, J.D. (1983). Biochemical and haematological effects of a revised dosage schedule of phenylbutazone in horses. *Veterinary Record*, 112(26), 599-602.
- Tobin, T. (1981). Phenylbutazone and its Brothers: Non-Steroidal Anti-Inflammatory Drugs. In *Drugs and the Performance Horse*: Charles C. Thomas, Springfield, IL, 87.
- Tobin, T., Chay, S., Kamerling, S., Woods, W.E., Weckman, T.J., Blake, J.W. & Lees, P. (1986). Phenylbutazone in the horse: a review. *Journal of Veterinary Pharmacology & Therapeutics*, 9(1), 1-25.
- Toutain, P.L., Autefage, A., Legrand, C. & Alvinerie, M. (1994). Plasma concentrations and therapeutic efficacy of phenylbutazone and flunixin meglumine in the horse: pharmacokinetic/pharmacodynamic modelling. *Journal of Veterinary Pharmacology & Therapeutics*, 17(6), 459-469.
- Toutain, P.L. & Lees, P. (2004). Integration and modelling of pharmacokinetic and pharmacodynamic data to optimize dosage regimens in veterinary medicine. *Journal of Veterinary Pharmacology & Therapeutics*, 27(6), 467-477.
- Vane, J.R. (1971). Inhibition of prostaglandin synthesis as a mechanism of action for aspirin-like drugs. *Nature - New Biology*, 231(25), 232-235.
- Vane, J.R. & Botting, R. (1987). Inflammation and the mechanism of action of anti-inflammatory drugs. *FASEB. J.*, 1, 89-96.

- Woods, W.E., Chay, S., Houston, T., Blake, J.W. & Tobin, T. (1985). Effects of phenylbutazone and oxyphenbutazone on basic drug detection in high performance thin layer chromatographic systems. *Journal of Veterinary Pharmacology & Therapeutics*, 8(2), 181-189.
- Woods, W.E., Chay, S., Houston, T., Blake, J.W. & Tobin, T. (1985). Efficacy of testing for illegal medication in horses. *Journal of the American Veterinary Medical Association*, 187(9), 927-930.
- Woods, W.E., Weckman, T., Blake, J.W. & Tobin, T. (1986). Effects of phenylbutazone and oxyphenbutazone on acidic drug detection in high performance thin layer chromatographic systems. *Journal of Pharmacological Methods*, 16(4), 297-313.

# Nonsteroidal anti-inflammatory agents and musculoskeletal injuries in Thoroughbred racehorses in Kentucky

L. DIRIKOLU\*  
 W. E. WOODS†  
 J. BOYLES J†  
 A. F. LEHNER‡  
 J. D. HARKINS†  
 M. FISHER§  
 D. J. SCHAEFFER\* &  
 T. TOBIN†

\*Department of Veterinary Bioscience, College of Veterinary Medicine, University of Illinois, Urbana, IL; †Maxwell H. Gluck Equine Research Center and the Department of Veterinary Science, University of Kentucky, Lexington, KY; ‡Diagnostic Center for Population and Animal Health, Michigan State University, East Lansing, MI; §The Kentucky Racing Commission, Ironworks Pike, Lexington, KY, USA

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Injuries sustained by horses during racing have been considered as an unavoidable part of horse racing. Many factors may be associated with the musculoskeletal injuries of Thoroughbred race horses. This study surveyed the amounts of nonsteroidal anti-inflammatory agents (NSAIDs) in injured horse's biological system (plasma) at Kentucky racetracks from January 1, 1995 through December 31, 1996. During that period, there were 84 catastrophic cases (euthanized horses) and 126 noncatastrophic cases. Plasma concentrations of NSAIDs were determined by High Performance Liquid Chromatography in injured and control horses. The possible role of anti-inflammatory agents in musculoskeletal injuries of Thoroughbred race horses was investigated by comparing the apparent concentrations of NSAIDs in injured horses to concentrations in control horses. The plasma concentrations of phenylbutazone and flunixin were higher in injured horses than in control horses. Most injured and control horses did not have a detectable level of naproxen in their plasma samples. Further studies must be carried out to determine whether horses with higher plasma concentrations of NSAIDs have an altered risk of musculoskeletal injuries compared with other horses.

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Dr Levent Dirikolu, 3830 VMBSB, 2001 South Lincoln Avenue, College of Veterinary Medicine, University of Illinois at Urbana-Champaign, Urbana, IL 61802, USA. E-mail: dirikolu@uiuc.edu

## INTRODUCTION

Injuries sustained by horses during racing have been considered an unavoidable part of horse racing for many years. More recently, awareness and concern about race-related injuries have increased within the racing industry and among the general public. These injuries exact a significant, but largely unmeasured, economic toll from the racing industry worldwide and generate adverse publicity for Thoroughbred racing. Although horse racing has existed for centuries, few studies on the potential causes of racing and training injuries have been conducted.

Both intrinsic (related to horse) and extrinsic factors (surrounding environment) can predispose horses to breakdown during racing. Intrinsic factors include conformation, age, gender, and preexisting injuries (Cohen *et al.*, 1999; Axelsson *et al.*, 2001; Hernandez *et al.*, 2001; Hill *et al.*, 2001; Williams *et al.*, 2001). Extrinsic factors include environmental and nutritional conditions, length of race, racetrack surface, frequency of starts, and training method (Cheney *et al.*, 1973; Fredricson *et al.*, 1982; Mundy, 1997; Hernandez *et al.*, 2001;

Williams *et al.*, 2001). Since 1940, it has been believed that poor track conditions are the major cause of musculoskeletal injuries (MIs) in Thoroughbred racehorses (Peters, 1940; Pratt & O'Connor, 1978). One report favoring this idea concluded that horses raced on 'muddy-dirt' track surface had a significantly lower risk of breakdown in comparison with horses raced on 'normal-dirt tracks' (Mohammed *et al.*, 1991). Other investigators did not find an association between the racetrack condition and the risk of injury (Hill *et al.*, 1986). An alternative idea is that preexisting pathologic conditions could increase the risk of musculoskeletal injuries during racing or training (Stover *et al.*, 1992). Therefore, a prerace physical examination by track veterinarians may determine possible pathologic conditions thereby, reducing possible injury cases among Thoroughbred racehorses (Cohen *et al.*, 1997). A related concern is that because more force is exerted on the forelimbs at high speed, faster races might cause more racing injuries (Pratt & O'Connor, 1976).

Other investigators (Mohammed *et al.*, 1991) reported that most racing horse injuries occurred in the first or second season

of racing (36%, 34%, respectively) compared with later seasons (5% after the fourth season). It was also revealed that most injuries (55%) occurred in summer (July through October). Horses raced in the summer had a three- to four-fold increased risk of breakdown compared with those raced in the winter time (Mohammed *et al.*, 1991). There was also a positive association between the age of the horse and the risk of injury. Similar results have also been reported by other investigators (Estberg *et al.*, 1996).

There are many other factors associated with musculoskeletal injuries of Thoroughbred racehorses that have not been reported previously. Most importantly, it was reported that musculoskeletal injuries account for most (approximately 93%) of the racing- and training-related racehorse deaths (Estberg *et al.*, 1996). Awareness of the factors that contribute to injuries of horses would enable trainers, owners, veterinarians, and racing officials to control better and, therefore, prevent financial and emotional losses caused by such injuries.

In the present investigation, the possible role of one intrinsic factor, that of nonsteroidal anti-inflammatory agents on musculoskeletal injuries was studied in Thoroughbred racehorses at Kentucky racetracks. Anti-inflammatory agents are commonly used in veterinary medicine to treat musculoskeletal problems, and the available products are generally classified as steroidal and nonsteroidal agents.

The main objective of this study was to evaluate the role of nonsteroidal anti-inflammatory agents in musculoskeletal injuries of racing Thoroughbred horses and include the following: a) develop methods for the determination and quantification of nonsteroidal anti-inflammatory drugs (NSAIDs) in plasma of horses, and b) determine whether a correlation exists between NSAIDs presence and racing injuries by comparing the amounts of these agents in the biological systems (plasma samples) of the injured horses with amounts in control horses.

## MATERIALS AND METHODS

### *Selection of horses*

All horses included in these studies were diagnosed by a commission-appointed veterinarian of the Kentucky Racing Commission (KRC) as having sustained a musculoskeletal injury while racing in an official KRC race between January 1, 1995 and December 31, 1996. A complete study record was generated for each horse by assembling information from the racing injury report generated by the commission veterinarian, race summaries published in the Daily Racing Form, the Livestock Disease Diagnostic Center (LDDC) University of Kentucky, Lexington, KY necropsy report and the data generated in this study.

Each horse having an obvious change in soundness in the opinion of the commission veterinarian during the race or immediately after the finish of the race was considered to have a racing injury. If the injury was related to the musculoskeletal system, the horse was included in this study. Racing injuries were categorized as catastrophic or noncatastrophic, based on a

post-race examination by the commission veterinarian. A racing injury was categorized as 'catastrophic' if the horse was euthanized because of severity of injuries. If the horse was not euthanized, the racing injury was categorized as 'noncatastrophic'.

From January 1, 1995 through December 31, 1996 there were 210 injury cases on Kentucky racetracks meeting the above criteria. Among these 210 injury cases, 84 (40%) cases were catastrophic and 126 (60%) cases were noncatastrophic. From these 210 injury cases, 161 (both catastrophic and noncatastrophic cases) were included in this NSAIDs study. Cases were excluded by careful examination of the study record. Six cases were excluded from the NSAID portion of the study because the injuries were unrelated to the musculoskeletal system. Twenty-two cases were excluded from the NSAID study because the causes of injuries were unrecognized and twenty-one cases were excluded due to the inability to complete the data sets. Among the remaining 161 cases, 70 cases were catastrophic and 91 cases were noncatastrophic.

Among the injury cases on Kentucky racetracks, three of the injuries occurred at Dueling Grounds in 1995 and one occurred at Blue Grass Downs racetrack in 1995. At Ellis Park track, there were 38 injury cases in 1995 and 42 injury cases in 1996. At Turfway Park, there were 39 injury cases in 1995 and 31 injury cases in 1996. At Churchill Downs, 22 injury cases were observed during 1995 and 19 injury cases occurred during 1996. At Keeneland, there were nine injury cases in 1995 and five injury cases in 1996. Among the 161 cases that were included in our study, 32 injury cases occurred in 1995 and 25 injury cases occurred in 1996 at Turfway Park track. There were 30 injury cases in 1995 and 33 injury cases in 1996 at Ellis Park track. Two of these injuries occurred at Dueling Grounds in 1995. There were six and 17 injury cases at Keeneland and Churchill Downs in 1995, respectively. Three and 13 of the cases that were included in study occurred in 1996 at Keeneland and Churchill Downs, respectively (Fig. 1).

Blood samples were taken from the injured horses in heparin tubes by a commission veterinarian, along with two control horses from the same race, the winner and a special horse picked randomly by the stewards of the track. The blood samples were centrifuged at 224 *g* and 4 °C for 15 min to separate the plasma, which was frozen until analyzed for NSAIDs by High Pressure Liquid Chromatography (HPLC). The total number of catastrophic and noncatastrophic cases from which plasma samples were available was 161 cases.

To test the hypothesis that the injured horses have a higher concentration of NSAIDs than the special and winner horses, a Sign test was used because the concentrations of NSAIDs in horses included in our study were not normally distributed nor transformable to a normal distribution (Systat, Version 12, Systat, Richmond, CA, USA). The odds ratio (StatXact, Version 8, Cytel, Cambridge, MA, USA) was used to compare the proportion of injured horses that had phenylbutazone concentrations greater than 7 µg/mL (proposed pharmacologically effective level in horses) and flunixin concentrations greater than 0.1 µg/mL (proposed pharmacologically effective level in horses)

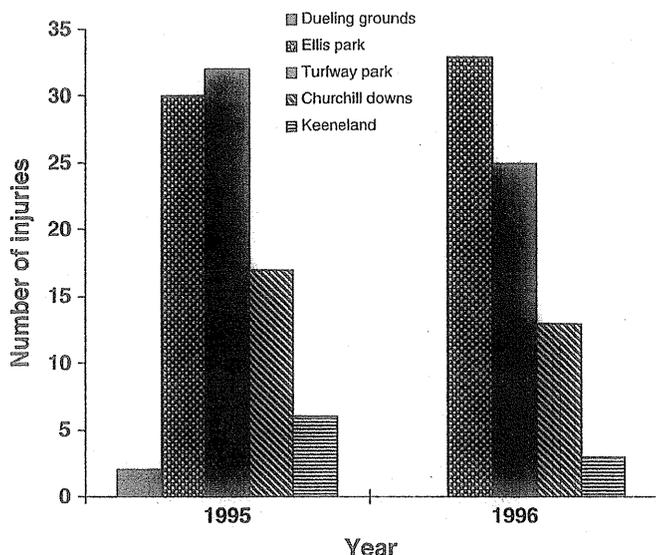


Fig. 1. Frequency distribution of injured horses included in MI study at Kentucky Race tracks.

with the proportions of the winner and special horses that had phenylbutazone concentrations greater than  $7 \mu\text{g}/\text{mL}$  and flunixin concentrations greater than  $0.1 \mu\text{g}/\text{mL}$ . The level for significance was set at  $P < 0.05$ .

#### Analysis by HPLC

Standard solutions of phenylbutazone, flunixin, and naproxen (Sigma Chemical, Saint Louis, MO) were prepared in the HPLC mobile phase 60% solvent A (Acetonitrile) (Fisher Scientific, Fair Lawn, NJ, USA) and 40% solvent B [12.5% methanol, 43.75% of 1% acetic acid, and 43.75% of 0.1 M ammonium acetate] (Fisher Scientific). Adequate amounts of drugs were measured and dissolved in mobile phase to yield 1 mg/mL stock drug concentration. Extraction standards were prepared by the addition of known amounts of phenylbutazone, flunixin, and naproxen in mobile phase solution to blank plasma samples at a range of  $0.1 \mu\text{g}/\text{mL}$  to  $4 \mu\text{g}/\text{mL}$ . Mefenamic acid (Sigma Chemical) in mobile phase ( $20 \mu\text{L}$  of  $50 \mu\text{g}/\text{mL}$  mefenamic acid solution) was added to each sample, standard and blank as an internal standard.

The plasma samples (1 mL/sample) were placed in screw-top culture tubes. These tubes were rinsed with dichloromethane (DCM) (Sigma Chemical) before placing the samples in them. One mL of 0.1 M HCl (Fisher Scientific) and 10 mL of DCM were added to each tube. The tubes were tightly capped and checked for possible leaks by gently inverting each tube. These samples were mixed on a rotorack for 10 min, and all tubes were centrifuged at  $4^\circ\text{C}$ ,  $224 g$  for 90 min on a Beckman centrifuge to reduce the emulsions (Beckman Coulter, Inc., Fullerton, CA, USA). The upper (aqueous) layer was discarded by aspiration, and the DCM phase (organic phase) was evaporated to  $\leq 20 \mu\text{L}$  under a stream of  $\text{N}_2$  at  $40^\circ\text{C}$ . All tubes were watched carefully to prevent complete drying. The residue was resuspended first in  $250 \mu\text{L}$  acetonitrile and vortexed. After that,  $750 \mu\text{L}$  of mobile

phase was added to each tube and the tubes were capped and vortexed. Each sample was then transferred to nitrogen gas rinsed amber autosampler vials; the surface of the vials was rinsed with nitrogen again and the vials capped. The HPLC vials were placed in an autosampler for analysis.

The instrument employed was a Beckman System Gold HPLC system with two 110B solvent delivery Pumps, a 168 Photodiode array Detector and 502 Autosampler (Beckman Coulter, Inc., Fullerton, CA). The column was a Varian Bondesil C18,  $5 \mu$  particle size,  $4.6 \text{ mm} \times 25 \text{ cm}$  column size (Varian, Inc., Lake Forest, CA, USA). The mobile phase consisted of 60% solvent A (acetonitrile), and 40% solvent B [methanol (12.5%), 1% of acetic acid (43.75%), and 0.1 M ammonium acetate (43.75%) at a flow rate of 1 mL/min. Solvents and chemicals used in this assay were all HPLC grade and the solvents were degassed and filtered ( $0.45 \mu\text{m}$  type HV Millipore) (Millipore Corp, Bedford, MA, USA). The UV detector wavelength was set at 240 nm for naproxen, 263 nm for phenylbutazone, 280 nm for flunixin, and 300 nm for internal standard optimized for compound detection. Twenty  $\mu\text{L}$  injections were prepared with a  $20 \mu\text{L}$  loop.

The area of the peaks corresponding to phenylbutazone, flunixin, naproxen, and mefenamic acid (internal standard) was recorded. The internal standard areas were used to normalize the phenylbutazone, naproxen, and flunixin areas. Integrated peak values were entered into Quattropro for statistical analysis of standards and also for calculation of unknown amounts of phenylbutazone, flunixin, and naproxen. Standard curves were generated with SigmaPlot (Version 3.03, Jandel Scientific, San Rafael, CA, USA). Samples including higher amount of drugs than the highest standard sample were diluted with blank plasma and re-analyzed.

#### RESULTS

Among 210 injury cases, 161 cases (70 cases catastrophic, 91 cases noncatastrophic) were included in this NSAIDs study. Because blood samples were available from all injured horses and also from the winner and a randomly selected horse, the data sets included samples from these three populations of horses.

Two horses in the injured group and two horses in the special group had plasma concentrations of phenylbutazone measured between  $110 \mu\text{g}/\text{mL}$  and  $380 \mu\text{g}/\text{mL}$ . This is a very unusual range for phenylbutazone in racehorses; these horses were not included in results and data analysis. It is possible that these samples might have been collected from the sites where the medication was administered. The average apparent concentration of phenylbutazone in plasma from injured horses was  $5.84 \mu\text{g}/\text{mL} \pm 0.563$  (Standard Error of Mean, SEM), from winning horses was  $4.268 \mu\text{g}/\text{mL} \pm 0.458$  (SEM), and from special horses plasma samples, which presumably forms a standard baseline of plasma concentrations of phenylbutazone in horse racing in Kentucky was  $4.337 \mu\text{g}/\text{mL} \pm 0.454$  (SEM) (Fig. 2). Average apparent plasma concentration of phenylbutazone in catastrophic cases was  $6.05 \mu\text{g}/\text{mL} \pm 0.944$  (SEM) and in noncatastrophic cases was  $5.677 \mu\text{g}/\text{mL} \pm 0.683$  (SEM).

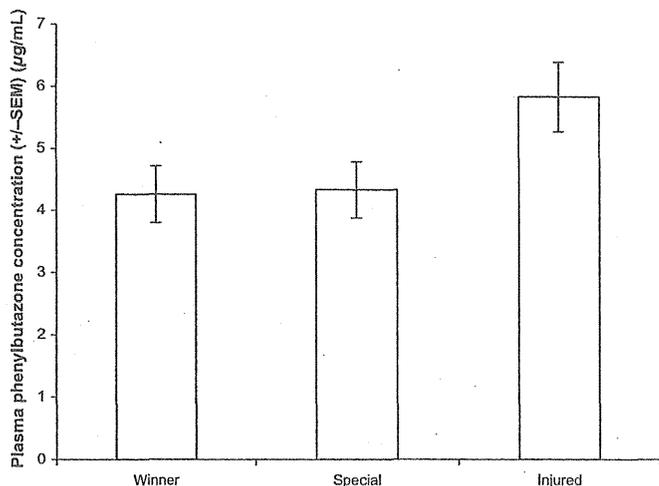


Fig. 2. Mean plasma concentrations ( $\mu\text{g}/\text{mL}$ ,  $\pm\text{SEM}$ ) of phenylbutazone in winner, special, and injured horses.

In injured horse cases (catastrophic and noncatastrophic), ninety-five injured horse cases had apparent plasma concentrations of phenylbutazone less than  $7 \mu\text{g}/\text{mL}$  (proposed minimal effective plasma concentration of phenylbutazone), 15 horses had no detectable concentrations of phenylbutazone, 12 horses had apparent plasma concentration of phenylbutazone greater than  $15 \mu\text{g}/\text{mL}$ , while 35 horses had apparent plasma concentration of phenylbutazone between 7 and  $15 \mu\text{g}/\text{mL}$  (Fig. 3a). As shown by this data, about 70% of the injured horses running in Kentucky had apparent plasma concentrations of phenylbutazone between  $0 \mu\text{g}/\text{mL}$  and  $7.0 \mu\text{g}/\text{mL}$ . Forty-two and 53 horses in the catastrophic and noncatastrophic groups, respectively, had apparent phenylbutazone concentrations of less than  $7 \mu\text{g}/\text{mL}$ .

The average apparent plasma concentration of phenylbutazone in winning horse cases was  $4.268 \mu\text{g}/\text{mL} \pm 0.458$  (SEM). Thirty-one winning horses did not have phenylbutazone in their plasma samples. Ninety-two winning horses had apparent plasma concentrations of phenylbutazone of less than  $7 \mu\text{g}/\text{mL}$ , 21 winning horses had apparent plasma concentration of phenylbutazone between 7 and  $15 \mu\text{g}/\text{mL}$ , while 13 horses had greater than  $15 \mu\text{g}/\text{mL}$  (Fig. 3b). As shown in these data, about 78% of the winning horses running in Kentucky had plasma concentrations of phenylbutazone between  $0 \mu\text{g}/\text{mL}$  and  $7 \mu\text{g}/\text{mL}$ .

The average apparent plasma concentration of phenylbutazone in special horse cases (these horses were randomly chosen by the stewards of the track in which injuries cases were observed) was  $4.337 \mu\text{g}/\text{mL} \pm 0.454$  (SEM). Thirty-six cases did not have any phenylbutazone in their plasma samples and 82 cases had apparent plasma concentrations of phenylbutazone of less than  $7 \mu\text{g}/\text{mL}$ . Ten horses had apparent plasma concentrations of phenylbutazone greater than  $15 \mu\text{g}/\text{mL}$ , while 29 horses had plasma apparent concentration between  $7 \mu\text{g}/\text{mL}$  and  $15 \mu\text{g}/\text{mL}$  (Fig. 3c). Approximately, 75% of special horses running in Kentucky had apparent plasma concentrations of phenylbutazone between  $0 \mu\text{g}/\text{mL}$  and  $7 \mu\text{g}/\text{mL}$ .

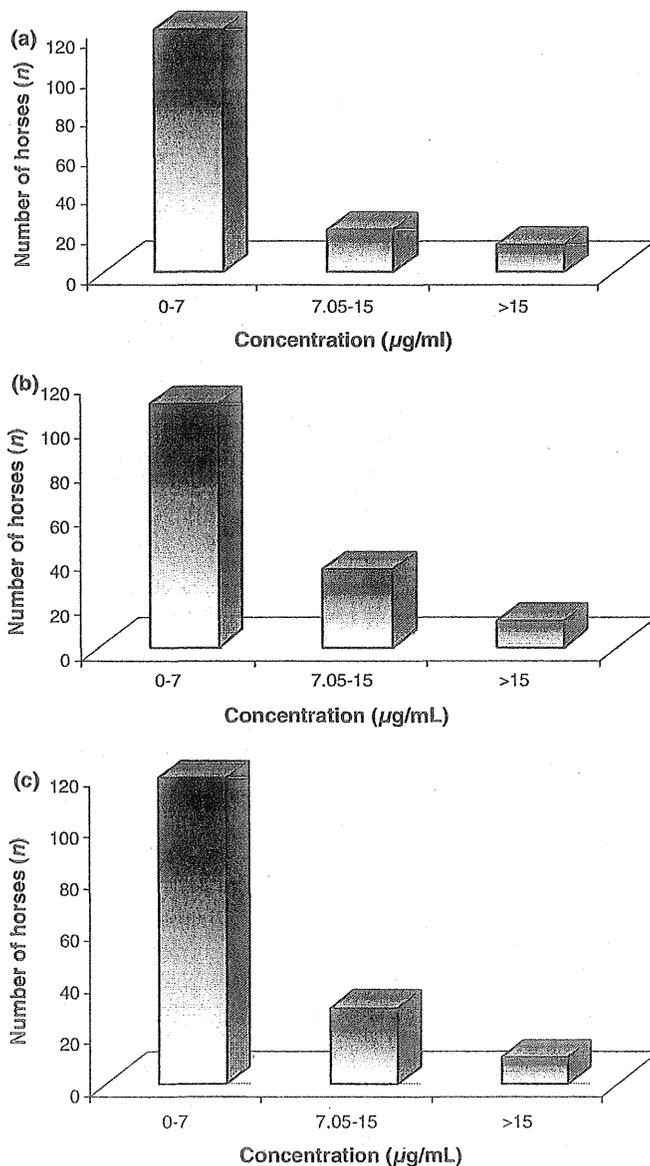


Fig. 3. Frequency distribution of apparent phenylbutazone concentrations in plasma samples from injured horses (a), winning horses (b), and special horses (c).

A sign test showed that the apparent plasma concentrations of phenylbutazone in injured horses were significantly greater than in special ( $93/157$ ,  $P = 0.02$ ) and winner ( $95/157$ ,  $P = 0.006$ ) horses. The proportion of races in which the concentrations of phenylbutazone in special horses exceeded the concentrations in the winner horses did not differ significantly from 50% ( $69/157$ ,  $P = 0.5094$ ). The odds ratio for the number of horses that had apparent phenylbutazone plasma concentrations  $>7 \mu\text{g}/\text{mL}$  was not significant for all pair-wise combinations ( $P > 0.3$ ).

The average apparent concentration of flunixin in plasma samples of injured horse cases was found to be  $1.632 \mu\text{g}/\text{mL} \pm 0.158$  (SEM), of winning horse cases was  $1.067 \mu\text{g}/\text{mL} \pm 0.078$  (SEM), and of special horse cases was  $0.695 \mu\text{g}/\text{mL} \pm 0.069$  (SEM) (Fig. 4). The average apparent plasma concentration of

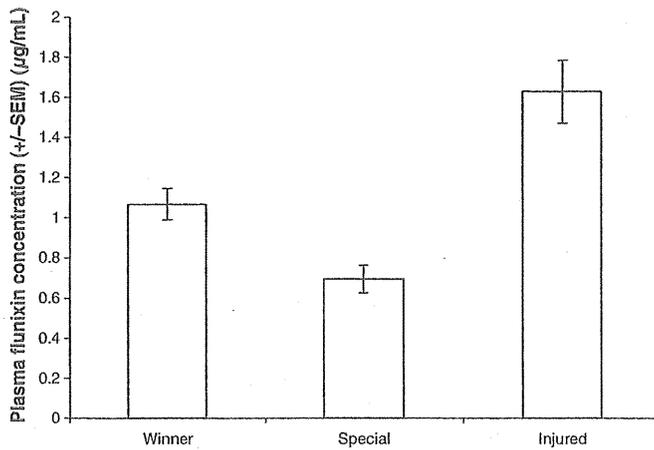


Fig. 4. Mean plasma concentrations ( $\mu\text{g/mL}$ ,  $\pm\text{SEM}$ ) of flunixin in winner, special, and injured horses.

flunixin in catastrophic cases was  $1.923 \mu\text{g/mL} \pm 0.289$  (SEM) and in noncatastrophic cases was  $1.403 \mu\text{g/mL} \pm 0.167$  (SEM).

Among 157 injured horses (catastrophic and noncatastrophic), 30 (about 19%) horses did not have flunixin in their plasma samples. Of 30 injured horses, 14 were in the catastrophic group and 16 were in the noncatastrophic group. One hundred and twenty seven injured horses had apparent plasma concentrations of flunixin of greater than  $0.1 \mu\text{g/mL}$ , which is likely a pharmacologically effective plasma concentration of flunixin (Fig. 5a). Ten of these injured horses had apparent plasma concentration of flunixin greater than  $3.55 \mu\text{g/mL}$ . Figure 5b shows a frequency distribution of plasma concentrations of apparent flunixin in plasma samples of winning horses. Of 157 horses, 45 (about 29%) cases did not have flunixin in their plasma samples. One hundred and eleven horses had apparent plasma concentrations of flunixin between  $0.1$  and  $3.55 \mu\text{g/mL}$ , while one horse had between  $3.56$  and  $7 \mu\text{g/mL}$ . Figure 5c shows a frequency distribution of apparent plasma concentrations of flunixin in plasma samples of special horses. Seventy horses (about 45%) did not have any detectable level of flunixin in their plasma samples, while the remaining 87 horses had apparent plasma concentrations of flunixin between  $0.1 \mu\text{g/mL}$  and  $3.55 \mu\text{g/mL}$ .

Apparent plasma concentrations of flunixin in injured (101/157,  $P < 0.0001$ ) and winner horses (84/157,  $P = 0.010$ ) were significantly greater than in special horses. The proportion of races in which the concentrations of flunixin in injured horses exceeded the concentrations in winner horses did not differ significantly from 50% (81/157,  $P > 0.2$ ). Compared to special horses, the odds ratio for flunixin to be greater than  $0.1 \mu\text{g/mL}$  was significantly greater than 1 ( $P < 0.01$ ) for both winner and injured horses. The odds ratio was not significant for injured compared to winner horses ( $P = 0.063$ ).

Most horses did not have a detectable level of naproxen in their plasma samples. The average apparent plasma

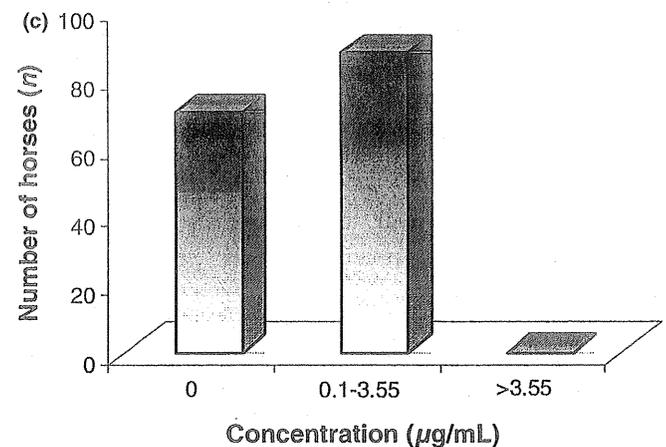
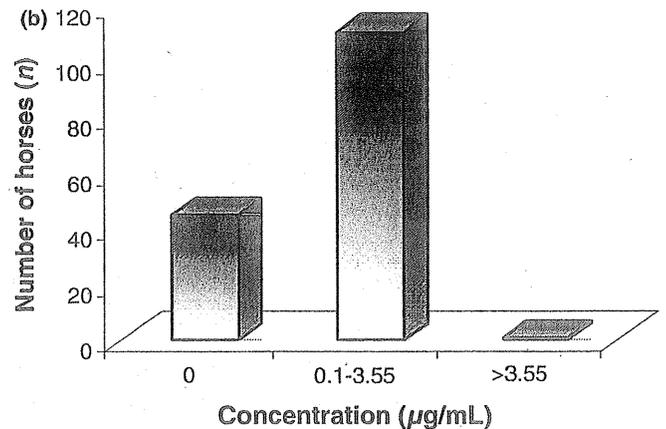
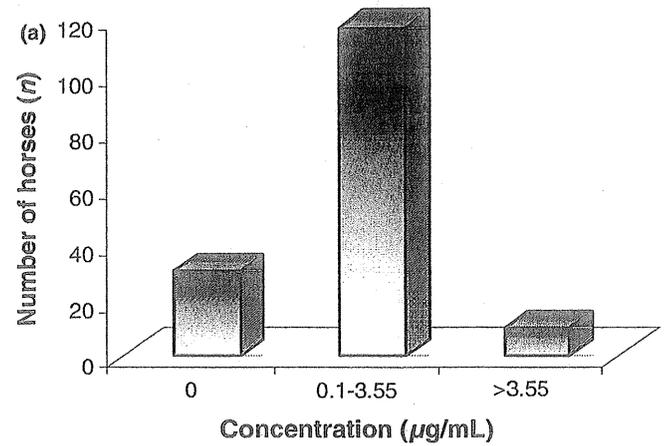


Fig. 5. Frequency distribution of apparent flunixin concentrations in plasma samples from injured horses (a), winning horses (b), and special horses (c).

concentration of naproxen in injured horse cases was  $0.358 \mu\text{g/mL} \pm 0.229$  (SEM), in winning horse cases was  $0.075 \mu\text{g/mL} \pm 0.04$  (SEM), and in special horse cases was  $0.127 \mu\text{g/mL} \pm 0.104$  (SEM) (Fig. 6). The average apparent plasma concentration of naproxen in catastrophic cases was  $0.026 \mu\text{g/mL} \pm 0.014$  (SEM) and in noncatastrophic cases was  $0.618 \mu\text{g/mL} \pm 0.407$  (SEM).

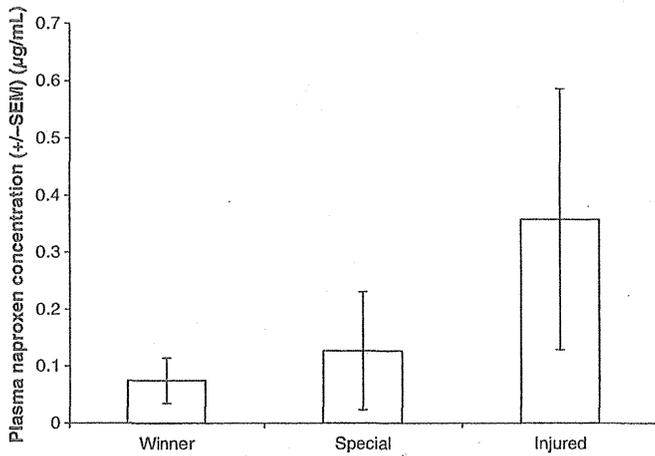


Fig. 6. Mean plasma concentrations (µg/mL, ±SEM) of naproxen in winner, special, and injured horses.

Of injured horse cases (catastrophic and noncatastrophic cases), 145 (~92%) cases did not have naproxen in their plasma samples. Eight horses had between 0.1 and 0.350 µg/mL, one horse had 0.852 µg/mL, and three horses had over 8 µg/mL (8.9, 11.3, 33.1 µg/mL) of naproxen concentrations in their plasma samples (Fig. 7a). In winning horse cases, 147 (~94%) cases did not have naproxen in their plasma samples. Six cases had between 0.1 and 0.35 µg/mL, one case had 0.550 µg/mL, and three cases had over 1 µg/mL (1.53, 3.83, 4.77 µg/mL) of naproxen in their plasma samples (Fig. 7b). In special cases, 146 (~93%) cases did not have any detectable level of naproxen in their plasma samples. Eight cases had between 0.1 and 0.350 µg/mL, one case had 0.406 µg/mL and two cases had over 1 µg/mL (1.96, 16.2 µg/mL) of naproxen in their plasma samples (Fig. 7c). As majority of the horses did not have detectable level of naproxen in their plasma samples, the statistical analysis was not performed for apparent naproxen concentrations in study animals.

DISCUSSION AND CONCLUSIONS

Even though the awareness and concern about race-related injuries have increased within the racing industry and general public, there are few studies on the potential causes of racing and training injuries. Identification of the alterable risk factors could provide methods for preventing or controlling racing injuries. Even though studies have attempted to evaluate the risk factors associated with musculoskeletal injuries in racing horses, it is believed that the overall number of injuries has increased rather than decreased in the past decade despite the modern treatment and diagnosis methods in equine medicine.

Nonsteroidal anti-inflammatory agents belong to various chemical classes, although most of them are organic acids and have in common anti-pyretic, analgesic, and anti-inflammatory activity. Because of potent anti-inflammatory actions, NSAIDs have been used widely for the treatment of musculoskeletal disease in performance horses. Phenylbutazone is the most

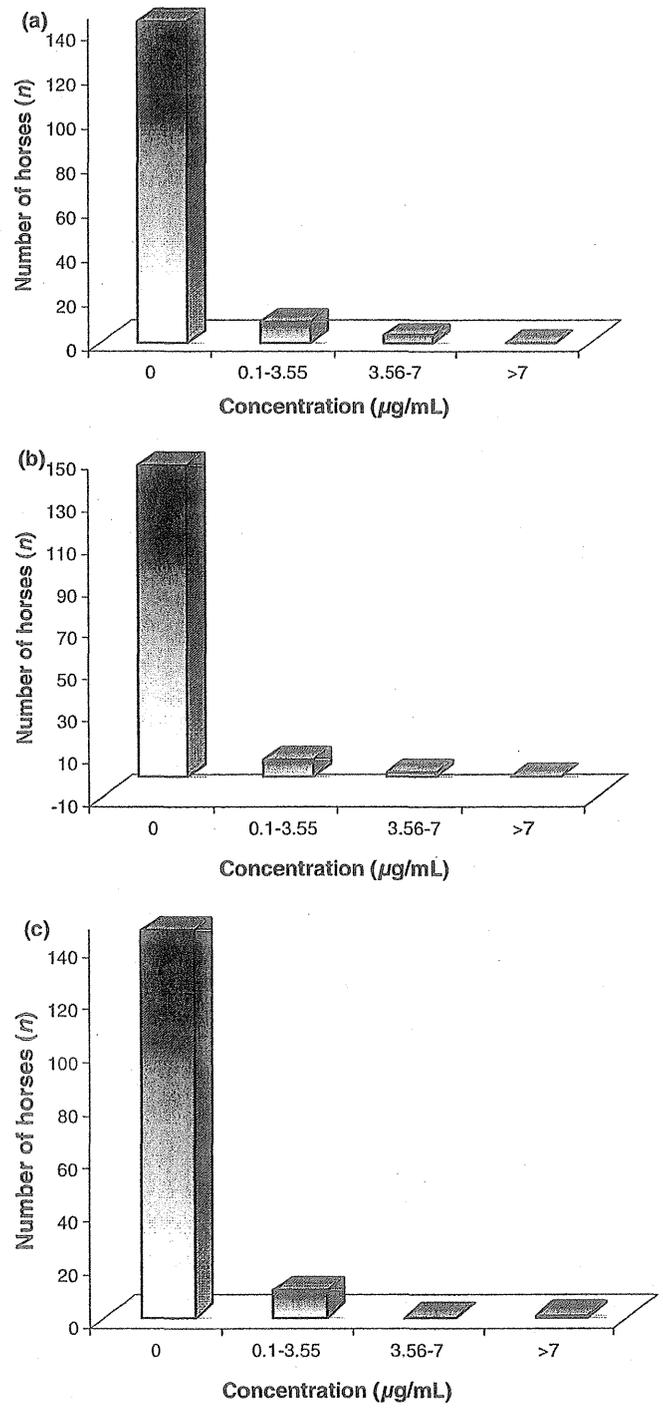


Fig. 7. Frequency distribution of apparent naproxen concentrations in plasma samples from injured horses (a), winning horses (b), and special horses (c).

commonly used NSAID in the USA; it is generally used during the training program of horses, but horses generally are not allowed to race on pharmacologically effective levels of this drug.

Nonsteroidal anti-inflammatory agents simply block the synthesis of prostaglandin and reduce the hypersensitivity of the inflamed tissue to pain, eventually normalizing inflamed tissue. Analgesic effects of this group of drug are different from

local anesthetics and narcotic analgesics. Unlike local and narcotic analgesics, NSAIDs do not block the pain perception, and because of this reason, it is believed that NSAID treatment, especially with phenylbutazone, should not be considered as a risk factor in musculoskeletal injuries of racing Thoroughbred horses. It has also been reported that during the 1970's, statistical results from California showed that the incidence of breakdowns among Thoroughbred racehorses stayed constant, and during that period the use of phenylbutazone was legalized and the percentage of horses running on phenylbutazone was increased. On the other hand, it should be kept in mind that some prostaglandins play important roles in the early phase of bone healing (Rohde *et al.*, 2000). It has been suggested that a local increase of prostaglandins concentrations is a response of bone to trauma, and prostaglandins may stimulate differentiation and proliferation of osteoprogenitor cells during early bone healing.

There are no reports about flunixin-induced musculoskeletal injuries in Thoroughbred racehorses. Flunixin, however, has a potent analgesic component that is reportedly stronger than other NSAIDs, such as phenylbutazone, and is even more potent than some narcotic agents, such as pentazocine, meperidine or codeine (Ciofalo *et al.*, 1977). These potent analgesic effects could be a possible risk factor in musculoskeletal injury of racing horses. It has been reported that daily dose of 5 g naproxen during training to 25 yearling Quarter horse colts reduced the overall frequency of musculoskeletal injuries dramatically by four-fold during the training phase and by thirty-fold during the racing phase compared with 25 untreated control horses (Hamm, 1978). Therefore, treatment with naproxen is not considered as a possible risk factor in musculoskeletal injuries of racehorses.

In this study, most of the horses in the injured, winning, and special groups did not have any detectable concentrations of naproxen in their plasma samples. On the other hand, average apparent plasma concentrations of flunixin and phenylbutazone in injured horses were higher than that in both winning and special horse categories. But the majority of the horses in injured, winning, and special group (70%, 78%, 75%, respectively) had apparent plasma concentrations of phenylbutazone less than 7 µg/mL. On the other hand, majority of the horses in injured group (81%) had apparent plasma concentration of flunixin at or greater than 0.1 µg/mL, which is likely the minimal effective concentration of flunixin (Dr. Thomas Tobin, personal communication, Lexington, KY). Seventy-one percent and 55% of the horses in the winning and special groups had apparent plasma concentrations of flunixin at or greater than 0.1 µg/mL, respectively.

There is little information on the effects of NSAIDs on articular cartilage metabolism. Most of the research has only concentrated on anti-inflammatory actions of this group of agents in the equine cartilage model. The adverse effects of this group of agents in equine articular cartilage are therefore not known. Studies conducted on isolated chondrocytes and cartilage explants have shown that in the presence of NSAIDs, there was a reduction in the rate of glycosaminoglycan synthesis

(Muir *et al.*, 1988), and the secretion of completed proteoglycan (Adolphe, 1986). It is known that the proteoglycan content of joint cartilage accounts for its elasticity and ability to resist compression. It has also been reported that indomethacin at relatively high doses inhibits chondrocyte division in rabbit cell monolayer cultures (Hunter *et al.*, 1984) and salicylate suppressed the augmented proteoglycan synthesis in canine osteoarthritic cartilage *in vitro* (Palmoski *et al.*, 1980). Based on an *in vitro* human chondrocytes study, it has been suggested that naproxen does not have deleterious effects on articular chondrocytes (Bassleer *et al.*, 1992). A recent report examined the effects of continuous oral administration of phenylbutazone on serum and synovial fluid biomarkers of skeletal matrix metabolism in horses (Fradette *et al.*, 2007). It was shown that phenylbutazone significantly increased the concentration of osteocalcin in synovial fluid compared to a control group. The results of this study suggested an undetermined anabolic effect of phenylbutazone administration on periarticular bone or a transient induction of osteogenesis in articular chondrocytes or a mesenchymal subpopulation of synoviocytes. It has also been shown that phenylbutazone decreases the mineral apposition rate in cortical bone and appeared to decrease the healing rate of cortical defects in horses (Rohde *et al.*, 2000). In a related study, it has been shown that oral administration of phenylbutazone for 14 days significantly reduces proteoglycan synthesis in articular culture explants from healthy horses to a degree similar to that induced by *in vitro* exposure to interleukin-1β (IL-1β) (Beluche *et al.*, 2001). This study suggested that phenylbutazone should be used judiciously in athletic horses with osteoarthritis, because chronic administration may suppress proteoglycan synthesis and potentiate cartilage damage.

Most of the studies conducted on the adverse effects of NSAIDs on articular cartilage commonly used normal articular cartilage explants, and these studies were conducted *in vitro*. Further research must be conducted by using the diseased articular cartilage and *in vivo* studies to determine the possible effects of NSAIDs in an equine cartilage model. It has been reported that NSAID effects on cartilage metabolism could be different, related to whether cartilage was taken from weight-bearing or non-weight-bearing locations and also related to the disease state of the cartilage (Palmoski & Brandt, 1983). It could be possible that NSAID's effects on articular cartilage could be detrimental because of inhibition of proteoglycan synthesis especially in the presence of degenerative joint disease as is the case with the known effects of corticosteroids.

As mentioned, because little information is available on the adverse effects of NSAIDs on articular cartilage and the higher amounts of NSAIDs (especially flunixin and phenylbutazone in injured horses plasma samples), it is possible that this group of drugs (if administered repeatedly) could change the articular cartilage metabolism resulting in instability of the treated joints. It is also possible that the amount of drugs in plasma could indicate a possible role of this group of drug (especially for flunixin and phenylbutazone) in musculoskeletal injuries of racehorses because the average concentrations of these two drugs were higher in injured horses. Phenylbutazone is

characterized by a narrow therapeutic index in horses. The proposed therapeutic concentration of phenylbutazone in horses is 7 µg/mL (Jenny *et al.*, 1979). On the other hand, a majority of injured horses had a plasma concentration of phenylbutazone less than 7 µg/mL, which is the proposed minimal effective blood concentration of phenylbutazone. Additionally, it is known that NSAIDs are mainly used in the treatment of a variety of musculoskeletal problems in performance horses. It could be possible that these horses had preexisting pathological conditions that were not severe before the race, that these changes could have been accentuated during the race because of application of additional force, and were then observed as musculoskeletal injuries by a commission veterinarian of the KRC. As mentioned before, horses with pre-race pathologic conditions are at an increased risk of musculoskeletal injuries, and therefore, injuries observed in this study might be the results of these pathologic conditions and not the results of medication.

At the time of this study, we were not able to control the sample collection sites from the study animals. Therefore, we must add the caveat that some of these samples might have been collected from the sites where the medication was administered, which could significantly affect the results and conclusions of this study. However, it is our suspicion that any such samplings errors, if they exist, were distributed randomly throughout our sample population. In conclusion, further studies must be designed to determine whether higher plasma concentrations of NSAIDs can truly be associated with an increased risk of musculoskeletal injuries. It is very clear that other possible risk factors (age, racetrack surface, length of race, gender, training program, preexisting pathologic conditions, etc) contribute to musculoskeletal injuries of horses, and these must be eliminated and/or must be similar for each individual horse in future studies to determine the role of NSAIDs as a possible risk factor in musculoskeletal injuries of racehorses.

#### ACKNOWLEDGMENTS

Supported by grants entitled 'Thresholds and clearance times for therapeutic medications in horses' funded by The Equine Drug Council and The Kentucky Racing Commission, Lexington, KY and by research support from the National, Florida, and Nebraska Horsemen's Benevolent and Protective Associations, Mrs. John Hay Whitney, and the Ministry of National Education of Turkey.

#### REFERENCES

- Adolphe, M. (1986) Articular chondrocytes in culture: applications in pharmacology. *Advances in Cell Culture*, 5, 19-37.
- Axelsson, M., Bjornsdottir, S., Eksell, P., Haggstrom, J., Sigurdsson, H. & Carlsten, J. (2001) Risk factors associated with hind limb lameness and degenerative joint disease in the distal tarsus of Icelandic horses. *Equine Veterinary Journal*, 1, 84-90.
- Bassleer, C., Henrotin, Y. & Franchimont, P. (1992) Effects of sodium naproxen on differentiated human chondrocytes cultivated in clusters. *Clinical Rheumatology*, 11, 60-65.
- Beluche, L.A., Betone, A.L., Anderson, D.E. & Rohde, C. (2001) Effects of phenylbutazone on bone activity and formation in horses. *American Journal of Veterinary Research*, 62, 1916-1921.
- Cheney, J.A., Shen, C.K. & Wheat, J.D. (1973) Relationship of racetrack surface to lameness in Thoroughbred racehorses. *American Journal of Veterinary Research*, 39, 1285-1289.
- Ciofalo, V.B., Latranyi, M.B., Patel, J.B. & Taber, R.I. (1977) Flunixin: a non-narcotic analgesic. *The Journal of Pharmacology and Experimental Therapeutics*, 200, 501-507.
- Cohen, N.D., Peloso, J.G., Mundy, G.D., Fisher, M., Holland, R.E., Little, T.V., Misheff, M.M., Watkins, J.P., Honnas, C.M. & Moyer, W. (1997) Racing-related factors and results of pre race physical inspection and their association with musculoskeletal injuries incurred in Thoroughbreds during races. *Journal of American Veterinary Medical Association*, 211, 454-463.
- Cohen, N.D., Mundy, G.D., Peloso, J.G., Carey, V.J. & Amend, N.K. (1999) Results of physical inspection before races and race-related characteristics and their association with musculoskeletal injuries in Thoroughbreds during races. *Journal of American Medical Association*, 5, 654-661.
- Estberg, L., Stover, S.M., Gardner, I.A., Johnson, B.J., Case, J.T., Ardans, A., Read, D.H., Anderson, M.L., Barr, B.C., Daft, B.M., Kinde, H., Moore, J., Stoltz, J. & Woods, L.W. (1996) Fatal musculoskeletal injuries incurred during racing and training in Thoroughbreds. *Journal of American Veterinary Medical Association*, 208, 92-96.
- Fradette, M.E., Celeste, C., Richard, H., Beauchamp, G. & Laverty, S. (2007) Effects of continuous oral administration of phenylbutazone on biomarkers of cartilage and bone metabolism in horses. *American Journal of Veterinary Research*, 68, 128-133.
- Fredricson, I.A., Berguist, A., Bjorne, K., Hjerten, G. & Alm, L.O. (1982) Racing on hardwood fiber tracks. *Thoroughbred Racing*, 215, 501-510.
- Hamm, D. (1978) Continuous administration of naproxen to the horse during training. *Journal of Equine Medicine and Surgery*, 2, 125-128.
- Hernandez, J., Hawkins, D.L. & Scollay, M.C. (2001) Race-start characteristics and risk of catastrophic musculoskeletal injury in Thoroughbred racehorses. *Journal of American Medical Association*, 1, 83-86.
- Hill, T.D., Carmicheal, D., Maylin, G. & Krook, M. (1986) Track condition and racing injuries in Thoroughbred horses. *Cornell Veterinarian*, 76, 361-379.
- Hill, A.E., Stover, S.M., Gardner, I.A., Kane, A.J., Whitcomb, M.B. & Emerson, A.G. (2001) Risk factors for and outcomes of nancatastrophic suspensory apparatus injury in Thoroughbred racehorses. *Journal of American Medical Association*, 7, 1136-1144.
- Hunter, T., Duncan, S., Dew, G. & Reynolds, J. (1984) The effects of antirheumatic drugs on the production of collagenase and tissue inhibitor of metalloproteinases (TIMP) by stimulated rabbit articular chondrocytes. *Journal of Rheumatology*, 11, 9-13.
- Jenny, E., Steijnans, V.W. & Seifert, P. (1979) Pharmacokinetic interaction of isopropylaminophenazone and phenylbutazone in the horse. *Journal of Veterinary Pharmacology and Therapeutics*, 2, 101-108.
- Mohammed, H.O., Hill, L. & Lowe, J. (1991) Risk factors associated with injuries in Thoroughbred horses. *Equine Veterinary Journal*, 23, 445-448.
- Muir, H., Carney, S.L. & Hall, L.G. (1988) Effects of tiaprofenic acid and other NSAIDs on proteoglycan metabolism in articular cartilage explants. *Drugs*, 35, 15-23.

- Mundy, G.D. (1997) Review of risk factors associated with racing injuries. *Proceedings of the 43rd Annual Convention of the Association of American Equine Practitioners*, pp. 204–210, Phoenix, AZ.
- Palmoski, M.J. & Brandt, K.D. (1983) Benoxaprofen stimulates proteoglycan synthesis in normal canine knee cartilage in vitro. *Arthritis Rheumatism*, **26**, 771–774.
- Palmoski, M.J., Colyer, R.A. & Brandt, K.D. (1980) Marked suppression by salicylate of the augmented proteoglycan synthesis in osteoarthritic cartilage. *Arthritis and Rheumatism*, **23**, 83–91.
- Peters, J.E. (1940) Lameness incident to training and racing of the Thoroughbred. *Journal of American Veterinary Medical Association*, **96**, 200–209.
- Pratt, G.W. & O'Connor, J.T. Jr (1976) Force plate studies of equine biomechanics. *American Journal of Veterinary Research*, **37**, 1251–1255.
- Pratt, G.W. & O'Connor, J.T. Jr (1978) A relationship between gait and breakdown in the horse. *American Journal of Veterinary Research*, **39**, 249–253.
- Rohde, C., Anderson, D.E., Bertone, A.L. & Weisbrode, S. (2000) Effects of phenylbutazone on bone activity and formation in horses. *American Journal of Veterinary Research*, **61**, 537–543.
- Stover, S.M., Johnson, B.J., Daft, B.M., Read, D.H., Anderson, M., Barr, B.C., Kinde, H., Moore, J., Stoltz, J. & Ardans, A.A. (1992) An association between complete and incomplete fractures of the humerus in race horses. *Equine Veterinary Journal*, **24**, 260–263.
- Williams, R.B., Harkins, L.S., Hammond, C.J. & Wood, J.L. (2001) Racehorse injuries, clinical problems and fatalities recorded on British racecourses from flat racing and national Hunt racing during 1996, 1997 and 1998. *Equine Veterinary Journal*, **5**, 478–486.

DISCUSSION AND ACTION BY THE BOARD REGARDING THE  
PROPOSED ADDITION OF CHRB RULE 1844.1, SUSPENSION OF AUTHORIZED  
MEDICATION, TO ALLOW THE BOARD TO SUSPEND THE AUTHORIZATION  
FOR ANY AUTHORIZED MEDICATION AFTER NOTIFICATION AT A  
PROPERLY NOTICED PUBLIC HEARING.

Regular Board Meeting  
February 17, 2011

BACKGROUND

CHRB regulations prohibit the administration of any drug, substance or medication after entry time with a few specific exceptions. The exceptions were established after due consideration by the Board based on information available at the time the regulations were adopted. Scientific information and practical experience in managing the threshold levels for the exceptions change over time as unintended consequences become apparent. Clenbuterol in Quarter Horse racing is an example. Clenbuterol is a beta-2 agonist approved by the FDA in equines as a bronchodilator.

The Board established threshold levels consistent with therapeutic use to treat small airway disease. Clenbuterol, like all beta-2 agonists, has an effect an adrenergic effect on muscle somewhat similar to anabolic steroids. Only the Ventipulmin brand of clenbuterol is approved by the FDA. Non-FDA approved clenbuterol at extremely high concentrations is being used in Quarter Horse racing for the adrenergic effect. The CHRB has confiscated and otherwise obtained samples of this illicit formulation. Clenbuterol violations have occurred at levels unattainable with the FDA approved formulation at FDA approved dosages.

The American Quarter Horse Association nationally, Los Alamitos and the Pacific Coast Quarter Horse Racing Association are considering asking racing jurisdiction to prohibit clenbuterol in Quarter Horse racing. The proposed addition of Rule 1844.1 will allow the Board to suspend the authorization for any authorized medication after notification at a properly noticed public. This rule would allow the Board to specifically suspend the authorization for clenbuterol, in this example, in Quarter Horse racing at Los Alamitos. The rule is generic allowing the Board to suspend authorization for other permitted drug, substance or medication. This rule will allow the Board to respond relatively quickly to authorize medication issues with specific circumstances and after a public hearing.

RECOMMENDATION:

Staff recommends the Board direct staff to initiate a 45-day public comment period for the proposed addition of Rule 1844.1

CALIFORNIA HORSE RACING BOARD  
TITLE 4. CALIFORNIA CODE OF REGULATIONS  
ARTICLE 15. VETERINARY PRACTICES  
PROPOSED ADDITION OF  
RULE 1844.1. SUSPENSION OF AUTHORIZATION OF MEDICATION

Regular Board Meeting  
February 17, 2011

1844.1 Suspension of Authorization of Medication

(a) The Board may, after a properly noticed public hearing, temporarily suspend authorization for any drug, substance or medication. The suspension of authorization of a drug, substance or medication may be for a race, breed, meet, or other criteria the board may impose provided all horses in the same race compete under the same conditions. A suspension of authorization for a drug, substance or medication shall not exceed 12 months.

STAFF ANALYSIS  
DISCUSSION AND ACTION BY THE BOARD REGARDING  
THE PROPOSED ADDITION OF  
CHRB RULE 1500.1, RANDOM DRUG TESTING, TO ALLOW  
RANDOM DRUG TESTING OF JOCKEYS AND APPRENTICE JOCKEYS  
UNDER SPECIFIED CONDITIONS, AND THE PROPOSED AMENDMENT OF  
CHRB RULE 1498, PHYSICAL EXAMINATION, TO REQUIRE  
DRUG SCREENING DURING THE ANNUAL JOCKEY PHYSICALS

Regular Board Meeting  
February 17, 2011

## BACKGROUND

Business and Professions Code section 19420 provides that the Board has jurisdiction and supervision in this State where horse races with wagering on their results are held or conducted, and over all persons or things having to do with the operation of such meetings. Business and Professions Code section 19440 states the Board shall have all powers necessary and proper to enable it to carry out fully and effectually the purposes of this chapter. Responsibilities of the Board include, but are not limited to, adopting rules and regulations for the protection of the public and the control of horse racing. Business and Professions Code section 19460 provides that all licenses granted under this chapter are subject to all rules, regulations, and conditions from time to time prescribed by the Board, and shall contain such conditions as are deemed necessary or desirable by the Board for the purposes of this chapter. Business and Professions Code section 19520 states every person who participates in, or has anything to do with the racing of horses shall be licensed by the Board pursuant to rules and regulations that the Board may adopt.

At its January 2010 Regular Meeting the Board discussed random drug testing of California licensed jockeys. The Board learned that several jurisdictions conduct drug testing; of the racing jurisdictions surveyed, Illinois, Louisiana and Delaware conduct random drug testing of jockeys or other licensees. In New York licensees are subject to testing upon the request of a steward or paddock judge. In addition, the Association of Racing Commissioners International (ARCI) Model Rules provides for drug testing that includes random tests. The item was put over so a draft of a proposed text could be developed. The proposal to add Rule 1500.1, Random Drug Testing, was discussed again at the August 2010 Regular Board Meeting. At that time, Commissioner Harris requested that Rule 1498, Physical Examination, be amended to require a drug test during the annual jockey physicals. At its December 2010 Regular Meeting the Board discussed random drug testing of California licensed jockeys and apprentice jockeys. Staff informed the Board that the Jockey's Guild (Guild) indicated its support for the concept, but the Guild had a number of specific questions and concerns. The Board directed staff to continue to work in conjunction with the Guild on the text of the proposed regulations. Staff met with a Guild representative in January 2011 and reviewed the proposed regulations. At the January 2011 Regular Board Meeting, staff gave an overview of its progress in developing the regulations.

## ANALYSIS

The proposed addition of Rule 1500.1 provides a framework under which California jockeys and apprentice jockeys may be subjected to random drug testing. The proposed regulation states that jockeys and apprentice jockeys are subject to random drug testing as well as testing for cause, and that failure to submit to or to complete a drug test constitutes a refusal to be tested. Jockeys or apprentice jockeys who refuse a drug test shall immediately be prohibited from riding in any race at a racetrack under the jurisdiction of the Board until a negative test result is achieved. Other states provide for suspending licensees who fail to be tested. Illinois requires an immediate suspension of no more than 30 days while Louisiana's regulations provide for a minimum 90-day suspension for licensees who fail (for the first time) to submit to a test. New York provides for a fine and suspension of license without specifying the amount of the fine, or the duration of the suspension.

The proposed regulation states random drug testing will be conducted on an unannounced basis, before or after the performance of duties. Persons to be tested will be chosen from among jockeys and apprentice jockeys whose names appear on the official program the day random drug testing is conducted. The regulation requires the stewards to draw not more than nine names, and if a name is selected more than once during a race meeting, it shall be eliminated and another selection made. The number of names to be drawn was based on the daily limit of 8.6 races a day that may be run at thoroughbred race meetings. Choosing up to nine names, however, does not mean that one jockey per race will be tested, as the draw is random, and the stewards may choose to draw fewer than nine names. Representatives of the Guild may be present and witness the drawing of names. The proposed method of selecting persons to be tested is a synthesis of Illinois and Delaware rules.

The frequency of random drug testing will depend on the duration of the race meeting. For race meeting of up to five months, random drug testing shall occur at least once during the meeting. If a race meeting lasts six months or more, random drug testing shall occur at least twice during the meet. For the purpose of the regulation, the Northern California Fair circuit shall be considered one race meeting. These minimum requirements mean that most race meetings, including the combined fair race meetings, which are considered as one race meeting under the proposed regulation, will have at least one race card with random drug testing. The longer Los Alamitos meeting will have at least two race cards with random drug testing.

Subsection 1500.1(b)(1) provides a definition of "Board approved laboratory" and "Board approved independent laboratory." These are laboratories that are certified by the United States Department of Health and Human Services under the National Laboratory Certification Program as meeting the minimum standards to engage in urine drug testing for federal agencies. This provides a standard that ensures the laboratories adhere to strict federal guidelines. The list of qualified laboratories is updated monthly on the

federal register. Laboratories that do not continue to meet the federal criteria are dropped.

Subsection 1500.1(b)(2) lists the prohibited drugs or classes of drugs that each urine specimen will be tested for. The drugs or classes of drugs are: marijuana metabolites; cocaine metabolites; amphetamines; opiate metabolites; and phencyclidine (PCP). These are the classes of prohibited drugs for which the United States Department of Transportation (DOT) tests. When the Guild representative and staff met in January 2011, the parties agreed to use the DOT list of prohibited drugs.

The proposed regulation provides for a split sample program, and a method of informing the jockey or apprentice jockey if a positive finding of a prohibited drug is reported. The jockey or apprentice jockeys will have the option of requesting the testing of the split sample provided he or she pays for the transporting and testing of the split. The results of the drug test and the split sample test are confidential and will remain confidential unless or until the Board files an official complaint or accusation. While the proposed split sample provisions are modeled on California's equine split sample program outlined in Board Rule 1859.25, Split Sample Testing, many racing jurisdictions provide for a human split sample. Delaware, Illinois and Louisiana provide for split sample testing as does the ARCI Model Rule. In all cases the split results from urine samples.

Under subsection 1500.1(d)(1), a report of a positive test will result in the jockey or apprentice jockey being immediately prohibited from riding in any race at a facility under the jurisdiction of the Board. This action was supported by the Guild representative. The jockey or apprentice jockey shall have 72 hours from the date he or she is notified to request that the split sample be tested by an independent Board approved laboratory. The 72 hour limit is consistent with federal regulations, and allows for a three-day window in which the jockey may make his or her decision.

Subsection 1500.1(i) provides that the Board may take into consideration the possession of a valid and current Medical Marijuana Program Identification Card issued in accordance with the California Department of Public Health in determining whether or not it will file an official complaint or accusation against a jockey or apprentice jockey who test positive for marijuana metabolites. This provides some leeway for the jockey or apprentice jockey who can demonstrate a valid medical reason for the presence in the test sample of the otherwise prohibited drug.

Finally, subsection 1500.1(j) of the proposed regulation reserves the right to direct a jockey or apprentice jockey to submit to a drug test by methods including, but not limited to, blood, hair follicle or skin. This provides the Board with flexibility in testing methods should it determine it wishes to go beyond urine – especially when testing for cause. In the past, the Board has required testing by such methods as hair, and it has had a contract with a laboratory to draw blood. Delaware allows licensees to opt for a blood test rather than urine, and it allows the racing commission to require “any other test” as directed.

The proposed amendment to Rule 1498 provides that the annual jockey physical examination shall include a drug test to screen for substances as described in Rule 1500.1, subsection (b)(2)(A) through (b)(2)(E). This is the list of prohibited drugs the Board will test for under its random drug testing program. The proposed amendment to Rule 1498 also states that the drug tests shall be conducted in accordance with the provisions of subsections (b) through (j) of Rule 1500.1. This will ensure that jockeys and drivers have the availability of a split sample, and will be subject to the same notification protocol, as well as the rights and responsibilities provided under Rule 1500.1. Annual jockey physicals currently include drawing blood for a comprehensive blood panel – of the type one normally experiences during routine physical examinations. The race track physician at Golden Gate Fields stated the additional work of drawing blood or taking urine to test for drug use would be considered minimal.

The proposed amendment to Rule 1498 would result in every jockey and apprentice jockey being tested for drug use at least once a year. Quest Diagnostics, the Board approved laboratory, charges approximately \$29.00 per human urine specimen. As of December 1, 2010, the CHRB licensed 321 jockeys and 38 apprentice jockeys for a total of 359 licensees who would be subject to testing under the proposed regulations. If during the annual physicals (which are paid by the racing associations) every licensed jockey were tested, the cost would be upwards of \$10,411 (The cost of random drug testing would depend on the number of random drug tests conducted throughout the year, and would be paid by the CHRB).

Staff contacted Delaware, Illinois and Louisiana to determine if the states experienced any problems with their random drug testing programs. None of the jurisdictions reported any particular issues with their programs. However, Illinois has ceased its random program due to budget constraints. Louisiana, which has been conducting random drug testing since 1987, did report that it experienced instances of jockeys using sophisticated devices to provide untainted urine, and to deceive those who supervise the collection of test samples.

#### RECOMMENDATION

Staff recommends the Board direct staff to initiate a 45-day public comment period for the proposed addition of Rule 1500.1 and the proposed amendment of Rule 1498.

February 8, 2011

Keith Brackpool  
Chairperson  
California Horse Racing Board  
1010 Hurley Way, Suite 300  
Sacramento, CA 95825

RE: CHRB Rule 1500.1, Random Drug Testing

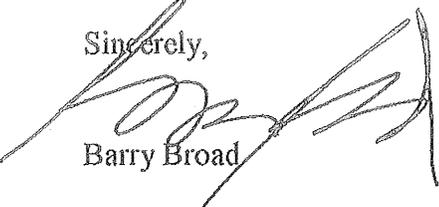
Dear Chairperson Brackpool:

I have reviewed the revised proposed regulations regarding jockey drug testing and I am pleased to inform you that, as a result of your Staff's modifications of the language, the Jockeys' Guild is now in a position to remove any objections to their adoption by the Board provided one issue is clarified.

The regulations are silent as to who pays for the drug screens, with the exception of split sample testing requested by a jockey, who would be responsible for paying for the cost of testing the split sample. Impliedly, this suggests that the jockey is not responsible for payment of the rest of the program. While we are agnostic on the question of who should pay for the testing, it must not be the jockey. There are no drug testing systems in the United States that require the "employee" to pay for their own testing and we would strongly object if such a requirement was imposed on our members.

Thank you for the opportunity to comment.

Sincerely,



Barry Broad

cc: Terry Meyocks, Jockeys' Guild  
Darrell Haire, Jockeys' Guild

CALIFORNIA HORSE RACING BOARD  
TITLE 4. CALIFORNIA CODE OF REGULATIONS  
ARTICLE 4. OCCUPATIONAL LICENSES  
PROPOSED ADDITION OF  
RULE 1500.1. RANDOM DRUG TESTING

Regular Board Meeting  
February 17, 2011

1500.1. Random Drug Testing.

(a) To ensure the safety and integrity of horse racing, jockeys and apprentice jockeys are subject to random drug testing, as well as testing based upon reasonable suspicion, as provided in this Division. Failure to submit to or to complete a drug test at the time, location, and manner directed by the Board or its representatives shall constitute a refusal to be tested. A jockey or apprentice jockey who fails to submit to or to complete a drug test shall immediately be prohibited from riding in any race at a facility under the jurisdiction of the Board until a negative test result is achieved.

(1) Random drug testing shall be conducted on an unannounced basis before, or after the performance of duties. The names of all jockeys and apprentice jockeys who appear on the official program the day random drug testing is conducted shall be placed in a secured container which shall be in the custody of the stewards. Prior to the first race of the program, the stewards shall draw not more than nine names. If a name is selected more than once during a race meeting, it shall be eliminated and another selection made.

(2) Representatives of the Jockey's Guild may attend and witness the random selection of names.

(3) For race meetings with duration of up to five months, random drug testing shall occur at least once during the course of the meeting. For the purposes of this regulation, the Northern California fair circuit shall be considered as one race meeting.

3-7

(4) For race meetings with duration of six or more months, random drug testing shall occur at least twice during the course of the meeting.

(b) Each urine specimen received from a jockey or apprentice jockey shall be divided into two separate parts. One portion shall be designated as the official jockey test sample and shall be tested by a Board approved official laboratory. The remaining portion of the specimen shall be known as the jockey split sample and shall be available for testing at a Board approved independent laboratory upon the request of the individual who provided the specimen. The Board makes no guarantees as to the amount of the specimen that will be available for the jockey split sample. All specimens taken by representatives of the Board are under the jurisdiction of and shall remain the property of the Board at all times.

(1) For the purposes of this regulation “Board approved official laboratory” and “Board approved independent laboratory” means a California laboratory certified by the United States Department of Health and Human Services under the National Laboratory Certification Program as meeting the minimum standards to engage in urine drug testing for federal agencies. A list of certified laboratories shall be available at the CHRB headquarters office.

(2) Each urine specimen shall be tested for the following prohibited drugs or classes of drugs:

(A) Marijuana metabolites.

(B) Cocaine metabolites.

(C) Amphetamines.

(D) Opiate metabolites.

(E) Phencyclidine (PCP).

(c) A positive finding for any of the drugs or classes of drugs described in subsection (b)(2)(A) through (b)(2)(E) of this regulation shall immediately and confidentially be reported to the Executive Director or his designee by the Board approved official laboratory. The Board approved official laboratory shall also transmit a confidential written report of the finding to the Executive Director within five working days after the notification is made.

(d) When the Executive Director or his designee is notified of a positive finding by the Board approved official laboratory, the Executive Director or his designee shall notify a supervising investigator. The supervising investigator shall confidentially notify the jockey or apprentice jockey who shall:

(1) Immediately be prohibited from riding in any race at a facility under the jurisdiction of the Board, and

(2) Shall have 72 hours from the date he or she is notified to request that the jockey split sample of the official jockey test sample that was found to contain a prohibited drug or class of drug, be tested by an independent Board approved laboratory.

(e) If the jockey or apprentice jockey wishes to have the jockey split sample tested, he or she shall comply with the following procedures:

(1) The request shall be made on the form CHRB-217 (New 2/11) Request to Release Jockey Split Sample, which is hereby incorporated by reference. Form CHRB-217 shall be made available at all CHRB offices, and at the CHRB website.

(2) The jockey or apprentice jockey requesting to have the jockey split sample tested shall be responsible for all charges and costs incurred in transporting and testing

the jockey split sample. By signing CHR-217 the jockey or apprentice jockey certifies he or she has made arrangements for payment to the designated independent Board approved laboratory for laboratory testing services.

(3) Verification of payment for costs incurred in transporting and testing the jockey split sample must be received by the CHR within five working days from the CHR receipt of CHR-217. If such verification of payment is not received, the jockey split sample will not be released or shipped to the designated independent Board approved laboratory and the jockey or apprentice jockey will have relinquished his/her right to have the split sample tested. If a complaint issues, the only test results that will be considered will be the results from the Board approved official laboratory.

(f) Upon approval by the Executive Director or the Executive Director's designated representative of a valid request on CHR-217, CHR-217A (New 2/11), Authorization to Release Jockey Split Sample Urine Evidence, which is hereby incorporated by reference, shall be completed and the Board shall ensure that the jockey split sample is sent to the designated independent Board approved laboratory for testing.

(1) If the findings by the independent Board approved laboratory fail to confirm the findings of a prohibited drug or class of drug as reported by the Board approved official laboratory, it shall be presumed that a prohibited drug or class of drug was not present in the official jockey test sample.

(2) If the findings by the independent Board approved laboratory confirm the findings of a prohibited drug or class of drug as reported by the Board approved official laboratory, the Executive Director shall confidentially report the findings to the Board

within 24 hours after receiving confirmation of a prohibited drug or class of drug in the jockey split sample.

(g) A jockey or apprentice jockey who fails to request the testing of the jockey split sample in accordance with the procedures specified in this rule shall be deemed to have waived his or her right to have the split sample tested.

(h) Unless or until the Board files an official complaint or accusation, results of the official jockey test sample and the jockey split sample shall be, and shall remain confidential. No test results may be released to any person or organization unless such release is explicitly required under this regulation. Only the Executive Director or the Executive Director's designee, the Board, and the jockey or apprentice jockey shall receive the results.

(i) The Board may take into consideration the possession of a valid and current Medical Marijuana Program Identification Card issued in accordance with the Medical Marijuana Program of the California Department of Public Health in determining whether or not to file an official complaint or accusation against a jockey or apprentice jockey who tests positive for marijuana metabolites.

(j) For the purposes of this regulation, random drug testing shall be accomplished by the taking of urine specimens; however, the Board retains the right to direct a jockey or apprentice jockey to submit to a drug test by methods including, but not limited to, blood, hair follicle or skin.

Authority: Sections 19420, 19440 and 19520,  
Business and Professions Code.

Reference: Sections 19440, 19520 and 19521,  
Business and Professions Code.

STATE OF CALIFORNIA  
REQUEST TO RELEASE JOCKEY TEST  
EVIDENCE  
CHRB- 217 (New 2/11)

CALIFORNIA HORSE RACING BOARD

CONFIDENTIAL

To: CALIFORNIA HORSE RACING BOARD  
Attn: JOCKEY TEST SAMPLE PROGRAM  
1010 Hurley Way, Suite 300  
Sacramento, CA 95825

I am requesting the California Horse Racing Board (CHRB) to release to a Board approved laboratory the

Jockey test sample identified as # \_\_\_\_\_ which has been detected to contain \_\_\_\_\_

I fully understand that I am responsible for all costs incurred by the transporting and testing of the jockey test sample identified as # \_\_\_\_\_ to the laboratory I have chosen:

\_\_\_\_\_  
Laboratory Name and Address

I have enclosed payment of \$ \_\_\_\_\_ to cover costs of materials, packing, shipping and handling.

I have selected and will make payment to the designated laboratory named above, to test the jockey test sample.

I understand that verification of payment for all shipping and laboratory fees must be received by the CHRB within five (5) working days from the date of this form. If such verification of payment is not received, I understand that the jockey test sample will not be released or shipped to the above laboratory and a hearing will be held based on the original confirmation report from the Board approved official laboratory.

\_\_\_\_\_  
Jockey/Apprentice Jockey Signature

\_\_\_\_\_  
Date

( ) \_\_\_\_\_  
Telephone No.

Original: Laboratory  
Duplicate: California Horse Racing Board

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AUTHORIZATION TO RELEASE JOCKEY SPLIT SAMPLE URINE EVIDENCE

To: Custodial Officer of the California Horse Racing Board

Upon the petition and request of: \_\_\_\_\_

You are authorized to retrieve from secure storage the jockey split sample identified as # \_\_\_\_\_ and thereafter to send such sample to:

\_\_\_\_\_  
Laboratory Name and Address

\_\_\_\_\_  
Date

\_\_\_\_\_  
California Horse Racing Board

---

ACKNOWLEDGMENT OF CUSTODIAL OFFICER

This is to confirm that on \_\_\_\_\_ I retrieved from secure storage the Jockey split sample identified as \_\_\_\_\_ and sent such sample to:

\_\_\_\_\_  
Laboratory Name

\_\_\_\_\_  
Laboratory Address

at \_\_\_\_\_ by \_\_\_\_\_  
Time Carrier

\_\_\_\_\_  
Date

\_\_\_\_\_  
Custodial Officer

The Custodial Officer must retain the Request to Release Jockey Test Evidence, CHRB-217, for the evidence log and forward the original document with the return receipt for shipment to the designated laboratory.

CALIFORNIA HORSE RACING BOARD  
TITLE 4. CALIFORNIA CODE OF REGULATIONS  
ARTICLE 4. OCCUPATIONAL LICENSES  
PROPOSED AMENDMENT OF  
RULE 1498. PHYSICAL EXAMINATION

Regular Board Meeting  
February 17, 2011

1498. Physical Examination.

(a) All jockeys, apprentice jockeys, and drivers must pass a physical examination at least once a year before the commencement of the first race meeting of the year in which such jockey, apprentice jockey or driver intends to participate, or at such other time as the Board may direct. Such examination will be given by a doctor designated or approved by the Board, and the examination shall include a visual acuity examination, and a hearing examination.

(b) In addition to subsection (a) above, jockeys and apprentice jockeys shall submit to a drug test to screen for such substances as described in subsections (b)(2)(A) through (b)(2)(E) of Rule 1500.1 of this article.

(1) For the purposes of this regulation, any jockey or apprentice jockey drug test shall be conducted in accordance with the provisions subsections (b) through (j) of Rule 1500.1 of this article.

(c) The Board or the stewards may require that any jockey, apprentice jockey or driver be re-examined at any time, and the Board or the stewards may refuse to allow any jockey, apprentice jockey or driver to ride or drive until he has successfully passed such examination.

Authority: Sections 19420, 19440 and 19520,  
Business and Professions Code.

Reference: Sections 19440, 19520 and 19521,  
Business and Professions Code.

## STAFF ANALYSIS

## DISCUSSION AND ACTION BY THE BOARD REGARDING THE PROPOSED AMENDMENT TO CHRB RULE 1433, APPLICATION FOR LICENSE TO CONDUCT A HORSE RACING MEETING, TO REVISE THE FORM CHRB-17, APPLICATION FOR LICENSE TO CONDUCT A HORSE RACING MEETING, AND THE FORM CHRB-18, APPLICATION FOR LICENSE TO CONDUCT A HORSE RACING MEETING OF A CALIFORNIA FAIR.

Regular Board Meeting  
February 17, 2011

## BACKGROUND

Business and Professions Code section 19440 provides that the California Horse Racing Board (Board/CHRB) shall have all the powers necessary and proper to enable it to carry out fully and effectually the purposes of the Horse Racing Law. Responsibilities of the Board include adopting rules and regulations for the protection of the public and the control of horse racing and pari-mutual wagering. Business & Professions Code section 19480 states that the Board may issue licenses to conduct horse racing meetings. CHRB Rule 1433, Application for License to Conduct a Horse Racing Meeting, provides that every association or fair that intends to conduct a horse racing meeting must file a completed application with the Board at least 90 days prior to its proposed meeting. Forms CHRB-17, Application for License to Conduct a Horse Racing Meeting, and CHRB-18, Application for License to Conduct a Horse Racing Meeting of a California Fair, are incorporated by reference in Rule 1433; therefore, any revisions to the applications would necessitate an amendment to the rule.

Board Rule 1433 was last amended in 2006. In the intervening period of time the industry has experienced changed in the form of new programs, as well as financial uncertainty. The proposed amendment to Rule 1433 will revise the forms CHRB-17 and CHRB-18 to capture information regarding how an association will implement such changes, as well as the financial health of an applicant for license to conduct a horse racing meeting.

## ANALYSIS

Proposed changes to the CHRB-17 include:

Section 1, Applicant Association: This section has been modified to require a contact email address of the applicant racing association.

Sub-section 1E, Applicant Association: Business and Professions Code section 19464 (b) provides that no application for a license to conduct a race meeting shall be granted unless the applicant has deposited with the Board a surety bond in the amount of one hundred thousand dollars, or a greater amount as determined by the Board, which is sufficient to ensure payment of employee wages and benefits including, but not limited to, health, welfare and pension plans. The provision does not apply to an association licensed to operate a horse race meeting prior to

January 1, 2001, which has conducted a race meeting in each of the immediate three previous consecutive calendar years.

The new subsection 1E requires affected association to attach a one hundred thousand dollar surety bond, pursuant to Business and Professions Code section 19464.

Section 4C and 4D, Racing Association: Subsection 4C (9) is amended to require the applicant to disclose, if owned by a parent company, whether the parent guarantees the obligations of the licensee. This will assist the Board in determining who is ultimately financially responsible for the obligations of the applicant. In addition, the subsection is amended to delete the acceptance of consolidated financials of parent owned companies in lieu of audited financial statements for the applicant association. The amendment will require the audited annual financial statements, including balance sheet, profit and loss statement, and statement of cash flow be submitted with the application.

Section 5, Purse Program: Section 5 is amended for clarity to ensure applicant associations are providing purse information that is calculated from the same source.

Section 8, Advance Deposit Wagering (ADW): Amended to capture additional information on the proposed ADW providers, to include whether required contracts and/or approvals have been collected.

Section 15: On-Track Attendance/Fan Development: This section is expanded to include description of promotional plans to be used in conjunction with the California Marketing Committee (CMC).

Section 19. Track Safety: The proposed additions to subsection 19 are in conjunction with the Track Safety program and its intentions of developing and adopting safety standards for evaluation and control of track surfaces. The proposed amendment will require applicant associations to provide information concerning the type of track surface at the facility, including the tracks composition. In addition, information concerning the cross slopes on the curves and straight-aways is required.

Proposed changes to the CHRB-18 include:

Section 1. Applicant Fair Association: This section has been modified to require a contact email address of the applicant fair racing association.

Section 5, Purse Program: Section 5 is amended for clarity to ensure applicant associations are providing purse information that is calculated from the same source.

Section 8, Advanced Deposit Wagering (ADW): Amended to capture additional information on the proposed ADW providers, to include whether required contracts and/or approvals have been collected.

Section 13, Concessionaires and Service Contractors: This section has been expanded to determine if the fair will be providing their own concessions.

Section 14: On-Track Attendance/Fan Development: This section is expanded to include description of promotional plans to be used in conjunction with the California Marketing Committee (CMC).

Section 18, Track Safety: The proposed additions to subsection 18 are in conjunction with the Track Safety program and its intentions of developing and adopting safety standards for evaluation and control of track surfaces. The proposed amendment will require applicant associations to provide information concerning the type of track surface at the facility, including the tracks composition. In addition, information concerning the cross slopes on the curves and straight-aways is required.

Additional proposed amendments to CHRB-17 and CHRB-18 include: format changes, eliminating redundant words and phrases, and required renumbering or lettering as needed.

#### RECOMMENDATION

This item is presented for Board discussion and action.

CALIFORNIA HORSE RACING BOARD  
TITLE 4. CALIFORNIA CODE OF REGULATIONS  
ARTICLE 1. RACING POWERS AND JURISDICTION  
PROPOSED AMENDMENT OF  
RULE 1433  
APPLICATION FOR LICENSE TO CONDUCT  
A HORSE RACING MEETING.

Regular Board Meeting  
February 17, 2011

1433. Application for License to Conduct a Horse Racing Meeting.

(a) Unless the Board requires an earlier filing, at least 90 days before the time allocated by the Board for a race meeting to start, the association shall file with the Board an Application for License to Conduct a Horse Racing Meeting, CHRB-17 (Rev. 12/06 02/11), which is hereby incorporated by reference. Note: CHRB-17 incorporates by reference, the Personal History Record, CHRB-25A (Rev. 7/93). A California fair shall file with the Board an Application for License to Conduct a Horse Racing Meeting of a California Fair, CHRB-18 (Rev. 12/06 02/11), which is hereby incorporated by reference. Copies of the CHRB-17 and CHRB-18 may be obtained at the California Horse Racing Board headquarters office.

(b) No racing association that operates four weeks or more of continuous Thoroughbred racing in a calendar year shall be licensed to conduct a horse racing meeting at a facility that has not installed a polymer synthetic type racing surface. This Subsection shall become operative on January 1, 2008.

Authority: Sections 19420 and 19440,  
Business and Professions Code.

Reference: Sections 19480, 19481 and 19562,  
Business and Professions Code.

Application is hereby made to the California Horse Racing Board (CHRB) for a license to conduct a horse racing meeting in accordance with the California Business and Professions (B&P) Code, Chapter 4, Division 8, Horse Racing Law, and the California Code of Regulations, Title 4, Division 4, CHRB Rules and Regulations.

1. APPLICANT ASSOCIATION

A. Name, mailing address, telephone and fax numbers, and the email address for associations contact person.

B. Breed of horse:  TB  QH  H

C. Racetrack name:

D. Attach a certified check payable to the Treasurer of the State of California in the amount of \$10,000 as deposit for license fees pursuant to B&P Business and Professions Code Section 19490.

E. Was the association licensed to operate a race meeting prior to January 1, 2001?

Yes No

If No, attach a surety bond in the amount of one hundred thousand dollars.

NOTICE TO APPLICANT: No application for a license to conduct a race meeting shall be granted unless the applicant has deposited with the Board a surety bond in the amount of one hundred thousand dollars (\$100,000), or a greater amount, as determined by the board, which is sufficient to ensure payment of employee wages and benefits including, but not limited to, health, welfare, and pension plans. The surety bond shall be maintained during the period of the meeting and for an additional period, as determined by the board, sufficient to assure that all payments are made. This subdivision does not apply to any person or association licensed to operate a horse race meeting prior to January 1, 2001, which has conducted a race meeting in each of the immediate three previous consecutive calendar years. The \$100,000 surety bond amount maybe increased to an amount determined by the Board at the time the application is scheduled for hearing pursuant to Business and Professions Code section 19464(b).

NOTICE TO APPLICANT: Application must be filed not later than 90 days before the scheduled start date for the proposed meeting pursuant to CHRB Rule 1433.

2. DATES OF MEETING

A. Inclusive dates allocated for the entire meeting:

B. Actual dates racing will be held:

C. Total number of days or nights of racing:

D. Days or nights of the week races will be held:

Wed - Sun  Tues - Sat  Other (specify)

E. Number of days or nights of racing per week:

CHRB CERTIFICATION

Application received:  
Deposit received:  
Reviewed:

Hearing date:  
Approved date:  
License number:

### 3. RACING PROGRAM

- A. Total number of races:
- B. Number of races for each day or night:
- C. Total number of stakes races:
- D. Attach a listing of all stakes races and indicate the date to be run and the added money or guaranteed purse for each. Note the races that are designated for California-bred horses.
- E. Will provisions be made for owners and trainers to use their own registered colors?  
 Yes  No      If no, what racing colors are to be used:
- F. List all post times for the daily racing program:

**NOTICE TO APPLICANT:** Every licensee conducting a horse racing meeting shall each racing day provide for the running of at least one race limited to California-bred horses, to be known as the "California-bred race" pursuant to CHRB Rule 1813. For thoroughbred and quarter horse meetings, the total amount distributed for California-bred stakes races from the purse account, including overnight stakes, shall not be less than 10% of the total amount distributed for all stakes races pursuant to B&P Business and Professions Code Section 19568(b).

### 4. RACING ASSOCIATION

- A. Association is a:  Corporation (complete subsection C)  
 LLC (complete subsection D)  
 Other (specify, and complete subsection E)
- B. Complete the applicable subsection and attached Addendum, Background Information and Ownership.
- C. CORPORATION
1. Registered name of the corporation:
  2. State where incorporated:
  3. Registry or file number for the corporation:
  4. Names of all officers and directors, titles, and the number of shares of the corporation held by each:
  5. Names (true names) of all persons, other than the officers and directors listed above, that hold 5% or more of the outstanding shares in the corporation and the number of shares held by each:
  6. Number of outstanding shares in the corporation:
  7. Are the shares listed for public trading?  Yes  No  
If yes, on what exchange and how is the stock listed:
  8. Name of the custodian of the list of shareholders and/or the transfer agent for the share holdings of the corporation:
  9. If more than 50% of the shares are held by a parent corporation or are paired with any other corporation or entity, give the name of the parent and/or paired corporation or entity:  
A. Is parent and/or paired corporation or entity a publically traded company that guarantees the obligation of the licensee?:      Yes      No

10. Attach the most recent audited annual financial statement for the licensee, including a balance and sheet, profit and loss statement, statement of cash flow, and a copy of a report made during the preceding 12 months to shareholders in the corporation and/or the Securities and Exchange Commission and/or the California Corporations Commission. ~~The licensee may submit the audited consolidated annual financial statements of its parent owner if the parent owner is a publicly traded company and guarantees the obligations of the licensee.~~

D. LLC

1. Registered name of the LLC:
2. State where articles of organization are filed:
3. Registry or file number for the LLC:
4. Names of all officers and directors, titles, and the number of shares of the LLC held by each:
5. Names (true names) of all members, other than the officers and directors listed above, that hold 5% or more of the outstanding shares in the LLC and the number of shares held by each:
6. Are the shares listed for public trading?  Yes  No  
If yes, on what exchange and how the stock is listed:
7. If more than 50% of the shares are held by a parent corporation or are paired with any other corporation or entity, give the name of the parent and/or paired corporation or entity:  
A. Is parent and/or paired corporation or entity a publically traded company that guarantees the obligation of the licensee?: Yes No
8. Attach the most recent audited annual financial statement for the licensee, including a balance sheet, and profit and loss statement, statement of cash flow, and a copy of a report made during the preceding 12 months to shareholders in the LLC and/or the Securities and Exchange Commission and/or the California Corporations Commission.

E. OTHER

1. Name(s) of partners/sole proprietor:
2. If a partnership, attach partnership agreement.

F. ~~Management and Staff~~ MANAGEMENT AND STAFF

1. Name and title of the managing officer and/or general manager of the association and the name and title of all department managers and staff, other than those listed in 10B, who will be listed in the official program:
2. Name and title of the person(s) authorized to receive notices on behalf of the association and the mailing address of such person(s) if other than the mailing address of the association:

5. PURSE PROGRAM (Excluding supplements, nominations, sponsorships and starter fees.):

A. Purse distribution:

1. All races other than stakes:  
Current meet estimate:  
Prior meet actual:

Average Daily Purse ( $5 A1 \div$  number of days):

Current meet estimate:

Prior meet ~~estimate~~ actual:

2. Overnight stakes:

Current meet estimate:

Prior meet actual:

Average Daily Purse ( $5 A2 \div$  number of days):

Current meet estimate:

Prior meet ~~estimate~~ actual:

3. Non-overnight stakes:

Current meet estimate:

Prior meet actual:

Average Daily Purse ( $5 A3 \div$  number of days):

Current meet estimate:

Prior meet ~~estimate~~ actual:

4. Total Purses: ( $5A1+5A2+5A3$ )

Current meet estimate:

Prior meet actual:

B. ~~Stakes races: California-bred Stakes Races:~~

1. ~~Purse distribution for all stakes races:~~

~~Current meet estimate:~~

~~Prior meet actual:~~

~~Average Daily Purse ( $5 B1 \div$  number of days):~~

~~Current meet estimate:~~

~~Prior meet ~~estimate~~ actual:~~

~~2.1. Percentage of the purse distribution for all stakes races that will be distributed for California-bred stakes races:~~

~~Current meet estimate:~~

~~Prior meet actual:~~

~~Average Daily Purse ( $5 B21 \div$  number of days):~~

~~Current meet estimate:~~

~~Prior meet ~~estimate~~ actual:~~

C. Funds to be generated for all California-bred incentive awards (Including Breeder awards and owners premiums):

Current meet estimate:

Prior meet actual:

- D. Payment to each recognized horsemen's organization contracting with the association and the name(s) of the organization(s):

Recognized Horsemen's Organization

Current meet estimate:

Prior meet actual:

Total

Total

- E. Amount from all sources to be distributed in the form of purses or other benefits to horsemen (5 A+5 C+5 D):

Current meet estimate:

Prior meet actual:

Average Daily Purse (5 E ÷ number of days):

Current meet estimate:

Prior meet ~~estimate~~ actual:

- F. Purse funds to be generated from on-track handle and intrastate off-track handle (Excluding carry-overs from prior race meet(s)):

Current meet estimate:

Prior meet actual:

Average Daily Purse (5 F ÷ number of days):

Current meet estimate:

Prior meet ~~estimate~~ actual:

- G. Purse funds to be generated from interstate handle:

Current meet estimate:

Prior meet actual:

Average Daily Purse (5 G ÷ number of days):

Current meet estimate:

Prior meet ~~estimate~~ actual:

- H. Bank and account number for the Paymaster of Purses' purse account:

- I. Name, address and telephone number of the pari-mutuel audit firm engaged for the meeting:

**NOTICE TO APPLICANT:** All funds generated and retained from on-track pari-mutuel handle which are obligated by law for distribution in the form of purses, breeders' awards or other benefits to horsemen, **shall not** be deemed as income to the association; **shall not** be transferred to a parent corporation outside the State of California; and **shall**, within 3 calendar days following receipt, be deposited in a segregated and separate liability account in a depository approved by the CHRB and shall be at the disposition of the Paymaster of Purses, who shall pay or distribute such funds to the persons entitled thereto. All funds generated from off-track simulcast wagering, interstate wagering, and out-of-state wagering which are obligated by law for distribution in the form of purses and breeders' awards, shall also be deposited within 3 calendar days following receipt, into such liability account. In the event the association is obligated to the payment of purses prior to those obligated amounts being retained from pari-mutuel wagering for such purpose, or as a result of overpayment of earned purses at the conclusion of the meeting, the association shall transfer from its own funds such amounts as are necessary for the Paymaster of Purses to distribute to the horse owners statutorily or contractually entitled thereto. The association is entitled to recover such transferred funds from the Paymaster of Purses' account; and if insufficient funds remain in the account at the conclusion of the meeting, the association is entitled to carry forward the deficit to its next succeeding meeting as provided by B&P Business & Professions Code Section 19615(c) or (d). In the event of **underpayment** of purses which results in a balance remaining in the Paymaster of Purses' account at the conclusion of the meeting after distribution of amounts due to horsemen and breeders and horsemen's organizations, the association may carry forward the surplus amount to its next succeeding meeting; provided, however, that the amount so retained

does not exceed an amount equivalent to the average daily distribution of purses and breeders' awards during the meeting. All amounts in excess shall be distributed retroactively and proportionally in the form of purses and breeders' awards to the horse owners and breeders having earned purses or awards during the conduct of the meeting.

**6 STABLE ACCOMMODATIONS**

- A. Number of usable stalls available for racehorses at the track where the meeting is held:
- B. Minimum number of stalls believed necessary for the meeting:
- C. Total number of usable stalls to be made available off-site at approved auxiliary stabling areas or approved training centers:
- D. Name and location of each off-site auxiliary stabling area and the number of stalls to be maintained at each site:
- E. Attach each contract or agreement between the association and the person(s) furnishing off-site stabling accommodations for eligible racehorses that cannot be provided stabling on-site.

Complete subsections F through H if the association will request reimbursement for off-site stabling as provided by Business & Professions Code Sections 19607, 19607.1, 19607.2, and 19607.3; otherwise, skip to Section 7.

- F. Total number of usable stalls made available on-site for the 1986 meeting, pursuant to Business and Professions Code section 19535(c):
- G. Estimated cost to provide off-site stalls for this meeting. Show cost per day per stall:
- H. Estimated cost to provide vaning from off-site stalls for this meeting. Show fees to be paid for vaning per-horse:

**7 PARI-MUTUEL WAGERING PROGRAM**

- A. Pursuant to B&P Business & Professions Code Section 19599, and with the approval of the CHRB, associations may elect to offer wagering programs using CHRB Pari-mutuel Rules, the Association of Racing Commissioners International (RCI) Uniform Rules of Racing, Chapter 9, Pari-mutuel Wagering, or a combination of both. Please complete the following schedule for the types of wagering other than WPS and the minimum wager amount for each:

Use DD for daily double, E for exacta (special quinella), PK3 for pick three, PK4 for select four, PNP for pick (n) pool, PPN for place pick (n), Q for quinella, SF for superfecta, TRI for trifecta, and US for unlimited sweepstakes (pick 9).

	TYPE OF WAGERS	APPLICABLE RULES
Example Race:	\$1 E; \$1 Double	CHRB #1959; RCI #VE

- Race #1
- Race #2
- Race #3
- Race #4
- Race #5
- Race #6

Race #7  
 Race #8  
 Race #9  
 Race #10  
 Race #11  
 Race #12  
 Race #13

- B. Maximum carryover pool to be allowed to accumulate before its distribution OR the date(s) designated for distribution of the carryover pool:
- C. List any options requested with regard to exotic wagering:
- D. Will "advance" or "early bird" wagering be offered?  Yes  No  
 If yes, when will such wagering begin:
- E. Type(s) of pari-mutuel or totalizator equipment to be used by the association and the simulcast organization, name of the person(s) supplying equipment, and expiration date of the service contract:

#### 8. ADVANCE DEPOSIT WAGERING (ADW)

- A. Identify the ADW provider(s) to be used by the association for this race meeting:
- B. Attach a copy of the agreement/contracts with each ADW provider to be used at this race meeting.
- C. Have the contract/agreements been approved by the respective horsemen's groups?  
Yes No  
If yes, attach a copy of the approval.  
If No, explain the status of the approval.

NOTICE TO APPLICANT: Pursuant to Business and Professions Code section 19604, ADW providers may accept wagers on races conducted in California from a resident of California if: 1) the ADW provider is licensed by the Board; 2) a written agreement allowing those wagers exists with the racing association or fair conducting the races on which the wagers are made; 3) the agreement shall have been approved in writing by the horsemen's organization responsible for negotiating purse agreements for the breed on which the wagers are made. ADW providers may accept wagers on races conducted outside of California from a resident of California if: 1) the ADW provider is licensed by the Board; 2) there is a hub agreement between the ADW provider and one or both of (i) one or more racing associations or fairs that together conduct no fewer than five weeks of live racing on the breed on which wagering is conducted during the calendar year during which the wagers are placed and (ii) the horsemen's organization responsible for negotiating purse agreements for the breed on which wagering is conducted.

#### 9. SIMULCAST WAGERING PROGRAM

- A. Simulcast organization engaged by the association to conduct simulcast wagering:
- B. Attach the agreement between the association and simulcast organization permitting the organization to use the association's live audiovisual signal for wagering purposes and providing access to its totalizator for the purpose of combining on-track and off-track pari-mutuel pools.
- C. California simulcast facilities the association proposes to offer its live audiovisual signal:
- D. California mini-simulcast facilities the association proposes to offer its live audiovisual signal:
- ~~D E~~ . Out-of-state wagering systems the association proposes to offer its live audiovisual signal:

E. F Out-of-state wagering systems that will combine their pari-mutuel pools with those of the association:

F. G. For **THOROUGHBRED** racing associations, list the host track from which the association proposes to import out-of-state and/or out-of-country thoroughbred races. Include the dates imported races will be held, and whether or not a full card will be accepted. If the full card will not be imported, state "selected feature and/or stakes races":

**NOTICE TO APPLICANT:** B&P Business and Professions Code Section 19596.2(a) stipulates that on days when live thoroughbred or fair racing is being conducted in the state, the number of thoroughbred races which may be imported by an association or fair during the calendar period the association or fair is conducting its racing meeting cannot exceed a combined daily total of ~~23~~ 32 imported thoroughbred races statewide. The limitation of ~~23~~ 32 imported thoroughbred races per day statewide does not apply to those races specified in B&P Business & Professions Code Section 19596.2(a)(1), (2), (3) and (4).

**THOROUGHBRED SIMULCAST RACES TO BE IMPORTED**

Name of Host Track	Race Dates	Full Card or Selected Feature and/or Stakes Races
--------------------	------------	---

G. For **QUARTER HORSE** racing associations, list the host track from which the association proposes to import out-of-state and/or out-of-country quarter horse races. Include the dates imported races will be held, and whether or not a full card will be accepted. If the full card will not be imported, state "selected feature and/or stakes races":

**QUARTER HORSE SIMULCAST RACES TO BE IMPORTED**

Name of Host Track	Race Dates	Full Card or Selected Feature and/or Stakes Races
--------------------	------------	---

H. For **STANDARD BRED** racing associations, list the host tracks from which the association proposes to import out-of-state and/or out-of-country harness races. Include the dates imported races will be held, and whether or not a full card will be accepted. If the full card will not be imported, state "selected feature and/or stakes races":

**HARNESS SIMULCAST RACES TO BE IMPORTED**

Name of Host Track	Race Dates	Full Card or Selected Feature and/or Stakes Races
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I. For **ALL** racing associations, list imported simulcast races the association plans to receive which use breeds other than the breed of the majority of horses racing at its live horse racing meeting. Include the name of the host track, the dates imported races will be held, and how many races will be imported:

**OTHER BREED SIMULCAST RACES TO BE IMPORTED**

Name of Host Track	Breed of Horse	Race Dates	Number of Races to be Imported
--------------------	----------------	------------	--------------------------------

J. For **ALL** racing associations, if any out-of-state or out-of-country races will commence outside of the time constraints set forth in B&P Business & Professions Code Sections 19596.2 and 19596.3, attach a copy showing the agreement by the appropriate racing association(s).

**NOTICE TO APPLICANT:** All interstate wagering to be conducted by an association is subject to the provisions of Title 15, United States Codes, which require specific written approval of the CHRB and of the racing commission having jurisdiction in the out-of-state venue. All international wagering to be conducted by an association is subject to the provision of B&P Business and Professions Code Sections 19596, 19596.1, 19596.2, 19596.3, 19601, 19602, and 19616.1, and will require specific written approval of the CHRB.

Every association shall pay over to the simulcast organization within 3 calendar days following the closing of wagering for any day or night racing program, or upon receipt of the proceeds, such amounts that are retained from off-track simulcast wagering,

interstate and out-of-state wagering, and which are obligated by statute for guest commissions, simulcast operator's expenses and promotions, equine research, local government in-lieu taxes, and stabling and vanning deductions. Every association shall pay to its Paymaster of Purses' account within 3 calendar days following the closing of wagering for each day or night racing program, or upon receipt of the proceeds, such amounts that are retained or obligated from off-track simulcast wagering, interstate and out-of-state wagering for purses, breeders' awards or other benefits to horsemen. (See Notice to Applicant, Section 5.)

## 10. CHARITY RACING DAYS

- A. Name and address of the distributing agent (charity foundation) for the net proceeds from charity racing days held by the association:
- B. Names and addresses of the trustees or directors of the distributing agent:
- C. Dates the association will conduct races as charity racing days OR:
- D. Will the association pay the distributing agent an amount equal to the maximum required under B&P Code Section 19550(b)? Yes

**NOTICE TO APPLICANT:** Net proceeds from charity racing days shall be paid to the designated and approved distributing agent within 180 days following the conclusion of the association's race meeting in accordance with the provisions of B&P Business and Professions Code Section 19555. Thereafter, the distributing agent shall distribute not less than 90% of the aggregate proceeds from such charity racing days within 12 calendar months after the last day of the meeting during which the charity racing days were conducted and shall distribute the remaining funds as soon thereafter as is practicable. At least ~~20%~~ 50% of the distribution shall be made to charities associated with the horse racing industry in accordance with the provisions of B&P Business and Professions Code Section 19556(b).

## 11. RACING OFFICIALS, OFFICIALS, AND OFFICIATING EQUIPMENT

- A. Racing officials nominated:
  - Association Veterinarian(s)
  - Clerk of Scales
  - Clerk of the Course
  - Film Specialist
  - Horse Identifier
  - Horseshoe Inspector
  - Paddock Judge
  - Patrol Judges
  - Placing Judges
  - Starter
  - Timer
- B. Management officials in the racing department:
  - Director of Racing
  - Racing Secretary
  - Assistant Racing Secretary
  - Paymaster of Purses
  - Others (identify by name and title)
- C. Name, address and telephone number of the reporter employed to record and prepare transcripts of hearings conducted by the stewards:
- D. Photographic device to be used for photographing the finish of all races, name of the person

supplying the service, and expiration date of the service contract:

- E. Photo patrol video equipment to be used to record all races, name of the person supplying the service, and expiration date of the service contract. Specify the number and location of cameras for dirt and turf tracks.
- F. Type of electronic timing device to be used for the timing of all races, name of the person supplying the service, and expiration date of the service contract:

## 12. SECURITY CONTROLS

- A. Name and title of the person responsible for security controls on the premises. Include an organizational chart of the security department and a list of the names of security personnel and contact telephone numbers.
- B. Estimated number of security guards, gatemen, patrolmen or others to be engaged in security tasks on a regular full-time basis:
  - 1. Attach a written plan for enhanced security for graded stakes races, and races of \$100,000 or more, to include the number of security guards in the restricted areas during a 24-hour period and a plan for detention barns.
  - 2. Detention Barns:
    - A. Attach a plan for use of graded stakes or overnight races.
    - B. Number of security guards in the detention barn area during a 24-hour period.
    - C. Describe number and location of surveillance cameras in detention barn area.
  - 3. TCO2 Testing:
    - A. Number of races to be tested, and number of horses entered in each race to be tested.
    - B. Plan for enhanced surveillance for trainers with high-test results.
    - C. Plan for detention barns for repeat offenders.
    - D. Number of security personnel assigned to the TCO2 program.
- C. Describe the electronic security system:
  - 1. Location and number of video surveillance cameras for the detention barn and stable gate.
- D. For night racing associations. Describe emergency lighting system:

## 13. EMERGENCY SERVICES

- A. Name, address and emergency telephone number of the ambulance service to be used during workouts and the running of the races:

- B. Name, address and emergency telephone number of the ambulance service to be used during workouts at auxiliary sites:
- C. Describe the on-track first aid facility, including equipment and medical staffing:
- D. Name and emergency telephone number of the licensed physician on duty during the race meeting: **(If quarter horse racing association see D (1) :**
1. Name address and emergency telephone number of hospital located within 1.5 miles of the racetrack, which whom an agreement is in place to provide emergency medical services, pursuant to Business and Professions Code section 19481.3(a):
- E. Name, address and emergency telephone number of the hospital to be used for admittance and treatment of emergency injuries in the event of an on-track injury to a jockey:
- F. Attach, in English and Spanish, the emergency medical plan procedures that will be posted in each jockey's room to be used in the event of an on-track injury to a jockey:
- G. Name of health and safety manager and assistant manager responsible for compliance of health and safety provisions pursuant to B&P Business & Professions Code section 19481.3(d):
- H. Attach a fire clearance from the fire authority having jurisdiction over the premises.
- I. Name of the workers' compensation insurance carrier for the association and the number of the insurance policy (if self-insured, provide details):
- J. Attach a Certificate of Insurance for workers' compensation coverage. The CHRB is to be named as a certificate holder and given not less than 10 days' notice of any cancellation or termination of insurance that secures the liability of the association for payment of workers' compensation.

**NOTICE TO APPLICANT:** Every licensee conducting a horse racing meeting shall pursuant to B&P Business and Professions Code section 19481.3 maintain, staff, and supply an on-track first aid facility, that may be either permanent or mobile, and which shall be staffed and equipped as directed by the board. A qualified and licensed physician shall be on duty at all times during live racing, except that this provision shall not apply to any quarter horse racing at the racetrack if there is a hospital situated no more than 1.5 miles from the racetrack and the racetrack has an agreement with the hospital to provide emergency medical services to jockeys and riders. An ambulance licensed to operate on public highways provided by the track shall be available at all times during live racing and shall be staffed by two emergency medical technicians licensed in accordance with Division 2.5 (commencing with Section 1797) of the Health and Safety Code, one of whom may be an Emergency Medical Technician Paramedic, as defined in Section 1797.84 of the Health and Safety Code. (b) Each racing association and racing fair shall adopt and maintain an emergency medical plan detailing the procedures that shall be used in the event of an on-track injury. The plan shall be posted in each jockey room in English and Spanish. (c) Prior to every race meeting, the racing association or racing fair shall contact area hospitals to coordinate procedures for the rapid admittance and treatment of emergency injuries. (d) Each racing association or racing fair shall designate a health and safety manager and assistant manager, who shall be responsible for compliance with the provisions of this section and one of whom shall be on duty at all times when live racing is conducted. The health and safety manager may, at the discretion of the racing association, be the person designated to perform risk management duties on behalf of the association.

#### 14. CONCESSIONAIRES AND SERVICE CONTRACTORS

Names and addresses of all persons to whom a concession or service contract has been given, **other than those already identified**, and the goods and/or services to be provided by each:

Does the association plan to provide its own concessions? Yes No

15. ON-TRACK ATTENDANCE/FAN DEVELOPMENT

A. Describe any promotional plans:

B. Does the association have any promotional plans in conjunction with the California Marketing Committee? Yes No

If yes, please describe:

B C. Number of hosts and hostesses employed for meeting:

C D. Describe facilities set aside for new fans:

D E. Describe any improvements to the physical facility in advance of the meeting that directly benefit:

- 1. Horsemen
- 2. Fans
- 3. Facilities in the restricted areas

16. SCHEDULE OF CHARGES

A. Proposed charges, note any changes from the previous year:

- Admission (general)
- Admission (clubhouse)
- Reserved seating (general)
- Reserved seating (clubhouse)
- Parking (general)
- Parking (preferred)
- Parking (valet)
- Programs (on-track)
- (off-track)

B. Describe any "Season Boxes" and "Turf Club Membership" fees:

C. Describe any "package" plans such as combined parking, admission and program:

17. JOCKEYS/DRIVERS' QUARTERS

A. Check the applicable amenities available in the jockeys/drivers' quarters:

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> Corners (lockers and cubicles) | How many   | <input type="text"/>                              |
| <input type="checkbox"/> Showers                        | <input type="checkbox"/> Steam room, sauna or steam cabinets | <input type="checkbox"/> Lounge area              |
| <input type="checkbox"/> Masseur                        | <input type="checkbox"/> Food/beverage service               | <input type="checkbox"/> Certified platform scale |

B. Describe the quarters to be used for female jockeys/drivers:

**18. BACKSTRETCH EMPLOYEE HOUSING**

- A. Inspection of backstretch housing was completed by (name) \_\_\_\_\_ on (date)\_\_\_\_\_.
- B. Number of rooms used for housing on the backstretch of the racetrack:
- C. Number of restrooms available on the backstretch of the racetrack:
- D. Estimated ratio of restroom facilities to the number of backstretch personnel:

**19. TRACK SAFETY**

- A. Total distance of the racecourse - measured from the finish line counterclockwise (3' from the inner railing) back to the finish line:  feet.
- B. Describe the type of track surface at the facility, including the specific track surface composition:
- C. The percent of cross slope in the straight-aways is:  
The percent of cross slope in the center of the turns is:
- ~~B-D~~ Describe the type(s) of materials used for the inner and outer railings of the race course, the type of inner railing supports (i.e., metal gooseneck, wood 4" x 4" uprights, offset wood 4" x 4" supports, etc.), the coverings, if any, on the top of the inner railing, and the approximate height of the top of the inner railing from the level of the race course.
- ~~E~~ Name of the person responsible for supervision of the maintenance of the racetrack safety standards pursuant to CHRB Rule 1474:
- ~~F~~ Attach a Track Safety Maintenance Program pursuant to CHRB Rule 1474.
- ~~G~~ If the association is requesting approval to implement alternate methodologies to the provisions of Article 3.5, Track Safety Standards, pursuant to CHRB Rule 1471, attach a Certificate of Insurance for liability insurance which will be in force for the duration of the meeting specified in Section 2. The CHRB is to be named as a certificate holder and given not less than 10 days' notice of any cancellation or termination of liability insurance. Additionally, the CHRB must be listed as additionally insured on the liability policy at a minimum amount of \$3 million per incident. The liability insurance certificate must be on file in the CHRB headquarters office prior to the conduct of any racing.

**20. DECLARATIONS**

- A. All labor and lease agreements and concession and service contracts necessary to conduct the entire meeting have been finalized except as follows (if no exceptions, so state):
- B. Attach each horsemen's agreement pursuant to CHRB Rule 2044.
- C. Attach a lease agreement permitting the association to occupy the racing facility during the entire term of the meeting. (In the absence of either a lease agreement or a horsemen's agreement, a request for an extension pursuant to CHRB Rule 1407 shall be made).

- D. All service contractors and concessionaires have valid state, county or city licenses authorizing each to engage in the type of service to be provided and have valid labor agreements, when applicable, which remain in effect for the entire term of the meeting except as follows (if no exceptions, so state):
  
- E. Absent natural disasters or causes beyond the control of the association, its service contractors, concessionaires or horsemen participating at the meeting, no reasons are believed to exist that may result in a stoppage to racing at the meeting or the withholding of any vital service to the association except as follows (if no exceptions, so state):

**NOTICE TO APPLICANT:** Pursuant to CHRB Rules 1870 and 1871, the CHRB shall be given 15 days' notice in writing of any intention to terminate a horse racing meeting or the engagements or services of any licensee, approved concessionaire, or approved service contractor.

**21. CERTIFICATION BY APPLICANT**

I hereby certify under penalty of perjury that I have examined this application, that all of the foregoing statements in this application are true and correct, and that I am authorized by the association to attest to this application on its behalf.

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Title

\_\_\_\_\_  
Date

STATE OF CALIFORNIA  
CALIFORNIA HORSE RACING BOARD  
APPLICATION FOR LICENSE TO CONDUCT A HORSE RACING MEETING OF A CALIFORNIA FAIR  
CHRB-18 (Rev. 12/06-02/11)

Application is hereby made to the California Horse Racing Board (CHRB) for a license to conduct a horse racing meeting of a California fair as authorized by Article 6.5 of the California Business and Professions (B&P) Code, Chapter 4, Division 8, Horse Racing Law, and in accordance with applicable provisions and the California Code of Regulations, Title 4, Division 4, CHRB Rules and Regulations.

1. APPLICANT FAIR ASSOCIATION

A. Name, mailing address, telephone and fax numbers of fair, and the email address for fair associations contact person.

B. Fair association is a:  District Fair  County Fair  Citrus Fruit Fair

California Exposition and State Fair  Other qualified fair

NOTICE TO APPLICANT: Application must be filed not later than 90 days before the scheduled start date for the proposed meeting pursuant to CHRB Rule 1433.

2. DATES OF RACE MEETING

A. Inclusive dates allocated of race meeting:

B. Dates racing will NOT be held:

C. Total number of racing days:

3. RACING PROGRAM

A. Total number of races:

B. Number of races by breed:

Thoroughbreds  Quarter Horses  Appaloosas  
 Arabians  Paints  Mules

C. Number of races daily:

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Thoroughbred							
Other Breeds							
Total							

CHRB CERTIFICATION

Application received:  
Reviewed:

Hearing date:  
Approved date:  
License number:

D. Total number of stakes races by breed:

<input type="text"/>	Thoroughbreds	<input type="text"/>	Quarter Horses	<input type="text"/>	Appaloosas
<input type="text"/>	Arabians	<input type="text"/>	Paints	<input type="text"/>	Mules

E. Attach a listing of all stakes races and indicate the date to be run and the added money or guaranteed purse for each.

F. Will provisions be made for owners and trainers to use their own registered colors?

Yes  No      If no, what racing colors are to be used:

G. List all post times for the daily racing program:

**NOTICE TO APPLICANT:** Every licensee conducting a horse racing meeting shall each racing day provide for the running of at least one race limited to California-bred horses, to be known as the "California-bred race" pursuant to CHRB Rule 1813.

4. FAIR ASSOCIATION

A. Names of the fair directors:

B. Names of the directors serving on the Racing Committee or otherwise responsible for the conduct of the racing program:

C. Name and title of the fair manager or executive officer and the names and titles of all department managers and fair staff, other than those listed in 9B, who will be listed in the official program:

5. PURSE PROGRAM (Excluding supplements, nominations, sponsorships, and starter fees):

A. Purse distribution:

1. All races other than stakes:  
 Current meet estimate:  
 Prior meet actual:

Average Daily Purse (5A1 ÷ number of days):  
 Current meet estimate:  
 Prior meet estimate actual:

2. Overnight stakes:  
 Current meet estimate:  
 Prior meet actual:

Average Daily Purse (5A2 ÷ number of days):  
 Current meet estimate:  
 Prior meet estimate actual:

3. Non-overnight stakes:  
 Current meet estimate:  
 Prior meet actual:

4. Total Purses: (5A1+5A2+5A3)

Current meet estimate:

Prior meet actual

Average Daily Purse (5A3 ÷ number of days):

Current meet estimate:

Prior meet ~~estimate~~ actual:

B. Funds to be generated for all California-bred incentive awards (Including breeder awards and owners premiums):

Current meet estimate:

Prior meet actual:

C. Payment to each recognized horsemen's organization contracting with the fair:

Current meet estimate:

Prior meet actual:

CTT

TOC

NTRA

PCQHRA

CWAR

ARAC

AMRA

CHBPAPEN

CTHF

Total

Total

D. Amount from all sources to be distributed at the meeting in the form of purses or other benefits to horsemen (5A+5B+5C):

Current meet estimate:

Prior meet actual:

Average Daily Purse (5D ÷ number of days):

Current meet estimate:

Prior meet ~~estimate~~ actual:

E. Purse funds to be generated from on-track handle and intrastate off-track handle (Excluding carry-overs from prior race meet(s)):

Current meet estimate:

Prior meet actual:

Average Daily Purse (5E ÷ number of days):

Current meet estimate:

Prior meet ~~estimate~~ actual:

F. Purse funds to be generated from interstate handle:

Current meet estimate:

Prior meet actual:

Average Daily Purse (5F ÷ number of days):

Current meet estimate:

Prior meet-estimate actual:

G. Bank and account number for the Paymaster of Purses' purse account:

H. Name, address and telephone number of the pari-mutuel audit firm engaged for the meeting:

**NOTICE TO APPLICANT:** All funds generated and retained from on-track pari-mutuel handle which are obligated by law for distribution in the form of purses, breeders' awards or other benefits to horsemen, **shall not** be deemed as income to the fair and **shall**, within 3 calendar days following receipt, be deposited in a segregated and separate liability account in a depository approved by the CHRB and shall be at the disposition of the Paymaster of Purses, who shall pay or distribute such funds to the persons entitled thereto. All funds generated from off-track simulcast wagering, interstate wagering, and out-of-state wagering which are obligated by law for distribution in the form of purses and breeders' awards, shall also be deposited within 3 calendar days following receipt into such liability account. In the event the fair is obligated to the payment of purses prior to those obligated amounts being retained from pari-mutuel wagering for such purpose, or as a result of overpayment of earned purses at the conclusion of the meeting, the fair shall transfer from its own funds such amounts as are necessary for the Paymaster of Purses to distribute to the horse owners statutorily or contractually entitled thereto. The fair is entitled thereafter to recover such transferred funds from the Paymaster of Purses' account; and if insufficient funds remain in the account at the conclusion of the meeting, the fair is entitled to carry forward the deficit to its next succeeding meeting as provided by B&P Business & Professions Code Section 19615(c) or (d). In the event of **underpayment** of purses which results in a balance remaining in the Paymaster of Purses' account at the conclusion of the meeting after distribution of amounts due to horsemen and breeders and horsemen's organizations, the fair may carry forward the surplus amount to its next succeeding meeting; provided, however, that the amount so retained does not exceed an amount equivalent to the average daily distribution of purses and breeders' awards during the meeting. All amounts in excess shall be distributed retroactively and proportionally in the form of purses and breeders' awards to the horse owners and breeders having earned purses or awards during the conduct of the meeting.

## 6. STABLE ACCOMMODATIONS

A. Number of usable stalls available for racehorses at the track where the meeting is held:

B. Minimum number of stalls believed necessary for the meeting:

C. Total number of usable stalls to be made available off-site at approved auxiliary stabling areas or approved training centers:

D. Name and location of each off-site auxiliary stabling area and the number of stalls to be maintained at each site:

E. Attach each contract or agreement between the fair and the person(s) furnishing off-site stabling accommodations for eligible racehorses that cannot be provided stabling on-site.

Complete subsections F through H if the fair will request reimbursement for off-site stabling as provided by B&P Business & Professions Code Sections 19607, 19607.1, 19607.2, and 19607.3; otherwise, skip to Section 7.

F. Total number of usable stalls made available on-site for the **1986** meeting; pursuant to Business and Professions Code section 19535(c).

G. Estimated cost to provide off-site stalls for this meeting. Show cost per-day per stall:

H. Estimated cost to provide vanning from off-site stalls for this meeting. Show fees to be paid for vanning per-horse:

7. PARI-MUTUEL WAGERING PROGRAM

A. Pursuant to B&P Business & Professions Code Section 19599, and with the approval of the CHRB, fairs may elect to offer wagering programs using CHRB Pari-mutuel Rules, the Association of Racing Commissioners International (RCI) Uniform Rules of Racing, Chapter 9, Pari-mutuel Wagering, or a combination of both. Please complete the following schedule for the types of wagering other than WPS and the minimum wager amount for each:

Use DD for daily double, E for exacta (special quinella), PK3 for pick three, PK4 for select four, PNP for pick (n) pool, PPN for place pick (n), Q for quinella, SF for superfecta, TRI for trifecta, and US for unlimited sweepstakes (pick 9).

	TYPE OF WAGERS	APPLICABLE RULES
Example Race	\$1 E; \$1 Double	CHRB #1959; RCI #VE
Race #1		
Race #2		
Race #3		
Race #4		
Race #5		
Race #6		
Race #7		
Race #8		
Race #9		
Race #10		
Race #11		
Race #12		
Race #13		

- B. Maximum carryover pool to be allowed to accumulate before its distribution OR the date(s) designated for distribution of the carryover pool:
- C. List any options requested with regard to exotic wagering:
- D. Will "advance" or "early bird" wagering be offered?  Yes  No  
If yes, when will such wagering begin:
- E. Type(s) of pari-mutuel or totalizator equipment to be used by the fair and the simulcast organization, the name of the person(s) supplying equipment, and expiration date of the service contract:

8. ADVANCE DEPOIST WAGERING (ADW)

- A. Identify the ADW provider(s) to be used by the fair for this race meeting:
- B. Attach a copy of the agreement/contracts with each ADW provider to be used at this race meeting.

- C. Have the contract/agreements been approved by the respective horsemen's groups?  
Yes No  
If yes, attach a copy of the approval.  
If No, explain the status of the approval.

NOTICE TO APPLICANT: Pursuant to Business and Professions Code section 19604, ADW providers may accept wagers on races conducted in California from a resident of California if: 1) the ADW provider is licensed by the Board; 2) a written agreement allowing those wagers exists with the racing association or fair conducting the races on which the wagers are made; 3) the agreement shall have been approved in writing by the horsemen's organization responsible for negotiating purse agreements for the breed on which the wagers are made. ADW providers may accept wagers on races conducted outside of California from a resident of California if: 1) the ADW provider is licensed by the Board; 2) there is a hub agreement between the ADW provider and one or both of (i) one or more racing associations or fairs that together conduct no fewer than five weeks of live racing on the breed on which wagering is conducted during the calendar year during which the wagers are placed and (ii) the horsemen's organization responsible for negotiating purse agreements for the breed on which wagering is conducted.

9. SIMULCAST WAGERING PROGRAM

- A. Simulcast organization engaged by the fair to conduct simulcast wagering:
- B. Attach the agreement between the fair and simulcast organization permitting the organization to use the fair's live audiovisual signal for wagering purposes and providing access to its totalizator for the purpose of combining on-track and off-track pari-mutuel pools.
- C. California simulcast facilities the fair proposes to offer its live audiovisual signal:
- D. California mini-simulcast facilities the fair proposes to offer its live audiovisual signal:
- D.E. Out-of-state wagering systems the fair proposes to offer its live audiovisual signal:
- E.F. Out-of-state wagering systems that will combine their pari-mutuel pools with those of the fair:
- F.G. List the host tracks from which the fair proposes to import out-of-state and/or out-of-country thoroughbred races. Include the dates imported races will be held and whether or not a full card will be accepted. If the full card will not be imported, state "selected feature and/or stakes races":

NOTICE TO APPLICANT: B&P Business & Professions Code Section 19596.2(a) stipulates that on days when live thoroughbred or fair racing is being conducted in the state, the number of thoroughbred races which may be imported by an association or fair during the calendar period the association or fair is conducting its racing meeting cannot exceed a combined daily total of 23 32 imported thoroughbred races statewide. The limitation of 23 32 imported thoroughbred races per day statewide does not apply to those races specified in B&P Business & Professions Code Section 19596.2(a)(1), (2), (3) and (4).

THOROUGHBRED SIMULCAST RACES TO BE IMPORTED

Name of Host Track	Race Dates	Full Card or Selected Feature and/or Stakes Races
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- G. List imported simulcast races the fair plans to receive during the racing meeting which use breeds other than the breed of the majority of horses racing at its live horse racing meeting. Include the name of the host track, the dates imported races will be held, and how many races will be imported:

## OTHER BREED SIMULCAST RACES TO BE IMPORTED

Name of Host Track	Breed of Horse	Race Dates	Number of Races to be Imported
--------------------	----------------	------------	--------------------------------

- H. If any out-of-state or out-of-country races will commence outside of the time constraints set forth in B&P Code Sections 19596.2 and 19596.3, attach a copy showing agreement by the appropriate racing association(s).

**NOTICE TO APPLICANT:** All interstate wagering to be conducted by a fair is subject to the provisions of Title 15, United States Codes, which require specific written approval of the CHRB and of the racing commission having jurisdiction in the out-of-state venue. All international wagering to be conducted by a fair is subject to the provisions of B&P Business & Professions Code Sections 19596, 19596.1, 19596.2, 19596.3, 19601, 19602, and 19616.1, and will require specific written approval of the CHRB.

Every fair shall pay to the simulcast organization within 3 calendar days following the closing of wagering for each racing program, or upon receipt of the proceeds, such amounts that are retained from off-track simulcast wagering, interstate and out-of-state wagering and which are obligated by statute for guest commissions, simulcast operator's expenses and promotions, equine research, local government in-lieu taxes, and stabling and vanning deductions. Every fair shall pay to its Paymaster of Purses' account within 3 calendar days following the closing of wagering for each racing program, or upon receipt of the proceeds, such amounts that are retained or obligated from off-track simulcast wagering, interstate and out-of-state wagering for purses, breeders' awards or other benefits to horsemen. (See Notice to Applicant, Section 5.)

## 10. RACING OFFICIALS, OFFICIALS, AND OFFICIATING EQUIPMENT

- A. Racing officials nominated:
- Association Veterinarian(s)
  - Clerk of Scales
  - Clerk of the Course
  - Film Specialist
  - Horse Identifier
  - Horseshoe Inspector
  - Paddock Judge
  - Patrol Judges
  - Placing Judges
  - Starter
  - Timer
- B. Management officials in the racing department:
- Director of Racing
  - Racing Secretary
  - Assistant Racing Secretary
  - Paymaster of Purses
  - Others (identify by name and title)
- C. Name, address and telephone number of the reporter employed to record and prepare transcripts of hearings conducted by the stewards:
- D. Photographic device to be used for photographing the finish of all races, name of the person supplying the service, and expiration date of the service contract:
- E. Photopatrol video equipment to be used to record all races, name of the person supplying the service, and expiration date of the service contract. Specify the number and location of cameras for dirt and turf tracks.

- F. Type of electronic timing device to be used for the timing of all races, name of the person supplying the service, and expiration date of the service contract:

## 11. SECURITY CONTROLS

- A. Name and title of the person responsible for security controls on the premises. Include an organizational chart of the security department and a list of the names of security personnel and contact telephone numbers.
- B. Estimated number of security guards, gatemen, patrolmen or others to be engaged in security tasks on a regular full-time basis:
1. Attach a written plan for enhanced security for graded/stakes races, and races of \$100,000 or more, to include the number of security guards in the restricted areas during a 24-hour period and a plan for detention barns.
    2. Detention Barns:
      - A. Attach a plan for use of graded stakes or overnight races.
      - B. Number of security guards in the detention barn area during a 24-hour period.
      - C. Describe number and location of surveillance cameras in detention barn area.
    3. TCO2 Testing:
      - A. Number of races to be tested, and number of horses entered in each race to be tested.
      - B. Plan for enhanced surveillance for trainers with high-test results.
      - C. Plan for detention barns for repeat offenders.
      - D. Number of security personnel assigned to the TCO2 program.
  - C. Describe the electronic security system.
    1. Location and number of video surveillance cameras for the detention barn and stable gate.

## 12. EMERGENCY SERVICES

- A. Name, address and emergency telephone number of the ambulance service to be used during workouts and the running of the races:
- B. Name, address and emergency telephone number of the ambulance service to be used during workouts at auxiliary sites:
- C. Describe the on-track first aid facility, including equipment and medical staffing:

- D. Name and emergency telephone number of the licensed physician on duty during the race meeting:
- E. Name, address and emergency telephone number of the hospital to be used for admittance and treatment of emergency injuries in the event of an on-track injury to a jockey:
- F. Attach, in English and Spanish, the emergency medical plan procedures that will be posted in each jockey's room to be used in the event of an on-track injury to a jockey:
- G. Name of health and safety manager and assistant manager responsible for compliance of health and safety provisions pursuant to B&P Business & Professions Code section 19481.3(d):
- H. Attach a fire clearance from the fire authority having jurisdiction over the premises.
- I. Attach a Certificate of Insurance for workers' compensation coverage. The CHRB is to be named as a certificate holder and given not less than 10 days' notice of any cancellation or termination of insurance that secures the liability of the fair for payment of workers' compensation.

**NOTICE TO APPLICANT:** Every licensee conducting a horse racing meeting shall pursuant to B&P Business & Professions Code section 19481.3 maintain, staff, and supply an on-track first aid facility, that may be either permanent or mobile, and which shall be staffed and equipped as directed by the board. A qualified and licensed physician shall be on duty at all times during live racing, except that this provision shall not apply to any quarter horse racing at the racetrack if there is a hospital situated no more than 1.5 miles from the racetrack and the racetrack has an agreement with the hospital to provide emergency medical services to jockeys and riders. An ambulance licensed to operate on public highways provided by the track shall be available at all times during live racing and shall be staffed by two emergency medical technicians licensed in accordance with Division 2.5 (commencing with Section 1797) of the Health and Safety Code, one of whom may be an Emergency Medical Technician Paramedic, as defined in Section 1797.84 of the Health and Safety Code. (b) Each racing association and racing fair shall adopt and maintain an emergency medical plan detailing the procedures that shall be used in the event of an on-track injury. The plan shall be posted in each jockey room in English and Spanish. (c) Prior to every race meeting, the racing association or racing fair shall contact area hospitals to coordinate procedures for the rapid admittance and treatment of emergency injuries. (d) Each racing association or racing fair shall designate a health and safety manager and assistant manager, who shall be responsible for compliance with the provisions of this section and one of whom shall be on duty at all times when live racing is conducted. The health and safety manager may, at the discretion of the racing association, be the person designated to perform risk management duties on behalf of the association.

### 13. CONCESSIONAIRES AND SERVICE CONTRACTORS

- A. Names and addresses of all persons to whom a concession or service contract has been given, **other than those already identified**, and the goods and/or services to be provided by each:
- B. Does the fair plan to provide its own concessions? Yes No

### 14. ON- TRACK ATTENDANCE/FAN DEVELOPMENT

- A. Describe any promotional plans:
- B. Does the fair have any promotional plans in conjunction with the California Marketing Committee? Yes No

If yes, please describe:

- C. ~~B~~. Number of hosts and hostesses employed for meeting:
- D. ~~C~~. Describe facilities set aside for new fans:

E. ~~D.~~ Describe any improvements to the physical facility in advance of the meeting that directly benefits:

1. Horsemen
2. Fans
3. Facilities in the restricted areas

**15. SCHEDULE OF CHARGES**

A. Proposed charges, note any changes from previous year:

- Admission (general)
- Admission (clubhouse)
- Reserved seating (general)
- Reserved seating (clubhouse)
- Parking (general)
- Parking (preferred)
- Parking (valet)
- Programs (on-track)
- (off-track)

B. Describe any "Season Boxes" or other special accommodation fees:

C. Describe any "package" plans such as combined parking, admission and program:

**16. JOCKEYS' QUARTERS**

A. Check the applicable amenities available in the jockeys' quarters:

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> Corners (lockers and cubicles) | How many   | <input type="text"/>                              |
| <input type="checkbox"/> Showers                        | <input type="checkbox"/> Steam room, sauna or steam cabinets | <input type="checkbox"/> Lounge area              |
| <input type="checkbox"/> Masseur                        | <input type="checkbox"/> Food/beverage service               | <input type="checkbox"/> Certified platform scale |

B. Describe the quarters to be used for female jockeys:

**17. BACKSTRETCH EMPLOYEE HOUSING**

A. Inspection of backstretch housing was completed by (name) \_\_\_\_\_ on (date) \_\_\_\_\_.

B. Number of rooms used for housing on the backstretch of the racetrack:

C. Number of restrooms available on the backstretch of the racetrack:

D. Estimated ratio of restrooms to the number of backstretch personnel:

## 18. TRACK SAFETY

- A. Total distance of the racecourse - measured from the finish line counterclockwise (3' from the inner railing) back to the finish line:  feet.
- B. Describe the type of track surface at the facility, including the specific track surface composition:
- C. The percent of cross slope in the straight-aways is:  
The percent of cross slope in the center of the turns is:
- B.D. Describe the type(s) of materials used for the inner and outer railings of the race course, the type of inner railing supports (i.e., metal gooseneck, wood 4" x 4" uprights, offset wood 4" x 4" supports, etc.), the coverings, if any, on the top of the inner railing, and the approximate height of the top of the inner railing from the level of the race course.
- C.E. Name of the person responsible for supervision of the maintenance of the racetrack safety standards pursuant to CHRB Rule 1474:
- D.F. Attach a Track Safety Maintenance Program pursuant to CHRB Rule 1474.
- E.G. If the fair is requesting approval to implement alternate methodologies to the provisions of Article 3.5, Track Safety Standards, pursuant to CHRB Rule 1471, attach a Certificate of Insurance for liability insurance which will be in force for the duration of the meeting specified in Section 2. The CHRB is to be named as a certificate holder and given not less than 10 days' notice of any cancellation or termination of liability insurance. Additionally, the CHRB must be listed as additionally insured on the liability policy at a minimum amount of \$3 million per incident. The liability insurance certificate must be on file in the CHRB headquarters office prior to the conduct of any racing.

## 19. DECLARATIONS

- A. All labor agreements, concession and service contracts, and other agreements necessary to conduct the entire meeting have been finalized except as follows (if no exceptions, so state):
- B. Attach each horsemen's agreement pursuant to CHRB Rule 2044.
- C. All service contractors and concessionaires have valid state, county or city licenses authorizing each to engage in the type of service to be provided and have valid labor agreements, when applicable, which remain in effect for the entire term of the meeting except as follows (if no exceptions, so state):
- D. Absent natural disasters or causes beyond the control of the fair, its service contractors, concessionaires or horsemen participating at the meeting, no reasons are believed to exist that may result in a stoppage to racing at the meeting or the withholding of any vital service to the fair except as follows (if no exceptions, so state):

**NOTICE TO APPLICANT:** Pursuant to CHRB Rules 1870 and 1871, the CHRB shall be given 15 days' notice in writing of any intention to terminate a horse racing meeting or the engagements or services of any licensee, approved concessionaire, or approved service contractor.

20. CERTIFICATION BY APPLICANT

I hereby certify under penalty of perjury that I have examined this application, that all of the foregoing statements in this application are true and correct, and that I am authorized by the fair to attest to this application on its behalf.

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Title

\_\_\_\_\_  
Date

STAFF ANALYSIS  
DISCUSSION AND ACTION BY THE BOARD REGARDING  
THE FEASIBILITY OF AMENDING  
RULE 1634, CLAIMING OPTION ENTRY

Regular Board Meeting  
February 17, 2011

## BACKGROUND

Business and Professions Code section 19440 provides that the Board shall have all powers necessary and proper to enable it to carry out fully and effectually the purposes of this chapter. Responsibilities of the Board shall include, but not be limited to, adopting rules and regulations for the protection of the public and the control of horse racing and pari-mutuel wagering. Business and Professions Code section 19562 states the Board may prescribe rules, regulations, and conditions, consistent with the provisions of this chapter, under which all horse races with wagering on their results shall be conducted in this state. Business and Professions Code section 19408.2 defines a claiming race as a race in which any horse entered therein may be claimed in conformity with the rules established by the Board.

At its October 2007 Regular Meeting, the Board heard a Thoroughbred Owners of California (TOC) proposal to add a rule that would allow an owner to enter a horse in a claiming race with a declaration that such horse was ineligible to be claimed if the horse was returning from a lay-off of at least 180 days, and was entered for a claiming price equal to or greater than the price at which it last started. TOC stated many horse owners wished to give their horses time to rest, but they ran the risk of losing such horses as soon as they returned to racing. The TOC believed that horse owners who made an investment in their horses' health deserved a limited, optional protection from being claimed. The Board directed staff to work with TOC to develop a rule to implement TOC's proposal. A proposal to add Rule 1634, Alternative Claiming Races, was subsequently noticed for a 45-day public comment period.

The addition of Rule 1634 became effective September 20, 2008. The rule allows a horse that is entered in a claiming race to be declared ineligible for claiming under certain conditions. The conditions are: 1) the horse must not have started for a period of at least 180 days since its last race; 2) the horse must be entered for a claiming price equal to or higher than at which it last started; 3) failure to declare the horse ineligible for claiming may not be remedied; and 4) ineligibility shall apply only to the first start after each layoff.

At its July 2010 Regular Meeting the Board discussed the possibility of amending Rule 1634. The Board determined the rule was not being used to full effect, and though it did not have a proposed rule amendment to examine, the Board indicated it would be interested in any industry suggestions. The TOC representative stated his organization wished to study the effects of the rule, which had been in effect a little over a year. The TOC pledged to work with the CTT and racing secretaries to determine how many times the rule had been used, and to develop proposals for amending the rule.

## RECOMMENDATION

This item is presented for Board discussion and action.

CALIFORNIA HORSE RACING BOARD  
TITLE 4. CALIFORNIA CODE OF REGULATIONS  
ARTICLE 7. CLAIMING RACES  
RULE 1634. CLAIMING OPTION ENTRY

Regular Board Meeting  
February 17, 2011

1634. Claiming Option Entry.

(a) At the time of entry into a claiming race, the owner may opt to declare a horse ineligible to be claimed provided:

(1) The horse has been laid off and has not started for a minimum of 180 days since its last race, and

(2) The horse is entered for a claiming price equal to or greater than the price at which it last started.

(b) Failure to declare the horse ineligible at the time of entry may not be remedied.

(c) Ineligibility shall apply only to the first start following each such layoff.

Authority: Sections 19420 and 19440,  
Business and Professions Code.

Reference: Sections 19408.2 and 19562,  
Business and Professions Code.

STAFF ANALYSIS  
DISCUSSION AND ACTION BY THE BOARD REGARDING  
A PLAN BY THE COMMERCE CASINO MINISATELLITE WAGERING FACILITY  
TO EXPAND ITS FACILITY TO INCLUDING AN ADJACENT BUILDING

Regular Board Meeting  
February 17, 2011

BACKGROUND

Assembly Bill (AB) 241 (Price), Chapter 594, Statutes of 2007, added sections 19410.7, 19605.25 and 19605.54 to the Business and Professions Code to provide that the Board may authorize up to 15 minisatellite wagering sites in each of the three zones (total 45) under certain conditions. Board Rule 2066, Application for License to Operate a Minisatellite Wagering Facility, sets forth the application process and provides the criteria for persons or entities who wish to operate a Minisatellite Wagering Facility.

At its April 24, 2009, Regular Meeting the Board approved an application for license to operate a minisatellite wagering facility of the California Commerce Club, Inc. d/b/a Commerce Casino. The Commerce Casino would offer minisatellite wagering at the Commerce Casino in Commerce, California, for a period of up to two years. Operations would begin upon approval of the application. The Commerce Casino is in the southern zone, and at the time of application it requested a six-month exclusive right among card clubs in Los Angeles County to operate a minisatellite facility. The Commerce Casino opened with five convertible teller/self service machines, four dedicated self-service machines, and a seating capacity of 35, with nine tables and 14 television monitors. The Board approved the California Commerce Club application for license to operate a minisatellite wagering facility with a six-month exclusive right, and the option to extend its license for an additional 18 months.

At the July 2009 Regular Board Meeting Rod Blonien, representing the California Commerce Club, stated the minisatellite wagering facility at Commerce Casino opened the week of July 13, 2009, without advertising or promotions. He said the facility did \$10,000 on Hollywood Park racing its first night, and within three days did \$37,000. On the opening day of the Del Mar meeting, Mr. Blonien reported the Commerce Casino minisatellite did \$42,000.

At the October 15, 2009 Regular Board Meeting Rod Blonien, representing the California Commerce Club, stated the minisatellite wagering facility opened a second room with self service machines, while the original room had four windows with two pari-mutuel clerks during the daytime. The Commerce Club minisatellite was averaging between \$80,000 and \$60,000 a day, which represented the generation of one million dollars in purse money. Mr. Blonien added the nearest full-scale satellite facility was located 17-miles away at Los Alamitos (within the 20-mile limit) but no diminution of handle was reported from that facility.

At the December 16, 2010 Regular Board Meeting Rod Blonien, representing the California Commerce Club informed the Board of the facilities plans to expand its minisatellite wagering facility.

## ANALYSIS

The Commerce Club was the very first mini-satellite wagering facility, and has proved to be quite successful. The number of people wagering at the Commerce Club has increased to the point that they can no longer accommodate the crowd in two rooms. The Commerce Club is currently averaging a daily handle in excess of \$80,000.

The Commerce Club proposes that they refurbish an adjacent building, at their substantial cost, in order to accommodate their large crowds. The new facility would be approximately 10,000 square feet and include beverage and food service for the customers. The facility would also include a smoking patio.

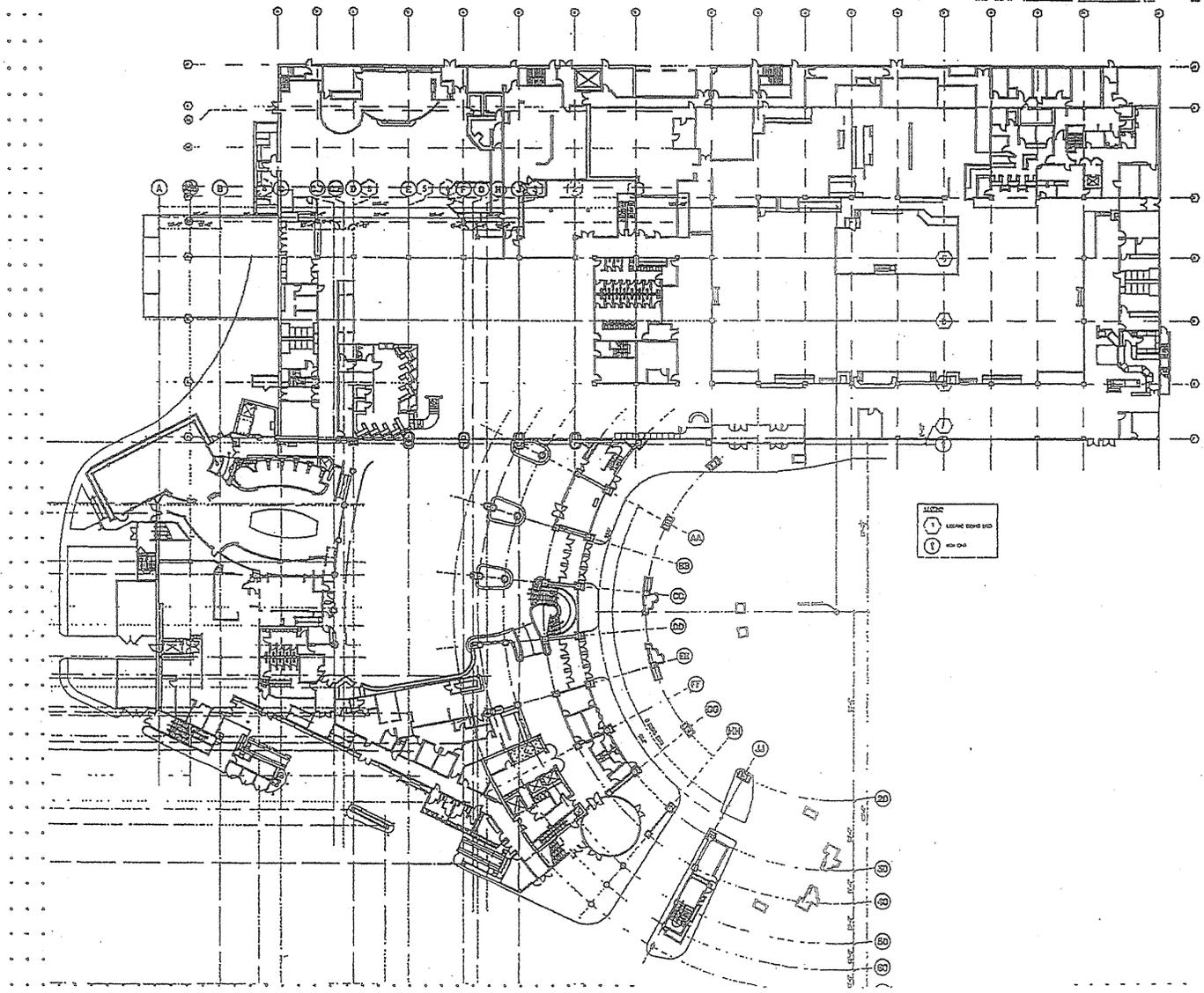
The Commerce Club is asking for approval at this time prior to extending money for architectural drawings and permits for the city.

It is anticipated that the Commerce Club's application for renewal of its minisatellite satellite wagering license will be received and presented to the Board at its March 17, 2011 Board meeting.

## RECOMMENDATION

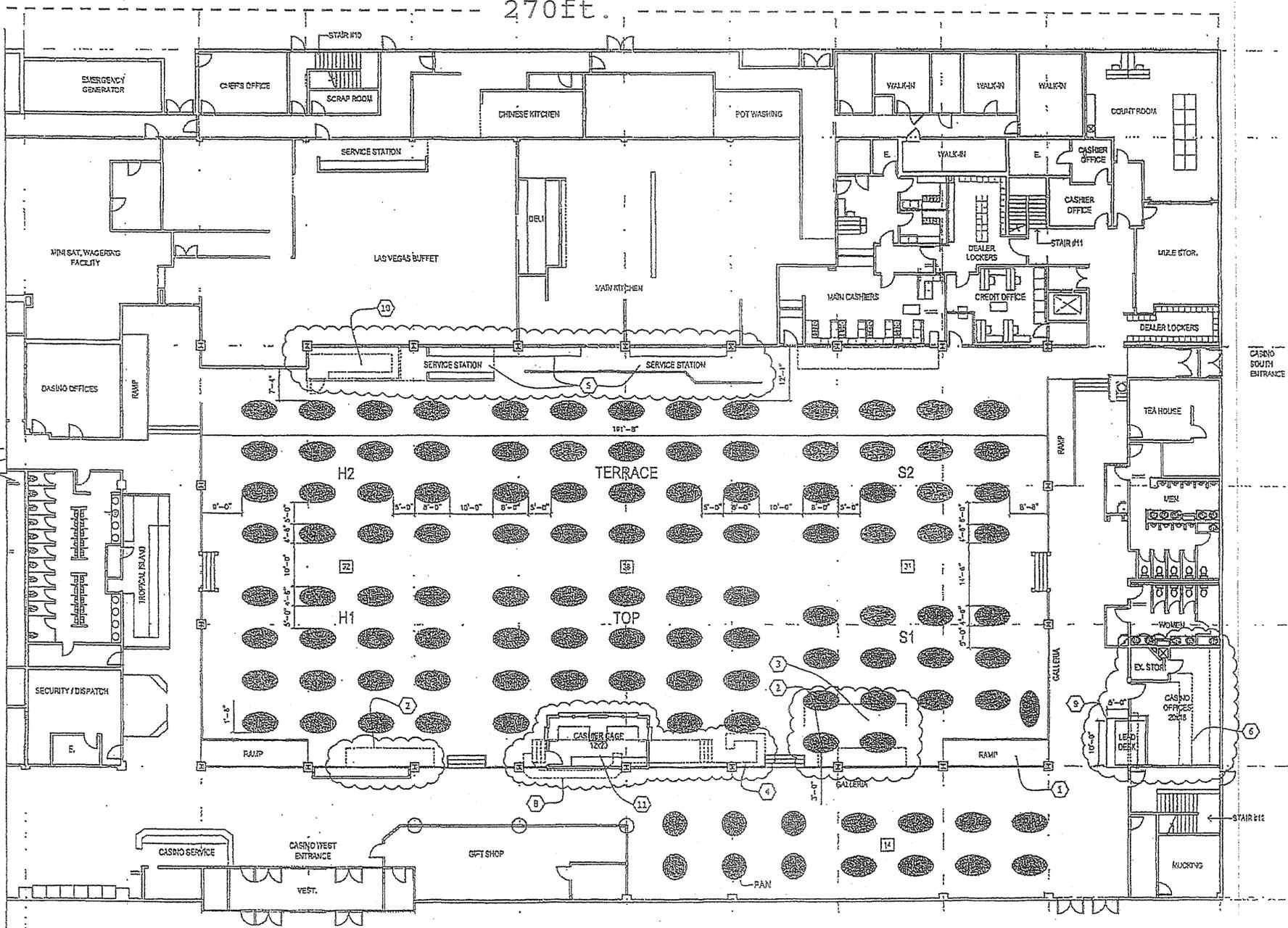
Staff recommends the Board hear from the Commerce Club representative.

DIAGRAM



270ft.

200ft



STAFF ANALYSIS  
DISCUSSION AND ACTION BY THE BOARD  
REGARDING THE ALLOCATION OF THE BALANCE OF THE 2011 SOUTHERN  
CALIFORNIA THOROUGHBRED RACE DATES

Regular Board Meeting  
February 17, 2011

BACKGROUND

Business and Professions Code section 19440 (a) states the Board shall have all powers necessary and proper to enable it to carry out fully and effectually the purposes of this chapter. Responsibilities of the Board shall include allocation of racing dates to qualified associations in accordance with law.

Board Rule 1430, Allocation of Racing Weeks and Dates, states the Board shall allocate racing weeks and dates for the conduct of horse racing in this State for such time periods and at such racing facilities as the Board determines will best subserve the purposes of the Horse Racing Law and which will be in the best interests of the people of California in accord with the intent of the Horse Racing Law.

In preparation for discussion regarding 2011 race date allocations, the industry was asked to submit proposed 2011 race dates. At the September 23, 2010 meeting of the Board, proposals for southern California thoroughbred race dates were received from the Los Angeles Turf Club (LATC); Hollywood Park Racing Association (HPRA); Del Mar Thoroughbred Club (DMTC); Oak Tree Racing Association (OTRA) and Fairplex Park Pomona (Pomona). The Los Alamitos Race Course also submitted its proposed 2011 race dates.

HPRA submitted a calendar that reflected calendar periods in which southern California tracks would operate rather than specific days on which live racing would be conducted. HPRA stated that the number of days that a given association conducted live racing should be reflective of industry conditions, including the horse population. LATC also submitted a calendar that reflected the calendar periods for southern California thoroughbred racing, rather than specific days on which live racing would be conducted. Both associations reserved the right to resubmit their requests for 2011 racing dates should a racing association in 2011 seek an alteration of the historic calendar periods in which the racing association has operated.

HPRA and LATC's proposed southern California calendars were identical with the exception that LATC proposed the dates of September 28, 2011 through November 8, 2011 be allocated to LATC; while the calendar submitted by HPRA proposed that these dates be allocated to the OTRA.

Pacific Racing Association (PRA) submitted a northern California 2011 proposed racing calendar in conjunction with the Thoroughbred Owners of California (TOC) and California Thoroughbred Trainers (CTT).

A northern California 2011 proposed racing calendar was also submitted by the California

Authority of Racing Fairs (CARF).

Cal Expo Harness proposed to race 129 days - December 30, 2010 through June 18, 2011 and August 12, 2011 through December 17, 2011.

At its September 23, 2010 meeting the Board adopted the 2011 Los Alamito dates of January 1, 2010 through December 18, 2011 and the 2011 Cal Expo harness dates of December 30, 2010 through December 17, 2011. The allocation of the northern and southern California thoroughbred race dates was deferred as there were areas that still needed to be resolved.

As presented at the September 23, 2010 meeting, there was consensus on the winter dates for the 2011 LATC race meeting at SA (December 26 through March 31, 2011). In addition, the industry was in agreement on the 2011 proposed dates for the HPRA spring meeting (April 20 through July 19, 2011), and the July 20 through September 7, 2011 race dates at Del Mar.

The outstanding issue for southern California was the OTRA meeting. HPRA proposed that the September 28, through November 8, 2011 race dates be allocated to OTRA at HP while, LATC submitted a competing request that PRA run the same dates at SA. It was suggested that a meeting involving all the relative parties be arranged to consider the 2011 race dates and beyond.

Subsequent to the September meeting, proposals for southern California thoroughbred race dates were resubmitted by LATC and HPRA. PRA in conjunction with CARF also submitted it's agreed upon calendar.

HPRA and LATC's proposed southern California calendars were again identical with the exception that LATC proposed the dates of September 28, 2011 through November 8, 2011 be allocated to PRA at SA; while the calendar submitted by HPRA proposed that these dates be allocated to the OTRA at HP.

At its November 9, 2010 the Board approved the Northern California 2011 race dates calendar submitted by PRA in conjunction with CARF. The Southern California 2011 race dates calendar was approved through the conclusion of the Del Mar Race meeting, ending September 7, 2011.

## ANALYSIS

OTRA has applied for the following 2011 race dates: September 28, 29, 30, October 1, 2, 5, 6, 7, 8, 9, 10, 13, 14, 15, 16, 19, 20, 21, 22, 23, 26, 27, 28, 29, 30, November 2, 3, 4, 5, 6,. They are requesting that the race meeting be conducted at Hollywood Park.

LATC proposes that the September 28, 2011 through November 6, 2011 race dates be allocated to LATC at Santa Anita.

## RECOMMENDATION

This item is presented for Board discussion and action.



Sherwood C. Chillingworth  
Executive Vice-President

January 8, 2011

Ms. Jacqueline Wagner  
California Horse Racing Board  
1010 Hurley Way  
Suite 300  
Sacramento, CA 95825

Sent via mail and email

Dear Jacqueline:

Oak Tree is hereby applying for the following racing dates in 2011: September 28, 29, 30, October 1, 2, 5, 6, 7, 8, 9, 10, 13, 14, 15, 16, 19, 20, 21, 22, 23, 26, 27, 28, 29, 30, November 2, 3, 4, 5, 6, in accordance with an Agreement with Hollywood Park to run these dates at their track.

Obviously, with the uncertainty of the horse inventory during this period we may have to reduce these dates subject to CHRB approval.

Sincerely

SCC:jh

285 West Huntington Drive, P.O. Box 60014, Arcadio, California 91066-6014  
(626) 574-6345 FAX (626) 447-2940

PROPOSED - 2011 Southern California Race Dates - Oak Tree Racing Association

9-4

December						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
26	27	28	29	30	31	

Legend:

LATC

HP - Spring

Del Mar

Fairplex

HP Fall

Oak Tree 30

January						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

February						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28					

March						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

April						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

May						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

June						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

July						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

August						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

September						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

October						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

November						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

December						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

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George Haines, II  
President and General Manager

February 9, 2011

Mr. Kirk Breed  
California Horse Racing Board  
1010 Hurley Way, Suite 300  
Sacramento, CA 95825

Dear Mr. Breed:

This letter shall confirm the intentions of Santa Anita Park to pursue a license to conduct live racing from September 28, 2011 through November 6, 2011. Our views on the Southern California racing calendar, and the fall race dates in particular, have been discussed at length at various meetings of the California Horse Racing Board and/or Race Dates Committee. We would be happy to reiterate these views in a presentation to the Board if that would be helpful.

Very truly yours,

George Haines

GH:sm

PROPOSED 2011 Southern California Race Dates - Los Angeles Turf Club Inc.

9-6

December						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
26	27	28	29	30	31	

Legend:

LATC

HP - Spring

Balance of 2011 Southern California Race Dates to be determined

Del Mar

Santa Anita Park - 2011 Dates:

December 26, 2010 - April 17, 2011

September 28 - November 6, 2011

Santa Anita Fall

(PRA)

January						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

February						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
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March						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
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April						
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May						
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29	30	31				

June						
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July						
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31						

August						
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September						
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October						
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30	31					

November						
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27	28	29	30			

December						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
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18	19	20	21	22	23	24
25	26	27	28	29	30	31

# APPROVED - 2011 Racing Calendar for Southern California

## Allocated Race Weeks

**Legend:**

**LATC**            12/26 - 4/19

**Del Mar**        7/20 - 9/17

**HP - Spring**    4/20 - 7/19

Balance of 2011 Southern California race dates to be determined.

December						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
26	27	28	29	30	31	

January						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
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23	24	25	26	27	28	29
30	31					

February						
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27	28					

March						
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27	28	29	30	31		

April						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
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May						
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29	30	31				

June						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
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19	20	21	22	23	24	25
26	27	28	29	30		

July						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
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17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

August						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

September						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
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4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

October						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
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9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

November						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

December						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
				3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

Adopted by the Board 11/9/2010

\* Subject to Modification

Exact number of Race Dates to be determined upon submission

and approval of an application to conduct a race meeting.

# APPROVED - 2011 Racing Calendar for Northern California

## Allocated Race Weeks

PRA/LATC Number of Race Days	179	CARF Meets	57
PRA Winter/Spring	December 26 - June 12	Ferndale Overlap	6
PRA Fall	October 19 - December 18	Simulcast Only	22
LATC Summer	August 19 - October 2		

<b>Total Fairs</b>	<b>63</b>
<b>Total</b>	<b>264</b>

December						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
26	27	28	29	30	31	
4						1

January						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					
18						4

May						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				
22						4

September						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	30	30	
19						4

Stockton - June 15 - June 19 5

February						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28					
16						4

June						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		
9		5				7

October						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					
12						10

Pleasanton - June 22 - July 10 15

Cal Expo - July 13 - July 24 10

March						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31
17						5

July						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						
8		10				5

November						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			
21						

Santa Rosa - July 27 - August 14 15

Ferndale - October 3 - 16 10

April						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
18						4

August						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			
9	10		6			2

December						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25					
14						

Ferndale (overlap)- Aug. 12-14 & 19-21 6

Ferndale (overlap)- Aug. 12-14 & 19-21 2

Adopted by the Board 11/9/2010  
\* Subject to Modification

Exact number of Race Dates to be determined upon submission  
and approval of an application to conduct a race meeting.

# APPROVED - 2011 Racing Calendar for Los Alamitos

## Allocated Race Weeks

**Los Alamitos 150**

### December

Sun	Mon	Tue	Wed	Thu	Fri	Sat
26	27	28	29	30	31	

### January

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

14

### February

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28					

11

### March

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

12

### April

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

14

### May

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

13

### June

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

12

### July

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

15

### August

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

12

### September

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

13

### October

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

14

### November

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

11

### December

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

9

Adopted by the Board 9/23/2010

\* Subject to Modification

Exact number of Race Dates to be determined upon submission  
and approval of an application to conduct a race meeting.

# APPROVED - 2011 Racing Calendar for Harness and the State Fair

## Allocated Race Weeks

### December

Sun	Mon	Tue	Wed	Thu	Fri	Sat
26	27	28	29	30	31	

4

	State Fair Racing Days	10
	Harness Racing Days	129

### January

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

### February

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28					

### March

Sun	Mon	Tue	Wed	Thu	Fri	Sat
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27	28	29	30	31		

### April

Sun	Mon	Tue	Wed	Thu	Fri	Sat
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17	18	19	20	21	22	23
24	25	26	27	28	29	30

### May

Sun	Mon	Tue	Wed	Thu	Fri	Sat
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15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

### June

Sun	Mon	Tue	Wed	Thu	Fri	Sat
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26	27	28	29	30		

### July

Sun	Mon	Tue	Wed	Thu	Fri	Sat
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17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

### August

Sun	Mon	Tue	Wed	Thu	Fri	Sat
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21	22	23	24	25	26	27
28	29	30	31			

### September

Sun	Mon	Tue	Wed	Thu	Fri	Sat
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### October

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30	31					

### November

Sun	Mon	Tue	Wed	Thu	Fri	Sat
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13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

### December

Sun	Mon	Tue	Wed	Thu	Fri	Sat
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17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

Adopted by the Board 9/23/2010  
\* Subject to Modification

Exact number of Race Dates to be determined upon submission  
and approval of an application to conduct a race meeting.

STAFF ANALYSIS  
DISCUSSION AND ACTION BY THE BOARD  
REGARDING THE STATUS OF THE LABOR NEGOTIATIONS WITH THE  
ADVANCE DEPOSIT WAGERING PROVIDERS

Regular Board Meeting  
February 17, 2011

BACKGROUND

Business and Professions Code section 19440 states the Board shall have all powers necessary and proper to enable it to carry out fully and effectually the purposes of this chapter. Responsibilities of the Board shall include, but not be limited to administration and enforcement of all laws, rules, and regulations affecting horse racing and pari-mutuel wagering, as well as adjudication of controversies arising from the enforcement of those laws and regulations dealing with horse racing and pari-mutuel wagering. Business and Professions Code section 19460 states all licenses are subject to all rules, regulations and conditions from time to time prescribed by the Board. Business and Professions Code section 19461 provides that every license granted under this chapter is subject to suspension or revocation by the Board in any case where the Board has reason to believe that any condition regarding it has not been complied with, or that any law, including the Labor Code and the regulations adopted thereunder, or any rule or regulation of the Board affecting it has been broken or violated. Business and Professions Code section 19604(d)(1)(B) states the Board shall not approve an application for an original or renewal license as an advance deposit wagering (ADW) provider unless the entity, if requested in writing by a bona fide labor organization no later than ninety days prior to licensing, has entered into a contractual agreement with that labor organization.

At the December 16, 2010, Regular Board Meeting, the application for approval to conduct Advance Deposit Wagering (ADW) of ODS Technologies, L.P., dba TVG Network (TVG); Churchill Downs Technology Initiatives Company, dba Twinspires and Youbet; XpressBet LLC. dba XpressBet.com, DelMarBets.com and OakTreeBets.com for an out-of-state multi-jurisdictional wagering hub, for a period of up to but not exceeding two years was presented for approval. The Youbet in state application for approval to conduct ADW was also presented for approval. The Board discussed the labor requirements and the ongoing negotiations between the ADW providers, horsemen and tracks. The Board determined there were too many outstanding items and unresolved issues to provide license approvals, and subsequently Board granted the ADW providers with a 30 day conditional license extension. At that meeting TVG submitted a complete application and was approved for a one-year license through December 2011. The Board also approved a one-year license for Twinspires and XpressBet subject to conditions. (The Youbet ADW applications were withdrawn by the Churchill Downs Representative) Twinspires application was approved contingent upon the submission of a hub agreement; an agreement with the horsemen; and an agreement with the pari-mutuel labor union. The XpressBet application was also approved contingent upon completion of the labor agreement.

Subsequent to the January meeting, staff received the hub agreement and horsemen's agreement for Twinspires. The labor agreements continue to be outstanding for Twinspires and XpressBet.

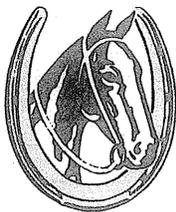
Following the January 2011 Board meeting staff contacted Twinspires and XpressBet to obtain a status update of their labor negotiations. *XpressBet submitted "Based on XpressBet's understanding of Local 280's position in respect of the required labor agreement between XpressBet and Local 280, XpressBet does not currently believe the parties will be able to resolve the current dispute within the 21-day timeframe set by the CHRB. Accordingly, XpressBet has begun the process of preparing for a March hearing before the CHRB to determine which side's position accurately reflects the mandates in California's ADW law"* Twinspires indicated that they had ". . . just reached out to the union representative again and would follow up". To date, no further labor information has been submitted by Twinspires.

Pari-Mutuel Employees Guild, SEIU Local 280 submitted a letter, dated January 31, 2011, informing the Board that they have not reached an agreement with Twinspires or XpressBet.

Representatives of Twinspires, XpressBet and Local 280, are prepared to address the Board regarding the status of the labor agreements.

#### RECOMMENDATION

This item is presented for discussion and action.



# PARI-MUTUEL EMPLOYEES GUILD

OF CALIFORNIA  
SEIU Local 280

LOCAL 280

10-3

**SEIU**  
Leading the Way

Richard D. Castro  
*President*

Sean Pierce  
*Secretary-Treasurer*

**OFFICE**  
1838 E. Huntington Dr.  
Duarte, CA 91010  
(626) 301-7900  
Fax (626) 301-7960

Ross E. Nichols  
*Vice-President*

Michael J. Haake  
*Vice-President*



January 31, 2011

California Horse Racing Board  
1010 Hurley Way, Suite 300  
Sacramento, CA 95825

RE ADW Negotiations Update

To Keith Brackpool, Chairman  
David Israel, Vice Chairman  
Commissioners  
Kirk Breed, Executive Director  
Jackie Wagner, Legislative Staff

This is to inform you that we have had meetings with Twinpires and Xpressbet to try and resolve one outstanding issue.

Unfortunately, neither side is willing to compromise and thus we have hit a stalemate and I don't expect there will be any more meetings in the future prior to the next scheduled CHRB General Board meeting.

If you have any questions, I can be reached at (626) 301-7900 ext 15.

Respectfully,

Richard D. Castro  
President, SEIU Local 280

UPDATE TO THE BOARD REGARDING A REPORT CONCERNING THE REVENUE  
STREAM; THE TAKEOUT DOLLAR IN CALIFORNIA WHERE IT GOES AND HOW IT IS  
USED AND THE SOURCES OF HANDLE.

Regular Board Meeting  
February 17, 2011

## BACKGROUND

Business and Professions Code section 19550 (a) states that the Board may tabulate, analyze and publish statistical information based on pari-mutuel handles, attendance, distribution of pari-mutuel proceeds among fees, commissions, purses, and awards, upon the breeding and production of race horses or other information related to pari-mutuel wagering. The California Horse Racing Information Management System (CHRIMS) is the organization recognized by the Board to provide the above services.

## ANALYSIS

This is an update to the information provided at the July 22, 2010 Board Meeting. At the meeting, the Board requested that the description of the statutory distributions be updated to include the name of the fund recipient. The following information is for fiscal year 2009/10.

The California Horse Racing Law establishes statutory distributions and percentages for amounts that are not distributed back to the wagering public (takeout). Statutory distributions vary according to many criteria, including the location where the wager is placed, the breed being raced, the type of wager, the type of host track, and the race type (meaning where the race was conducted). Brief descriptions follow:

- The “location” of the wager includes the following location types:
  - On-track, meaning a wager placed in California at the track where the race was conducted
  - Off-track, meaning a wager placed in California at a brick and mortar site that is not conducting racing.
  - Out of state, or export, meaning a wager placed outside California on a race conducted in California
  - Advanced deposit (“ADW”), meaning a wager facilitated by a provider licensed to conduct business in California. The location of an ADW bet is determined by the zip code of the resident making the wager.
- “Breed” refers to the different types of horses on which pari-mutuel wagering is conducted, including thoroughbred, quarter horse, standard bred, and the emerging breeds such as paint, mules, Arabians, and appaloosas.
- “Type of wager” refers to bet types, which include conventional wagers (win, place and show), and exotic wagers, (i.e. exacta, trifecta, superfecta, daily double, pick 3, pick 4, pick 6, etc.)
- “Host track types” include thoroughbred associations, racing fairs, quarterhorse associations and harness horse associations.

- The “location of the track” where the race was conducted determines the race type, which includes:
  - Live race wagers are those placed on races conducted at the host’s track. For thoroughbred and racing fair meets, live race reports exclude wagering in the zone or zone(s) in California located outside the host’s zone, as determined by California Racing Law.
  - Out of zone (intrastate) race wagers include bets placed in the southern or central zones on races run in the northern zone, or vice versa). Out of zone race types are applicable only to thoroughbred and racing fair meets.
  - Interstate race wagers include bets placed in California on races conducted in other states
  - International race wagers include bets placed in California on races conducted outside the United States

Given the number of variables that determine the statutory distributions of the takeout, the blended percentages will vary from period to period depending on the predominance of any of the variables that may occur during a particular time period. For this exercise, we focused on the race type of the wager for all California host tracks. The time period is from July 1, 2009 through June 30, 2010 (fiscal year 2009-10). The data is presented showing distributions as a percentage of the takeout. The total takeout and handle attributable to that view is presented at the bottom of each chart. Last, we have included some short definitions of the statutory distributions as well as their legal references and name of the fund recipients.

The following eight tables show the statutory distribution amount and its applicable percent of the total takeout for the race type wager.

Table 1 shows the takeout distribution from live races placed in California for fiscal year 2009-2010, excluding wagers generated by ADW providers licensed to conduct business in California. The total takeout was \$142,973,358, which represents 19.72 percent of the total handle. For instance, the amount generated for purses from live races was \$48,975,957 or 34.26 percent of the total takeout generated from live races in California.

<b>Table 1</b>			
<b>Brick and Mortar in California-Live Races</b>			
	<b>Distribution</b>	<b>% of Takeout</b>	<b>% of Handle</b>
<b>F &amp; E</b>	<b>936,656</b>	<b>0.66%</b>	
<b>CHRB Support</b>	<b>4,910,268</b>	<b>3.43%</b>	
<b>Equine Research Lab</b>	<b>724,878</b>	<b>0.51%</b>	
<b>Workers Comp Fund</b>	<b>2,343,665</b>	<b>1.64%</b>	
<b>City Tax</b>	<b>2,392,096</b>	<b>1.67%</b>	
<b>Promotion Fund</b>	<b>1,646,417</b>	<b>1.15%</b>	
<b>Van/Stabling</b>	<b>3,832,767</b>	<b>2.68%</b>	
<b>Location Fee</b>	<b>8,705,463</b>	<b>6.09%</b>	
<b>Expense Fund</b>	<b>13,757,123</b>	<b>9.62%</b>	
<b>Purses</b>	<b>48,975,957</b>	<b>34.26%</b>	
<b>Owners Premiums</b>	<b>478,051</b>	<b>0.33%</b>	
<b>Breeders</b>	<b>4,033,826</b>	<b>2.82%</b>	
<b>Track</b>	<b>50,236,191</b>	<b>35.14%</b>	
<b>Total Takeout</b>		<b>100.00%</b>	
<b>Retained from Public</b>	<b>142,973,358</b>		<b>19.72%</b>
<b>Payable to Public</b>	<b>581,904,119</b>		<b>80.28%</b>
<b>TOTAL HANDLE</b>	<b>724,877,477</b>		

Table 2 shows the takeout distribution from out of zone races placed at brick and mortar sites in California for fiscal year 2009-2010. The total takeout from out of zone races was \$42,571,175 which accounts for 19.62 percent of the total handle. For instance, the amount generated for track commissions from out of zone races was \$12,083,848 or 28.39 percent of the total takeout generated from out of zone wagers.

<b>Table 2</b>			
<b>Brick and Mortar in California-Out of Zone Imports</b>			
	<b>Distribution</b>	<b>% of Takeout</b>	<b>% of Handle</b>
<b>F &amp; E</b>	<b>540,057</b>	<b>1.27%</b>	
<b>CHRB Support</b>	<b>1,406,928</b>	<b>3.30%</b>	
<b>Equine Research Lab</b>	<b>216,985</b>	<b>0.51%</b>	
<b>Workers Comp Fund</b>	<b>722,159</b>	<b>1.70%</b>	
<b>City Tax</b>	<b>714,759</b>	<b>1.68%</b>	
<b>Promotion Fund</b>	<b>866,374</b>	<b>2.04%</b>	
<b>Van/Stabling</b>	<b>2,656,408</b>	<b>6.24%</b>	
<b>Location Fee</b>	<b>3,396,903</b>	<b>7.98%</b>	
<b>Expense Fund</b>	<b>6,764,329</b>	<b>15.89%</b>	
<b>Purses</b>	<b>11,784,406</b>	<b>27.68%</b>	
<b>Owners Premiums</b>	<b>151,615</b>	<b>0.36%</b>	
<b>Breeders</b>	<b>1,200,074</b>	<b>2.82%</b>	
<b>Track</b>	<b>12,083,848</b>	<b>28.39%</b>	
<b>Import Host Fees</b>	<b>66,329</b>	<b>0.16%</b>	
<b>Total Takeout</b>		<b>100.00%</b>	
<b>Retained from Public</b>	<b>42,571,175</b>		<b>19.62%</b>
<b>Payable to Public</b>	<b>174,413,273</b>		<b>80.38%</b>
<b>TOTAL HANDLE</b>	<b>216,984,448</b>		

Table 3 shows the takeout distribution from California's brick and mortar sites for interstate races for fiscal year 2009-2010. The total takeout from interstate races was \$82,499,986 which accounts for 20.99 percent of the total handle. For instance, the amount generated for the Expense Fund from interstate races was \$13,119,595 or 15.90 percent of the total takeout generated from interstate races.

<b>Table 3</b>			
<b>Brick and Mortar in California-Interstate Imports</b>			
	<b>Distribution</b>	<b>% of Takeout</b>	<b>% of Handle</b>
<b>F &amp; E</b>	<b>192,721</b>	<b>0.23%</b>	
<b>CHRB Support</b>	<b>2,487,866</b>	<b>3.02%</b>	
<b>Equine Research Lab</b>	<b>393,008</b>	<b>0.48%</b>	
<b>City Tax</b>	<b>1,280,031</b>	<b>1.55%</b>	
<b>Promotion Fund</b>	<b>1,600,675</b>	<b>1.94%</b>	
<b>Van/Stabling</b>	<b>4,178,091</b>	<b>5.06%</b>	
<b>Location Fee</b>	<b>7,456,785</b>	<b>9.04%</b>	
<b>Expense Fund</b>	<b>13,119,595</b>	<b>15.90%</b>	
<b>Purses</b>	<b>18,775,171</b>	<b>22.76%</b>	
<b>Owners Premiums</b>	<b>237,141</b>	<b>0.29%</b>	
<b>Breeders</b>	<b>2,175,909</b>	<b>2.64%</b>	
<b>Track</b>	<b>19,036,943</b>	<b>23.08%</b>	
<b>Import Host Fees</b>	<b>11,566,051</b>	<b>14.02%</b>	
<b>Total Takeout</b>		<b>100.00%</b>	
<b>Retained from Public</b>	<b>82,499,986</b>		<b>20.99%</b>
<b>Payable to Public</b>	<b>310,501,334</b>		<b>79.01%</b>
<b>TOTAL HANDLE</b>	<b>393,001,320</b>		

Table 4 shows the takeout distribution from international race wagers placed at California's brick and mortar sites for fiscal year 2009-2010. The total takeout from international races was \$14,835,555 which accounts for 22.27 percent of the total handle. Similar to the above figures, the distribution can be obtained by multiplying the percentage of each distribution by the total takeout.

<b>Figure #4</b>			
<b>Brick and Mortar in California-International Imports</b>			
	<b>Distribution</b>	<b>% of Takeout</b>	<b>% of Handle</b>
<b>F &amp; E</b>	<b>23,110</b>	<b>0.16%</b>	
<b>CHRB Support</b>	<b>298,322</b>	<b>2.01%</b>	
<b>Equine Research Lab</b>	<b>66,631</b>	<b>0.45%</b>	
<b>City Tax</b>	<b>219,847</b>	<b>1.48%</b>	
<b>Promotion Fund</b>	<b>213,740</b>	<b>1.44%</b>	
<b>Van/Stabling</b>	<b>627,367</b>	<b>4.23%</b>	
<b>Location Fee</b>	<b>1,281,037</b>	<b>8.63%</b>	
<b>Expense Fund</b>	<b>2,326,720</b>	<b>15.68%</b>	
<b>Purses</b>	<b>3,811,259</b>	<b>25.69%</b>	
<b>Owners Premiums</b>	<b>35,689</b>	<b>0.24%</b>	
<b>Breeders</b>	<b>286,822</b>	<b>1.93%</b>	
<b>Track</b>	<b>3,861,819</b>	<b>26.03%</b>	
<b>Import Host Fees</b>	<b>1,783,195</b>	<b>12.02%</b>	
<b>Total Takeout</b>		<b>100.00%</b>	
<b>Retained from Public</b>	<b>14,835,555</b>		<b>22.27%</b>
<b>Payable to Public</b>	<b>51,784,229</b>		<b>77.73%</b>
<b>TOTAL HANDLE</b>	<b>66,619,785</b>		

Table 5 shows combines the first four charts, displaying the takeout distribution from all race types for wagers placed at California's brick and mortar sites for fiscal year 2009-2010. The total takeout from such wagers was \$282,880,075 which accounts for 20.18 percent of the total handle.

<b>Table 5</b>			
<b>Brick and Mortar in California-All Races</b>			
	<b>Distribution</b>	<b>% of Takeout</b>	<b>% of Handle</b>
<b>F and E Fund</b>	<b>1,692,544</b>	<b>0.60%</b>	
<b>CHRB Support</b>	<b>9,103,384</b>	<b>3.22%</b>	
<b>Equine Research Lab</b>	<b>1,401,502</b>	<b>0.50%</b>	
<b>Workers Comp Fund</b>	<b>3,065,824</b>	<b>1.08%</b>	
<b>City Tax</b>	<b>4,606,732</b>	<b>1.63%</b>	
<b>Promotion Fund</b>	<b>4,327,206</b>	<b>1.53%</b>	
<b>Stabling-Vanning Fund</b>	<b>11,294,633</b>	<b>3.99%</b>	
<b>Location Fee</b>	<b>20,840,188</b>	<b>7.37%</b>	
<b>Expense Fund</b>	<b>35,967,767</b>	<b>12.71%</b>	
<b>Purses</b>	<b>83,346,792</b>	<b>29.46%</b>	
<b>Owners Premiums</b>	<b>902,496</b>	<b>0.32%</b>	
<b>Breeders</b>	<b>7,696,631</b>	<b>2.72%</b>	
<b>Track</b>	<b>85,218,801</b>	<b>30.13%</b>	
<b>Import Host Fees</b>	<b>13,415,575</b>	<b>4.74%</b>	
<b>Total Takeout</b>		<b>100.00%</b>	
<b>Retained from Public</b>	<b>282,880,075</b>		<b>20.18%</b>
<b>Payable to Public</b>	<b>1,118,602,956</b>		<b>79.82%</b>
<b>TOTAL HANDLE</b>	<b>1,401,483,031</b>		<b>100.00%</b>

Table 6 shows the takeout distribution from advance deposit wagering in California for fiscal year 2009-2010 on all race types. The total takeout from advance deposit wagers was \$93,483,047 which accounts for 19.91 percent of the total handle.

<b>Figure #6</b>		
<b>Wagers placed in California via ADW</b>		
		<b>% of Takeout    % of Handle</b>
<b>Equine Research Lab</b>	<b>508,080</b>	<b>0.54%</b>
<b>DIR</b>	<b>138,569</b>	<b>0.15%</b>
<b>Backstretch Fund</b>	<b>762,120</b>	<b>0.82%</b>
<b>Location Fee</b>	<b>8,499,064</b>	<b>9.09%</b>
<b>Workers Comp Fund</b>	<b>732,638</b>	<b>0.78%</b>
<b>Retirement Fund</b>	<b>1,384,958</b>	<b>1.48%</b>
<b>OTWINC</b>	<b>13,007,523</b>	<b>13.91%</b>
<b>Breeders</b>	<b>2,110,894</b>	<b>2.26%</b>
<b>Purses</b>	<b>16,899,275</b>	<b>18.08%</b>
<b>Track</b>	<b>17,275,732</b>	<b>18.48%</b>
<b>Hub Fees</b>	<b>23,726,575</b>	<b>25.38%</b>
<b>Import Host Fees</b>	<b>8,437,634</b>	<b>9.03%</b>
<b>Total Takeout</b>		<b>100.00%</b>
<b>Retained from Public</b>	<b>93,483,047</b>	<b>19.91%</b>
<b>Payable To Public</b>	<b>375,993,741</b>	<b>80.09%</b>
<b>Total Handle</b>	<b>469,476,789</b>	<b>100.00%</b>

Table 7 shows the takeout distribution for wagers placed outside California on races conducted within California ("exports") for the fiscal year 2009-2010. The total takeout was \$311,991,673 which accounts for 19.87% of the total of such handle.

<b>Table 7</b>			
<b>Exports</b>			
<b>Bets placed outside California</b>			
	<b>Distribution</b>	<b>% of Takeout</b>	<b>% of Handle</b>
<b>F &amp; E</b>	182,454	0.06%	
<b>CHRB Support</b>	2,355,403	0.75%	
<b>Workers Comp Fund</b>	5,391,919	1.73%	
<b>Breeders</b>	1,910,610	0.61%	
<b>Purses</b>	36,447,261	11.68%	
<b>Track</b>	36,447,058	11.68%	
<b>Retained by Guests</b>	229,256,969	73.48%	
<b>Total Takeout</b>		<b>100.00%</b>	
<b>Retained from Public</b>	311,991,673		<b>19.87%</b>
<b>Payable To Public</b>	1,258,338,606		<b>80.13%</b>
<b>Total Handle</b>	1,570,330,279		<b>100.00%</b>

Figure 8 shows the blended takeout for commingled wagers placed in California on all race types, plus commingled wagers placed outside California on races conducted in California for fiscal year 2009-2010. The total blended takeout from all sources was \$688,354,795 which accounts for 20 percent of the total handle.

<b>Table 8</b>			
<b>All bets on races run in CA plus imports from out of state tracks</b>			
	<b>Distribution</b>	<b>% of Takeout</b>	<b>% of Handle</b>
<b>F and E Fund</b>	1,874,997	0.27%	
<b>CHRB Support</b>	11,458,786	1.66%	
<b>Equine Research Lab</b>	1,909,583	0.28%	
<b>DIR</b>	138,569	0.02%	
<b>Backstretch Fund</b>	762,120	0.11%	
<b>Retirement Fund</b>	1,384,958	0.20%	
<b>Workers Comp Fund</b>	9,190,381	1.34%	
<b>City Tax</b>	4,606,732	0.67%	
<b>Promotion Fund</b>	4,327,206	0.63%	
<b>Van/Stabling</b>	11,294,633	1.64%	
<b>Location Fee</b>	29,339,252	4.26%	
<b>Expense Fund</b>	48,975,290	7.11%	
<b>Purses</b>	136,693,328	19.86%	
<b>Owners Premiums</b>	902,496	0.13%	
<b>Breeders</b>	11,718,135	1.70%	
<b>Track</b>	138,941,591	20.18%	
<b>Retained by Guests</b>	229,256,969	33.31%	
<b>Import Host Fees</b>	21,853,209	3.17%	
<b>Hub Fees</b>	23,726,575	3.45%	
<b>Total Takeout</b>		<b>100.00%</b>	
<b>Retained from Public</b>	688,354,795		<b>20.00%</b>
<b>Payable to Public</b>	2,752,935,303		<b>80.00%</b>
<b>TOTAL HANDLE</b>	<b>3,441,290,099</b>		

Following are descriptions of some of the takeout distributions and the applicable Business and Professions Code sections for Traditional Handle and ADW Handle

Fund Description for Traditional (non ADW) Handle

City Tax 19610.3 19605.7, 19605.71

- Horse Racing Law provides for a distribution of 0.33 percent from California brick and mortar handle for the payment of possessory interest taxes, if any, assessed against the organization described in Section 19608.2, the racing association or fair. After payment of these taxes, the balance is distributed to the cities or counties in which the brick and mortar wagering was conducted.

Guests Horse Racing Contract

Refers to the portion of takeout retained by out of state entities that offer commingled wagering on races conducted in California.

Equine Research Fund 19610.2, 19605.7(a), 19605.71(a)

- The Horse Racing law provides UCD funds for research on equine related diseases and other health related issues. One-third (33 percent) is dedicated to the Center of Equine Health's research and education to advance the health, well-being, performance and veterinary care of horses. Two-thirds (67 percent) is dedicated to the California Animal Health and Food Safety Laboratory which provides appropriate and timely diagnostic support to safeguard the health of California's livestock and poultry industries and to protect the public health from animal disease.

Expense Fund 19605.7, 19605.71

- These funds pay for pari-mutuel labor, telephone/data lines, totalizator expense, the cost of sending the audio-visual signal of the racing program and other related costs to support the California off-track wagering program.

Location Fees 19605.7 (a), 19605.71(a)

- The various sites within California that participate in the off-track wagering program, including racetracks, fair locations, mini satellites and tribal sites in general receive 2 percent of the amount of simulcast handle generated at their location.

Promotion Fund 19605.73

- The Horse Racing Law allows for the formation of an organization to promote thoroughbred and fair racing in California and to defray the cost of workers' compensation coverage for stable employees and jockeys of thoroughbred trainers. The California Marketing Committee was created to fill this function. No more than one-sixth of the total amount available annually shall be used to defray cost of worker's compensation insurance.

## Stabling and Vanning Fund

19607

- Funds from this Section provide reimbursement for offsite stabling at board-approved auxiliary training facilities for additional stalls beyond the number of usable stalls the association or fair is required to make available, and for the vanning of starters from these additional stalls for thoroughbred races.

## Workers' Compensation Fund

19605.75, 19605.76, 19605.77

- A distribution of 0.5 percent of the amount handled in exotic pari-mutuel pools for thoroughbred and quarter horse races conducted in California is utilized to defray the cost of workers' compensation for trainers and owners. The distribution for harness horse meets is 1.0% of the amount handled in conventional pari-mutuel pools. These distributions apply to both Traditional and ADW handle.

## CHRB Support

19616.51 (a) (2)

- Funding for the Horse Racing Board in lieu of license fees. The annual formula is devised by the Board in consultation with industry to provide the CHRB support.

## F and E

19614(d), 19606.1, 19606.3, 19620.1, and 19620.2,

- Funds distributed to the Department of Fairs and Expositions, including 1.0 percent on races conducted at fair race meets, and the repayment of prior year shortfalls.

## Jockey's Welfare Plan

19612.9 (a)(1)

- Unclaimed refunds shall be distributed to the California Welfare Jockey's Corporation to provide medical insurance to qualified California jockeys and their dependents.

Fund Description for ADW Handle Generated in California

## Backstretch Fund

19604 (f) (3) (A) and (B)

- An amount equal to 0.165 percent (0.00165) of the amount handled on ADW wagers that originate in California. One-half of the amounts shall be distributed to supplement, not supplant, the trainer-administered pension plans for backstretch personnel. The other half shall be distributed to supplement, not supplant, the welfare fund established for horsemen and backstretch personnel.

## DIR/Problem Gambling

19604 (f) (2)

- An amount of 0.03 percent (0.0003) of the amount handled on ADW wagers originating in California shall be distributed to the Department of Industrial Relations ("DIR") to cover costs associated with its audits on California trainers' payroll. However if the amount generated exceeds the costs incurred by DIR, the remainder shall be forwarded

to an organization designated by the racing association to augment a compulsive gambling prevention program.

Equine Research Fund 19604.(f) (1)

- An amount equal to 0.0011 percent multiplied by the amount handled on ADW wagers originating in California for each racing meeting shall be distributed to the Center for Equine Health to establish the Kenneth L. Maddy for the benefit of the School of Veterinary Medicine at UC Davis Laboratory.

Retirement Fund 19604 (i) (1) and (2)

- The amounts distributed under this section shall be proportionally reduced by an amount equal to 0.00295 percent multiplied by the amount handled on ADW wagers originating in California for each racing meeting, and shall not exceed \$2,000,000. The amount deducted shall be distributed as follows:
  - Fifty percent shall be distributed to the California Horse Racing Board (Board) to establish and to administer jointly with the organization certified as the majority representative of California licensed jockeys a defined contribution retirement plan for licensed jockeys.
  - The remaining fifty percent shall be distributed as follows:
    - Seventy percent to supplement trainer-administered pension plans for backstretch personnel established pursuant to Section 19613.
    - Thirty percent to the welfare fund established for the benefit of horsemen and backstretch personnel pursuant to subdivision (b) of Section 19641.

OTWINC 19604 (f) (5) (E)

- The distribution to OTWINC, which augments the Expense Fund, is a modification of the distribution of net access market fees which would otherwise have been distributed to track commissions and purse commissions applicable to meets hosted by thoroughbred associations. The current rate is 1.75 percent for SCOTWINC and 2.90 percent for NCOTWINC of handle generated via advanced deposit wagers in their respective zones.

Hub Fee 19604 (a) (5)

- The portion of contractual compensation, excluding host fee payments, retained by ADW providers licensed to conduct business in California from wagers placed in California.

Import Host Fee 19604 (a) (B)

- Contractual amount received by tracks located outside of the state for accepting California wagers into their respective pools.

RECOMMENDATION

This item is presented for the information of and discussion by the Board