

IGSRV

International Group of Specialist Racing Veterinarians

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www.igsrv.org

Welcome

Welcome to the third issue of the IGSRV Newsletter. Any comments or contributions will be gratefully received at p.knight@usyd.edu.au.

I hope to see you at ICRAV 2010, in Queenstown New Zealand 7 -13 March.

Full details are at

www.icrav2010.com

Best wishes, Peter Knight



ICRAV 2012

The 19th ICRAV will be hosted by the University of Pennsylvania School of Veterinary Medicine in the Historic City of Philadelphia. The conference dates will be announced shortly.



IGSRV Website

Work on the site is progressing.

ICRAV proceedings should be uploaded within the next few weeks, and the member's section up as well.

Visit

www.igsrv.org

President's Message

Dear Members:

The Saratoga racing season is closing as I write this, and the highlight of the meet was Rachel Alexandra winning the Woodward. It was a thrilling race from start to finish, and the best race of the year, in my opinion. I hope you were able to see her performance. Of course, there's plenty of good racing remaining in the States this fall culminating in the Breeders' Cup on November 7th. The landscape has definitely changed here, with anabolic steroids essentially eliminated, TCO2 testing in all Graded Stakes, traction devices banned from front shoes, a new equine-friendly crop, and synthetic racing surfaces on several tracks.

It's worth a few moments to touch on the issues and highlights of American racing in recent months. Safety and welfare of the horse continue to dominate discussions throughout the industry, with medication still a hot topic. The much anticipated Lasix study in South Africa provided excellent scientific support for what most equine veterinarians have known clinically for years. Of course, the broader issues of performance enhancement and what may be best for the breed and future of racing remain unanswered. These promise to be major areas of debate in the months to come.

At The Jockey Club Round Table Conference in Saratoga, Louis Romanet, chairman of IFHA, gave an interesting presentation titled, "The Need for International Harmonization". He remarked that the Americans have done more in the last 12 months to address medication and welfare issues than during the previous 25 years. He closed by asking for a prohibition of medication (Lasix) in all graded and black-type races by the end of 2012. As you might imagine, that has drawn considerable reaction, fanning the flames of debate.

There is neither time nor space to detail all the initiatives and achievements here, but I will list a few.

- NTRA Safety and Integrity Alliance – to certify racetracks in the areas of injury reporting/prevention, creating a safer racing environment, aftercare and transition of retired horses, uniform medication, testing and penalties, and safety research. Ron Jensen is a member of the accreditation team and may be encouraged to provide a report for us in New Zealand.
- RMTC has approved new national laboratory standards for testing, implemented an accreditation program and a new Equine Quality Assurance Program.
- The Jockey Club is funding the frozen sample and retrospective testing program.
- The RMTC Scientific Advisory Committee will review existing research on NSAIDs. Regulatory veterinarians have expressed concern that the current policy of 24 hour administration prior to racing may compromise pre-race examinations.
- Grayson-Jockey Club Research Foundation is funding an innovative research project at the University of California-Davis designed to create a state-of-the-art method of assessing racetrack surfaces.
- The JC Thoroughbred Safety Committee recommended adjusting the current RCI Model Rule to allow toe grabs up to 4 mm on front shoes on dirt racing surfaces only. The ban on all other traction devices on front shoes will remain.
- The new whip model rule is now widely applied in the States, due in part to the initiative and cooperation of jockeys in some states where the rule making process is cumbersome and slow. Recent rule changes in Australia and Canada have been in the news lately as well, with some vocal opposition included.
- Synthetic racing surfaces have been drawing increased attention, with negative media reports from Delmar and the recent release of some preliminary data, which unfortunately was both incomplete and misleading. At this point, there are many more questions than answers, and I hope to see this as a presentation or round table topic in NZ.

I encourage you to visit The Jockey Club web site, www.jockeyclub.com, for more details on these and numerous other timely matters. Although racing has been reasonably strong in the face of the troubled economy, there was some disturbing news. The Jockey Club announced a projected 12% reduction in the foal crop for 2010. The estimate of 30,000 foals represents the smallest North American crop since 1977.

There are a couple of IGSRV matters for your attention. First, the 18th ICRAV in Queenstown, New Zealand is only six months away. Your participation is essential. I hope you have submitted abstracts and are thinking of round table topics. I was very pleased with the enthusiastic participation in those sessions during the conference in Turkey.

The IGSRV web site is up, and we are moving forward with phase two. This will include a "member's section" to facilitate secure access to restricted material, and the proceedings from all ICRAVs will be available. If things progress smoothly, you will also be able to pay your subscription fee and no longer have to carry cash to the conference or bother with international bank transfers. We have been very fortunate to have the generous support of The Jockey Club (TJCIS), Emirates Racing Authority, Hong Kong Jockey Club, and the Japan Racing Association.

I look forward to seeing you in Queenstown. Until then, keep up the good work and let us know how the IGSRV can serve you and your racing authority.

Respectfully yours,

Ted Hill

News from the United States

Round Table

The Jockey Club's 57th Annual Round Table Conference was held on Sunday, 23 August. The conference included presentations on domestic and international medication policies, equine safety, the post-racing care of

Thoroughbreds and the activities of The Jockey Club. A transcript of the conference is available at: http://www.jockeyclub.com/roundtable_09.asp.

Racehorse Retirement

The New York Racing Association (NYRA), members of the Jockeys' Guild who ride at its three racetracks, the New York Thoroughbred Horsemen's Association (NYTHA) and The Jockey Club, have jointly pledged more than \$100,000 to the Thoroughbred Retirement Foundation (TRF), which provides humane retirement options for Thoroughbreds at the end of their racing careers. Information about the TRF is available at trfinc.org.

The National Thoroughbred Racing Association (NTRA) Safety and Integrity Alliance has formed a special subcommittee focusing on aftercare of retired Thoroughbreds. Its goal is to work towards a national solution to issues surrounding retired Thoroughbred racehorses, including enhancement of aftercare funding and improvement of compliance and best-practice standards for racetracks and other industry participants. It has received a contribution of \$15,000 from the American Association of Equine Practitioners (AAEP).

The NTRA Safety and Integrity Alliance is a standing organization whose purpose is to establish standards and practices to promote safety and integrity in horseracing and to secure their implementation. Information on the Alliance can be found at www.NTRAalliance.com. Its Code of Standards is available at:

http://www.ntra.com/content/CODE_OF_STANDARDS.pdf

Uniform National Trainer's Test Study Guide

The Welfare and Safety of the Racehorse Summit has published and made available for purchase the *Uniform National Trainer's Test Study Guide*, a comprehensive resource for individuals preparing to take a state-administered trainer's licensing exam. The *Uniform National Trainer's Test Study Guide* is available for \$US40.00 from cmcneeley@jockeyclub.com. Additional information about the Welfare and Safety of the Racehorse Summit is available on the summit's website at <http://www.grayson-jockeyclub.org/summitdisplay.asp>.

Racehorse deaths

A study conducted by the Associated Press found that the number of horse deaths at racetracks in the USA decreased by 3% in 2008. Data was collected using open records requests in the 38 racing national racing jurisdictions. It showed that “of 26 states that furnished statistics, 12 reported more deaths in 2008 than the year before, while 13 reported fewer”.

The Associated Press report quoted a study presented to the California Horse Racing Board (CHRB) in August that showed that 19 of 111 horses that died on California synthetic tracks in 2008 suffered hind-leg injuries, while only one out of 65 horses that succumbed on dirt tracks suffered a hind-leg injury.

Louisiana reported the biggest improvement, dropping from 68 deaths in 2007 to 40 last year. The report quoted Tom David, as attributing the improvement to a new pre-race exam program that was launched last year.

Introduction to the Japan Racing Association - Role of veterinarians in Training Centers

Kanichi Kusano (Japan Racing Association)

As a follow up to the accident analyses in the previous newsletter, we would like to describe the role of JRA official veterinarians working in Training Centers.

Currently, there are 120 veterinarians affiliated in JRA (out of 2000 employees), managed by the Director of Equine Affairs. Veterinarians are located in Training Centers (TC), the Equine Research Institute, Equine Department (main office), Yearling Training Farms (YTF), and the Horseracing School and Equestrian Park. All veterinarians will start their career at TCs as general practitioners and rotate positions in a 3-5 years cycle to experience a variety of work.

Training Centers (TC)

The JRA has two TCs (Miho and Ritto). The Miho TC is located in Ibaraki Prefecture (in eastern Japan) and was opened in 1978. Approximately 2,300

racehorses are stabled and managed there by 100 trainers. The training facility consists of an indoor swimming pool, an uphill course, a cross country promenade and two training tracks (South and North) with various surfaces (turf, sand, woodchip and New Polytrack). The uphill course was extended by 400 meters in 2004, making the overall length 1,200 meters and New Polytrack (synthetic surface) was installed in 2007.

The Ritto TC is located in Shiga Prefecture (western Japan). It was opened in 1969 and was Japan's first training center. Its training facilities include turf, dirt, and woodchip courses, an uphill course of 1,085m and a racehorse swimming pool. There are approximately 2,200 horses stabled there, managed by 100 trainers.



Bird's eye view of the Ritto TC



Swimming pool

Racehorse Hospitals

The Miho and Ritto TCs both have the latest racehorse hospital facilities staffed by approximately 30 JRA veterinarians. The racehorse hospitals offer facilities and expertise for activities such as: (1) diagnosis and treatment of the diseases and locomotive injuries that occur during training and races, (2) medication control (Anti-Doping), (3) implementation of epidemic control activities for the prevention of outbreaks and/or the spread of infectious diseases, (4) continual maintenance of a database of the physical racing fitness of individual racehorse, (5) development and promotion of the latest research and techniques such as stem cell transplantation to SDFT tendonitis.

The total number of racehorses (patients) present to the JRA Racehorse hospital in 2008 and the major treatments provided were:

Registered horses	Patients	X-ray	Blood tests	Arthroscopy	Screw fixation	Castration
206401	2766	11308	19984	194	47	12

On race days (every weekend), veterinarians travel to race courses to serve as Veterinary officers to contribute in maintaining the integrity of the race and to provide medication for injured racehorses.



Arthroscopic surgery to remove bone chips

Please visit our website for more details.

<http://japanracing.jp/organization/center.html>

FEI

The FEI has released the report by Lord Stevens (former Chief of the Metropolitan Police) addressing a number of key issues in equestrian sport. These support and supplement the work of the Ljungqvist Commission for Clean Sport. The Stevens Commission was set up in May 2009 as an independent commission to assess and investigate practices among members of the German equestrian team, and its officials, at the Beijing 2008 Olympic Games.

The Stevens Commission's key recommendations include:

- Integrity Unit: The setting up of an independent Integrity Unit to maintain the status of a corruption free environment in the FEI and its sports.
- Professionalisation of the Sport: A greater number of roles should be professionalised by having paid officials.
- Protocols: Urgent review of protocols for all anti-doping testing, including an assessment of conflicts of interests.
- Stable Security at Competition Venues: More sophisticated and effective stable security at FEI Championships.

The recommendations will be put forward for approval by the National Federations at the FEI General Assembly in Copenhagen, Denmark (15-20 November) and implementation by 1 January 2010.

(FEI website)

Australian News

Hendra Virus

An outbreak of Hendra virus has occurred in Queensland. The disease was first reported in Hendra (Queensland) in 1994, and resulted in the death of a trainer and several horses. Since then, six more people have been confirmed to have been infected with Hendra virus, and four have died as a result,

including two Queensland vets who died in separate incidents in 2008 and 2009.

The virus is a member of the Paramyxoviridae virus family. Unlike other family members, which tend to be host-specific, Hendra can infect more than one animal species. It is believed that Flying Foxes (fruit bats) are the natural host for the virus. Infected bat urine, aborted bat foetuses or reproductive fluids could be involved in the transmission of the disease to horses.

In horses, Hendra virus can cause a range of clinical signs and should be considered where there is acute onset, fever and rapid progression to death associated with either respiratory or neurological signs. Most cases in horses are fatal but occasionally a horse will survive the infection. The reported mortality rate in affected horses is greater than 70%. No other animal is known to be infected naturally.

In humans, the onset of the virus can be extremely swift. Doctors have reported periods of just 24 hours between the first sign of symptoms and the descent into serious illness. The incubation period in humans is estimated at 5-14 days. The virus commonly affects the respiratory system and symptoms can resemble influenza and pneumonia often results. The virus often causes encephalitis type symptoms with headaches, high fever and drowsiness leading to convulsions or coma.

(CSIRO, ABC, Queensland DPI)

Whip Rules

The introduction of new rules relating to the use in whips has caused controversy in Australian thoroughbred racing over recent weeks. The new rules specified that:

“the whip is not to be used more than 5 times before the 200 metre mark, and after that point not in consecutive strides. Moreover, using an action that raises the arm above shoulder height will now be prohibited as will the use of the whip where there are no prospects of improving the horse’s placing”.

Introduced on 1 August 2009, they represented the end point of a process that began in September 2008 when the National Chairmen of Stewards

Advisory Group meeting in Darwin initiated a discussion paper entitled "Whip Use in Australian Thoroughbred Racing". On 12 December 2008, the Australian Racing Board determined that fundamental changes were required to control whip use, and on 19 March 2009 it amended the Australian Rules of Racing as described above. It began an education programme that included the production of national DVD detailing permitted and non permitted uses of the whip and seminars with jockeys. In June 2009 the ARB decided that there would be no moratorium on penalties imposed on jockey found to be in breach of the new rule, and that breaches of the whip rules were not grounds for a protest

The implementation of the rules was met with considerable opposition from a number of areas, including the media and jockeys who had been subject to penalty. In early September, jockeys staged a strike that halted racemeetings. On 10 September the ARB met and decided that there would be no change in the rules. On 15 September following further negotiations between the ARB and the Australian Jockey's Association, a compromise position was reached. According to an ARB press release "under the agreement arrived at today riders remain limited to 7 forehand strikes in the last 100 metres but are given discretion when to use these". On 23 September the ARB announced a trial of further changes that would run until 1 February 2010. The first was the introduction of a right of protest allowing the connections of a horse to lodge an objection where they believe that an unfair advantage has been gained through breach of the whip rules.

The second was a reduction in the limits on whip use over the course of a race. The rules introduced on 1st August, 2009 divided each race into two stages: prior to 200 metre mark and 200 metres to winning post. These were amended to prior to 100 metre mark and 100 metre mark to winning post. Riders will not be permitted to use the whip on consecutive strides nor on more than 5 occasions before the 100 m mark. In the last 100m, jockeys will be given individual discretion in the use of the whip. The whip may not be used when the horse is not in contention, is not responding, or is positioned

such that use of the whip is otherwise unnecessary (ie. only dividend-bearing placings are to be considered).

Two other measures, the introduction of padded whips and a restriction that whips only be used in a forehand manner have been widely accepted without opposition.

(Australian Racing Board <http://www.australianracingboard.com.au>)

Latest Research

Modern Riding Style Improves Horse Racing Times

A recent paper in Science (Vol. 325. no. 5938, p. 289, 17 July 2009) by Thilo Pfau, Andrew Spence, Sandra Starke, Marta Ferrari, Alan Wilson from the Structure and Motion Laboratory, The Royal Veterinary College described the effects of riding style on race times. They reported that the modern race riding posture was developed in the United States in the late 19th century, introduced to the United Kingdom in 1897, and universally adopted by 1910. Its adoption resulted in an improvement of 5 to 7% in race times in the United States between 1890 and 1900 and in the United Kingdom between 1897 and 1910. They hypothesised that the advantages of the modern riding position accrue because a jockey uncouples himself from the horse by moving relative to his mount, thus making the horse insensitive to increases in carried weight. In contrast, both conventionally seated riders and sandbags elicit an increase in mechanical and metabolic cost proportionate to the mass of the load.

Inheritance of racing performance

One common measure of the performance of Thoroughbreds evaluated genetically is racing time or final time. The heritability estimates differed according to method of estimation, age, sex, track and distance. Time measure generally had a heritability in the range of 0.1 to 0.2 with the higher values for shorter races. For handicap and earning measures the heritabilities reported were generally higher in the range of 0.3 to 0.4: hence these may be considered in genetic evaluation of racing performance of Thoroughbred horses. The average generation interval of Thoroughbred horses was 11.2 +/-

4.5 and 9.7 +/- 3.8 years for males and females respectively, which limits the genetic progress in racing horses. The estimated annual genetic progress in racing performance traits of Swedish Standardbred horses corresponds to 5% of the phenotypic standard deviation, 3.6% in French Trotters and 5% in Dutch Trotters. This trait remains heritable.

Thiruvankadan AK, Kandasamy N, Panneerselvam S (2009) Inheritance of racing performance of Thoroughbred horses *Livestock Science* 121: 308-326

Thiruvankadan AK, Kandasamy N, Panneerselvam S (2009) Inheritance of racing performance of trotter horses: An overview *Livestock Science* 124: 163-181

Heat Stress

A systematic review of original research addressing the efficiency of whole-body cooling modalities in the treatment of exertional hyperthermia found that ice-water immersion provides the most efficient cooling. When ice-water immersion is not possible, continual dousing with water combined with fanning the patient is an alternative method until more advanced cooling means can be used. Until future investigators identify other acceptable whole-body cooling modalities for exercise-induced hyperthermia, ice-water immersion and cold-water immersion are the methods proven to have the fastest cooling rates.

McDermott BP, Casa DJ, Ganio MS, et al (2009) Acute Whole-Body Cooling for Exercise-Induced Hyperthermia: A Systematic Review *Journal of Athletic Conditioning* 44(1) 84-93

Inheritance of airways disease

This study used 1 environmental and 4 genetic models to study the mode of inheritance of equine recurrent airway obstruction (RAO) in 2 Warmblood families. The mixed inheritance model best explained the pattern of inheritance. The heritability was extremely high. Analysis showed the presence of a major gene playing a role in RAO. In 1 family, the mode of inheritance was autosomal dominant, whereas in the other family it was autosomal recessive. Although the expression of RAO is influenced by exposure to hay, these findings suggest a strong, complex genetic background for RAO.

Gerber V, Baleri D, Klukowska-Rotzler J, et al. (2009) Mixed Inheritance of Equine Recurrent Airway Obstruction. *Journal of Veterinary Internal Medicine* 23(3): 626-630

Sleep deprivation and exercise

This study examined the effects of one night of sleep deprivation on 30 min endurance performance and the cardio-respiratory, thermoregulatory and perceptual responses to exercise in humans. It showed that one night of sleep deprivation decreased endurance performance with limited effect on cardio-respiratory or thermoregulatory function. Despite running less distance after sleep deprivation compared with control, participants' perception of effort was similar indicating that altered perception of effort may account for decreased endurance performance after a night without sleep.

Oliver SJ, Costa RJS, Laing SJ, et al (2009) One night of sleep deprivation decreases treadmill endurance performance *European Journal of Applied Physiology* 107: 155-161

Betting exchange pricings are more accurate than bookmakers

This study tested the hypothesis that bookmakers have superior skills to bettors in predicting the outcome of races. It found that in high liquidity betting markets, betting exchange odds have more predictive value than the corresponding bookmaker odds. Where prices diverge significantly, exchange odds yield more valuable information concerning race outcomes than the bookmaker equivalents.

Smith MA, Paton D, Vaughan Williams L (2009) Do bookmakers possess superior skills to bettors in predicting outcomes? *Journal of Economic Behavior and Organization* 71: 539- 549