N.Z. EQUINE RESEARCH FOUNDATION

THE FOUNDATION BULLETIN

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NZERF BOARD MEMBER CHANGES

Sadly Barbara Harvey has decided to step down from the NZERF Board after serving for 16 years as the representative of the New Zealand Pony Club Association (NZPCA). Barbara and her husband Allan are long time farmers near Opunake in Taranaki. Barbara had an early start as a Pony Club rider herself before moving on to instructing for many years. She became a highly regarded show hunter judge and still maintains her association with the Pony Club.

In representing the NZPCA Barbara has filled an extremely important role, helping to bring scientific information to pony club members. Her input and queries have been invaluable in 'translating' scientific lingo to common speak, which is one of the NZERF's core objectives. Thank you Barbara; we hope you can now enjoy more bowls!

Chairman Tim Pearce presenting departing NZPCA representative Barbara Harvey with a plaque in honour of her time spent on the NZERF Board.

Thankfully the Board has been able to secure Samantha Jones as the next NZPCA representative. Sam originates from Devon, England, where she grew up in a family involved in the racing industry (her father was a Bookmaker for many years) with a strong love of horses. Sam has a background in Business Management and immigrated to New Zealand 8 years ago. She has been working for the NZPCA as the General Manager/Chief Executive for the last 7 years and is very proud to be part of such an amazing organisation. Sam lives in the Waikato where she rides and competes her warmblood dressage horses in her spare time.

Samantha Jones, incoming NZPCA representative on the NZERF Board.

Professor W.R. (Twink) Allen FRCVS,DSc, CBE

1940-2021

It is with immense sadness that we learnt of the death of Professor W.R. (Twink) Allen on 6th June 2021 after a short illness.

Twink was an internationally renowned equine veterinarian born in New Zealand. He is famous for his numerous pioneering contributions to equine reproduction and the author of over 300 scientific papers and numerous book chapters. His imagination and ability to think outside the square also led him to study reproduction in old and new world camelids, African wildlife (particularly the elephant) and even hedgehogs. Twink's qualifications and honours include the appointment as a Commander of the British Empire (CBE), a Higher Doctorate from Cambridge University, and a Fellowship in the Royal College of Veterinary Surgeons (FRCVS). He was also awarded a BVSc (Syd), PhD (Cantab), ScD (Cantab), DESM, Dip ECAR, FRAgSE and FSB. Twink took great pleasure in his role as an Emeritus Professor at Robinson College, University of Cambridge. We send our deepest condolences to his partner Sandra Wilsher, his wife Diana and his family.

PRESS RELEASE:

Researchers from the University of Waikato contribute to a world-wide DNA investigation that has highlighted the 'unbridled globetrotting' of the Strangles pathogen in horses

Dr. Ray Cursons and Olivia Patty from the University of Waikato have participated in the largest ever study of its kind into an equine pathogen, which was published in the journal 'Microbial Genomics' on 9 March, 2021. Scientists in 18 countries including NZ have used the latest DNA sequencing techniques to track the bacteria *Streptococcus equi* as it caused the disease strangles in horses around the world.

Strangles is the most frequently diagnosed infectious disease of horses. *Streptococcus equi* invades the lymph nodes of the head and neck, causing them to swell and form abscesses that, in around 2% of cases, can literally strangle the horse to death. Some of the horses that recover from strangles remain persistently infected and these apparently healthy animals can shed the bacteria into the environment and spread the disease to other horses with which they come into contact.

In a recent press release, Prof. Matthew Holden of the University of St Andrews said *"Using standard diagnostic testing, the different Streptococcus equi strains look almost identical, but by carefully examining the bacterial DNA we have been able to track different variants as they spread across the world. Piecing the puzzle together, we showed that cases in Argentina, the United Kingdom and the United Arab Emirates were closely linked. This, along with other examples, provides evidence that the global movement of horses is helping to spread this disease."*

"Strangles was first described in medieval times and, with the exception of Iceland, affects horses in all corners of the world. The freedom from this disease enjoyed by Iceland is by virtue of a complete ban on the import of horses, which has been in place for over 1,000 years" commented Prof. James Gilkerson of the University of Melbourne and Chair of the International Equine Infectious Diseases Committee. *"This new study provides evidence of the important role played by the global movement of horses in spreading this disease, providing new opportunities for interventions that prevent future outbreaks."*

"This has been an incredible team effort, which was only possible through the collaboration of leading researchers from twenty-nine different scientific institutes in eighteen countries" said Dr. Andrew Waller of Intervacc AB. *"Horses are transported all over the world as they move to new premises or attend competitions and events. New cases of strangles can be prevented by treating carriers before they pass on the bacteria".*

"Building on the data generated, we provide an on-line surveillance platform for strangles, Pathogenwatch, which enables labs to upload and interpret their genomic and epidemiological data in real-time. Pathogenwatch will be used to monitor the emergence and spread of new lineages of strangles to help guide interventions and policy making decisions" said Prof David Aanensen of The Centre for Genomic Pathogen Surveillance, University of Oxford. *"This new research provides an opportunity to track the course of strangles infections, reining-in Streptococcus equi's globetrotting lifestyle by shutting the stable door before this horse pathogen has bolted!"*

Link to publication:
https://doi.org/10.1099/mgen.0.000528

Olivia Patty from the University of Waikato, Hamilton, New Zealand

Horse with strangles abscess.

NZERF VIDEO LIBRARY

With the support of the Trustees of the Rodmor Trust the NZERF is establishing a library of short, non-technical videos intended to provide practical information on a range of topics to anyone with an interest in the horse.

To date 3 videos have been released and there are more in the planning stage. The first video dealt with Strangles and the second covered Laminitis. The presenter for both videos is well-known Cambridge equine veterinarian Paul Fraser.

The third video is titled "Deworming Less" and is presented by Dr Martin Neilson, an equine parasitologist at the Gluck Equine Research Centre at the University of Kentucky. Dr Neilson is familiar with New Zealand conditions, having spent time here in 2019 to undertake a research project.

The Link to the NZERF YouTube channel is:
https://www.youtube.com/channel/UCejz8n3gbFPJSTRUrVorVxA

NZ EQUINE TRUST RESEARCH UPDATE: Jockey fitness and why do they fall off horses?

Professor Chris Rogers, Massey University

Jockeys have an integral role in the quality of racing and the welfare of the race horse. However, despite this pivotal role, there is limited data published on the physiological challenges of race riding and the influence of muscular fatigue. In addition to the lack of data on the physical demands of race riding there has been limited attention paid to the risk factors for jockeys being dislodged during a race or having a horse fall. To address this lack of knowledge Kylie Legg is conducting a PhD that is investigating the reasons and risk factors for jockey falls and using advanced smart materials clothing to measure the muscular effort of race riding. This research will allow us to identify and reduce variables associated with jockey falls and develop "jockey specific" physical conditioning programmes.

The first part of the PhD involved examination of all the race records for the last 14 years (2005-2019 racing seasons) including all the records of jockey and horse falls during racing within this timeframe.

The first study completed was an examination of the incidence and risk factors for race-day jockey falls over fourteen years. Using a dataset of over 400,000 racehorse/jockey starts it was identified that 97% of the races were flat races with 10 races per race-day. During flat racing the incidence (rate of falls) was 1.2 falls per 1,000 starts. However, while jumps racing only accounted for 3% of the racing starts, the rate of falls was almost 50 times that of flat racing for a hurdles race (53.2 per 1,000 starts and nearly 100 times that for steeplechase races with 99.9 falls / 1,000 starts. Experienced jockeys (and horses) had a lower incidence of falls than inexperienced jockeys. Jockeys with fewer race rides were more likely to have a fall indicating that there may be some need for "race specific fitness". This may imply that similar to other athletes, there is no substitute for competition to sharpen skills and maintain fitness. The good news is that the incidence of jockey falls decreased by 4% over the fourteen years, indicating that industry practices are reducing the frequency of jockey falls during racing.

The second and third study looked at the external workload and career length of Thoroughbred horse racing jockeys. This dataset contained the career history (race rides etc.) of 786 jockeys who rode in 407,948 flat and 13,648 jumps racing starts over 14 seasons. Jockeys were classified based on jockey work (ride numbers, seasons riding) and performance characteristics (race falls or wins) between cohorts with low (1–10), middle (10–200) and high (> 200) numbers of rides per season (Figure 1).

Jockey rides during the season were typified by a few jockeys (23% of all jockeys) having 83% of all the race rides. Most of the jockeys had light workloads and also had a greater risk of injury and lower winning rates than the smaller cohort of jockeys with heavier workloads.

These elite jockeys had half the fall rate (IR 1.0, 95% CI 0.9–1.1) and 1.4 times the success rates per 1000 rides (IR 98, 95% CI 97–99) than jockeys in the low and middle workload cohorts ($p < 0.05$). This disparity in opportunity and success between cohorts indicates inefficiencies within the industry in recruitment and retention of jockeys.

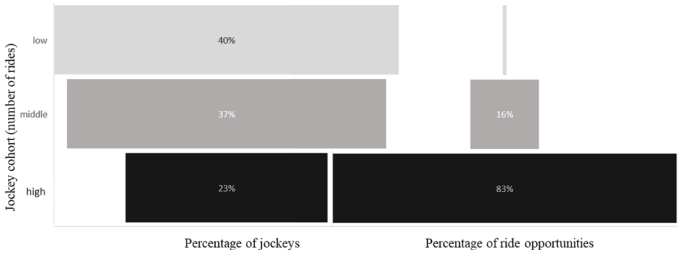

Figure 1. Percentages of flat racing jockeys and total number of flat racing rides for low (1 – 10), middle (10 – 200) and high (> 200 rides per season) cohort jockeys for the racing seasons 2005/6 – 2018/9.

The median (typical) career length for jockeys was 2 years (IQR 1 – 6). This short career reflects the bias presented earlier with the majority of jockeys having very few race rides compared to the elite jockeys who had most of the rides. Jockeys with long race careers (only 11% of all jockeys) were able to ride at lower carried weights (IQR 56 – 57 kg, $p = 0.03$), had 40 times the number of race rides of the "average" jockey and were 1.3 time more likely to win a race. Half of the 40% of jockeys who failed to complete their apprenticeship were lost from the industry in their first year of race riding.

Conclusions

This data indicate that the typical jockey's career is very short and is heavily influenced by the ability to obtain race rides early in their career. It appears that higher numbers of race rides not only increase the chance of success, but the higher frequency of race riding may increase "competition fitness" and reduce the risk of injury. The increased chance of falling with increasing races ridden per day indicates the fatigue (mental and physical) may play a role in race day falls and that physical training outside race riding may be of benefit. The next phase of the study is to measure the fitness of jockeys and apprentices and quantify how hard they work when race riding.

This project has received funding from the NZ Equine Trust.

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CORNEAL STROMAL ABSCESS IN A THOROUGHBRED FILLY

Natascha Vivian
2020 Massey Veterinary Student Scholarship Recipient

A two-year old Thoroughbred filly presented with a history of chronic inflammation of the left eye. The horse had been seen by a referring vet but the problem had failed to completely resolve despite treatment with topical and systemic anti-inflammatory medication and antibiotics. The eye would improve while on the medication, but regress when the treatment ceased.

On clinical examination a small amount of discharge was noted from the left eye and the eyelids were held semi-closed. The membranes and tissue surrounding the eye were reddened from increased blood flow. The eye was painful, and the horse resented examination of the eye. No abnormalities were present in the right eye, and the rest of the clinical exam was found to be within normal parameters. After sedation, the eye was examined and a large stromal abscess (1 cm in diameter) was identified in the centre of the eye. A haziness was present around the abscess, and blood vessels were extending approximately 1.5 cm inwards from the outer edges of the cornea (Figure 1). The cornea did not take up any fluorescine stain, indicating that there was no corneal ulceration.

Based on the history and the eye examination a diagnosis of stromal abscess with chronic uveitis (inflammation of the eye) was made. This condition can be treated either by removing the eye, by performing a specialist surgery or by intensive medical treatment. This owner opted for medical treatment and the filly was hospitalised for treatment.

A sub-palpebral lavage (SPL) system was inserted through the upper eyelid and stitched onto the skin – this piece of tubing allows easier application of medication directly onto the eye as horses often strongly object to constant touching of their eye. Following insertion of the SPL a mixture of topical and oral antibiotics was prescribed and an eye mask was fitted. Using a broad-spectrum combination of antibiotics was important as in this case it was not possible to determine exactly what organism was causing the abscess. Anti-inflammatory drug were given for pain relief. One of the biggest problems with eye injuries is that they are very painful and managing the pain level can be very difficult. In this case multiple medications were needed to appropriately manage the pain.

After one day of treatment the eye was noticeably less inflamed and reddened, and the filly was able to hold her eye slightly more open. Throughout the day she still appeared painful, so her pain management was regularly assessed and altered. On day 3 she was sedated for further examination. The abscess was still visible in the centre of the eye but it now had more clearly demarcated edges. The blood vessels had also grown further inwards towards the abscess (Figure 2). Both findings were considered signs of improvement.

Over the next week the the eye showed signs of gradual improvement as treatment continued. Some of the anti-inflammatory medications given have the ability to damage other organ systems, so bloods were taken to test some of the filly's liver and kidney parameters. While these tests came back as within normal limits, the dose of the anti-inflammatory medication was decreased when possible to reduce the risk of these unwanted side-effects.

By day 11, the blood vessels had reached the centre of the eye and now covered approximately 95% of the surface (Figure 3). This was excellent, as it showed the eye was slowly responding to treatment and healing.

On day 24 the filly was sent home with topical antibiotics and oral anti-inflammatory drugs. She was to continue wearing her mask and was to return after 10 days for re-evaluation. At the re-check, there was still a small amount of cloudiness and a corneal scar (Figure 4); however, these were expected to reduce over time. She was able to see and no longer had any pain associated with the abscess. Given these findings the prognosis was good, and the filly was expected to be able to return to work after another 2-3 weeks of rest.

Conclusion

It is vital that corneal abscesses are diagnosed and treated promptly as they are extremely painful, and if left untreated they can result in blindness. The current hypothesis is that abscesses form following trauma to the eye. While the initial trauma can be very small and might seem harmless, it can result in bacteria or fungi penetrating the deeper layers of the eye. The surface then heals over and the bacteria or fungi remain trapped in the eye, forming an abscess.

Surgical treatment of stromal abscesses involves making an incision through the surface of the cornea to reach the abscess and remove purulent material under general anaesthesia. A conjunctival tissue graft would then have been sutured into the corneal defect for protection. Studies have shown that surgical intervention can lead to a shorter recovery time and more rapid control of pain. However, graft rejection can be a problem. Thankfully, in this case medical management provided an excellent outcome.

Note: Natascha is currently working in a mixed practice in Oamaru

Figure 1: Stromal abscess at presentation.

Figure 2: Stromal abscess after three days of treatment.

Figure 3: Vasculature present on day 14

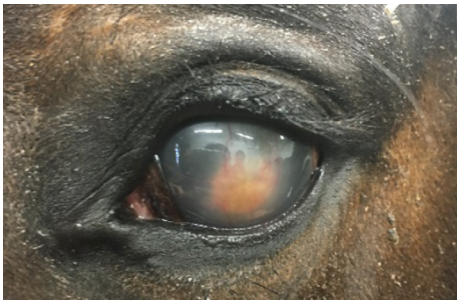

Figure 4: Eye at discharge

TRAVEL REPORT: NIKITA OSBORNE, 2017 JONATHAN HOPE SCHOLAR

In April 2018 I travelled to the UK for 6 weeks of intensive equine speciality experience.

The first part of my trip was to complete the practical training and sit the final exams required to complete my diploma of animal physiotherapy – mostly focused on dogs and horses. I was fortunate enough to spend time with some top equine therapists and learn techniques for massage, stretching exercises, therapy modalities and rehabilitation programmes for lameness in performance horses (especially for the 4* event horses leading up to Badminton).

I passed my final theory and practical exams; the final part of the diploma is to complete a research or literature review project. The review will be on common injuries in dressage horses and the best process for rehabilitation back to athletic competition.

I then travelled to Newmarket to spend two weeks at Rossdales Veterinary Surgeons, a world renowned equine veterinary practice and a leader in equine veterinary health care. I spent most of my time with Dr Michael Shepherd. Mike works mostly with race horses and is particularly interested in lameness and diagnostic imaging. We started every morning at 5am watching the horses train up the Newmarket Heath, we would then follow the horses back to the yard and scope any that had coughed or seemed sub-optimal during the morning's training. I was fortunate enough to be allowed to ride out with them on some mornings and experience the exhilaration of galloping a 3 year-old colt up the Heath, as well as seeing first-hand how a racing yard works behind the scenes.

Most days were spent going to Mike's trainers' yards, seeing respiratory cases, lameness work-ups, standing castrations, joint injections, X-rays, scopes, ultra-sounds etc. One particular yard will trot up the entire yard (200 horses) in front of the head trainer and Mike every 2 weeks to assess the "herd" for problems. It was great for me to watch that many horses trot away in quick succession and pick up on subtle lamenesses.

I also spent some days at the hospital with the lameness diagnostic team (following through on cases that I had seen with Mike in the field). The work-ups would start with simple nerve blocks and progress right through to high joint blocks – hips, elbows and shoulders. Then possibly MRI or scintigraphy the next day or go straight to ultrasound and X-rays if a specific area was located. It was remarkable how many lamenesses (performance and race horses) were in the right hind limb.

I went with Mike to the Royal Stud, where I helped do wind testing on the 2 year-old horses for the "breeze up" Sales, and spent time at top NZ eventing riders' yards. It was great seeing the day-to-day ambulatory service as this is what I do mostly in NZ, including different types of antibiotic protocols, different techniques etc. I felt I was able to absorb a lot more information and ask a lot of questions relevant to cases that I would see at home (much more so than when I was a vet student!).

After my time at Rossdales I moved up to Yorkshire to follow Dr James Crabtree who, with Dr Jonathan Pycock, runs UK Equine Reproductive Services. Equine reproduction is a special interest of mine and I have been slowly developing my skills while working as a mixed animal vet, so it was invaluable to be fully submerged in the peak of the equine breeding season for 2 weeks.

We did a lot of work at a top dressage stud where they had their own embryo donor/recipient herd system in place. The one big advantage I noticed was the access to chilled semen from Europe's top Warmblood stallions. I got to watch and help with the entire process of embryo transfer, as well as the shipping of embryos to other reproduction centres, collection of semen from stallions and lots of mare ultrasound scans! The time spent driving between clients offered the opportunity to discuss the cases and options of how to manage situations when the mare decided not to follow the rule book.

The entire trip was an invaluable experience for me; spending time with specialists one-on-one was incredible. I have come home with a lot more confidence, knowledge and experience, as well as having made life-long contacts and friends. I am very grateful to Dr Jonathan Hope for this scholarship and the NZ Equine Research Foundation for the opportunity, as well as my employer - Bay Of Islands Veterinary Services – for giving me the time to travel and of course Dr Mike Shepherd and James Crabtree for having me.

2021 Massey Veterinary Student Scholarship Recipients

The NZERF has awarded the 2021 Massey Veterinary Student Scholarships for final year veterinary students to Rachel Hocking and Bex (Rebecca) Presow.

Rachel Hocking (left) has wanted to be a vet "when she grows up" since her primary school days. She has been around horses all her life, attending riding camps, taking stable hand jobs, volunteering at the RDA and doing yearling preparations.

Rachel has been impressed by the amazing people she has had the opportunity to work with. "The passion that horse people have is truly inspiring and their willingness to share their knowledge has made me want to give back to the equine community that has spent so much time helping me to learn vital skills for my career."

Bex Presow (right) grew up on a farm and has been involved with ponies and show jumping from an early age. After leaving school and working in rural retail and dairying, Bex returned to study so she could pursue a career as a veterinarian.

"Spending time in the Equine Hospital at Massey is my favourite part of Vet School; getting to apply the things I have learnt, work with the team doing equine medicine and helping sick horses is really rewarding."

A Report on a Case of Retained Foetal Membranes

Rachael Elliot
2019 Massey Veterinary Student Scholarship Recipient

Case History

A seven-year-old Warmblood-cross broodmare foaled in the early hours of the morning with the owner unsure of the exact time the foaling occurred. The referring veterinarian saw the mare at 9am that morning and noticed she had failed to pass the foetal membranes. The mare was given Oxytocin injections to help pass the foetal membranes as well as Penicillin for antibiotic coverage and Flunixin to provide pain relief. The uterus was lavaged with 25 litres of water; however, only half of this fluid could be retrieved again. Three hours after the initial treatment the mare still had not passed the foetal membranes and consequently she was referred to the veterinary hospital for intensive treatment.

Physical Examination Findings

On presentation to the veterinary hospital the mare was bright and alert. A physical examination revealed she had a moderately increased heart rate, moderately increased gut sounds and her mucus membranes were red in colour. In addition to this, the retained foetal membranes were visible hanging from the vulval opening.

Case Progression

An intravenous catheter was placed and a sample of blood was taken, showing that the mare was mildly dehydrated; however, all other parameters were within normal limits. She was given a 5 litre fluid bolus intravenously. She was also started on further antibiotic therapy consisting of Penicillin intramuscularly and Gentamicin intravenously to prevent toxaemia associated with retained foetal membranes.

An abdominal ultrasound examination was conducted to see if there was free fluid in the abdomen to indicate a ruptured uterus. No free fluid was seen on the ultrasound examination. A rectal examination was then carried out to check the integrity of the uterus; however, due to the mare recently giving birth the uterus was still enlarged and the entirety of it could not be palpated. The palpable areas of the uterus appeared normal. A trans-rectal ultrasound was carried out to visualise the uterus and bladder and both structures appeared normal.

A vaginal examination was carried out and it appeared the retained foetal membranes remained attached at the tips of both uterine horns. The umbilical artery was then cannulised and sterile saline was used to fill the vessel. This caused the placenta to detach from the uterus of one horn; however, the mare became restless and painful so the procedure was halted. The mare was continued on Oxytocin treatment five times daily. She was also kept on antibiotic therapy and placed in ice boots that were changed every 2 hours to prevent laminitis.

During the night the mare appeared painful and showed signs of colic. Shortly following this she expelled the foetal membranes at 1:30am. A thorough examination of the foetal membranes was carried out and they were found to be complete (Figure 1). Following this the mare developed an increased temperature and increased digital pulses. Repeat blood analysis now showed signs of an infection, so she was continued on antibiotic therapy, pain relief, ice boots and regular clinical examinations. The elevated temperature could have been due to a number of causes secondary to foaling and therefore an abdominocentesis (belly tap) was carried out to rule out an infection in the abdominal cavity (peritonitis). The abdominal fluid was normal in appearance and cellularity.

The mare's clinical parameters continued to improve and within four days all abnormal findings had returned to normal . Consequently the mare was discharged from the hospital and monitored at home.

Figure 1: Foetal membranes laid out for inspection

Case Discussion

In this case it was readily picked up that the mare had retained her foetal membranes. It has been shown that 95% of Thoroughbred mares will expel their foetal membranes within 4 hours of giving birth, and the majority do so in the first hour (Rosales et al. 2017). The treatment plan that was selected for the mare involved an attempt to remove the retained membrane through oxytocin, uterine lavage and cannulating the umbilical artery. There was no manual attempt at removal as it is thought there may be an increased risk of haemorrhage as well as decreased fertility following that procedure. Cuervo-Arango and Newcombe (2009) examined the effects of manual removal of the foetal membranes and showed there was no difference in mares who had their foetal membranes removed manually immediately after foaling and those who naturally expelled the membranes within 3 hours. However, this study does not include mares with retained foetal membranes, so the results must be interpreted with caution. Ethically, the potential complications of manual removal of membranes must be weighed against the complications associated with retained foetal membranes on a case-by-case basis. The most significant complications of retained foetal membranes in the mare are metritis, laminitis and toxaemia/septicaemia (Warnakulasooriya et. al). These were managed in this case using a combination of antibiotic therapy and ice-boots. By not manually removing the foetal membranes in this case and closely monitoring the mare's clinical signs for potential complications enabled the mare to pass the membranes without the added risk of hemorrhage or potentially disrupting future fertility. As a result the mare was able to be discharged with a good prognosis for her future reproductive career.

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Rosales, C. Krekeler, N. Tennent-Brown, B. Stevenson, MA. Hanlon, D. (2017): Periparturient characteristics of mares and their foals on a New Zealand Thoroughbred stud farm. *New Zealand Veterinary Journal, 65(1),* 24-29.

Photo retrieved from:

https://thehorse.com/156910/managing-retained-fetal-membranes-in-mares/

Note: Rachael is currently working in a mixed practice in the Canterbury area.

NZEHA update

Dr Trish Pearce, Executive Advisor, NZEHA

Piroplasmosis freedom regained
In 2020 NZ confirmed its first case of Piroplasmosis due to infection with *Theileria equi* in a horse. An investigation suggested this horse was likely infected at the time of its import almost a year previously. New Zealand lost its ability to declare itself free from piroplasmosis. The horse was immediately segregated from other horses, and tracing and testing of all contacts was completed. The NZEHA and MPI tested over 300 horses and a further 1000 were traced. The infected horse was flown back to Europe, where the disease is endemic. No evidence of disease spread was found, enabling NZ to declare to the international animal health organisation (the OIE) that we believed ourselves to be free of piroplasmosis. Despite this New Zealand is still engaging with countries to which we export horses to gain their acceptance of our freedom from this disease. The entire incursion has cost in excess of NZ$1,000,000 to date and continues to add cost to the equine export process.

New Zealand equine identification system on the horizon
The tracing and testing required to regain piroplasmosis freedom highlighted the necessity of progressing a nationwide equine identification and tracing system. To that end, a speed workshop on horse traceability options for the NZ Equine Industry was held in November 2020 in Wellington.

Facilitated by the NZEHA, attendees included representatives from the larger horse sporting bodies, MPI, Federated Farmers, OSPRI, the NZERF and the Equine Trust.

Biosecurity emerged as the clear priority outcome, as without clear individual equine identification and location data the prevention, management or eradication of disease in the NZ equine population was seen as problematic. Other benefits of an equine identification system that were identified include:

- Improved emergency response capability for all types of emergencies
- An ability to verify or ensure ongoing attention to welfare by virtue of understanding where horses move during their lifetime, any treatments they receive, their longevity and method of eventual disposal, if add-ons to the system will enable information to be entered and ascribed to an individual horse
- Enhanced ability to provide trade assurance information
- Benefit owners by being able to provide evidence of ownership in the event of loss or theft.

In the discussion around whether the system should be mandatory or voluntary it was noted that the rest of the world is heading down the mandatory route; however, it emerged that there is much that could be achieved in the voluntary space. While the participants initially preferred a mandatory system it was agreed that good progress could be made with a voluntary system. Making it mandatory remains a consideration but it is not the preferred initial approach for reasons including increased costs without perceived benefits to some groups such as farmers and recreational horse owners, and quite high compliance costs.

Buy-in by the users is the most essential driver of success and making it mandatory does not drive or guarantee buy-in. We aim to incentivise compliance, for example by requiring that horses be microchipped before being eligible to compete or participate in any event or activity.

Utilisation of existing databases is also seen as key:

- The system must offer data-sharing capability to existing databases including NZTR, HRNZ, ESNZ, Royal IA&P. Linkages to Agribase or the NAIT system would enable concurrent casing of horses on cattle and deer properties.
- Linkages into the VetIntel system enables vets to enter animal identification details at the time of microchipping.

Information that will be collected included:

- Name, address and phone number of person in charge of the animal
- Name address and phone number of animal owner
- Date of death or disposal - (date of birth also useful)
- Microchip number with a standardised system
- Agribase and NAIT can link information to land parcels in LINZ. This is available now but no clear decision on the value of this format over others (such as the postal address/GPS) to sector data users was identified in discussion.

Collection of movement data was discussed with varied options emerging. The key points from that session were:

- Decide what movements are important to our objective
- Put time frames on the movements we wish to capture
- Consider having event organisers take responsibility of maintaining a record of which horses attend events
- Agree which animals are higher risk and trace these as a priority
- Possible exemptions from needing microchipping might be farm horses if they are born, reside and potentially die on the same property.
- Donkeys were not discussed
- Exempt Kaimanawa horses from individual ID but update herd size at every census?
- Consider if or how the information relating to imported and exported horses should move in and out of the NZ and overseas equivalent systems - not discussed.

The Recommendations from the Australian Senate – Horse traceability final report 2020 were also discussed at length. Readers can access this at **https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Rural_and_Regional_Affairs_and_Transport/NationalHorseRegister46/Report**

New Zealand Equine Research Foundation Veterinary Scholarships and Grants

Veterinarian – Farrier Scholarships
$3,000 for a veterinarian and a farrier to attend a suitable course or symposium and/or spend time with colleagues in the USA. http://www.nzerf.co.nz/travel_awards
Closes 30th November annually

Valachi Downs Young Achiever Award
$15,000 available annually to assist an individual under the age of 35 in their career in the equine industry
http://www.nzerf.co.nz/valachi downs young achiever
Closes 10th January annually

Travel Awards
For any travel relating to research and development in the NZ horse industry. http://www.nzerf.co.nz/travel_awards
Applications received any time

Jonathan Hope Equine Veterinarian Scholarship
$10,000 available annually to help a "young at heart" New Zealand-based veterinarian to travel and gain practical skills that will be valuable in supporting his or her work within the NZ horse industry. http://www.nzerf.co.nz/hope_scholarship
Closes 10th January annually

Equine Research Grants
Applications from interested people for funding or projects in the field of equine research.
http://www.nzerf.co.nz/research_grants
Closes 30th April annually

Prof CHG Irvine Memorial Scholarship
http://www.nzerf.co.nz/memorial_scholarship
Research Grant may be used as part of a larger research project or as a standalone award.
Closes 30th April annually

Applicants should apply in writing / email to: The Secretary. NZ Equine Research Foundation. PO Box 52, Palmerston North 4440. Email: nzerf@xtra.co.nz

CHAIRMAN'S CORNER

While New Zealand has been very fortunate with regard to the degree we have been affected by COVID-19, it continues to impact many of the activities we all take for granted. The freedom to hold large events has been severely limited over the last 12 months, including complete cancellation of the Horse of the Year Show, forced delay on most major racing dates and reduction in events such as the Cavalcade.

COVID-19 has also affected many of the NZERF's activities, most notably the winter Rodmor Trust Lecture Series. Due to ongoing uncertainty we have decided to postpone the live lecture series again this coming year. In place of the lecture series we have now completed four short on-line equine videos presented by different experts. These are:

- Strangles, presented by Dr Paul Fraser
- Gastric Ulcers, presented by Professor Ben Sykes
- Equine Parasites, presented by Dr Martin Nelson
- Laminitis, presented by Dr Paul Fraser

The videos are all short, sharp presentations aimed at horse owners and trainers and are easily accessible via the NZERF YouTube page. There are several more topics in the pipeline to be added to the library, with the next video being on Equine Dentistry. A big thank-you to the presenters of these videos and especially Paul Fraser and Colin Hall, whose enthusiasm for this project has made it happen. Also to the Rodmor Trust who have generously sponsored the production of these videos in lieu of the postponed Lecture Series.

Congratulations must go to Olivia Patty of Waikato University, who together with her supervisor Dr Ray Cursons have been credited with contributing to some ground-breaking work on Equine Strangles. Olivia and Ray's work was part of a world-wide effort in typing the Strangles bacteria, *Streptococcus Equi*, and will be a great help with tracing and managing future strangles outbreaks. The NZERF has been very fortunate to have scientists of such quality to support, with their research having a significant impact on horses' lives. The work Olivia has done has formed part of her studies towards her PhD.

Finally, I would like to thank Barbara Harvey for her contribution to the NZERF Board over a very long period. Barbara has represented the NZ Pony Club Association and has now decided to step down from the Board. We are very fortunate to welcome Samantha Jones in Barbara's place to represent NZ Pony Clubs.

Tim Pearce, NZERF Chairman

THIS BULLETIN IS PROUDLY SPONSORED BY THE RODMOR CHARITABLE TRUST

CONTACT INFORMATION

The current Board Members are:

Chairman	Dr Tim Pearce	Bulls	06 322 2333
Vice Chairman	Dr Noel Power	Cambridge	027 286 2126
Secretary	Mr Allan Fenwick	Marton	06 327 4041

Representing:

Equine Researchers	Dr Margaret Evans	Christchurch	027 447 7358
ESNZ	Dr Tim Pearce	Bulls	06 322 2333
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NZTBA	Mrs Justine Slater	Cambridge	021 433 107
NZTR	Mr Colin Hall	Wellington	04 576 6261

THE SECRETARY
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NZ Standardbred Breeders Association
NZ Thoroughbred Breeders Association
NZ Thoroughbred Racing
Valachi Downs

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