

FROM THE HORSE'S MOUTH



A New Season with New Challenges

FEB/2018 ISSUE

FROM THE CEO

THE JOURNEY TO EXCELLENCE

Article by Lyndon Barends, CEO of NHA

EMPOWERMENT



One of the highly rated factors that contributes to job retention is employee empowerment. Empowered to make decisions, to contribute to the organisational development or simply empowered to do their jobs properly.

Being **empowered to serve** has been an integral part of the NHA's turnaround philosophy and process.

It is important that employees be given the authority or empowered to make decisions to execute their tasks in a manner which is deemed to be productive.

With greater empowerment comes greater confidence! This should surely put us on the journey to excellence.

So how do we empower people?

- We offer educational support to employees to empower themselves through formal and informal training programmes.
- Workshops, Think Tanks, participatory forums, etc., all goes a long way to empowering others.
- Some employees are empowered when they are encouraged to speak their minds and/or give input to organisational solutions.
- We encourage employees to create new solutions, share ideas, teach each other, etc.

It's important for a leader to empower others as the empowered employees often has a stronger sense of ownership and feels more confident when they are entrusted with important decision.

They become more productive and much more involved.



When employees feel that they are making a contribution they tend to think twice about leaving the organisation.

Delegation of authority is an important tool in empowering others. Hopefully, leaders will realise by empowering others they are by no means diminishing their own power.

There are so many way to empower employees in the workplace if only we apply our minds to it. Every person wants to be deemed as a contributing employee and that his/her inputs are being welcomed and valued.

The NHA will continue to empower our employees to serve. Often self-empowerment is needed in the absence of others empowering. It can take the form of being motivated to do some things.

So, I encourage others to take control of their own destinies. Set your own goals, devise your own plans, understand your own weaknesses and strengths.

Make it happen for yourself!

Let's be EMPOWERED TO SERVE!



SOUTH AFRICAN EQUINE VETERINARY ASSOCIATION (SAEVA) CONGRESS

NHA Chief Veterinarian, Dr Eugene Reynders, attended the 51st SAEVA congress, held in the Western Cape, from 12 – 15 February 2018.



There were two international speakers in Dr Warwick Bayly (Internal Medicine) and Dr Virginia Reef (Diagnostic Imaging), as well as a number of local speakers.

Highlights from the congress:

Dr Warwick Bayly –

- **Field Exercise Evaluations:** Post exercise measurement of “lactate” has been the standard of indicating muscle damage and fitness in racehorses, but new research is showing that measuring ammonia post exercise can indicate “what a horse is capable of doing”.
- **Exercise Induced Pulmonary Haemorrhage (EIPH):** Important causes is inflammatory airway disease (IAD) which leads to capillary stress failure in the lungs, which leads to bleeding in the airways AND obstruction to airflow in the respiratory tract. Treatments are aimed at reducing IAD as well as ensuring maximum airflow in the airways, roarers are more susceptible to EIPH. Indications are that nasal strips may be beneficial. On the controversial question of “down time”, it takes 4 to 6 weeks for ruptured capillaries to repair. Research showed that complete withholding of water intake did not reduce the incidence of EIPH.

Dr Virginia Reef –

- **Use of Ultrasonography (US) in Evaluating Poor Performance:** US can be used to diagnose conditions like ILH (roarers), DDSP, EIPH, IAD, vascular problems and osteoarthropathies.
- **US of Stifles and Hocks:** Traditionally radiographs have been used to diagnose stifle and hock injuries, but the importance of the use of US to diagnose soft tissue injuries in these joints was highlighted.

Local Speakers:

Dr Anthony Goodhead (Ophthalmology) –

- **Introduction to Standing Ophthalmologic Surgeries:** Most eye surgeries can be performed in the standing horse.
- **Treatment of corneal ulcers** was discussed.

Dr Naidoo (State Veterinary Department) –

- **Phenylbutazone “BUTE” Update:** Bute was banned in South Africa due to traces being found in the food chain, as well as it being used in the cattle industry. Although there are very strict protocols to comply with, SAEVA is pursuing avenues to get Bute re-registered for use in horses.

Dr Michael Hewetson (Onderstepoort) –

- **Treatment of AHS:** In addition to the neurological and respiratory systems being affected by horses suffering from AHS, there is strong evidence to suggest that the cardiovascular system is also involved. Clinical trials are underway whereby supportive treatment of the heart is included in the treatment of horses suffering from AHS.

The congress was well attended by equine veterinarians from all over South Africa, Zimbabwe, Namibia and Botswana, with a delegate from Hong Kong and Australia in attendance, too.

A very worthwhile congress with plenty of information sharing and networking.

For more information, please contact Dr E S Reynders, Chief Veterinary Surgeon, NHA.

SHUMBASHABA

Shumbashaba is not your traditional riding stable. Last year they impacted positively on a great many residents of Diepsloot Township through their various Horses Helping People programs:

- over 50 children and adults with disabilities (both physical and intellectual) attended our weekly therapeutic riding program,
- around 300 youth attended our Growing Great Generations, Family Resilience and other equine assisted personal development programs run during the year
- Over 100 children attended our equestrian vaulting program (gymnastics on the back of a moving horse)
- Around 400 children attended our Saturday Development and holiday programs



Shumbashaba’s profile keeps growing through the many stories that have featured on TV news stations around the world including SABC, BBC, China Global TV, Dutch National TV and German TV, as well as a number of reputable websites such as the IOC and FEI websites. Here are some examples:

- FEI (International Equestrian Federation) Website: http://www.fei.org/fan/a_ray_of_hope
- IOC Website: <https://www.olympic.org/news/shumbashaba-horses-helping-people>
- BBC News: <http://www.bbc.com/news/av/world-africa-35639658/horse-riding-made-me-a-different-person>
- CCTV – Africa Live News: https://www.youtube.com/watch?time_continue=12&v=ruCOwplFx70
- SABC3 Espresso Morning Show: https://www.youtube.com/watch?time_continue=4&v=RrqTMzbtX5A
- Shumbashaba features in First National Bank TV advert: https://www.youtube.com/watch?time_continue=2&v=z-SNwh7pUSQ

Article and photos provided by: Jacky at Shumbashaba

HEALTH CORNER

ADD BLUEBERRIES INTO YOUR EVERYDAY DIET !

Did you know that Blueberries are very good for your health?

Many studies have suggested that increasing consumption of plant foods such as blueberries decreases the risk of obesity, diabetes, heart disease, and overall mortality. Plant foods may also promote hair and skin health, increased energy, and overall lower weight.

Blueberries contain iron, phosphorous, calcium, magnesium, manganese, zinc, and vitamin K.

Each of these is a component of bone. Adequate intake of these minerals and vitamins contributes to building and maintaining bone structure and strength.



NHA LABORATORY

NEW INSTRUMENTATION AT THE LABORATORY

From the setback and shock following a fire which occurred at the Laboratory during June 2017 came opportunity and growth.

The fire originated very close to a few of the mass spectrometer instruments and destroyed these while some of the other instruments which were further away were less affected but experienced either heat and/ or soot exposure and damage.

The two instruments which were totally destroyed and which were critical for specimen and sample screening were replaced and were the first commissioned for operation.

These were placed in a back section of the Laboratory which had minimal damage and which was refurbished first. These instruments and this Laboratory section was operation with routine screening operations within a period of two and half weeks. Each of the other instruments were then checked for correct and compliant operation, with some requiring delicate and lengthy cleaning process. There are now 4 brand new replacement mass spectrometer instruments in the Laboratory. These are all quite modern and advanced

LC/MS/MS instrument platforms. These will in some cases significantly benefit our current analyses capabilities in comparison to the equivalent instrumentation we had prior to the fire.

We have incorporated the beneficial aspect of these instruments into our Laboratory as to provide the best possible analyses capabilities and results we generate with a high level of quality.

With these instruments being new, and in most cases somewhat to very different instruments and models than those destroyed, these had to be newly incorporated into our routine screening and confirmation processes. This process which is now complete, had to be in compliance with our quality systems and validation criteria requirements. It was an extensive process and coincided with significant staff training, new methodologies, procedures, templates and reports to be designed, tested and implemented.



Article provided by: Dr Schalk de Kock

BIRTHDAYS

The National Horseracing Authority would like to wish all our Stakeholders born in March a very Happy Birthday.

May life lead you to great happiness, success and hope that all your wishes come true....

Happy Birthday

FUN FACT ABOUT HORSES

Horses have the largest eyes of any land animal and their are positioned on the sides of the head (that is, they are positioned laterally). This means horses have a range of vision of about 350°, with approximately 65° of this being binocular vision and the remaining 285° monocular vision.

Horses are not color-blind, at one time people thought that horses were colorblind. Although it is more difficult for them to see purples and violets, they have less trouble with yellows and greens.

The equine eye's visual abilities are directly related to the animal's behavior; for example, it is active during both day and night, and it is a prey animal. Both the strengths and weaknesses of the horse's visual abilities should be taken into consideration when training the animal, as an understanding of the horse's eye can help to discover why the animal behaves the way it does in various situations.

The eyelids are made up of three layers of tissue: a thin layer of skin, which is covered in hair, a layer of muscles which allow the lid to open and close, and the palpebral conjunctiva, which lies against the eyeball. The opening between the two lids forms the palpebral fissure. The upper eyelid is larger and can move more than the lower lid. Unlike humans, horses also have a third eyelid (nictitating membrane) to protect the cornea. It lies on the inside corner of the eye, and closes diagonally over it.



LANDROVER 2018 HORSE OF THE YEAR

The Horse of the Year Show is the highlight of the Showing calendar in South Africa with competitors travelling from all over South Africa to take part.

The Discipline of Showing focuses on producing a horse or pony to perfection in a number of different classes and requires many hours of dedicated training along with a high standard of presentation of both horse and rider. The horse's confirmation, its movement, ability and manners, are all taken into consideration in the show ring.

The Horse of the Year Show was sponsored by Landrover under the auspices of the Showing Association of South Africa (SASA).

The National Horseracing Authority was delighted to be involved in this year's show as a proud sponsor for the 'Race horse to show horse class'.



This particular class will promote and encourage the number of different options available to a racehorse once its racing career comes to an end.

The athleticism and stature of a racehorse suit a further

career in a number of disciplines such as dressage, cross country and show jumping to name a few.

This should be widely advertised and some recognition such as the trophy and prize money awarded at this show is a prominent statement to build on.

The NORTH STAR "Race horse to show horse floating trophy, sponsored by NHA, was presented to the winner by Mrs Shane Mundell on Saturday 24th February.



The trophy was named after a horse called North Star who was trained by Ricky Mainguard and then Anne Upton. He won 7 races, some of which were graded.

An outstanding looking chestnut horse with a star and connected blaze and three white socks. When he came off the track, he proved to be a wonderful riding horse, with an amazing, adaptable and gentle personality! He was shown by Rowan Mundell, now Retzlaff, winning many championships in the show ring in Kwa Zulu Natal.

The NHA is proud to have been part of the Horse of the Year show for 2018 and we look forward to next year.

Photos provided by: Denford Studios

SALICYLIC ACID CONCENTRATIONS IN HORSE URINE AND PLASMA FOLLOWING THE ADMINISTRATION OF METHYL SALICYLATE GEL TO THE SKIN

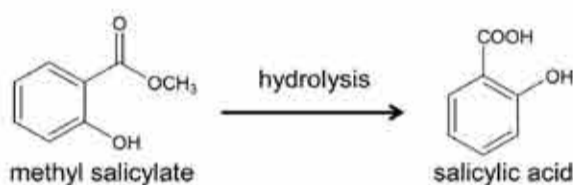


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INTRODUCTION



Gel formulations containing methyl salicylate can be topically administered to the horse as an analgesic to treat joint and muscular pain, swelling and stiffness. The concentrations of methyl salicylate and the active hydrolysis product, salicylic acid, were investigated. A commercial horse liniment product containing 3.5% methyl salicylate was administered twice daily for several days to two horses. Blood and urine specimens were collected and analyzed. The hydrolysis of methyl salicylate is shown below.



MATERIALS AND METHODS

The preparation "Rigly Horse Liniment" (a smooth white gel-like cream containing 3.5% methyl salicylate) was administered to the hocks of two Thoroughbred horses, according to the treatment recommendation of the manufacturer. 100 g of the product (equivalent to 3.5 g of methyl salicylate) was applied at 08h00 and 16h00 for three consecutive days and then at 08h00 on the fourth day. Blood and urine samples were collected during this time and up to day 5. Blood was centrifuged and plasma frozen directly following collection to minimize hydrolysis of the methyl salicylate.

The same extraction method was used for plasma and urine (1 ml and 5 ml respectively). Hydrochloric acid (20 µl/150 µl) was added to each sample, followed by liquid-liquid extraction with 5 ml of diethyl ether. The organic solvent was evaporated at



room temperature. The extracts were reconstituted in methanol and analyzed on a Shimadzu LCMS-8060 liquid chromatograph mass spectrometer.

The LC column was a Waters XSelect CSH C18 column with a water to acetonitrile gradient, both containing 5 mM ammonium acetate and 0.1% formic acid. The mass spectrometer was equipped with an electrospray source and operated in MS/MS multiple reaction monitoring (MRM) mode. Methyl salicylate was screened in positive ion mode and salicylic acid was screened and quantified in negative ion mode, recording three MRM's for each compound.

RESULTS AND DISCUSSION

THE DETECTION AND ELIMINATION OF SALICYLIC ACID

Salicylic acid is naturally occurring in the horse diet and it is present in horse plasma and urine samples. Following treatment with methyl salicylate, in vivo enzyme hydrolysis results in elevated salicylic acid levels. Due to the instability of methyl salicylate, it was not possible to successfully screen for this compound. The described acidic extraction method converted any methyl salicylate in plasma and urine samples to salicylic acid.

There was a remarkable difference in basal salicylic acid levels in both the plasma and urine of the 2 horses studied. From these basal levels, the salicylic acid levels increased significantly within an hour after administration and stayed elevated up to 4 hours. The levels then slowly decreased up to 8 hours. After the second administration, there was a further significant increase, indicating that accumulation is possible if administration is repeated within 8 hours. All levels returned to approximately basal levels overnight. The same pattern was repeated on days 2 and 3. This indicated that regular administrations are required for sustained high levels and analgesic action in the horse.

After the last administration on day 4, a similar increase was seen up to 4 hours. Basal levels of salicylic acid were only achieved after a period of at least 24 hours, as shown in the elimination profiles for plasma and urine for horses A and B. The time points of the treatments are indicated by **. The IFHA international prosecution threshold concentration for salicylic acid is 6500 ng/ml in plasma and 750 µg/ml in urine. The broken horizontal line shows the approximate average concentration determined for salicylic acid in the plasma (420 ng/ml) and urine (10.2 µg/ml) of local racehorses.

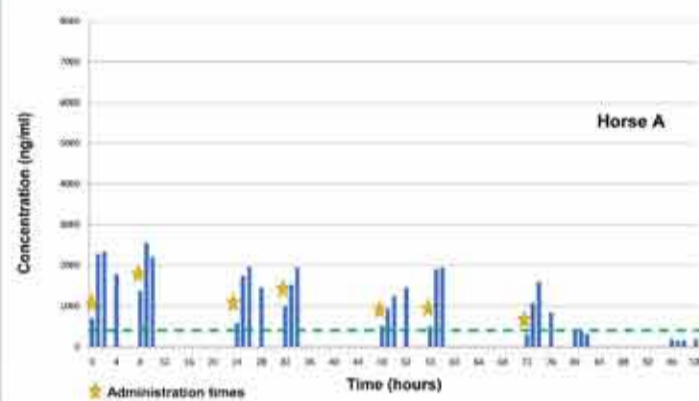
With this administration trial, the urine threshold was not exceeded and the plasma threshold was only exceeded in one horse a few hours directly following administration. There was however evidence of accumulation with subsequent administrations within 8 hours.

CONCLUSION

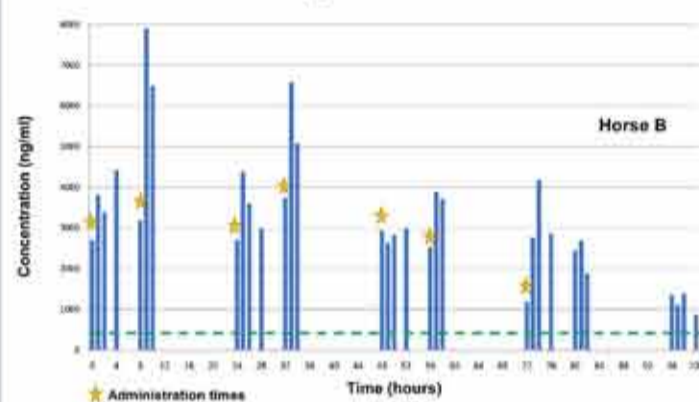
Conventional screening for methyl salicylate is not feasible in plasma or urine. For routine screening methods, it is best to hydrolyze the methyl salicylate to salicylic acid and prosecute against the IFHA international plasma and urine thresholds for salicylic acid.



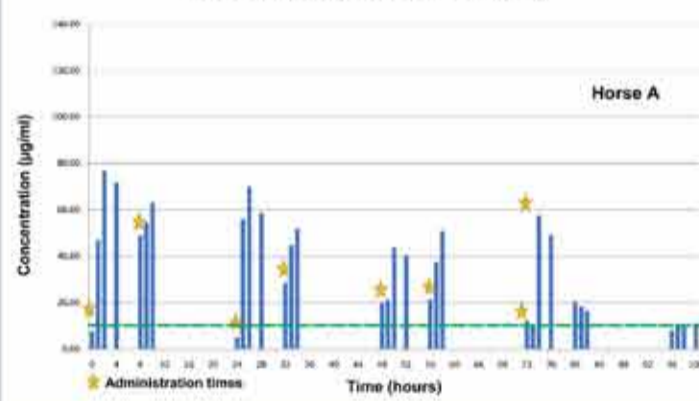
Plasma Salicylic Acid Concentration



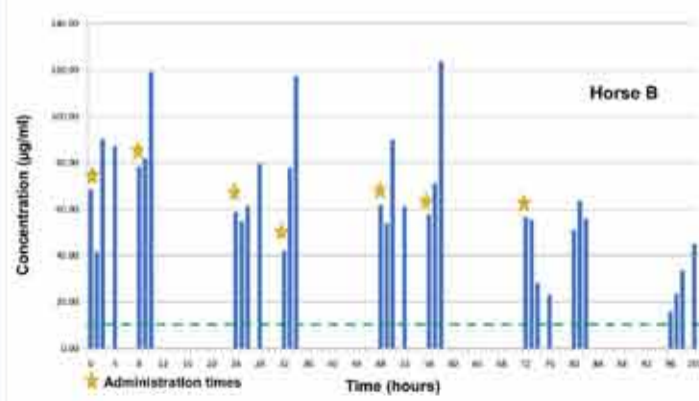
Plasma Salicylic Acid Concentration



Urine Salicylic Acid Concentration



Urine Salicylic Acid Concentration



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