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On the Cover

Shae Rose and Virgil triumphed for the third time in the Adelaide 5* (Image by Michelle Terlato Photography).

MAY 2023

OUR CONTRIBUTORS



Paula Jefferey

Paula is a Registered Qualified Saddlefitter with the UK Society of Master Saddlers in Australia. Drawn to start saddle fitting full-time almost 15 years ago, she has 25 years experience as a FEI dressage rider, trainer and coach in Australia, the UK and Europe. Don't miss her excellent article on asymmetry and its implications for saddle fit.



Ashley is the Marketing Coordinator for Kentucky Equine Research's Australasian network of retailers, distributors, and partners. She has spent her life involved in the eventing and dressage worlds, and is a TD and CD for Eventing, as well as Director of Naracoorte Horse Trials. She is also the Arena Manager at the Australian International 3DE, and brings us a report from last month's event.



Animal Science and is an Equine Nutrition Advisor for MITAVITE®. Passionate about horse health, she helps owners improve the diet and wellbeing of their horses. She is also researching advancements in horse health at the University of Adelaide. If you've ever puzzled over the difference between prebiotics and probiotitcs, don't miss this month's nutrition article.



Holly Mills Holly holds a BA in





competing, judging and

presenting seminars

trained in Germany,

Netherlands, and has

successful FEI horses. In

this issue she addresses

produced nine very

Spain and The

and masterclasses, has

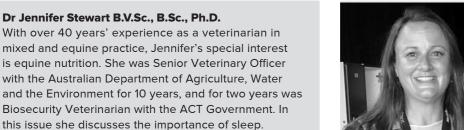
Dr Caroline Spelta

Caroline is a specialist in Equine Medicine, boarded with the European College of Equine Internal Medicine and a Member of the ANZCVS. She has extensive expertise in Australasian equine internal medicine and toxicology, with special interests in ophthalmology, neonatology, intensive care and clinical research. In this issue she discusses the very common problem of colic.



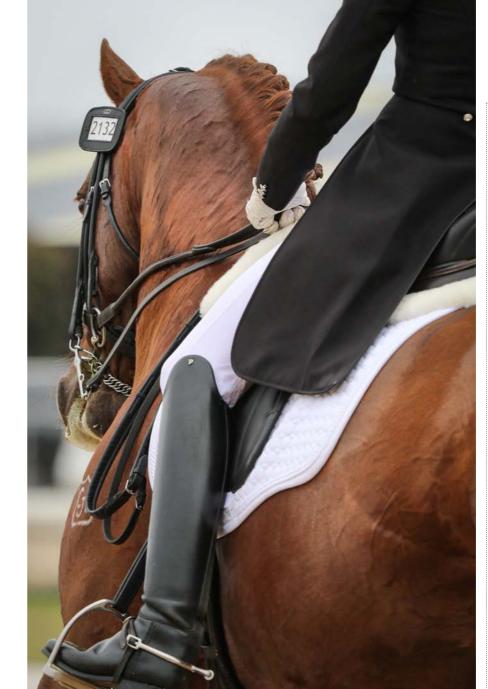
Michelle Terlato

Michelle grew up with horses and has always loved them. When she's not travelling the globe photographing the world's top equestrian athletes, she's home riding her own horses. It's the behind the scenes and the unexpected shots that she likes the most, and in our Behind the Shot feature, she shares her favourites and explains what makes them so special.



Rachel has ridden her whole life. A passionate horse enthusiast who's working to establish a small stud of dressage bred performance horses, her interest in writing and storytelling grew during her university media studies. She spoke recently to Dr Caroline Spelta about colic, a common and potentially serious condition that can affect horses of all ages.





BEHIND THE SHOT

Jenny Bray & CJP Diamond Dazzler

One of Australia's top equestrian photographers, MICHELLE TERLATO travels the world capturing equestrian athletes in action. Each month she shares one of her favourite shots.

Rider: Jenny Bray

Horse: CJP Diamond Dazzler

Event: Boneo Classic, Australia Day 2020

Location: Boneo Park

Camera & Settings: Canon 7D Mark II, 300mm. ISO 400 f 5 1/640 sec.

Challenges: It was a dark and gloomy day at Boneo Park when this shot was taken, so the ISO is a little higher than normal. When the light is poor, I find that getting in nice and close to the subject is often a better option.

Why this shot is special: This horse, Diamond Dazzler, is just the most magnificent Warmblood. He has a huge solid neck and his copper colour shone despite the lack of sun on the day. I wanted to capture his size and strength but not from the usual sideon angle. When during the test they started trotting diagonally away from me I thought it looked promising, so I just kept shooting and it turned out to be perfect. I love the way it captures everything that is wonderful about dressage: the horse's head and neck, his veins, his eye, the double bridle and bits, just a touch of the plaits, the 'CJ' brand, and even the rider number. And then there's all the beautiful rider attire: the shiny top boots and spurs, the breeches, the gloves and the tails complete with diamond button, and just a glimpse of the saddle, the girth and the numnah. Yet it's still anonymous, a snapshot in time. It really is one of my all time favourites, in fact I love it so much I have it framed on my wall at home. Hope you like it too!

Michelle is available for event, commercial and private shoots. Visit Michelle Terlato Photography to see more of her stunning work.

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Throughness

The concept of throughness can be a tricky one to grasp, but it should be the goal of all our work, writes NICOLE TOUGH.

his month, we're going to demystify the concept of throughness, an invisible quality which should be the goal in all our work - starting with the simplest of transitions at basic level - and which should never be compromised as we proceed up the levels.

But what does throughness mean?
Throughness is the idea that energy starts in the haunches, ripples over the topline and is 'caught' by the rider's hands. It is achieved when the rider's aids (leg, seat and rein aids) go freely through the horse, from back to front and front to back.

This analogy might better explain it: Imagine in our ridden horse that we have Hindquarter Island and Forequarter Island, and they are connected by a bridge (the back). When the traffic (energy) is flowing from Hindquarter Island to Forequarter Island, and the bridge is clear, we can reach our destination without delay. But when there is a traffic accident (a block), on either of the Islands or on the bridge, it needs to be cleared before the traffic can start flowing again.

All horses block in some way. Willingly working through the body, with no hesitation, whingeing, or resistance is hard. To make their workload easier, some horses will lean on the bit, where others might hide behind the bit. Some horses run away, and some horses stop and quit. Some horses come behind the leg, where others may become tense and anticipate. Some go crooked, and some go rigid. We, as their trainers, need to learn the tools to manage and





FACING PAGE: Throughness is the invisible quality which should be the goal in all our work.

ABOVE: Throughness to the dressage rider is like the Force to a Jedi Knight! Achieving it is possibly the hardest hurdle to feel and attain, but it is its own reward (All images by Christy Baker Photography).

correct the blocks/evasions, to channel the energy through the horse's whole body.

These tools encompass the pressure/ release combinations of our aids. We need to learn how to feel and influence the horse's quarters with our leg, their backs with our seat, and their jaws with our reins.

Contact issues are the most common cause of traffic accidents that prevent throughness. Originating in Forequarter Island and feeling like a braced jaw, the horse blocks against the rein aids to prevent easy flexion of the poll joint. Their rider will feel like they are holding the head and neck of the horse in position, and are unable to achieve self-carriage.

Conversely, suppleness issues can cause traffic accidents that also prevent throughness. Originating somewhere along the bridge, the rider might feel like they have empty or weightless reins. This horse has blocked in the back, causing a bowing or bracing of the underneck and a subsequent hollowing of the back. Another suppleness issue

that can block energy from flowing through is the natural crookedness of the horse. Horses are, by nature, crooked in one direction and more rigid in the other. The rider dealing with this block may feel one rein as really sensitive and elastic, while the other is like immovable concrete. In this case, the traffic accident (the block) has occurred on one lane of the bridge.

Unfortunately, riders can fall into the trap of taking a short cut: using the rein aids to mask the problem in the shortest possible time, especially in a competition situation. But in doing this, all we create is a bigger traffic jam that prevents the horse from being supple, elastic, engaged, and thus through.

And we must remember that horses get good at what they do; so if they practise working incorrectly, they get good at going incorrectly. Instead of masking the problem, we should seek to void the block to hopefully prevent reoccurrence.

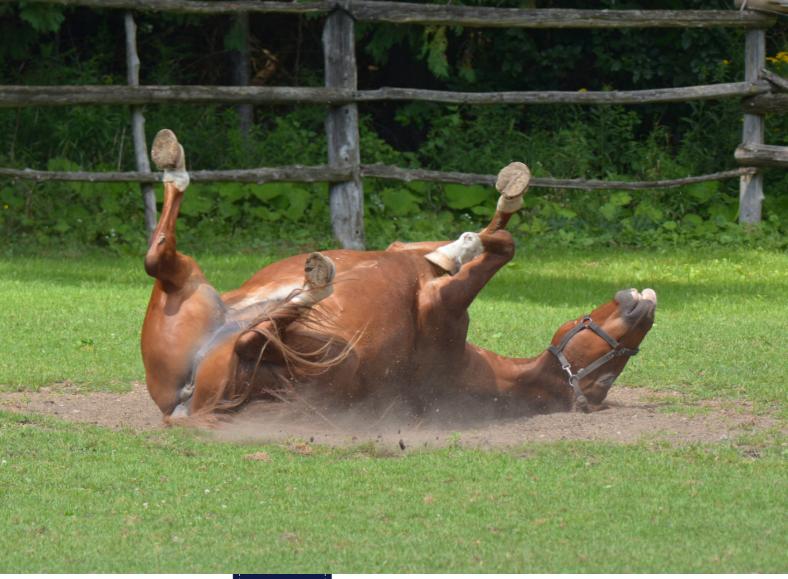
It will take a few more steps and it will be hard, but it is always better to push the horse more through from the hind leg into the hand, because all the movements will be better for it.

Sometimes if we can't push the horse more through in their show frame, we may have to invite them to lower their poll, to get them up in the wither and more through, but we shouldn't stay there. If we stay there in the lower frame, we cannot complain about the judges' marks. At the end of the day, we have to get the horse more through in the show frame.

A horse that is through is an athlete that is equally supple on both sides and willingly reacts to each and all the rider's aids. This requires complete understanding of the task, the strength to co-operate, a degree of relaxation, and a correct connection.

Throughness to the dressage rider is like the Force to a Jedi Knight! Achieving it is possibly the hardest hurdle to feel and attain, but it is a struggle worth working towards, and moments of throughness are their own reward.

May the throughness be with you - always. \triangle





VET VIBES

Tummy troubles

Colic is a common and potentially serious condition which can affect horses of all ages and breeds. RACHEL ROAN spoke with Dr. Caroline Spelta to find out more.

igns of colic are usually easy to detect. Depending on the severity and cause, they can include restlessness, pawing, kicking at the belly, rolling or attempting to roll, sweating, appetite loss, decreased or the absence of defecation, and an

elevated heart rate. "Some horses will stretch out as if they want to pee, others will lie out flat, or stay lying down when they usually wouldn't," Caroline explains, "and in more severe cases you often see them drop suddenly to roll."

It's a mistake to believe rolling can cause a horse's gut to twist. The rolling is actually a symptom of gut pain, rather than the cause. "A horse can't lie down for a roll in the sand and get up with colic. The pain is already there," says Caroline. "It's bad for them to roll due to the risk of hurting themselves. They can often sustain an injury when throwing themselves down, take skin off, get cast, or become stuck under a fence or rail." Walking a colicking horse provides a very low level of pain relief and is useful in preventing rolling while you wait for your vet.

The word 'colic' means abdominal pain, so narrowing down its cause can prove challenging. "For example, a stallion showing signs of colic could actually have a twisted testicle," says Caroline. Changes in diet or the weather, such as a series of cold days where a horse drinks less, can increase the risk of impaction colic, while a horse at the bottom of the herd pecking order may

also be at increased risk. "When the others go for a drink, the one at the bottom will sit at the round bale, eating as much as possible while they're gone, often forgoing a drink," she adds. Sand colic is frequent where there is short, fresh, green grass. While trying to consume short feed the horse may ingest sand or dirt, which accumulates in their digestive system causing inflammation and irritation.

In any suspected colic case, call your vet straight away to prevent a decline in your horse's wellbeing. "A vet will listen to the horse's heart rate and their gut sounds, and depending on the facilities available, will do an abdominal palpation per rectum," Caroline explains. "Depending on the horse's history, along with what they feel and see, some vets then do an ultrasound to get a better idea of the cause so they can form the best treatment plan."

Treatments vary depending on cause and severity. For mild cases, medication such as pain relievers and laxatives might do the trick, while severe cases may require surgery. A horse with impaction colic would be treated with fluids and pain relief administered intravenously or by nasogastric intubation, whereas spasmodic colic (often the result of eating a noxious weed) causes the horse to cramp up, requiring pain relief but not fluids as dehydration is not a contributing factor. Surgery may be required in cases of a twisted or displaced bowl, or severe impactions.

Deciding to operate requires careful consideration, and a vet will weigh up the horse's overall health, severity of the colic, the risks and potential complications. "If you can't control them medically and they're not responding to pain meds, then surgery is an option regardless of the suspected cause," Caroline says. "If the rectal and ultrasound examinations indicate the horse already has a twisted bowel, surgery is the best approach to put



FACING PAGE: Rolling is just one of the signs your horse might have colic.

ABOVE: Pawing the ground and kicking up at the belly can also indicate that your horse is experiencing the pain associated with colic.

that all back before it becomes further compromised."

A vet may conduct an abdominocentesis test to assess the health of the bowel.

"By putting a needle sterilely into the abdomen to collect the fluid in the intestine, we can determine whether the bowel is still alive or not," Caroline explains. "If the bowel is dead or dying and surgery is not an option, unfortunately that horse will not survive."

Not all veterinary clinics are equipped to perform colic surgery, which requires specialised surgical facilities and skills. "The horse is put on their back, and the surgeon will make a midline incision. The type of surgery will dictate the length of the incision, depending on whether it's the small or large intestine. Certain types require bigger incisions to enable access."

Colic surgery is often a last resort when other treatments have failed, and horse owners need to consider the financial cost, which may include a lengthy post-op recovery time, and the possibility of complications.

As with most things, colic prevention is better than a cure, and owners can

take a range of measures to reduce the risk: poor quality hay should be soaked in water to remove any particles that may irritate the digestive system; slow feeders or nets help reduce impaction by preventing horses from hoovering their food; and feeding on a large rubber mat or concrete pad can prevent the intake of sand and dirt. Caroline suggests regularly adding psyllium to your horse's feed to help remove sand from their system, as well as keeping their teeth in good order so they can chew properly (thus reducing the risk of impaction colic), and adding salt to their diet to encourage them to drink.

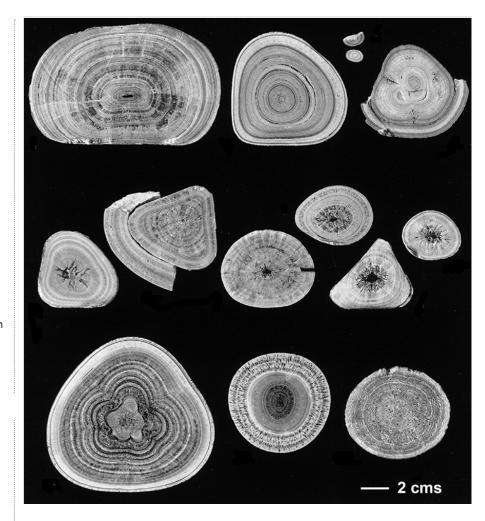
Worming horses with a large worm burden can also cause colic. "Small strongyles have an encysted larval stage, where the larvae go in and make little cysts inside the bowel wall," Caroline explains. "If a horse hasn't been wormed in a long time and you give them a very effective wormer that kills the larvae in one hit, they will actually come out of the gut wall, essentially putting a million little ulcers in that wall."



Foals with roundworms also present a colic risk. "Killing a large burden of roundworms can cause an impaction as they get tangled into a knot of dead worms. So when there are large worm burdens it's killing the worms that's the issue, not the worms themselves," she adds. To avoid these situations, faecal egg counts are top of the list, as is ensuring the right wormer is used, and that worming is done when the horse needs it, rather than on a six weekly schedule which only contributes to the problem of worm resistance.

Enteroliths (mineral concretions that form in horses' intestines) are a common culprit in chronic colic cases. They can range in size from small pebbles to large rocks and form around a nidas - a foreign object such as a grain of sand, piece of bailing twine, or a small rock that the horse has ingested. "Minerals from the diet bind to the nidas, growing bigger in layers. When you cut them in half, they often look like an onion," Caroline explains. "They eventually grow large enough so that as they travel through the intestine, they can sit and block it like a one-way ball valve. This causes an impaction colic as the enterolith has blocked the pathway out, causing distension behind it."

Enterolith colic cases are challenging because they reoccur. "You relax the gut which allows the rock to roll back out of the channel and the block goes away, but six months later it might have rolled back into the bend of the intestine, causing another blockage," Caroline says, noting that some enteroliths can become as big as a rockmelon. They will eventually kill the horse if untreated, but once formed, surgery is the only option to remove them. "Unfortunately, we can't break them down," she says, "but you can feed apple cider vinegar to stop them from occurring, which is recommended if you're in a high mineral content country."



ABOVE: Polished slices of equine enteroliths showing concentric layers of mineral deposited around a central spherical or pyramid shape nidus.

BELOW: Enteroliths are at their most dangerous when they become large enough to block the colon, or have sharp edges that could potentially cut the bowel and cause peritonitis.







FEATURE

Adelaide 3DE

In her role as Manager of the Adelaide Equestrian Festival's main arena, ASHLEY COPPING is well placed to report on this prestigious event.

he Adelaide Equestrian Festival, held this year from the 20th to 23rd of April, drew a record crowd of 37,000, and showcased the skills of some of Australia's top eventing combinations.

Olympian Shane Rose made his mark in the event's history books by winning the 5* for a third time, and special mention must be made of Monica Spencer and

Artist's superb 5* dressage test. Monica was topping the leader board at the end of the first day, but an unfortunate cross country tumble put her out of winning contention.

And Shane not only took out 1st with Virgil and 4th with Be My Daisy in the 5*, qualifying both horses for Paris in the process, he also won, by 1/100th of a second, the hotly contested Eurilla

Jubilee Cup, awarded to the rider who is closest to optimum time across country (he and Virgil have to be the ultimate partnership - nothing fazes them!). The cup dates back to when the event was held at Gawler, as does the prestigious (and very large) Jack Walsh Trophy, which was presented to Shane by Jack's son Richard.

Towards the end of the 5* cross country, an interesting situation occurred at the water jump, which competitors had to negotiate twice from different directions. Two riders had had a refusal on course which changed their timings, causing them to meet in the middle of the water! They were very close when they passed each other - and let's not forget that you're riding at speeds of around 570 meters per minute - but thanks to their great horsemanship, a potentially hazardous situation was averted.

Shenae Lowings and Bold Venture were leading going into Day 3 of the RM Williams CCI4*-S, and although they collected a minor time penalty in their jumping round, they were still overall winners.

Oliver Barrett and Sandhills Special

put in a terrific performance to win the Racing South Australia CCI 3*-L ahead of a field of more experienced competitors. Nineteen-year-old Oliver claimed the lead from Day One with an excellent dressage test, and was also awarded the Bates Young Rider Championship.

For me, one of the highlights was the dressage masterclass given by eventing and dressage rider Spencer Sturmey, who had travelled from the UK to be with us. Two young South Australian riders, Sophie Gardner and Clare Nitschke, brought their horses in for the masterclass.

Spencer rode both horses to get a feel for them before presenting the class, which covered the basics of managing temperament in a competition setting. Sophie's horse was quite agitated in the ring, so Spencer talked the crowd through how to manage your horse when they were in an atmosphere they hadn't faced before, and how to train for transitions to ensure they always comes back to you. It was very interesting.

Also fascinating was Stuart Tinney's masterclass. Stuart went through the basics of training a horse over a skinny fence, and how to build up and change obstacles so they don't scare the horse and put them off. He did this with incremental changes to the fence, starting with taking the wings away and then altering the rails. Megan Jones and her young horse Ted participated in the class, and Ted, who is currently only doing 95cms and hasn't had much exposure to narrow fences, certainly benefited. His eye was drawn to the center of the jump and he tackled everything asked of him with confidence.

Besides these events, there was plenty to keep visitors of all ages entertained, including a polo match, a working equitation demonstration, and a mounted games display from the South Australian Mounted Games Association. For our younger visitors, we had a play area where they could learn how to plait manes and tails, and prior to the festival we ran a competition for children in conjunction with Chanel 7. The prize was



FACING PAGE: Shane Rose and Virgil in unbeatable form.

ABOVE: 5* winners - Shane with Sam Lyle (BF Valour) and Sophia Hill (Humble Glory). BELOW: A delighted Monica Spencer and Artist after their textbook dressage test. All images by Michelle Terlato

to ride in the show's main arena, and on the morning of the second day we had around 50 or 60 kids, some of whom had never ridden before, circling around the arena on horses and ponies brought in for the occasion by local riding clubs.

Overall, the festival was fun and entertaining. The schedule was structured so that people could come back from the dressage or cross country in time to watch a sporting

display and then finish the day with a masterclass – so there was plenty of opportunity to learn something new to take home to work on with your own horse. And I think that that's where the Adelaide Equestrian Festival strikes a great balance. Yes, you can watch elite equestrians compete, but you can also learn from the experience and hopefully go home better informed than you were when you arrived.



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NUTRITION

Digesting the facts

Prebiotics and probiotics. Are these just fancy additives in horse feed, or is there more to the story? Equine nutritionist **HOLLY MILLS** explains.

here are many digestive supplements for horses that include prebiotics and probiotics in their formula. Both are scientifically proven additives that benefit the horse's hindgut, and it's important to understand how they function. So, let's dive into an overview of your horse's hindgut, how it works, and what you can do to help support healthy digestion.

The importance of the hindgut

The hindgut is an integral part of a horse's digestive system. It hosts a whole ecosystem of microbes whose main job is to ferment roughage (hay, chaff, and other fibre sources). Microbial fermentation is your horse's main way of sourcing energy and nutrients - simply put, microbes are the often overlooked heroes of digestion and much of what we feed is not actually feeding your horse, it's nourishing the microbial population.

Fibre supports the microbiome in the hindgut. However, if sugars and starches spill into the hindgut without first being properly digested it can be hugely problematic and may trigger digestive disorders. Most horses are capable of

handling some starch/sugar in their diet, but we must take care not to overfeed them; too much can leak into the hindgut where it rapidly ferments. This fermentation process produces lactic acid, heat, and gas, all of which can upset the balance of the microbiome. When this happens, beneficial microbes are likely to die, thus decreasing the microbiome's ability to break down feed and create nutrients, which is detrimental to your horse's general health.

Microbial death also releases a toxin that can enter the bloodstream and lead to endotoxemia, a cause of laminitis, shock and even death if not treated promptly. Clearly, keeping the hindgut and its microbiome happy is key to your horse's overall wellbeing.

So, what is a prebiotic?

A prebiotic is a non-living feed additive that supports beneficial gut microbes. Some prebiotics have a protective effect by preventing pathogenic organisms from inhabiting the hindgut. When the microbial population of the hindgut is healthy it prevents unfavourable organisms from growing and causing disease.

Oligosaccharides, the non-digestible carbohydrates found in the cell walls of yeast or other microorganisms. Research has shown that horses receiving a prebiotic demonstrated improved performance – an excellent reason to support a healthy digestive system in sporthorses.

And what is a probiotic?

A probiotic is a microbe that lives in the digestive tract where it boosts digestive health. Probiotics are often used in human nutrition (yogurt and kombucha are great examples) to support gut health, but they are also beneficial in equine nutrition.

The most commonly used and most thoroughly researched probiotic given to horses is the live yeast *Saccharomyces cerevisiae* (SC). Studies have shown that SC is able to survive the journey through the digestive tract to populate your horse's hindgut. This a critical factor to consider when you're looking for a probiotic, because there's no point adding a live organism to their diet if it dies on the way to its destination.

And it's not just the internal journey that a probiotic needs to withstand! A high-performing probiotic must also endure the manufacturing process, packaging, and storage – and SC has demonstrated its ability to tick all those boxes.

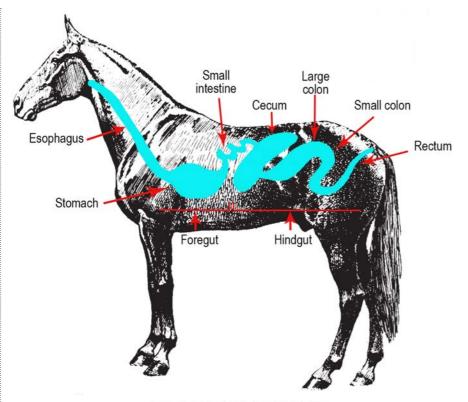
Once in the hindgut, SC gets to work by:

- Improving fibre digestion
- Stabilising the microbial population
- Improving energy production

These very beneficial outcomes are particularly helpful for horses that are in work, consuming large amounts of grain, or are under stress. There are other equine probiotics which show promise in terms of their viability and beneficial effect. However, more research is required to better understand their potential.

Feeding a supplement

Supplementing your horse's diet with pre- and probiotics is a good idea regardless of their health status. Many horses are at risk from the negative impact that stress and a variety of



DIGESTIVE SYSTEM

dietary factors can have on their digestive function. Look at your horse and ask:

- Is their manure normal?
- Are they underweight or needing improved condition?
- Is their coat in good condition?
- Are they gassy?
- Do they consume grain?
- Are they under stress?
- Are they a performance horse?

These are all factors to condsider when you are contemplating adding a pre- or probiotic to your horse's diet. Even in an otherwise healthy horse, pre- and probiotics can only help to increase their overall wellbeing and the health and efficiency of their digestive tract.

Which to choose?

Pre- and probiotics are included in many digestive supplements. When choosing a supplement, consider the type and quantity of prebiotic or probiotic that has been added to ensure your horse will receive the full benefit. Also, consider the form that the product is in. Because they are living organisms, probiotics

are very sensitive to heat, which is why most products containing a probiotic are in powder form to protect them from processes involving heat. Probiotics are most commonly found in muesli style equine feeds as they can be added towards the end of the mixing process, avoiding exposure to heat. Prebiotics are more stable and can withstand heat.

Understanding the way your horse's hindgut functions and how that impacts their overall health is the first step in learning how to care for and support it. Although we may not be able to allow horses free rein to graze naturally, we are still able to provide them with what they need to maintain healthy gastrointestinal functioning. High quality prebiotics and probiotics are an excellent addition to any horse's diet and they can be fed without negative impacts to their digestive health. They're a great way to ensure that your horse is happy, healthy, and comfortable year-round

Interested to learn more? Take advantage of the free diet analysis available at Nutrikey, visit Hygain, or for more information email nutrition@hygain.com.au



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Asymmetry and its effect on saddle fit

FEATURE

No horse is perfectly symmetrical, which can create issues when it comes to the fit of your saddle. Saddle fitting expert PAULA JEFFERY discusses asymmetry and its affects.

o any of the following sound familiar to you: 'I can't seem to put weight in my right stirrup and it always feels too long'; 'My instructor keeps telling me I collapse to the left and I've got to sit straighter'; 'Every time I canter to the right I feel like I'm falling off to the left'; 'My saddle is constantly slipping left no matter how many times I straighten it or tighten the girth!'; 'My horse is really reluctant to bend to the right and gets hard in my hand and grumpy, but is happy to bend left and is softer.'

66 ...when we have major asymmetry in the horse's musculature, posture or biomechanics ... we will start to see some of the problems mentioned above. 99

All of these issues can be caused by the effect of a horse's asymmetry - from either the shoulders, hindquarters, feet or back muscles - on your saddle. No horse, or rider for that matter, is perfectly symmetrical. Which makes placing a symmetrical object (a saddle) between the two, all the while hoping it will move straight and distribute the pressure from the rider's weight evenly on the horse's back muscles, a bit of a challenge!

However, when we have major asymmetry in the horse's musculature, posture or biomechanics (how he moves), we will start to see some of the problems mentioned above.

How asymmetric shoulders influence saddle and rider

A horse does not have any bony connection between their scapula and their ribs or spine. Instead, the horse's massive and heavy torso is slung between the two front limbs, supported

by a series of muscles, tendons and ligaments called the thoracic sling. That means we can have very different muscle build up on one side of the sling to the other, increasing the space between the scapula and the ribs on one side. This can create a 'bulgy' or bigger shoulder.

More than that, if the horse's feet are not symmetrical with one heel higher than the other, or a club foot, or a narrow more upright foot, it has a direct influence on the height of the scapula and sometimes the angle of the scapula - so we can have one shoulder higher or more rearward than the other.

How does this affect the saddle?

The shoulder blades have to rotate under the front of the saddle with every single stride. So as each one slides under the front of the saddle it has a slight lateral (or sideways) swing at the cantle: left, right, left, right and so on. You can see this if you stand behind the saddled horse as it moves in a straight line away from you in walk and trot.

If one shoulder is bigger or more rearward than the other, it is going to have more 'push' on the front of the saddle than the other. If it's the left one for instance, when viewed from behind you will see the cantle swing significantly over to the right, away from the push of the big left shoulder, and only move slightly (if at all) back to the left when the smaller right shoulder slides under the saddle.

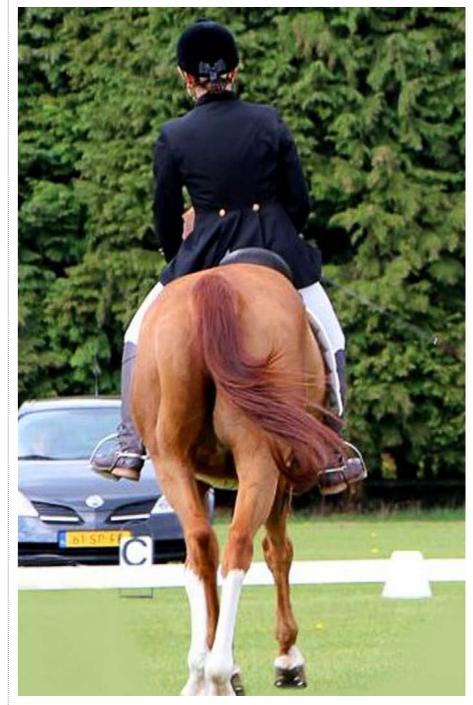
This means that the left panel under the cantle moves more towards the spine, and puts constant pressure on the left hand edge of the spine. Consequently, the horse is going to want to move away from the uncomfortable pressure and pain, and will more likely bend to the left, or swing his hindquarters away to the right, so he is no longer straight in his body or neck, nor is he travelling straight

How does this affect the rider?

As the saddle slips and twists off to the right, the rider is going to collapse and likely twist their shoulders to the left. They may 'give away' their right rein and get sore on one side of their lower back. Their seat may slide over to the right as they no longer have support from the saddle under their right seat bone. This is exacerbated in left canter and it feels impossible to keep even weight in both

stirrups - and with the rider's weight becoming uneven in the saddle, it makes the saddle slip worse.

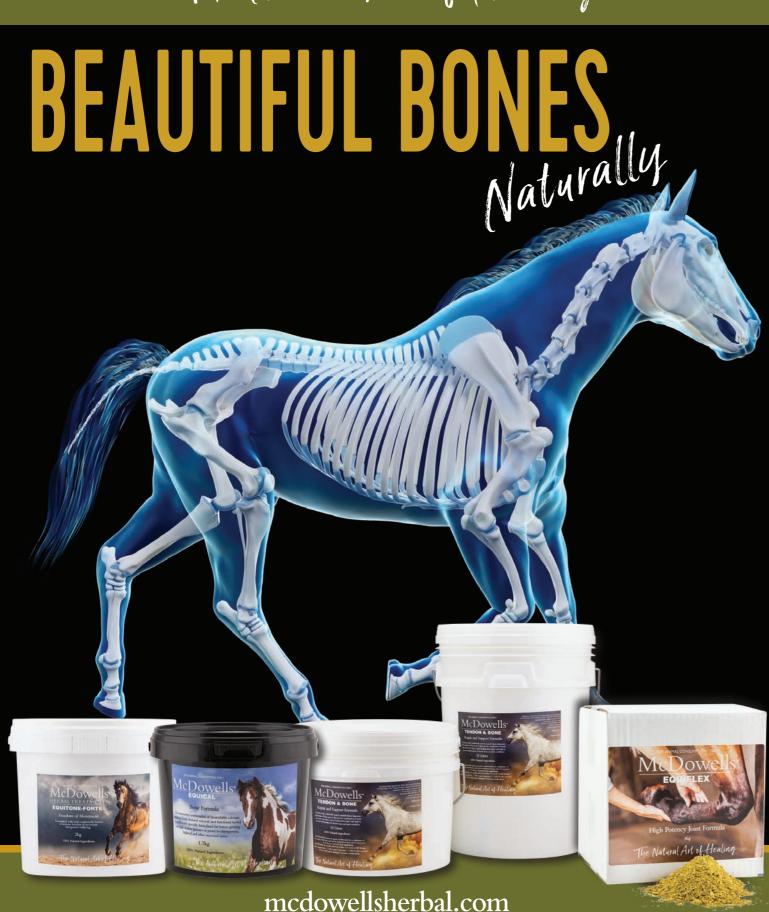
It's likely that in this position their right leg will go forward and away from the horse, and their left leg will come back and grip more - unfortunately all of these unconsciously increased rider pressures from an unbalanced rider actually tell the horse to keep bending left!



PREVIOUS PAGE: A large, bulging left shoulder causes muscles to contract on the near-side, bending the horse to the left and moving the cantle to the off-side. ABOVE: If the saddle slips and twists, it cases the rider to collapse and twist.

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The Natural Art of Healing



Just imagine how confusing it can be to the horse when you then try and straighten him by pulling more on the right rein. No wonder they become resistant with such conflicting pressures!

What can we do?

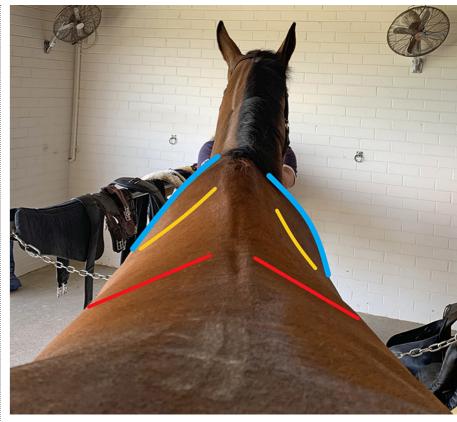
If you are recognising any of these symptoms, it is really important to first identify where the asymmetry is in your horse. The cause could be to do with their conformation, or uneven muscle development, a previous injury, or even undiagnosed problems that need investigation.

We can often address and improve the degree of asymmetry by involving other equine professionals, our 'Circle of Care', which includes your vet, dentist, farrier, physio or body worker, saddlefitter, and coach. And it often takes a combined approach from all of them to help improve the horse's body, comfort and movement. But by doing so, you will make his job easier and you'll have a happy, healthier partner.

Saddlefitting Solutions

Once you know what you're dealing with, your saddlefitter can look at offering some solutions. It's essential that your saddlefitter assesses your horse's asymmetries statically (standing still) and dynamically (whilst in movement) in all three paces. You'll need to walk and trot the horse in hand on a straight line for your fitter, both with and without the saddle, so they can assess how much the horse's asymmetries affect the movement of the saddle. They will also need to evaluate the horse/saddle/rider combination while you're in the saddle. This will give a clearer picture of the changes that occur with you on board, as well as creating an opportunity to try out some possible solutions. \triangle

To find out more about Paula and her team and the services they offer, visit Performance Saddlefits



When muscles on one side of the thoracic sling build up more than on the other, it can create a 'bulgy' or bigger shoulder.

66 ... first identify where the asymmetry is in your horse. The cause could be to do with their conformation, or uneven muscle development, a previous injury, or even undiagnosed problems ...

BELOW LEFT: The nearside scapula is more rearward than the off-side. BELOW RIGHT: A horse's torso is slung between the two front limbs and supported by









LIFE AFTER RACING

The benefit of being CARM

Off the track Thoroughbreds have become very popular as equine therapy horses and with good reason, writes **AMANDA MAC**.

arlier this year we spoke to

Rehab4Rehab founder Alisha

Griffiths, who had combined her
two passions of helping retired racehorses
and supporting struggling children to
create something very special.

A successful and in-demand charity, Rehab4Rehab offers equine therapy to children, including psychology sessions, occupational therapy, and speech pathology support. The therapies are facilitated by a team of allied health professionals, including AHPRA-registered clinical, and child and developmental psychologists, all of whom have significant experience with horses.

The Rehab4Rehab therapists work with a broad range of mental health issues, including anxiety, depression, low self-confidence, autism, behavioural issues, trauma and PTSD. Typically, patients participate in 10 sessions to help them manage their emotions, anxiety and general wellbeing.

But why stop there? Late last year
Rehab4Rehab joined forces with the KIDS
Foundation to create CARM (Child and
Racehorse Movement), an organisation
designed to raise funds and promote
child and horse wellbeing, and to expand
on the work of both the KIDS Foundation
and Rehab4Rehab. CARM's profile
has been championed by three high
profile ambassadors: Australian jockey
Michelle Payne OAM, the first female to
win a Melbourne Cup; prominent media
personality and journalist Jacqueline
Felgate; and well-known 7 Network
presenter Hamish Lachlan.

After a soft launch in November 2022, CARM was officially launched to great acclaim at Flemington Racecourse on Australian Guineas Day in March this year. And Alisha, who is the Co-Founding Director of CARM, was delighted with the response: "While the horse racing community is phenomenally large and ever-growing, many are unaware of what happens to horses once they retire from the track.

We're excited to build this program and enhance recognition for the extraordinary power of animals and children in nurturing each other."

Alisha says that ex-racehorses seem to have a special aptitude for equine assisted therapy and believes that it's their ability to mirror human emotions and maintain a calm state during interactions with the children that lies at the heart of this success. It has certainly been foundational in the growth of both CARM and Rehab4Rehab, and has resulted in some very positive win/ wins. "By giving retired racehorses an opportunity to connect with people, they achieve a greater sense of purpose and belonging. Likewise, this relationship is rewarding for the children. It not only aids their mental wellbeing, but enhances their confidence, their ability to care, and their social skills," she adds.

Michelle Payne OAM, is one of the charity's most enthusiastic supporters: "CARM changes kid's lives," she says, "at the same time helping retired racehorses transition from the racetrack to the community."

Around 30 horses are involved in Rehab4Rehab, which is based at Red Hill Equestrian Centre on Victoria's Mornington Peninsula. The process involved in a racehorse transitioning into the community generally takes between six and eight months, and their training in equine therapy costs approximately \$8,000.

And it's not just children who benefit from interacting with horses. CARM also offers corporate days during which participants are introduced to equine assisted therapy while they work on personal and professional development in areas such as mindfulness, managing emotions, leadership, goal setting, and positive physical and mental health. Proceeds from CARM corporate days go directly to the KIDS Foundation and Rehab4Rehab.

For more information, visit <u>CARM</u>, the <u>KIDS Foundation</u> and <u>Rehab4Rehab</u>.





FACING PAGE: Michelle Payne OAM is one of CARM's high profile ambassadors.

TOP: Tessa with Crackerjack, a Rehab4Rehab OTT therapy horses (Image by Jay Town).

BOTTOM: Participants in CARM corporate days enjoy bonding with the horses while they work on their personal and professional development.

All images courtesy of CARM





FEATURE

Sweet dreams

Do horses gallop in their dreams? **DR JENNIFER STEWART** discusses sleep and the problems associated with not getting enough shut eye.

leep is imposed upon us by the needs of the brain. Even during sleep nerve cells are active sending waves of varying frequency and size sweeping across the surface of the brain. As horses sink further into sleep, the waves become slower, larger and more synchronized as they enter shortwave sleep (SWS).

As sleep deepens, brain activity becomes more chaotic with bursts of activity in different areas of the brain cortex, the eyes, and the ear muscles. This is known as REM (rapid eyemovement) sleep and it's when dreams occur. Behind closed lids, the eyes swing this way and that (hence the term REM). The brain seems to be seeing and hearing things that aren't there. As it wakes up, the brain reverses back through these sleep stages.

SWS is shallow and horses can enter that sleep phase standing or lying in upright recumbency. There is muscular activity but little eye movement and the eyes may be partially closed, the head lowered to wither height or below, and the ears rotated sideways or backwards. REM sleep is only achieved when they lie flat out on their sides with complete

muscle relaxation, eyelids closed and eyes moving rapidly.

REM sleep can be quite dramatic - with paddling, twitching, flared nostrils, flicking ears and blinking as they dream. In horses, SWS and REM sleep occur in five minute cycles. The usual sleep pattern for horses takes three to five hours per day, mostly between midnight and 5:00am. For solitary stabled horses, a loop of Beethoven's 9th symphony (at 62.3 decibels) was found to increase the time spent in REM sleep. It's thought the music reduced outside noises and therefore the need for the horse to stay vigilant. Less time being vigilant allowed more time for the biologically significant, more natural evolutionary behaviours of browsing and sleeping.

Although foals and young horses can maintain longer than 15 minutes in full lateral recumbency, adult horses can't because the abdominal contents compromise respiration. Foals sleep more per day than adult horses. However, foals with skeletal pain spend less time in lateral recumbency and this may be the only sign of discomfort. Early recognition of this changed behaviour allows early intervention and treatment.

Horses can sleep standing due to the 'stay apparatus' which allows their body to be supported without active muscular control. To prevent the shoulder from collapsing into a flexed position, a tendon runs from the top of the elbow to below the knee, letting the biceps muscle relax while locking the legs into an upright position. During drowsiness and SWS the stay apparatus is activated, the head is lowered, eyes closed and one hind leg rests. In very relaxing situations, like grooming, sun-bathing or standing quietly in cross-ties, horses may sneak a few episodes of sleep.

Resting or drowsiness occurs for around 25 to 30% of daylight hours in wild populations. In domesticated horses, drowsiness takes up around 8% of the day when horses are indoors and 13 to 14% of the time when outside. The increased drowsiness outside is combined with decreased SWS and REM sleep and is again related to survival and predation. During periods of drowsiness horses may prefer specific places in their stable – especially the corners. The posture is characteristic with the weight evenly on the front legs and one hind leg – the other hind leg is flexed and balancing on the toe. The head is usually above wither height. If startled the flexed leg is often raised (as if preparing to kick) and sometimes stretches backwards.

Like many other prey animals, horses sleep in social groups. Not all sleep at the same time and a sentry usually remains standing while the others lie down to sleep. Changes in the guard don't always go smoothly, but generally the first sentry will not lie down for at least 10 minutes after the new one stands up. The shape of the paddock or yard affects REM sleep time in groups of horses, and studies have demonstrated that a rectangular area is preferable to a square - even when the total area is the

Like us, horses sleep because they have



FACING PAGE: Horses can short-wave sleep standing or lying in upright recumbency. ABOVE: Foals may have frequent bouts of falling sleep.

to. Consciousness tires the brain and is not something that can be kept up indefinitely. Sleep deprivation results in changes in the electrical activity in the brain, leading to epileptic seizures in extreme cases. If forced to stay awake, or deprived of REM sleep around the clock, abnormal states develop, starting with irritability, followed by fainting, hallucinations, metabolic collapse and death. And we need REM sleep. The current theory is that during sleep in

The current theory is that during sleep in general and REM sleep in particular, neural irrelevancies are erased and all innate systems are reset – like rebooting a computer.

general and REM sleep in particular, neural irrelevancies are erased and all innate systems are reset - like rebooting a computer.

A period of full, flat-out, lying on their side is necessary for healthy equine sleep, and lack of it can lead to sleep deprivation, which can be caused by

many things including environmental stress, noise, extreme temperatures, unfamiliar or unsafe spaces, feeding, fasting, pasture, type of confinement, social hierarchy and grouping, age, feeding program, weather, size of stable and bedding type. Problems lying down also affect the opportunity for REM sleep - painful medical conditions such as arthritis, old fractures, enteroliths or neurologic disease can cause some horses not to lie down because getting up and down is uncomfortable. Your veterinarian may begin pain management to see if the horse's REM sleep improves with treatment.

Partial collapsing episodes related to REM sleep can occur in horses that, for whatever reason, refuse to lie down. Late pregnant mares that do not lie down can have multiple episodes of knuckling and almost collapsing, making up for sleep loss with lots of lying down after birth. Sleep deprivation may also occur when horses join or are removed from a herd. One study found ponies moved to a new paddock or stable do not sleep well for the following 24 to 48 hours and suffer sleep deprivation. But if a stable or paddock mate was familiar with the surroundings and did lie down for REM sleep, the new pony did likewise.

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REM sleep is only achieved when the horse lies flat out on their sides with complete muscle relaxation.

Excessive sleepiness can occur in such conditions as PPID, narcolepsy (a sleep disorder characterized by excessive daytime sleepiness and abnormal REM sleep) and other illnesses. Even though they are seen lying flat out on their side, horses with narcolepsy lack periods of REM. In humans, dogs and horses, narcolepsy is triggered by emotions such as play and excitement, and it has a genetic component. Although described in all breeds, families with narcolepsy have been identified in dogs, miniature ponies and Lipizzaners. Affected horses may fall in a heap when startled and foals may have frequent bouts of falling sleep and collapse when excited by play time, going into a paddock, eating, nursing, chewing hay and drinking from a dam - linked to risk of drowning! A complete physical, laboratory, and other diagnostic work-up in horses with collapsing episodes is needed. Video monitoring and keeping good records of the sleep behaviour of a suspect narcoleptic horse is important.

Sleep deprivation can be manifested in the horse as excessive daytime sleepiness and collapsing episodes (not to be confused with narcolepsy and cataplexy). Because the process of lying down requires co-ordination of the muscles, tendons, joints and bones, sick horses may try to REM sleep while standing – resulting in partial collapsing. Unexplained abrasions or scars on the front of the fetlocks and knees may be the result of episodes of collapse. Your veterinarian will consider sleep

66 ... foals may have frequent bouts of falling sleep and collapse when excited by play time ...

deprivation in the differential diagnoses if collapsing episodes are the primary complaint. Again, long-term video monitoring can be helpful in characterising the episodes and determining if the horse is spending any time recumbent as well as the duration and behaviour (resting quietly or sleeping) of the recumbency.

Commonly associated with sleep deprivation and excessive sleepiness, is poor performance. The need for sufficient time in lateral recumbency is important for domesticated horses living in environments where they're asked to adapt their innate behaviours to living conditions that only remotely resemble their natural evolutionary environment. We are increasingly recognising how many health problems in horses are related to stress - both their own and that communicated to them by other horses. To avoid unintentionally imposing the added stress of sleep deprivation, we must ensure they have time, conducive conditions, and opportunity for full, flat-out lying on their side. Fortunately, the majority of cases of sleep deprivation can be corrected if the cause is identified.

We don't need words to have concepts and neither do horses – so the answer is yes, horses do gallop during sleep – but only in their dreams. \triangle

Dr Jennifer Stewart BVSc BSc PhD in an equine veterinarian, CEO of <u>Jenquine</u> and a consultant nutritionist in Equine Clinical

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Put yourself in the picture

This magnificent equestrian property, located in Queensland at 101 Pound Road, Pomona, is not short on exciting potential.

ith 101 acres just one minute from the picturesque hinterland village of Pomona, this property ticks so many boxes. Representing a rare opportunity, the perfectly undulating land is flood-free and private, and is located just over 20 minutes from Noosa.

The views of Mt Cooroora and Pinbarren are spectacular, and the international

class equestrian centre, which occupies approximately 60 acres, is superb. Functionality and safety were a priority in its design. The property's remaining 40 acres offer ample opportunity for cultivation or to pursue other interests.

The home, a character Queenslander, was recently refurbished. Featuring four bedrooms, two bathrooms, a generous living area, and a good size kitchen, the



mesh for added safety.

In the stable and arena complex, there are 10 spacious galvanised stables DoWell automatic waterers and pivoting feed bins. The double barn doors are designed to maximise airflow, and every Four bays offer easy access for vets and farriers, with another four located beside the tack room. There are also two large internal wash bays, a rug room, and a laundry/kitchenette with sufficient room for a large fridge and two washing machines, plus a bathroom with shower

Another of this property's quality features is the 60 x 20m indoor arena, equipped with a Martin Collins wax fibre surface and mirrors. The arena walls are

structured from 32mm bamboo boards set at a 10° angle and the entire complex is lit with 150 watt LED high bay lights.

For further information, call Century 21's Bodie Weir on 0434 718 052, or visit horseproperty.com.au \(\int \)

FACING PAGE: This magnificent property has potential plus.

TOP: The 102 x 22m equestrian complex includes stables, arena, and wash bays.

overall ambience is one of spaciousness

bottom. The paddock gates are 50mm

In the grounds you'll find 33 paddocks, all of which have good soil and drain with bamboo walls, rubber flooring, well. Each is equipped with a DoWell automatic waterer, and fencing consists of 175mm upright koppers logs with three rails of Duncan Equine stallion rail, stable looks out onto the paddocks. plus electric fencing along the top and

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