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horses and people

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Rising to the Challenge

A Stallion's Majesty
The Medieval Horse

Targeting Your Horse's Core Strength

Become your horse's personal trainer **P.50**

MINDSET
FOR SUCCESS

We need
a change
of culture

Rise of Bit Fit Consulting

There's more to it than trying different bits! **P.60**

Setting Good Ground Rules

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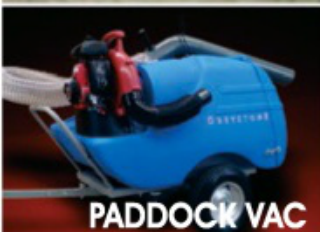
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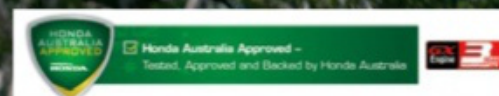


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From the Editor

Welcome to the March-April 2020 edition of Horses and People Magazine! Officially, the start of Autumn in Australia.

This month I had the privilege of speaking with Kelly van den Berg, the founder of Gippsland Horse and Stock Safe - Bushfire Assistance, a Facebook page that started some years ago as a way to enable horse people to help each other during emergencies. This summer, the group has risen to the enormity of the challenges presented by the apocalyptic fires, by enlarging their support efforts to all owners of livestock.

You can read her story on page 16 of this issue, and I hope it helps raise awareness of the huge gap that exists in relation to supporting both, the immediate needs of people and communities and the long-term impact. Despite many recent studies, there is a lack of institutional consideration of just how important pets and animals are to their owners who, in disaster situations, will put their own lives at risk to protect them.

In later conversations with Kelly, as I prepare this issue for printing, I was saddened to learn that, while we should be celebrating that recent rain has doused most fires, farmers will be no better off, as the government are pulling back funding for fodder relief efforts. This shocking decision shows exactly why we must review the impact of disasters of this scale. The current structures are not able to provide the long-term support rural and farming-based communities will need.

On a lighter note, I really enjoyed Dr Georgina Downey's column, which gives us the learned perspective of the 'Great Medieval Horse'. Who would have known the iconic artworks of the 'Dark Ages' would have so much to reveal about the ideas on gender, class and morals of the time?

Rachel Flynn returns to grace our pages with her spectacular images and shares her deep love and admiration for the Gypsy cob, a horse that has been central to much of her work. And her story reveals her passion is shared by many.

In our property management section, Dr Carol Stephens shares her practical fencing experience. Her attention to detail, together with a consideration for durability and minimum ongoing maintenance make this the most horse- and people-centred fencing guide I have ever read!

In the health section, I am thrilled to bring you Dr Lena Clifford's core-strengthening exercises series. These can be easily incorporated into your routine, and I hope you enjoy combining the beneficial stretches with positive reinforcement by following Hayley Chambers' target training tips. As our knowledge and intuitions of what constitutes good welfare expands, we are realising that it's all about making our horses feel good. What better way to do that than by having more positive and rewarding interactions with your horse every day!

And along the lines of acknowledging our horses feelings, Dr Kirrilly Thompson explains brilliantly a new concept being used in human mental health, and how it can be applied to recognising our horses' emotional state. Her explanation of 'the window of tolerance' has the potential to change your perspective instantly, and contribute to a much more compassionate and enriching relationship with your horse.



Later in this issue, Natascha van Eijk, the founder of the International College for Bitfit Consultants introduces her work and the news that her intensive course will be available in Australia this year. The concept of bit fitting may be new to many people but, as she explains, it requires a holistic approach and a great deal of expertise.

In our training section I am thrilled to welcome Sophie Wyllie from Equitation Science International, who is revisiting and completely updating the very popular series on training in-hand. It has always had a special meaning to me because the original version, by Elsa Davis, was first published in 2009, and with its evidence based and ethical approach, it marked a definitive editorial change for Horses and People which has come to define the mission of this magazine.

I encourage you to take the E-BARQ questionnaire and read Kate Fenner's article to understand how beneficial this citizen science project will be - not just for you to get to know your horse better, but also for all of us to deepen our understanding of horse behaviour and how our management affects it.

Tanja Mitton's article is a sobering read. It is something we should all read and consider deeply - are we supporting each other enough? Are we considering people's wellbeing at all levels of the sport? It is a topic that underlies everything we strive for with the magazine - to improve the lives and wellbeing of both horses and people.

I hope that Jill Griffiths' Green Pony column reminds you, as it did me, of some of the reasons we love training our horses, and how enjoyable it can be to think of riding as drawing beautiful patterns in the sand with their hoofprints.

And lastly, I welcome a chef to our pages! We learned about Peter Wolfe's incredible camping recipes from our friends in the Australian Trail Riding Association (ATHRA) and we think that everyone who ever camps away with their horses, whether at shows or for pleasure, needs his delicious recipes!

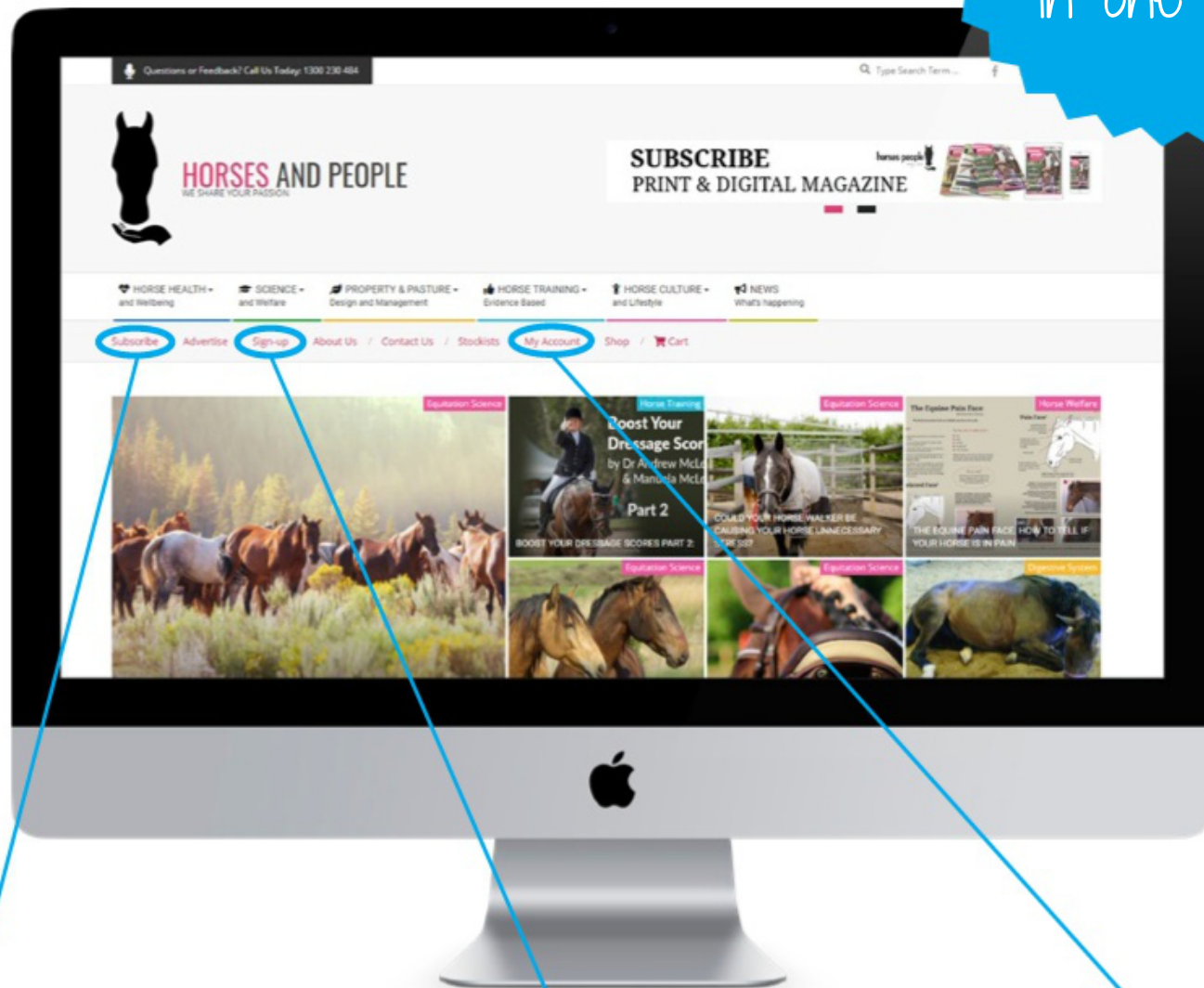
I know you will enjoy reading this magazine.

All the best,

Cushina

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This Month

P. 16 Rising to the Challenge
By Cristina Wilkins
 Throughout spring and summer Australia has been burning and people have been stepping up, communities banding together, people helping others. Like Kelly van den Berg and the team of volunteers who have been helping Gippsland farmers in the aftermath of the destruction.

P. 22 The Great Medieval Horse
By Dr Georgina Downey
 The 'Medieval' horse is a vision increasingly gracing our screens large and small, as our entertainment media reflects an ongoing fascination with the so-called Dark Ages. But what were these horses really like and how different were they to those of today?

P. 28 Stallion Majesty
Rachel Flynn
 Gypsy cob stallions are an equine photographer's delight and in this edition, Rachel shares her experience meeting and photographing stallions in the United Kingdom. She confidently confirms that behind every great stallion there's a passionate breeder and trainer.

P. 32 Horse Fencing Part 4
By Dr Carol Stephens
 We continue this series with a look at the importance of the correct installation of strainer posts, the foundation of any fence. If they fail, the whole fence fails, no matter how good the materials used, no matter how straight the fence line. Learn how to make them last.

P. 38 Managing Water
By Dr Mariette van den Berg
 Water is the driving force of all nature, and in this article we delve into the permaculture principles of water management and how they can be applied in horse properties. It all starts with observation and planning, maximising the benefits and minimising the damage.

P. 50 Targeting Core Strength
By Dr Lena Clifford and Hayley Chambers
 Horses like us, need movement, stability and mobility to stay healthy and sound. Learn some beneficial exercises you can incorporate into your routine and have fun with your horse by introducing the exercises using target training.



Find it on Page 46



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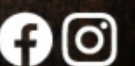
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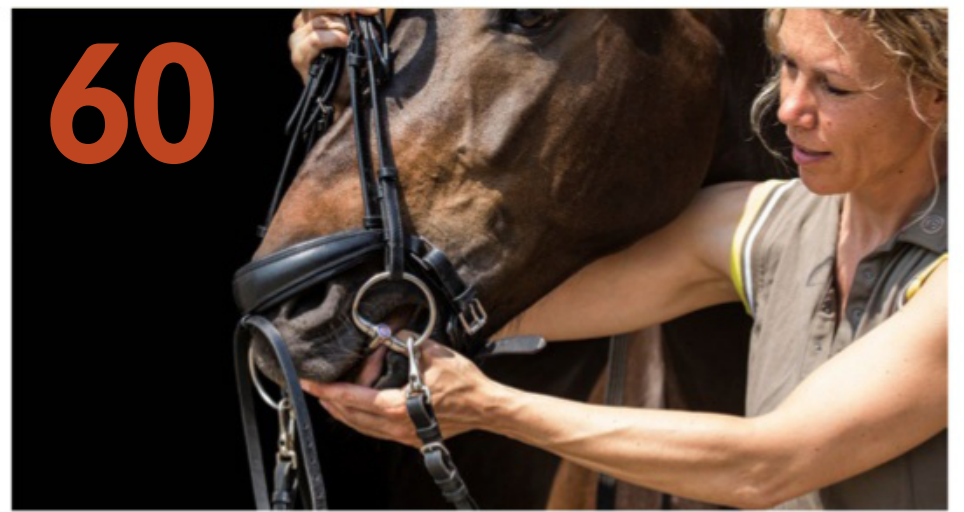
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This Month

P. 60 A Bit More Choice
By Natascha van Eijk
 Choosing the correct bit for your horse is more challenging than most people might think. Bit fitting services have started in Europe but, how can you tell a good consultant from another? Will they place your horse's welfare ahead of their own bit sales commissions?

P. 64 Helping Your Horse Travel
By Christa Lesté-Lasserre
 Horses regularly take long trips and researchers have been trying to find ways to help make them more comfortable and safe. A new study has shown that wider bays allow the horses to maintain their balance, and it looks like travelling backwards could also have benefits.

P. 68 Setting Good Ground Rules
By Sophie Wyllie
 In-hand training is an essential part of all horse's education, not only does it help in day-to-day handling but it is a safe and simple way to establish the aids we will use under-saddle. This is the start of a series that will explain how to teach all the basic responses in-hand.

P. 76 Do You Know Your Horse?
By Kate Fenner
 One of the things that draws us to horses is how unique they are, how they have their own personality and temperament. And now there's a tool that lets you investigate your horse's uniqueness in detail, whilst you make a contribution to horse behaviour and welfare science!

P. 80 The Window of Tolerance
By Dr Kirrilly Thompson
 Horses like humans are mammals, we have a mammalian nervous system and, one way of thinking of your horse's behaviour is to consider how they perceive threats and safety as a window of tolerance, a term which is now widely used in human mental health.

P. 86 Time to Change the Culture
By Tanja Mitton
 We have lost three professional riders to suicide in the last three months and we can't ignore this anymore. In this article, Tanja calls for a major review of how we can include more emotional support for all the participants in our equestrian sport - from the grass roots to the professionals.



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Dr GEORGINA DOWNEY

Georgina is an art historian who has published extensively on the domestic interior. Her books include *Domestic Interiors: Representing Home from the Victorians to the Moderns*, (2013) and *Designing the French Interior: The Modern Home and Mass Media* (2015). Integrating her love of horses and riding, recent publications include 'Unstable relations: horses in interior spaces' for the Australasian Animal Studies Association 2015 conference and, 'Becoming-horse in Contemporary Art' forthcoming, for Artlink. She is the human of *Classic*, the dressage schoolmaster, and *Angas the Cairn terrier*. Photo by Lisa McDonald.



JILL GRIFFITHS

Jill is a freelance writer specialising in agriculture and environment. She has a BSc in Biology and a Graduate Diploma in Journalism. Through her work, Jill is fortunate to interact with leading researchers across Australia, providing her with access to current research in many fields. A life-long horse lover, Jill came to horse ownership in mid-life and currently shares three horses with her daughter. She enjoys groundwork, trail riding, flatwork, and hanging out with the horses in the paddock. She also harbours ambitions of one day riding endurance on her young horse, Dante. Learn more at: www.jillgriffiths.com.



Dr CAROL STEPHENS

BAppSc, PhD (Veterinary Studies)
Carol is currently owner and manager of a large horse agistment property which is operated on sustainable principles, with the mental and physical welfare of the horses always top priority. While she has worked in many different parts of the world, in many different roles, Carol has always returned to the land and to horses. Prior to the establishment of her agistment property, Carol worked for Biosecurity Queensland as a veterinary microbiologist, diagnosing and researching infectious diseases in livestock, including horses.



HETTY TAPPER

Hetty is a clinical herbalist specialising in healing animals. She has also completed training in aromatherapy, homeopathy, energy healing, tissue salts, body work, massage, communication, meridian and chakra work, and much more. She enjoys healing horses naturally and has helped many horses that were abused, sick or just misunderstood. Hetty has written two books - 'Equine Lore' and 'Healthy Horses Holistically and Herbal Horse Health' - to show how we can all learn to help and heal our horses naturally. Her aim is to bring healing back to where it belongs - "with everybody".



TANJA MITTON

Tanja Mitton is a riding coach and NLP (Neuro Linguistic Programming) master coach with over 25 years of coaching and competition experience. She has been working with the Australian high performance squad as a mindset coach and, in 2012, was invited to the Australian Institute of Sport to present a workshop on how to improve the Mindset of Australian Coaches. Author of the book 'Seven Steps to the Mindset of an Equestrian Champion', Tanja conducts clinics all around Australia and her seminars have been approved by Equestrian Australia for NCAS coach accreditation points.



Dr MARIETTE VAN DEN BERG

BAppSc (Hons), MSc, PhD (Equine Nutrition), RANutr
Mariette van den Berg is a registered equine nutritionist, dressage rider, equestrian official and certified permaculture designer who completed a Masters in Animal Science at the Wageningen University in the Netherlands and a Thesis in Equine Nutrition at the Massey University in New Zealand. She is founder of MB Equine Services, and recently completed a PhD in Equine Nutrition and Foraging Behaviour at the University of New England in Armidale, Australia.



Dr KIRRILLY THOMPSON

PhD (Social Sciences)
Dr Kirrilly Thompson is Participation Manager at Pony Club Australia, Vice Chair of the Horse Federation of SA and a freelance qualitative research consultant. She has more than a decade of experience as an equestrian social scientist and has published over 100 journal articles, chapters and industry reports. Together with Lynda Birke, she is co-author of the book '(Un)stable relations: Horses, humans and social agency' (Routledge, 2017) which considers the role of horses in human-horse relations.



ANNE-PENELOPE MURRAY

MURP, BA(psych.), Post Grad. Dip
Anne grew up on a sheep and cattle property in southern Queensland where she rode horses and developed a love of animals. She studied Photography and Art and, after travelling, she returned to study Psychology - undertaking a number of ethology and zoology subjects. From an early age, Anne has been interested in painting, photography and drawing, and has successfully exhibited and sold her work. Anne contributes an original illustration each month for Jill Griffiths' Green Pony feature.



LOUISE SEDGMAN

Louise says her life has always revolved around horses. From the time she could hold a pen, she drew horses. From the time she was old enough to run, she'd pretend to be a horse. She got her first pony at age seven and has never not had horses in her life since. Photography became Louise's passion a long time ago and her special talent is capturing the beautiful connection a woman has with her horse. Her gift is in creating photographs that will outlive us all and become treasured family heirlooms for generations. Louise lives and loves photography every day.



SOPHIE WYLLIE

Equitation Science International
Sophie Wyllie is the business manager for Equitation Science International (ESI) and daughter of Andrew and Manuela McLean. Passionate about following in the footsteps of her parents to create more sustainable horse-human relationships, Sophie was fundamental in the process of ESI becoming a nationally accredited training organisation, offering the Diploma of Equitation Science. With her finger close to the pulse of the latest in the science of horse training, her work at ESI enables horse people to understand how horses learn and, thus, improve training, communication and, ultimately, horse welfare.



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PETER WOLFE

Founder of Cedar Creek Farm Bush Foods, Peter Wolfe, is a chef who specialises in Australian Native Cuisine or 'Bush Tucker'. He has worked as both a farmer and a chef and is renowned for his kitchen wizardry, and for his exciting recipes incorporating bush foods and organic ingredients. His cooking demonstrations highlight the quality and diversity of locally grown produce. Peter and his wife Shauna can be found Wednesdays at the Eumundi Markets and Sundays at the Noosa Farmers Market on Queensland's Sunshine Coast.



KATE FENNER

BEqSc (Hons)

Kate is an Equine Scientist (Charles Sturt University), PhD candidate (Faculty of Veterinary Science, University of Sydney), equestrian coach (Equestrian Australia and British Horse Society) and horse trainer (John and Josh Lyons Certified Trainer). Kate has ridden, trained and competed in Dressage, Jumping, Western and Polo in Australia, Europe, the United States and Asia.



Dr LENA CLIFFORD

DVM, PhD,

Trained as a veterinarian in Germany where she completed her PhD, Dr Clifford now specialises in animal acupuncture, Chinese herbal medicine and animal biomechanics. She is a Member of the International Veterinary Chiropractic Association (IVCA) and joined the team at Animal Biomechanical Solutions, a company based in Queensland, providing her unique skills and complementary therapies to dogs, horses and other animals.



CHRISTA LESTÉ-LASSERRE

Christa Lesté-Lasserre is a freelance writer based in France. A native of Dallas, Texas, Christa grew up riding Quarter Horses, Appaloosas, and Shetland Ponies. She holds a master's degree in English, specialising in creative writing, from the University of Mississippi in Oxford and earned a bachelor's in journalism and creative writing with a minor in sciences from Baylor University in Waco, Texas. She currently keeps her two Trakehners at home near Tours.



NATASCHA VAN EIJK

Founder of the International College of Bitfit Consultants (ICPBC)

Natascha has made a fulltime profession of bit fit consulting and educating people about bit-related problems. From the Netherlands, she is also a specialist in muscle therapy and manipulation of the spine, which she uses during bit fit consulting.

Her main mission is to improve horses' welfare by educating horse professionals but also horse owners (by writing articles and giving lectures) about the importance of a correct contact with the bit, and how to avoid problems of poor bit fitting.



RACHEL FLYNN

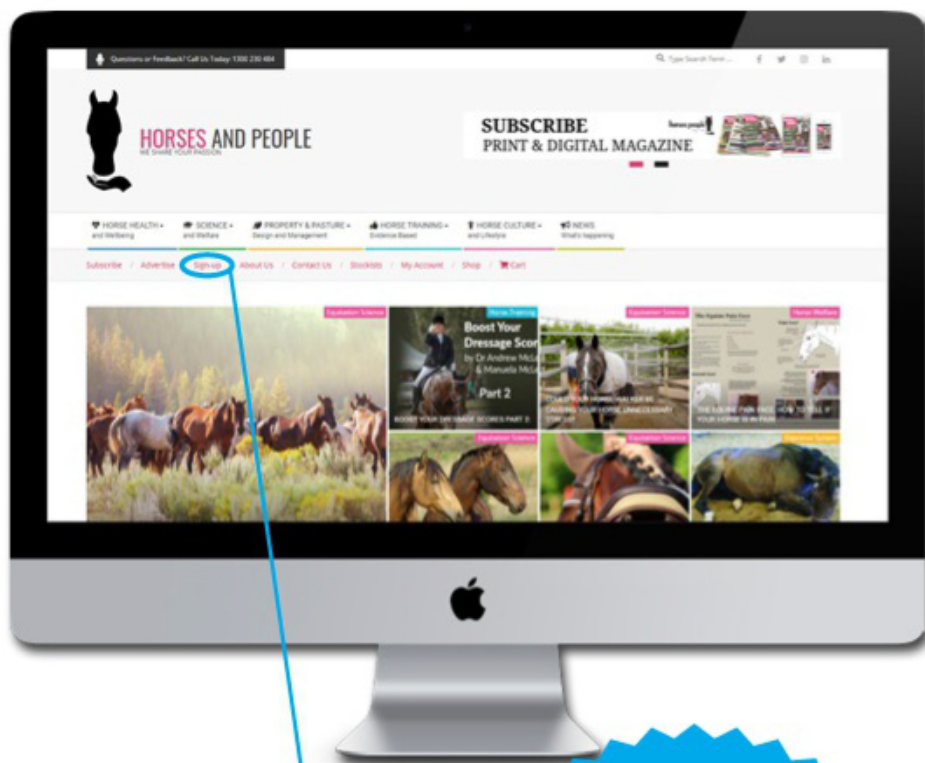
Mustering and family farming duties gave Rachel an incredible appreciation for horses and their connection to the humans who care for them. Her life long passion lead to breeding and training Gypsy Cobs. Rachel loves to travel and write about her experiences and her photography extends from incredible scenic images, stunning equine portraits, creatively directed images and equine event photography.

Her work has been featured in a number of publications and online media. An exclusive collection of her work is in her Equine Art Gallery & Sales website page.

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NEWS

REPORT



Shake up of Queensland's retired racehorse welfare

Following last year's airing of a scathing Australian TV documentary into the wastage and treatment of retired racehorses, the Queensland Government have conducted an independent inquiry into their management. The final report is out, and includes a number of important recommendations for improving the standards of welfare. **To read the inquiry's final report and the Queensland Government's response go to: <https://bit.ly/39sOfdu>**

The challenges of recognising and measuring stress in horses

When asked to assess stress in horses undergoing a veterinary procedure, vets, equitation scientists and non-equine behaviour scientists could not find agreement, says a recent study. Even objective measures for evaluating physiological signs of stress present many challenges. This research team makes important recommendations for future studies into stress. **Read more on the Horses and People website: <https://bit.ly/2tOpPfm>**



MUST
READ

STUDY



Image courtesy Dr Mette Uldahl

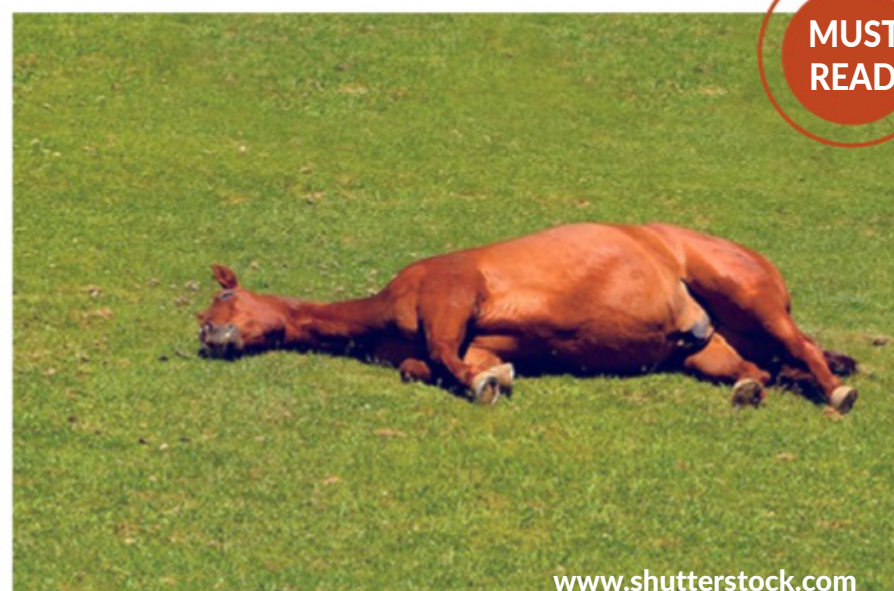
If you gained some holiday weight... Don't give up horse riding!

It happens to the best of us. We think we're maintaining our weight and not weighing down our poor horses, and then come the holidays. When they are over and we finally step on the scales... Extra kilos, ugh. Well, if that sounds familiar, don't scratch equitation from your fitness plan. Science suggests those few extra kilos won't hurt our horses. **Check out the findings on the Horses and People website: <https://bit.ly/2SzyjiQ>**

How do horses sleep?

There is still a lot of confusion about how horses sleep. Do they really sleep standing up or must they lie down? Can they dream like humans do? How many hours of sleep do they need on a daily basis? Are horses' sleeping habits the same or different compared to those of other large animals? Spoiler alert... One thing we do now know is that, contrary to popular belief, while horses can rest standing up, they need to lie down to achieve the REM phase of the sleep cycle. **Read more on the Horses and People website: <https://bit.ly/2SzyieM>**

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STUDY



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Noseband design affects pressure exerted on the nasal bones

In a preliminary study, a UK research team investigated three different noseband designs for their effect on rein tension and the force being exerted on the horse's frontal nasal plane whilst being ridden. The results were surprising and call for more research into the welfare effects of tack... **To read the full article on the Horses and People website go to: <https://bit.ly/31N0ak0>**

Yes, horses learn behaviours by observing humans, but they don't mimic their actions

It seems quite clear that horses can learn how to perform tasks by watching people do them but, how exactly are they learning these actions? A team of European researchers devised a clever experiment to find out (and I bet they had a lot of fun doing it!).

Read more on the Horses and People website: <https://bit.ly/2OMV1mt>

STUDY



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Kelly van den Berg, Terry Nicholson and Tegan Hector have been organising donations and supplying feed, water and other supplies directly to farmers and horse owners affected by the summer's Gippsland fires

Rising to the Challenge



WORDS BY Cristina Wilkins
PHOTOS BY Louise Sedgman Photography

Throughout spring and summer, Australia has been burning. Although every state has a bushfire season, the scale of devastation and areas impacted during the 2019-2020 fire season have been unprecedented.

Nearly 12 million hectares land have burnt, killing 33 people and an estimated 1.5 billion native animals, destroying thousands of homes.

And alongside nature's destruction we've witnessed amazing feats. Communities banding together, people helping other people and helping animals.

With emergency services completely overstretched, grass roots organisations have formed, and individuals have pulled out all the stops to help those in need.

One such example is the Gippsland Horse and Stock Safe – Bushfire Assistance. Established around five years ago by a local equestrian business owner Kelly van den Berg to help horse people help each other during a disaster, this Facebook page became a centre point in terms of bushfire relief for the horse community during the Bunyip and Yinnar fires in March last year and became a force for good to be reckoned with during this summer's catastrophe.

An Equestrian Australia coach with a journalism background, I spoke to Kelly about the organisation, their achievements and what the future might hold for the Gippsland communities.

"The Bunyip and Yinnar fires were pretty horrific but compared with what we are experiencing now, it was just a drop in the ocean" says Kelly.

"It's hard to gauge the scale of the impact of what's happening [in Gippsland] unless you see it for yourself. It's one case in which the media sensationalism isn't depicting the scale and real state of what's going on, the long-term effects."

The group quickly responded to the escalating needs of their community by expanding their efforts from supporting just horse owners to all stock owners.

"We recognised we needed to help any farmer with stock" she continues. "Many of the farms in East Gippsland have been in a three-year drought, they were already on the bones of their backsides, farms were already struggling for feed" says Kelly.

In a tragic chain of events, while many areas of Gippsland had received their share of winter rain last year and had a good hay production, the vast majority of the stockpiles of feed and forage that would see farmers through until next winter have gone up in flames.

"In a lot of cases, farmers have lost property, equipment, tractors, they've lost parts of their herd, some have lost all their herd, and they've lost their hay sheds, their feed, so our group is addressing their immediate emergency.



IMAGE A: Kelly van den Berg founded Gippsland Horse and Stock Safe - Bushfire Assistance to help horse owners help each other during an emergency. The organisation has expanded to support all livestock owners.

IMAGE B: Volunteers of the Gippsland Horse and Stock Safe - Bushfire Assistance load donated hay onto a truck that will be delivered directly to a fire affected farmer.

IMAGE C: Volunteer truck driver Terry Nicholson gets ready to depart.



“But the real emergency is the ongoing months ahead. I’m not really confident that a lot of farmers are going to actually recover from this” says Kelly.

The team’s efforts have highlighted a huge a needs gap between the response of emergency services and the recovery support efforts from government departments and charity organisations.

Kelly says that while it is understandable that the priority is given to protecting people and assets (in that order), the importance of animals and livestock deserves to be reviewed – not least because fires impact on rural communities that are farming based, and therefore, impact directly on farmers whose lifestyle, livelihoods and lives are intrinsically tied around their livestock.

“Our main focus is supporting farmers, horse owners and animal owners, and supporting them in the days of them being impacted, because that’s when they most need the support.

“A lot of these guys, their cattle would be dead if they were waiting for the official organisations to set up. And they do a great job, especially for the long-term effort, but there doesn’t seem to be any kind of organisation, other than ourselves and other groups like us, that were really there in the first week, when farmers are saying, we have no feed and water, our cattle are starving, standing on dirt ground” says Kelly.

Strong community connections have allowed this grass roots organisation to move fast to set up an impressive operation and build a strong team of capable volunteers. “It’s definitely not just me” says Kelly.

“I am the founder and oversee everything, then we have Tegan Hector, on who’s property we set up the depot. She’s fantastic at overseeing the site office. She has a professional logistics manager (who happened to be between jobs), working with her full time, in the office. We’re all volunteers.



While it is understandable that the priority is given to protecting people and assets (in that order), the importance of animals and livestock deserves to be reviewed – not least because fires impact on rural communities that are farming based, and therefore impact directly on farmers whose lifestyle, livelihoods and lives are intrinsically tied around their livestock.



“In the depot where we store hay and feed we’ve had donated sea crates for storing feed. We’ve set up a turnaround for B-double trucks, with gravel, there’s showers for our volunteers, it’s really taken off. The original home owners are on board fully, we all have designated jobs, and we all take a chip out of it. We have all the truck drivers that drive for us, a site manager that runs the truck yard. And we have other people helping us more remotely, like our IT manager that’s based in Melbourne.”

And, according to Kelly, being a grass roots organisation has its benefits. The strong personal connections with the locals throughout these areas has allowed them to move quickly and stay

focused on the tasks at hand. Making personal contact with individuals in the Department of Environment, Land, Water and Planning (DELWP) and the Victorian police force has facilitated access, in some cases escorts to access directly into farmers properties before roads were officially open to the public.

“Our trucks drive directly through the farm gate” says Kelly. “We ask the individual person directly, how many head are you feeding, what do you need, do you need lick blocks, mineral replacers, milk replacers, etc. In a lot of cases these people haven’t seen fresh food or meat for three or four weeks, so we bring that too.”

IMAGES A, B & C: The strength in the Gippsland community has been phenomenal, people have come together, businesses helping each other and even the wider Australian community. Some of the biggest donations have come from overseas with horse organisations all around the world donating funds to the cause. On the ground, the support has been overwhelming. Gippsland is a very strong community and through the devastation of these catastrophic events people have come together to support each other.

To find out more: <https://www.facebook.com/groups/GippslandHorsesafe/>



"Water has been a big aspect on top of the feed runs, it has slowed down a bit now with access becoming more available and also the Country Fire Authority have done a wonderful job diverting their trucks to properties that were really in need, at the least filling up house tanks but also helping the stock.

"At one point we had four water tankers with drivers that were donated to us, which is amazing. We had two smaller domestic tankers for filling up house tanks running five days a week, potable water we could take from road access sites, and we had two large tankers, a 20,000 L semi water designated tanker and a 40,000 L milk tanker that we used to cart water for livestock.

One of the group's most remarkable feed drops was made for Mallacoota, the tiny coastal town that, having been completely cut off, saw thousands of holiday makers sheltering on the beach under apocalyptic red skies, and were relocated by the Royal Navy.

Kelly says it was a massive effort that involved a large number of local people and businesses pulling together their resources and contacts.



. This is a long-term disaster and these farmers are going to need a lot of help for a long time. Raising this awareness is really important.

“And the feedback I’m getting (and I have friends who’ve lost everything), is that when the time comes to rebuild, they want to be able to choose their own toaster and the colour of their own bed sheets. It’s really important to them precisely because they’ve lost everything.

“If people really want to make a difference and donate, then I would suggest donating into funds that are going to assist with either the long-term relief effort or for immediate emergency relief. I would encourage them to find those organisations that are grass roots or part of the communities (and there’s quite a few of them), or to support the organisations that are going to do the long-term relief, like Blaze Aid.

“I guess the message is do your research and put some thought into the direction of your donations.”

In terms of how intrinsically connected the community is to their farming families, Kelly would like to see animals and their needs become a bigger consideration when disasters like this happen in future, and she plans to develop other support programs that can help, farmers and local businesses who will be suffering for long time.

“In six months time, these farmers will not have had enough time to grow enough feed to cut some hay. Hay is running out and we’re already in a drought. Victorian hay has been going up to Queensland and NSW, because they’ve been in drought, so six months down the track there will be significant problems. This is a long-term disaster and these farmers are going to need a lot of help for a long time. Raising this awareness is really important.”

“When Mallacoota was cut off, the Australian Defence Force were there but they were, understandably, focused on human life. There was very limited access for horse owners in terms of feed and vet care, so the idea was to hire a commercial tuna boat and, as well as other supplies, take about 50 pallet loads of fencing and horse specific feed and medical supplies!

“It was a big logistical project. We had to find a boat, or an owner that would allow us to use a boat, and we had to find a willing skipper. Local business owner Wayne Cribbs made himself available, but the boat was all the way in South Australia. So, with the help of the fishing co-ops, we flew him to the boat and he steamed it to Victoria.

“Thanks to everyone’s contacts, through port authorities and fishing co-ops, we were able to get the boat docked at Welshpool and loaded, and then we were able to get it to Mallacoota, through the domestic channels. We had to use the abalone boats in Mallacoota but luckily, they all had wives or daughters who had horses, so we rallied the community together to help. It was a real

humanitarian mission. Mallacoota is my second home, I am very connected to the place and I have a lot of friends there so it was a personal mission for me as well.”

Moving forward, Kelly would like to see another push to increase people’s awareness of prevention and being prepared ahead of time. She says the awareness has improved since the 2009 Black Saturday fires but needs to be continually reinforced.

And, for those who want to help out in some way she suggests putting some research into the areas they direct their donations to, whether that’s financial, in time or hay.

“What we’ve seen is that very well-meaning people who are overwhelmed by the devastation and want to do something, have been flooding the towns with relief in terms of clothes and food. The horse gear is driving us insane. We’re saying to people there aren’t enough horses in Gippsland to wear that many halters or rugs – it’s overwhelming.



Tanks on Legs and Coursers for Amazons: The Great Horse of the Middle Ages



WORDS BY Dr Georgina Downey

A heavy horse galloping with swinging mane and flowing tail, in ceremonial barding or armour, is a magnificent sight and one that reminds many of us of the drama and romance of the 'great' horse of the Middle Ages (476 AD – 1453).

The 'Medieval' horse is a vision increasingly gracing our screens large and small, as our global entertainment media reflects an on-going fascination with the so-called Dark Ages, from horse-based epics from *A Knight's Tale*, *Lord of the Rings*, *Transformers*, *Game of Thrones*, series on Norse and Viking cultures to a trove of similarly themed computer games.

At the visual centre of these productions is the knight on a horse, but, what were these horses really like and how different were they to those of today?

For people of the Middle Ages horses were crucial; they were integral to war, agriculture and transport, and were even used as currency to pay debts and taxes.

Studying the medieval horse has wider implications for our view of the era. While the genetics are lost or changed, art can tell us quite a bit about what horses looked like and how they were used in the Middle Ages. The horse in art in the Middle Ages was a lens through which ideas about gender, class, but above all, morals and knightly virtues were shaped and expressed.

For people of the Middle Ages horses were crucial; they were integral to war, agriculture and transport, and were even used as currency to pay debts and taxes. This closeness to daily human life was reflected in writings from song cycles, chronicles, tales and manuals asserting that horses could feel 'human' emotions, especially loyalty, sorrow, and eagerness for battle. Thus the horse-human connection differed considerably from our own time.

LEFT: Penthesilea, Amazonian queen, Miniature from the collection *De mulieribus claris* by Boccaccio. Bibliothèque Nationale de France (BNF). Cote: Français 599, Folio 27v. Image source Wikimedia Commons.





IMAGE ABOVE: The Knight in the Ellesmere manuscript of Geoffrey Chaucer's *Canterbury Tales* shows a good example of a 'destrier', the type of knightly horse we think of as emblematic in the medieval period.

Like an exceptionally heavy-built Andalusian, destriers were highly trained and could cost up to eighty pounds, which was a fortune, considering labourers earned at the most two pounds a year!

Image source Wikimedia Commons.

A typical battle horse in this time period would have stood at about 14-16 hands tall and weighed about 1,300- 1,500 pounds. They were not tall, but rather they were strong and powerful.

Scholars doubt whether there is direct 'through line' to modern draught breeds. Certainly, it's hard to link modern to medieval breeds as horses then were named by the jobs they did, or their place of origin. Moreover, since only the aristocracy and the monastic orders could read and write, records of bloodlines and studbooks are rare.

The 'destrier' was the term for the type of knightly horse we think of as emblematic in the medieval period. 'Destriers' which were the most valuable type, were primarily widely used in war and jousting.

To convey a sense of what they looked like, imagine a modern day, exceptionally heavily-built Andalusian. They were highly trained, and could cost up to eighty pounds in the currency of the period; which was a fortune, considering labourers earned at most two pounds a year income.

Recent research undertaken at the Museum of London, using literary, pictorial and archaeological sources, suggests war horses (including destriers) averaged 14-15 hands, and were distinguished from a riding horse by their strength, musculature and training, rather than their size.

Stallions were preferred by most for battle for their strength and aggression. Additionally their rounded, muscled body type is indicated by their armour – with 12th century horse armour, or barding, typically being quite curved to allow for large neck crests.

The Knight

The illustration of the Knight on the left page, from the Ellesmere version of Chaucer's *Canterbury Tales*, shows us a good example of a destrier. The Knight is the first character we meet on the 'road' before the night of group storytelling, and he is about the only one Chaucer presents as fully admirable.

From the illustration, we get the sense that both horse and rider are a well-seasoned pair of fighters. We are told that they have taken part in some fifteen crusades in many countries and also fought for one pagan leader against another. We see the Knight's tunic is still stained from the marks of his armour. The horse has two brands, an 'M' for 'military' on his neck, and a possibly Italian breeder's mark on his haunch.

This horse would have seen many strange lands; he would have been, in the parlance of today, literally 'bomb-proof'. He would have undergone many sea journeys as well.

Warhorses like this one would have travelled with their knights on overseas campaigns and in fact had their own special ships or 'dromonds' that transported them to battle grounds separately from men and supplies. The Bayeux Tapestry [1070s] shows a dromond transporting the horses of

William the Conqueror's Norman army across the Channel to the Battle of Hastings, and scholars have pointed out the smiling mouths and pricked ears of the equines seem to suggest they were enjoying their journey.

The artist who illuminated this manuscript of Chaucer's Tales moreover seems also to suggest that the partnership between horse and rider has been deeply forged by their overseas service; the knight sits easily in the saddle, riding one-handed, with the reins looped, yet the horse is collected underneath him, one ear swivelled back in well-mannered attentiveness. The Knight's right hand is raised in greeting his fellow pilgrims. The *sprezzatura* or studied carelessness of his riding, was (as is always true in horsemanship), hard-won through continuous, consistent and structured training and practice. As Jürg Gassman tells us:

[Knights] had to be able to bring their mounts into collection, on the correct lead, on command; they then needed to maintain formation in a collected canter for an extended period until contact with the enemy, execute a turn on command while wielding their weapons, and do all that over broken ground, not in the manicured manège, and while under fire.

The Knight's destrier has a keen, bright 'let me at it' expression in his eyes which is matched by the modest, alert expression on the Knight's face. The illustrator here conveys Chaucer's favourable presentation of the Knight as one of the few trustworthy characters in the Tale.

'He was of sovereign value in all eyes.

And though so much distinguished, he was wise

And in his bearing modest as a maid.

... He was a true, a perfect gentle-knight.'

Penthesilea, Amazonian queen

In the beautifully illustrated French translation of Boccaccio's *De Mulieribus Claris*, or *Book of Famous Women*, we see the ancient Greek Amazon, Penthesilea, riding a magnificent black destrier, in collected canter to the left (see the image on the previous pages). He also appears to be poking out his tongue and whether this is a response to too much curb rein, or a challenge to the enemy remains a mystery!

The horse in art in the Middle Ages was a lens through which ideas about gender, class, but above all, morals and knightly virtues were shaped and expressed.

Penthesilea was a legendary woman warrior, who also was said to be responsible for the invention of the battle-axe. In mythology she became queen of the Amazons upon the death of her sister Hippolyta. She first appears in the eighth century Cycle of Troy, by Arctinus of Miletus. The story goes that the Amazons led by Penthesilea and her sisters, fought Achilles in the defence of Troy. After a day of distinguishing herself on the battlefield, Penthesilea confronts Achilles. Achilles kills her, but after taking off her helmet, he falls in love with her.

Boccaccio's fourteenth century compendium *De Mulieribus Claris* was the first collection of biographies in Western literature that was devoted to famous women.

Penthesilea's story is told and readers are asked to admire her intelligence, skill in battle, and courage. She is somewhat of a role model for our times and appears still in popular culture.

In fact, Star Wars' 'Princess Leia' was a variation on her name. More recently, Penthesilea appears as a minor supporting character and comrade-in-arms to Gal Gadot's eponymous heroine in 2017's Marvel film, *Wonder Woman*, and she was played by American cross-fit athlete Brooke Ence. Thus, Penthesilea is a perennial example of how with the right upbringing, training and talent, women can easily be the soldierly equivalents or superiors to men.

The artist illustrating this copy of *De Mulieribus Claris* was careful to show us a contemporary fourteenth century Penthesilea, on a contemporary war-horse. Neither horse nor woman are heavily armoured; she wears an articulated plate mail over her chest,

which is decorated with three huge jewels. Her armour has chain mail arms, and is worn with a heavy belt and skirt. Her horse wears an open metal chanfron over his face, with a magnificent red plume, and elaborate gold decorated reins, breast plate, and croupier.

She is shown getting into position to fire her arrows. According to legend, at the Battle of Troy she killed many Achaeans with her bow. Her end came though, when Achilles speared her through her armour. Penthesilea, as if with foreknowledge of her death, casts her eyes to the sky, while her destrier meets our gaze, in his own form of challenge.

Barbara of Celje as Venus

The other type of war-horse in the medieval period was the Courser or Charger. These were the slighter, lighter in build, swiftest and popular in combat. In the image (on the next page) from the German military engineer Konrad Kyeser's 15th century book on military technology, *Bellifortis*, we see a good example of one.

Exiled to Bohemia in 1402 to 1403, Kyeser reportedly flagged down some passing German illustrators, commissioned the images from them, and sat to write this extraordinary work. Strangely to the modern reader, it combines discussion of new and experimental military technology as well as astrology and sorcery. Leonardo da Vinci was apparently conversant with it, and based some of his military machines on its designs.

In the illustration, we see Barbara of Celje on a courser. Barbara was born in 1392 and died 11 July 1451. She was the Holy Roman Empress and Queen of Hungary and Bohemia by marriage to Holy Roman Emperor Sigismund. Here in a flowing blue gown she represents the planet Venus.

Hailing from modern day Slovenia, Barbara was also known as the 'Black Queen', for her habit of wearing black, and of murdering townsfolk, and she is still both feared and revered in this area, especially around her castle in Medvedgrad, a tourist attraction today.



IMAGE A: Barbara of Celje on a courser. Barbara was born in 1392 and died 11 July 1451. She was the Holy Roman Empress and Queen of Hungary and Bohemia by marriage to Holy Roman Emperor Sigismund. Here in a flowing blue gown she represents the planet Venus.

Image source Wikimedia Commons.

Here, Barbara is portrayed bearing a standard or war flag. Female standard-bearers were not unknown in her time, one of the periods most loyal and brave being 'Big Margot' bearer of the Flemish standard, who fell at the Battle of Westrozebeke in 1382. Of course we might also think, of Jeanne d'Arc, the archetypal medieval female warrior.

Barbara's martial role here was quite appropriate since she was actively involved in politics and economy of her times, independently administering her large feudal fiefdoms and taxes, and was instrumental in creating the chivalric Order of the Dragon.

Barbara rides skilfully and in a balanced, upright position. She appears to be partly naked underneath a novel kind of petyral or equine chest armour, which attached

together at the horse's chest, extends on both side up her legs. Her heel, with a long spur, can be seen peeking out underneath it near the chest of the horse. Hers was not an unusual leg position for military riding – the "*a la brida*" style was the typical technique of heavy cavalry and was characterized by the use of long stirrups and a built-up padded cantle to provide support for the lower back in case of a lance blow to the front of the body. This unusual petyral would have also allowed a knight to wear more light mail rather than heavy plate armour.

Her grey courser is cantering uphill, and he looks keen. He's being ridden from her seat only, as she has one hand on her hip and the other bearing the standard. He's relatively long-legged and light-bodied, showing only a little feathering around his fetlocks, indicating he is a courser rather than a destrier. He has a gentle expression, which, when read with the happy, dreamy look on Barbara's face, underscores the idea that this is indeed Venus the Goddess of Love rather than War. Yet this remains a curious image of medieval women's agency and presence in a military context.

There is no doubt about the firm attachment between knight and horse. Though capable of great cruelty, medieval people formed sympathetic kinship with their animals. Bartholomew Anglicus, a thirteenth-century scholastic, noted that horses do indeed have feelings like humans. He proposed that man and steed are therefore bound together, or "medlied" [muddled] emotionally.

Correspondingly, it's long been thought that knights rode 'without any sophistication' ... but was this true? Surely shoulder-in, laterals, collection and the lower 'airs above the ground' would have all been required in mounted warfare, which was more like a ridden form of fencing than jousting.

Recent collaborations between scholars of the medieval period, and horse trainers such as that between the UK's Jason Kingsley, and Holland's Arne Koetz suggest that, far from being unsophisticated, knights had to be very good riders. These two horsemen, and history graduates with an interest in dressage and mounted combat have tried riding some of the training exercises in mediaeval cavalry manuals. Doing these successfully required, in their view, extensive training, which suggests there was an elevated equitation culture in those times.

This indicates that the classical knowledge from the Ancient Greeks about dressage and haut école was not lost, but revived in pockets, even before Duarte of Portugal's unfinished Livro do Cavalgar, (1430s), the first riding manual produced in Europe since Xenophon.

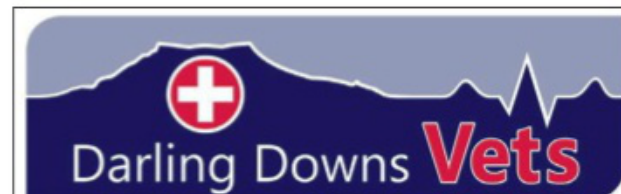
This makes sense if we consider the point of knightly riding in battle was to vanquish other mounted knights using a variety of weapons in partnership with a highly mobile, supple horse.

In another hundred years or so, the great riding masters and their theory manuals make their appearance; Grisone, Pluvinel, de la Guérinière etcetera. However it's fascinating to think how so much of their later knowledge about horsemanship might have been put into practice many centuries beforehand.

References:

1. Bachrach, Bernard S. Caballus et Caballarius in Medieval Warfare. From: The Study of Chivalry: Resources and Approaches (1988) Web. 1988. The average height for a north-western European male in the 9th C was 173.4 cm (i.e. 5'8"). That declined to about 167 cm (5'5") in the 17th and 18th C. Not until the early 20th century did height recover to 9th century levels. Armour in museums looks small, but it was close-fitting and lighter than is commonly assumed. The war horses of the period were slightly smaller than we're used to today, but that was mainly due to the very practical problems of campaign logistics and the problem of feeding and watering extremely large horses, which were insurmountable considering armies had to carry all their horse feed and water. This job was done by 'sumpter' or pack horses.
2. Emma Herbert-Davies, The Cultural Representation of the Horse in Late Medieval England: Status and Gender, Undergraduate dissertation, BA Hons History, School of History University of Leeds 2009 p 25.
3. Ibid. p 26.
4. <https://www.medievalists.net/2014/08/ten-things-may-noticed-bayeux-tapestry/> 8. Smiling horses. Accessed 25 January 2020.
5. Jürg Gassmann, 'Combat Training for Horse and Rider in the Early Middle Ages', Acta Periodica Duellatorum volume 6, issue 1 (2018) p 87.

6. https://en.wikipedia.org/wiki/Penthesilea#In_Boccaccio's_Famous_Women. Accessed 25 January 2020.
7. Other types included the Palfrey, [ridden by those of higher status, clerics and ladies]. These were finer boned, comfortable to ride. Then there was the all-rounder or 'Rouncey' typically used for daily riding, farm work and as pack horses. Rounceys would have been comparable, some say, to a Galloway-sized Welsh Cob; affordable for a poorer knight, good doers, sensible, hardy, and able to turn their hoof to a variety of jobs.
8. Big Margot was banner-bearer for merchant populist leader Philip van Artevelde, together they were trampled to death by their own army, fighting Charles VI and this particular battle was one of the inspirations for Game of Thrones.
9. Women in the Medieval period were significantly implicated in war, whether they themselves or the men around them liked it or not. Whether as protagonists in military engagement, fund-raisers or victims of sieges, captures and rapes. 'Despite all the hostility displayed by contemporary male writers, women throughout England, France, and the Holy Land were frequently involved with military events in a range of different ways'. 'An Entirely Masculine Activity'? Women and War in the High and Late Middle Ages Reconsidered By James Michael Illston Master of Arts in History Department of History University of Canterbury 2009
10. On another page of Bellifortis, Barbara's husband King Sigismund is shown similarly galloping on a horse, holding a flag, and wearing the same strange scalloped leg armour. It looks to be an extended experimental design for a 'peytral', or horse chest armour, part of the 'barding' of which extends up the rider's leg. It curves up around the rider's lower abdomen, presumably leaving the leg free of armour to be better apply the aids.
11. <https://www.usdf.org/EduDocs/History/historyofriding.pdf>



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WORDS & PHOTOS BY Rachel Flynn
www.equinephotographybyrachelflynn.com

Most stallions are confined to purebreds and trained for competition to test their versatility, temperament and quality for breeding. Capable of high-level discipline and training they generally require kind and consistent handling by experienced individuals.

Gypsy cob stallions are an equine photographer's delight. They are strong and majestic, with thick feather, mane and tail, and have a powerful disposition, making them a true standout.

Throughout my international travels, I have had unique opportunities to meet such stallions and to witness their majesty first hand. And I confidently confirm that behind every great stallion is a passionate breeder and trainer working very hard to preserve the breed.

In this two-part series, I would like to introduce you to ones that stole my heart during my overseas adventures.

Highfield Grandslam

I could hear him before I could see him... standing in the enclosed float, waiting patiently but calling out to anyone who cared to listen. I could sense there was an exciting model for our photoshoot ready to show off.

As Chris Shackleton unloaded him, I immediately noticed a strong bond between handler and horse. Words between them were not required and I watched their body language as they worked together in unison, displaying a trust developed over time.

Throughout my years as a Gypsy cob breeder, I have longed to meet a cob with height, and Grandslam did not disappoint.

He is everything I had envisioned a traditional Gypsy cob to be. No wonder he was clearly Chris's pride and joy. In these initial moments of seeing him I concluded that this stallion was the best I had ever seen.

The gathering was organised through our equine photography tour guide Katarzyna Om. Completely aware of my love for this breed, I recall how Katarzyna looked at me knowingly and smiled at my reaction when I viewed Grandslam for the first time. His quality was captivating and has made a lasting impression.

In a small and quiet area known to the English locals, we walked down the bank and were delighted to see a river and gorgeous traditional stone bridge – a stunning backdrop for our photos.

Chris Shackleton and Katie Barker are well-known for their passion, knowledge and love for the Gypsy cob breed. Chris began to work the stallion in a way that mesmerised me. They played at liberty and in fluid motion, and I began to see this stallion's true beauty and strength.



IMAGES A & B: Highfield Grandslam, Gypsy cob stallion, UK, who now resides in Tennessee, USA.

IMAGES C: Mr Moonshine, Gypsy cob stallion, UK, who now resides Tennessee, USA



Gypsy cob stallions are an equine photographer's delight. Strong and majestic, with thick feather, mane and tail, they have a powerful disposition...

Whilst photographing him, I enjoyed watching his personality shine through. A character, who has an incredible depth of hair, he thoroughly enjoyed showing off for us and he was a joy to watch. Later, he stood still whilst we had our photo with him, ending a fabulous photoshoot on a high.

Mr Moonshine has won many shows including going Overall Supreme of Show on a number of occasions.

In 2018 Chris and Katie were approached by Matthew and Jeremy Thacker-Rhodes who offered them a job training and managing their Gypsy cob stud in the USA. They clearly stated they would consider the move as long as Grandslam and Moonshine could go with them. In 2019, they moved to Tennessee and the horses joined them later that year.

In the next issue of Horse and People I will introduce two other Gypsy cob stallions who stole my heart on my travelling adventures.

At the end of February 2020, my passion for equine photography and travel will take me to a photography retreat in the United States.

I am delighted that in addition to the retreat, I will also travel to Tennessee where I will reunite with both stallions, spend time with Chris, Katie and family, and meet the team at Thacker-Rhodes Gypsy Cobs stud – of course with my camera in-hand!

If you would like to keep up-to-date with my travel news from this adventure and others, you can follow me on Facebook and Instagram at:

<https://www.facebook.com/equinephotographybyrachelflynn/>
<https://www.instagram.com/equinephotographybyrachelflynn/>

Katie told me that Grandslam has been unbeaten in-hand in the U.K.

In 2013, as a 2-year-old, he became Champion at every show including Overall Supreme of Show at Hanlith Hall. He qualified and was taken to the Traditional of the Year Show (TOYS). There he won his 2-year-old colt class, overall 2-year-old Champion, overall Supreme Youngstock Champion, overall Quest Champion and then awarded the ultimate grand prize of overall Supreme in-hand of Show against a very tough field. After this, Grandslam didn't show again - he had won all that he ever could as a youngster!

Chris and Katie had purchased him as a yearling from Keith Anderson and after competing so successfully, he was sold to his current owner, who saw the very close and unusual bond between both stallion and Chris. "Thankfully, she decided not to split them up, so she kept him in our care," reflected Katie when I met her. Chris and Katie also purchased some quality mares to breed with.

At 9 years of age today, Grandslam plays with Chris as if with another stallion! He rears, bucks and runs around like a young colt, yet has never harmed Chris. He is equally gentle with Chris and Katie's children, who can do everything with him.

In 2018, Chris and Katie took Grandslam to Appleby Fair where he won Best Of Day and was chosen Best Overall at the whole Appleby Fair. Grandslam is a stallion that has stolen the hearts of many people. I describe him as a proper gentleman with a very loving and cheeky character.

Mr Moonshine

One of the things I love about Gypsy cobs is they tend to have unusual names, and Mr Moonshine is no exception!

Originally from Ireland, bred by Padraic Whelan, he is owned by the same owner of Highfield Grandslam and has also been cared for by Chris Shackleton and Katie Barker since he was a yearling.

"When Mr Moonshine came to us he was very nervous and wary, and it took a long time for him to settle in and trust, but since then he hasn't looked back," reflects Katie, "he has grown into a beautifully matured stallion who can be handled by our children on a daily basis both in and out of the stable."

With a striking presence and the colour of chestnut blagdon, this soon to be 6 year old is another exceptional and unique stallion.

C

Good quality fences are a sound investment. They enhance your horses' safety and the value of your property. Image courtesy HorseRail, Duncan Equine.



Horse Fencing Part 4: Taking the Strain



WORDS BY Dr Carol Stephens
BAppSc, PhD (Veterinary Studies)
Split Rock Mountain Premier Horse Agistment

On a horse property, good quality fences are a sound investment, representing money well spent. Strong, safe fences reduce the risk of fence-related injuries and associated veterinary costs, as well as enhancing the aesthetic appeal and value of your property.

In this series, we cover all aspects of fencing - from planning the layout to straining a wire - but with the mindset of prioritising the horse's safety.

Last month we talked about the ins and outs of gates, and in this article, we discuss the importance of the correct installation of strainer posts.

Why are strainer posts so important?

Strainer posts are the posts that are positioned at each end of a line of fence and which take the strain of the tightened fence wires. Strainer posts are the foundation of any fence. If they fail, then the whole fence will fail. No matter how good the quality of the materials used, no matter how straight the line, if the strainer posts move, the fence will ultimately sag or even fall.

Why do strainer posts move?

If the pull of the wire on the post is greater than the hold the ground has on the post, the post will move. Strainer posts are subject to both vertical and horizontal forces and in some cases, a post may even be pulled out of the ground altogether.

No matter how good the quality of the materials used, no matter how straight the line, if the strainer posts move, the fence will ultimately sag or even fall.

A sagging, loose fence poses a real risk of injury, as a horse may become caught or may even get out of the paddock, perhaps onto a road. Such a fence also does nothing to enhance the appearance or value of a property.

Remember: strainer posts have to take the strain

It is important to keep in mind that strainer posts do not just have to take the strain at the time the fence is tightened, or 'strained up', but every day. Day in, day out. Strainer posts have to stand up straight, withstanding the constant pull of the wire, keeping the fence taut. Holding the line.

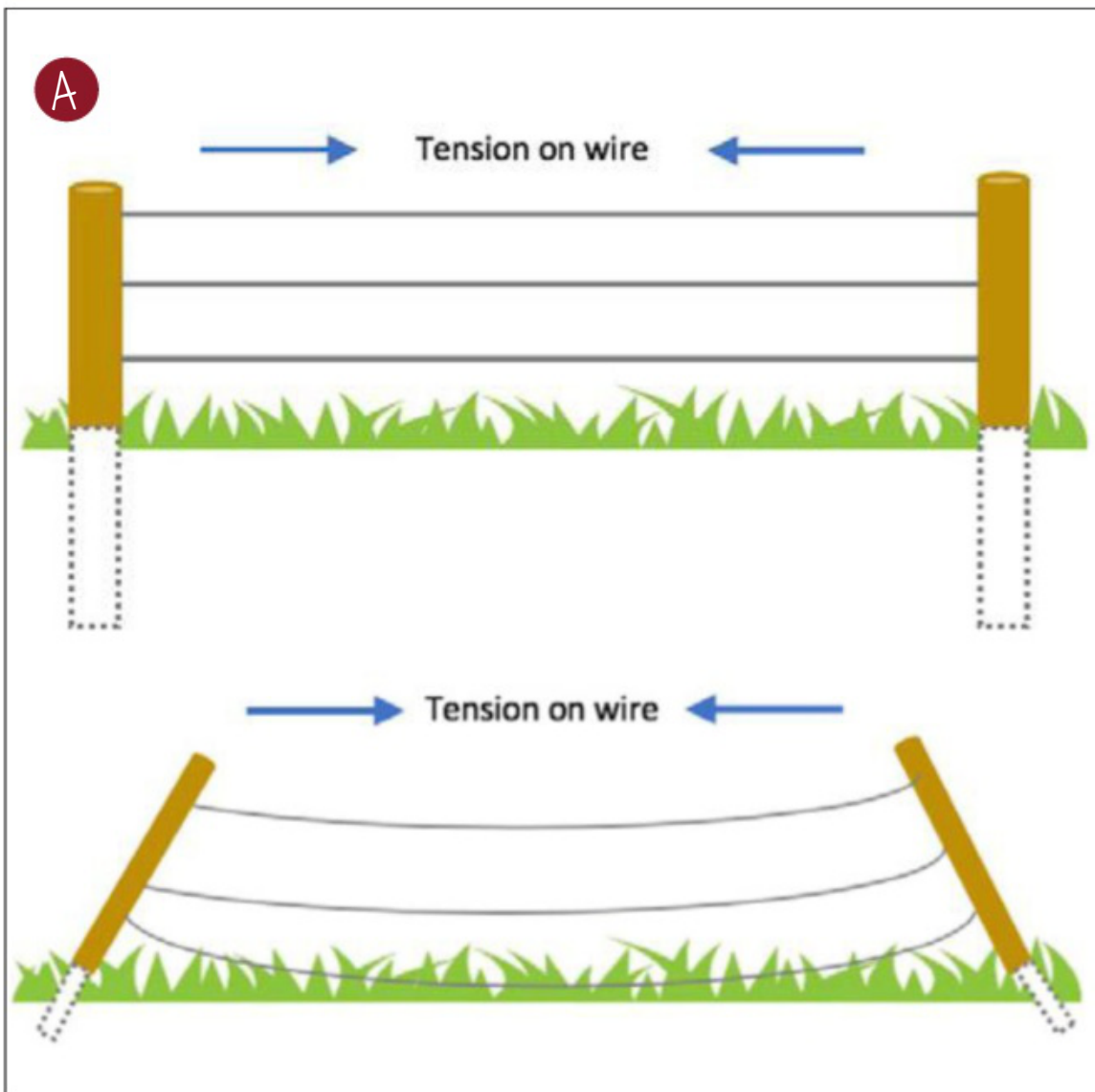
Being a strainer post is hard work. If you are building a fence to last, then when you think of strainer posts, think longer, stronger, deeper. Build your fence not just for next year, but for at least the next decade. Do it right and it will continue to look good for years, plus you will have little to do in the way of maintenance.

IMAGE A: Strainer posts set deep in the ground, such as in the top image, are better able to withstand the tension on the fence and remain vertical. When strainer posts are not set deeply enough, they will not be able to withstand the tension of the fence. Illustration by Carol Stephens.

IMAGE B: Strainer braced with steel cattle rail which has been painted black. Photo by Carol Stephens.

IMAGE C: This strainer post has been unable to withstand the tension exerted by the fence wires. It is leaning badly and as a result the gate is now far from level. Photo by Carol Stephens.

IMAGE D: Being a strainer post is hard work. After years of trying to hold the line, this corner strainer is giving in to the pull of the fence. Photo by Carol Stephens.





A sagging, loose fence poses a real risk of injury, as a horse may become caught or may even get out of the paddock, perhaps onto a road.

Putting the strainer post in the ground

The best way to put a post into the ground is to drive it in with a mechanical post driver, so there is minimal soil movement around the post.

The soil has the job of holding the strainer post in position and hence supporting the entire fence line. However, driving a post is only possible in softer soils, such as sandy loam, which ironically are not ideal for horses.

Of course, when driving in a post, it is critical that it be driven in vertically and exactly where required, as there is no room for adjustment once the post is in the ground.

However, in many cases, the ground will be too hard to drive a post, so a hole will need to be dug first. This can be done by hand, but is slow and difficult work, requiring a degree of experience if an acceptable result is to be achieved.

A mechanical auger, attached to a skid steer loader (bobcat) or tractor, is far more efficient and effective. These are readily available for hire, with or without an operator. A straight-sided hole is dug, around 15 to 20 cm greater in diameter than the post.

Once the post is placed in the ground, a small amount of soil is back filled round the base of the post, enough to support it in the centre of the hole.

How long and how deep?

A good height for horse fences is 1.5 m (approximately 5 feet) above ground level. This is higher than conventional fences, but the advantage is that it discourages horses from reaching over the fence and leaning their shoulders against it. Many a shorter fence has slowly collapsed under the weight of horses leaning on top rail or wire.

It is also a good rule of thumb to have at least one-third of the length of the post in the ground, so with 1.5 m above ground, ideally there should be a minimum of 0.5 m (approximately 20 inches) in the ground. Therefore, the strainer post needs to be at least 2 m (approximately 7 feet) long.

The deeper the post in the ground, the greater its load capacity. It also follows that the 'softer' the soil, the less support it will provide for the post and therefore the deeper the post will need to be.

How strong?

The best timber strainer posts are round hardwood. Within reason, the greater the diameter, the stronger they will be, although depth in the ground is still the critical factor.

The diameter should be a minimum of 20 cm (approximately 8 inches), although 25 cm (10 inches) would be better. A larger diameter is a good choice if the post is to be positioned on a corner or if it will have to support a gate. The larger diameter also ensures that the post will have sufficient body of timber to support bolt through gate fittings or mortices for rail attachments.

Galvanised steel, posts, either 'H' section or square section, can also be used as strainer posts. Obviously, such posts are very strong. It may well be easier to source galvanised steel posts, rather than good quality hardwood, which is becoming increasingly costly and difficult to obtain in some areas. However, the guidelines given above, as to height above ground and depth in the ground, still apply.





IMAGE A: This strainer post is 2.5 m long, with 1.0 m of it in the ground. It has held the fence and supported two gates for over 10 years. The horse is 15.3 hands high.

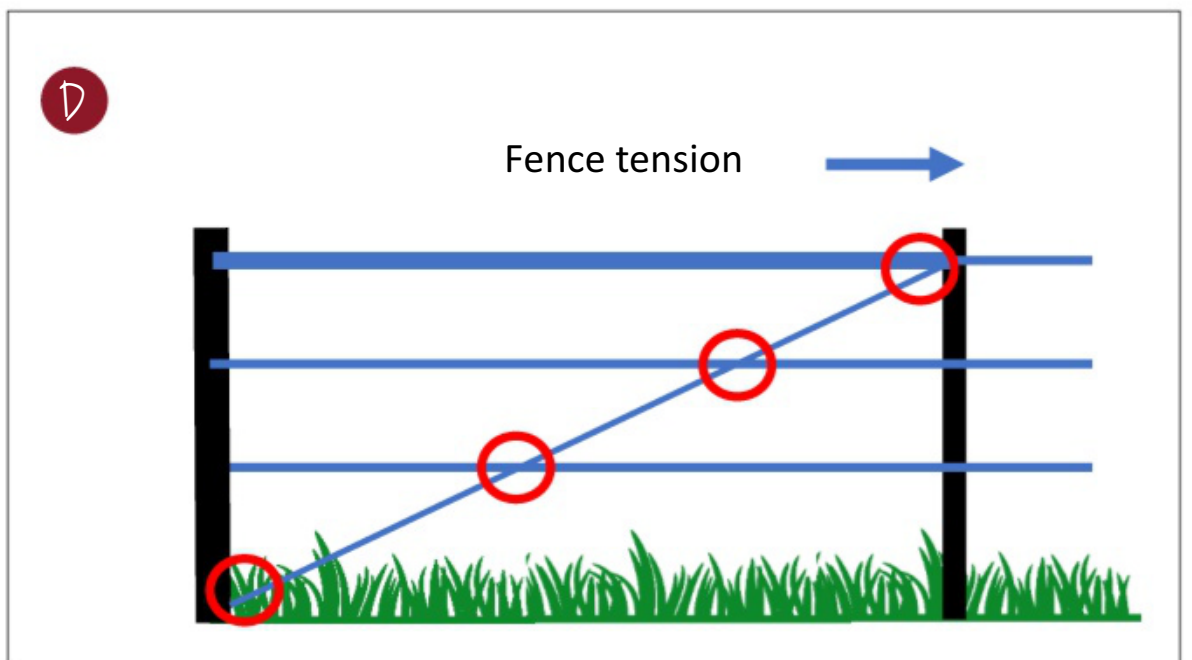
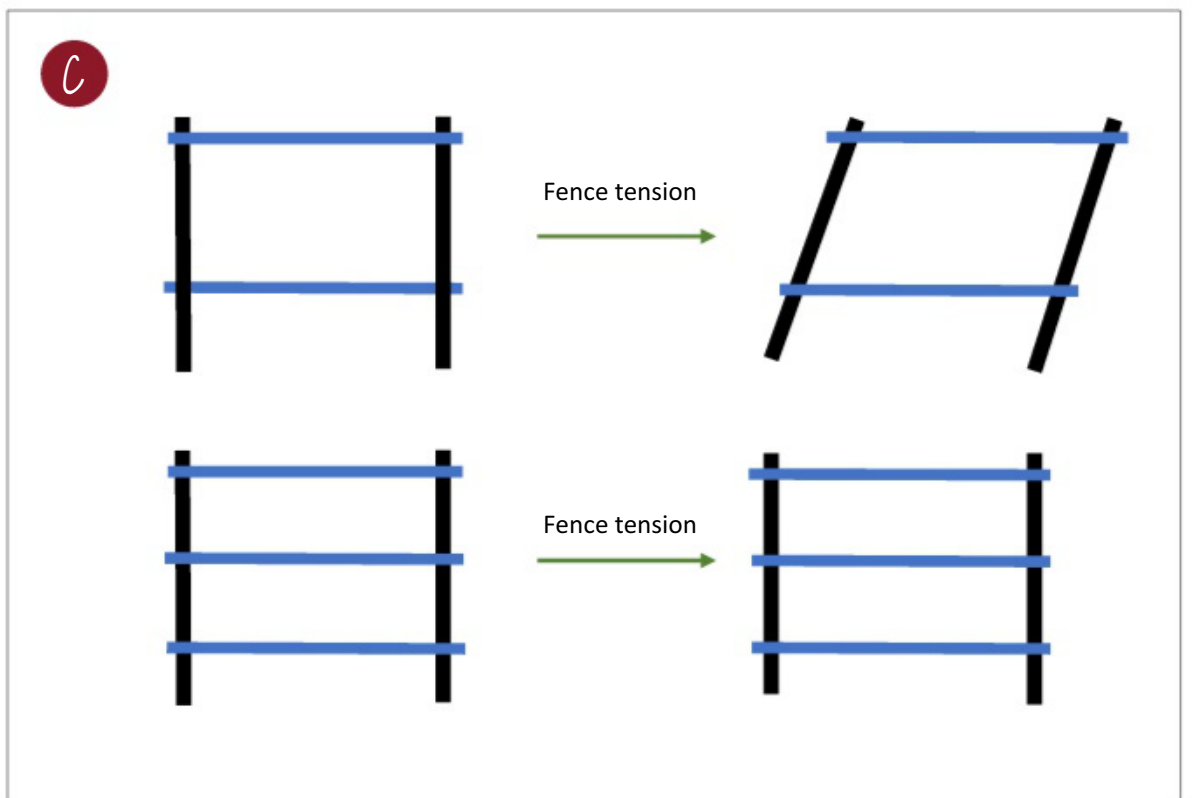
IMAGE B: A strainer post braced with three wooden rails, each morticed and bolted at both ends.

IMAGE C: Diagram of strainer post illustrating horizontal bracing with three rails.

IMAGE D: Diagram of strainer post braced with diagonal wire. The acute angles created by the diagonal (circled) pose a serious threat of injury for horses.

IMAGES E & F: Close up of mortice of timber rail (Image C) and steel cattle rail (Image D). Rails are bolted, not nailed, for durability and strength.

All images by Carol Stephens.





But we all need a little help from our friends

In addition to putting in the strainer post deeply, strongly and vertically in the ground, it is also advisable to stay, or brace, the strainer post, to offset the tension applied by the fence. This will help to keep the post in position, hopefully for the life of the fence.

There are many different ways a strainer can be braced. A commonly seen method is to use a diagonal stay of timber or steel. One end is notched into the strainer post, about one third down from the top of the post, while the other end is dug into the ground, in line with the fence, thus partly counteracting the tension applied by the fence.

Another common method involves putting in a second post a short distance from the strainer post. A top rail may join the two posts, while a wire is run diagonally from the base of the strainer to the top of the second post. The base of the strainer, which is at ground level, is unlikely to move. The diagonal wire transfers the tension from the top of the fence to the base of the strainer, which is less likely to be moved than the top.

While both these methods and many variations upon them can be effective if done well, they have the very real disadvantage, from the point of view of the safety of horses, of employing diagonals. This results in narrow angles, in which horses can potentially catch a hoof, or even a head.

The safest way to brace a strainer for a horse fence is to employ horizontal braces. A second post is put in the ground, in the line of the fence and this is joined to the strainer by three or even four horizontal rails. These rails can be timber or steel, the important thing being that there are no acute angles which can pose a threat to the safety of horses.

Mortices for the rails, whether of timber or steel, such as cattle rail, can be cut into timber strainers, ensuring strong joins with a smooth finish. Cattle rail can be joined to steel strainers with bolt on attachments, which again provide a safe, smooth finish.

In the next article, we will discuss laying out the fence line.



The post can then be moved until it is standing vertically. A spirit level can be used to check each side of the post. This should be done repeatedly, as more soil is gradually added around the post and tamped down hard each time. The freshly dug soil will settle, even when tamped down, so it is best to have it heaped up slightly around the base of the post, as drainage is important.

Before beginning, it is a good idea to look around and to perhaps ask neighbours about their experience with fencing in the area. Does soil movement make it difficult to keep fence posts upright? Some soils, such as the clayey, black soils of the Darling Downs, are notorious for moving, resulting in fence posts leaning in every direction, all too soon after having been put in.

If fencing in such soil, strainer posts need to be longer and it may also be necessary to concrete around the post, before back filling with soil. Pre-mixed, rapid setting concrete is ideal for this.

In summary, strainer posts are the foundation of a good fence. Your strainer posts should be strong, long and deep in the ground.





Water Management for Horse Properties



WORDS BY Dr Mariette van den Berg
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Permaculture promotes creating perennial edible landscapes, including food trees, fodder trees, pastures and herbs because they decrease the energy input required for food production for our grazing animals and ourselves.

The permaculture design approach aims to build systems that are easier to manage, more efficient and sustainable, whilst considering the health and wellbeing of all - people, horses, plants and the soil that sustains them. And this article focuses on how we can harvest and store that most precious of nature's resources: water.

In this article, Mariette van den Berg explains how the permaculture design principles of water management can be applied in horse properties. It all starts with observation and planning to implement a property layout that maximises the benefits of water as it flows through our property, while minimising the damage it can also cause.



Photo by Linda Zupanc.

“Water is the driving force of all nature” - (Leonardo da Vinci). Without water we cannot sustain our cells or grow plants that can feed our animals and ourselves.

While water is our number one essential, very little of our water reserves are actually available for present human needs due to run-off. Many areas on earth, particularly dryland areas, or over-developed cities and towns, and surrounding agriculture face a shortage of usable water.

In addition, environmental peaks (and/or climate extremes) can even put an extra strain on available water reserves. This is why the value of land should actually be assessed on its yield of drinkable water, which should be viewed as an economically-valuable product. Water as a commodity is already transported by sea on a global scale.

Planning ahead

Few farmers and property owners consciously invest in ‘drought-proofing’ their place before any foreseen peaks. It’s more common that people take action when drought or floods hit them. But, like a bush fire, it is always better to have considered this danger during the design process of the property and when developing an evacuation plan.

Water flow and storage should be viewed in the same way in your planning.

In Permaculture, the wild energies or ‘elements’, such as water flow, rain, fire, sun and wind that come into the property are essential to the design, and are usually planned in sectors. By systematically identifying these sectors on our property, we get a clearer picture of how and where the water flows through the land, and where potentially we can harvest and store water.

Once we have identified and established these areas, we will need to consider the methods to harvest, infiltrate or store water - which is the focus of this article.

Water conservation and storage

There are two basic strategies of water conservation in run-off areas: the diversion of surface water to impoundments (dams and tanks) for later use, and the storage of water in the soil. Both result in a recharge of groundwater.

Some of the main productive earthwork features we create for water conservation are:

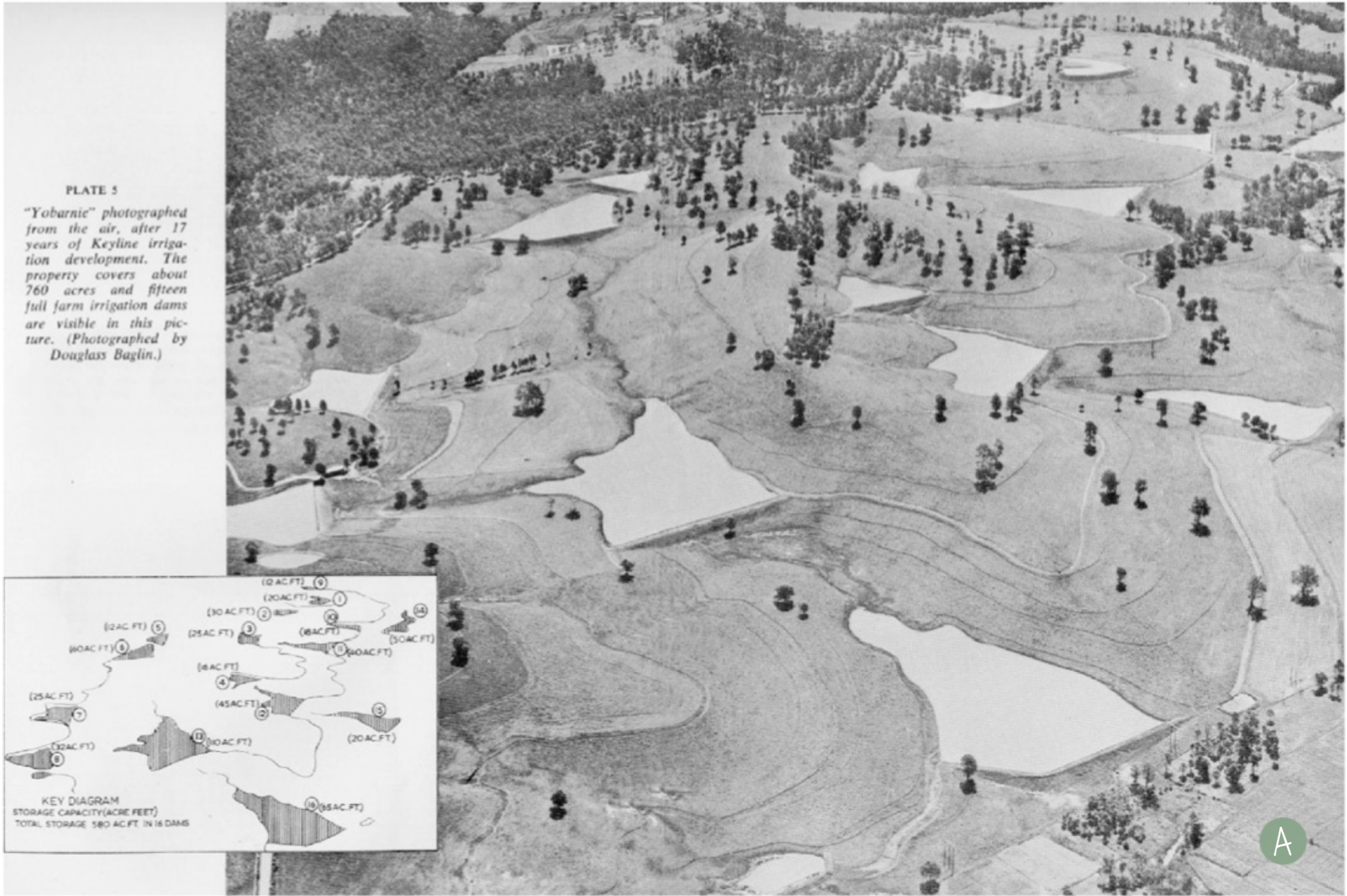
- Dams and tanks (storage),
- Swales (absorption beds),
- Diversion systems or channels, and
- Irrigation layouts for soil conditioning.

Storing water in farm dams

Small dams and earth tanks are commonly found or installed on properties in Australia, and they have two primary uses. Their minor use is to supply watering points in pastures for your horses, stock and wildlife. These tanks or water points can be modest systems, widely dispersed and static.

For water cleanliness and parasite control, horses, cattle and other animals should be watered by troughs, not directly from the dams. This will also reduce damage to the dams and avoid potential accidents where animals get trapped in the muddy banks, which is quite a common occurrence in Australia.

The second and major use of small dams and earth tanks is to contain or store surplus run-off water for daily use over dry periods, for domestic use or irrigation.



Location of dams

Although we can build dams or tanks on any site, given enough material resources, it's important that we keep in mind the location in respect to:

1. Earth type (core out a sample pit for assessing clay fractions).
2. Grade behind wall (lower slope give greatest capacity).
3. Downstream safety of structures and houses (a key factor in large dams).
4. Height above use points (gravity flow is desirable).
5. Available catchment and diversion.

IMAGE A: A thoughtful design to maximise water storage on a single property. Note the swales connecting one dam to another so as to maximise spread throughout the property. Photo source: www.permaculturetools.com.au.

IMAGE B: This keypoint dam provides storage at a high point of the property, which can gravity feed to watering points. Photo by Linda Zupanc.

IMAGE C: Permaculture design works with the landscape's natural contours to slow water run-off and spread it evenly across the surface. Photo sourced online.



Dam design and planning

This, therefore, needs to be carefully designed with respect to factors such as safety, catchment or water harvesting, total landscape layout, outlet/overflow systems, draw-down and placement relative to the usage area (for example, to allow for gravity flow).

Climate should also be factored in the equation when designing open water storage systems. Free water surface areas are most appropriate in humid climates where the potential of evaporation is exceeded by the annual rainfall.

In arid to sub-humid systems, however, open dams can become a danger because evaporation can concentrate dissolved salts. Firstly, such salt water can affect animal health and, secondly, the inevitable seepage from dams can and does create areas of salted or collapsed soils downhill from such storages. Therefore, in these climates, it's important to also incorporate other design strategies that reduce evaporation or transpiration (winds). For example, by planting suitable vegetation in or around the dam.

It's important that dams and ponds are designed in such a way that they do not stop flow in streams, displace populations, fill with silt, block fish migration or create health problems.

It may seem counter-intuitive, but properly constructed dams and storage effectively add to the stream flow in the long term. Even dams with considerable retaining walls, which have over-sized stable spillways, are no threat to life or property if they are well-made. Low barrier dams of 1-4 m (3-13 feet) high can assist stream oxygenation, provide permanent pools, and can be stepped to allow fish ladders or bypasses.

Most landscapes can hold and store water, but the storage efficiency may depend on the type of soil. Soils may be free-draining or have deep and coarse sands, other areas may be too rocky or

have fissured limestone, and yet others are too steep or unstable. However, a great many productive areas of clay fraction subsoil (40% or more clay fraction) will hold water behind earth dams, below grade levels as earth tanks or perched above grade as 'turkey nests' or ring dams.

Almost every type of dam is cost-effective if it is located to pen water in an area of 5% or less slope. Nevertheless, many essential dams, if well made and durable, can be built at higher slopes or grades using different materials. Each and every dam needs a careful soil and level survey, and planning for local construction methods.

We can increase the storage capacity of almost any landscape. There are few landscapes that will not store more soil water when humus, soil treatment and/or swales are used. Soil itself is our largest water storage system in the landscape if we allow it to absorb.

Storing water in the soil

Soil (carbon) is important because it acts like a sponge - holding water and nutrients, and supporting life for organisms above and below the surface. Unfortunately, much of human settlement is built on compacted run-off land - whether it be roads, overgrazed farmland, the suburbs or cities.

Water has to go somewhere. If it is not seeping into soil carbon for storage and hydration, then it is going out to rivers and the sea.

Keyline design

To prevent the topsoil of a compacted landscape washing away, Keyline design and ripping slows the water run-off and allows the landscape to absorb changes in the weather patterns as they arise.

The Keyline design and plough concept was originally developed by P.A. Yeomans in the 1950's to address issues of dwindling water supplies and soil erosion on Australian rangeland.

Yeoman developed a system of 'amplified contour ripping' that maximises productive use of rainfall and facilitates the uniform irrigation of land. Keyline ripping positively contributes to erosion control by building soil and soil carbon.

Through the process of deep-ripping land, and moving water from gullies to ridges to hydrate the landscape, Keyline systems help to drought-proof farms by encouraging deep penetration of plant and grass roots.

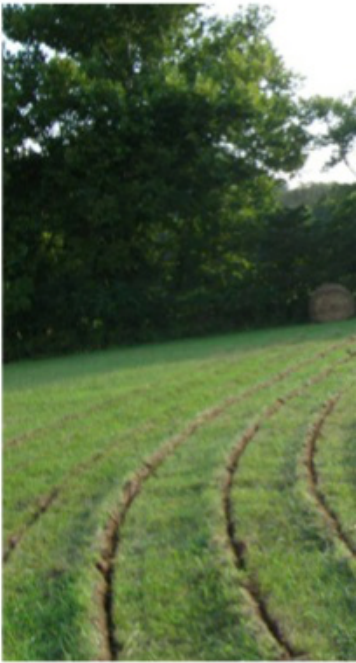
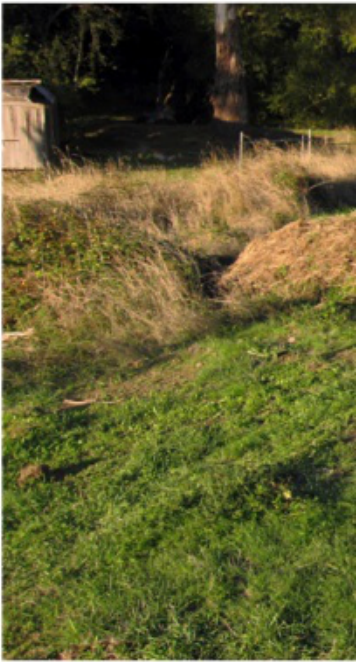
The main idea behind Keyline design is to capture water at the highest possible elevation and comb it outward toward the ridges using gravitational forces, reversing the natural concentration of water in valleys.

Maximising the flow of water to the drier ridges and using precise plough lines that fall slightly off contour slows the movement of water and spreads it more uniformly, infiltrating it across the broadest possible area.

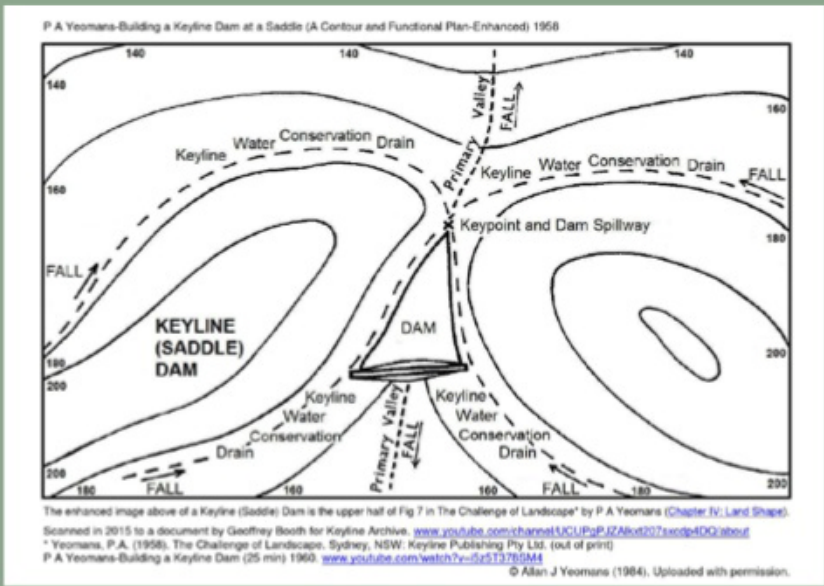
By effectively capturing and distributing rainwater, and enhancing soils, Keyline design allows us to delay irrigation from off-farm sources until later in the season, and can result in fewer applications being required in the dry season.

This system captures significant quantities of water that would otherwise run off, and stores it in the soil. It also builds soil fertility, which further improves moisture-holding capacity. The addition of organic matter increases the number of micropores and macropores in the soil - either by 'gluing' soil particles together or by creating favourable living conditions for soil organisms. Certain types of soil organic matter can hold up to 20 times their weight in water.

Soil conditioning or 'ripping', providing it is followed by tree planting, trace element editions (fertiliser/compost), and proper grazing management certainly will increase the ability of soils to hold and infiltrate water.



Dam Types:

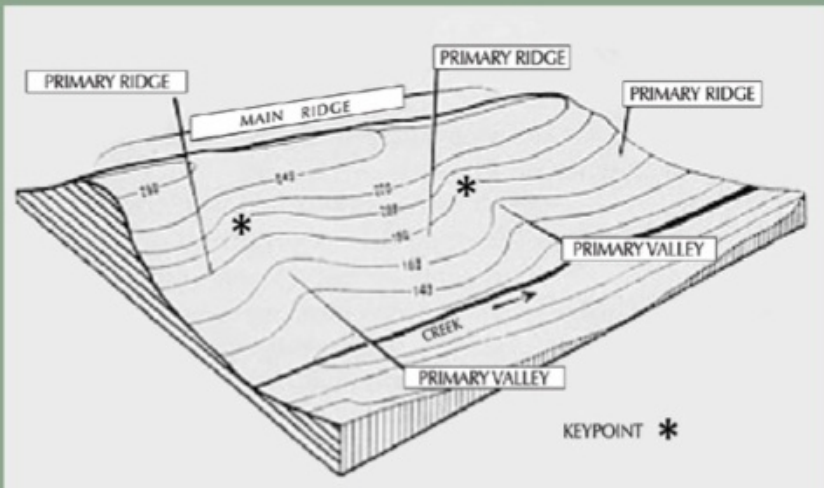


Saddle dams are usually the highest available storage on saddles or hollows in the skyline profile of hills. Saddle dams can be fully excavated below ground (grade) or walled on either side of, or both sides of, the saddle. They can be circular, oblong or 'shark egg'-shaped, with horns or extensions at either end. They're mainly used for run-off and pumped storages.

Ridgepoint dams or '**horseshoe**' dams are built on the sub-plateaus of flattened ridges, usually on a descending ridgeline, and below saddle dams. The shape is typically of a horse's hoof. It can be made below grade or walled by earth banks. They're mainly used for run-off and pumped storages.

Keypoint dams are located in the valleys of secondary streams in humid landscapes, at the highest practical construction point in the hill profile, usually where the stream profile changes from convex to concave; this place can be judged by the eye and a descending contour will then pick up all the other keypoints on the main valley. Keypoint dams are used to store irrigation water. Note that a second or third series can be run below this primary series of dams and that spillways of the last dam in a series can be returned 'upstream' to meet the main valley, effectively spilling surplus to streams.

Contour dams or walls can be built on contour wherever the slope is 8% or less, or sufficiently flat. Contours (and dam walls) can be concave or convex to the fall line across the slope. These dams are typically used for irrigation, aquaculture or flood flow basins in semi-arid areas.





B



C

IMAGE A: Swales are level banks that capture run-off water and spread it horizontally for infiltration into the soil. Image source: www.permaculturetools.com.au.

IMAGE B: A level sill spillway allows the overflow to spread gently over the landscape, without causing erosion. Image source: www.permaculturetools.com.au.

IMAGE C: Contour ripping can be even more effective when you apply Keyline principles using precise plough lines that fall slightly off contour - slowing the movement of water and spreading it more uniformly, infiltrating it across the broadest possible area. Image sourced online.

Areas of up to 85% run-off can be converted to zero overland flow by a combination of soil conditioning, swales and water spreading towards vegetated areas (trees).

Swales

Another important tool in pasture and land hydration is the use of swales and dams. Swales are not the same as contour banks. Contour banks actually redirect the water slightly off-contour, and drain to a central point to slow water and to stop erosion.

Swales are level banks that follow contour from start to finish. Swales, as used in permaculture are designed to slow and capture run-off by spreading it horizontally across the landscape (following exactly an elevation contour line), and used to facilitate infiltration of water run-off into the soil.

A swale is created by digging a ditch on contour and piling the dirt on the downhill side of the ditch to create a berm. The soil that is excavated from the ground is placed, uncompacted, on the lower side of the excavation in a rounded, mound shape.

Run-off water will flow into the swale when the topsoil on the pasture is at 100% water-holding capacity. The swale water is absorbed, and taken deep underground to recharge the subsoil and replenish underground springs.

This infiltration process, therefore, achieves two aims: it slows water in the landscape and retains it in the ground for longer periods of time, recharging and re-hydrating the landscape.

Dams and swales can be integrated into a single design by connecting the dam's spillway with a swale. They extend the dam's water storage capacity, and they can back-flow and recharge each other.

Once the safe maximum level (free-board) of the swale and dam is reached, a passive discharge across a level sill spillway of around 4-5 metres (13-16 feet) in length for large systems spills the water in a level sheet of water (usually 3 to 5 mm deep, depending on rainfall). The spilled water then runs across the grass and is discharged on a ridge rather than a gully. It is important to place a nitrogen-fixing legume crop, such as cowpea or field pea, in the new swales and trees to stabilise the soil.

Banks and drains

Diversion drains are gently sloping drains used to lead water away from valleys and streams into storages and irrigation systems or into sand beds or swales for absorption. Diversion drains are different from swales in that they are built to flow after rain (from overland flow or from feeder streams). They are commonly used in Keyline systems, connecting a series of dams so that overflow of one dam enters the feeder channel of the next. Drains need careful planning and survey to manage flow rate and overflow.

Tank storage

In Australia, we are already accustomed to a great variety of surface (tank) storages. In some jurisdictions, governments require the construction of new homes to include rainwater tanks to supply water for toilet flushing, laundry and outside uses. Many local councils even provide rebates to home owners who install rainwater systems into new and existing dwellings.

In stark contrast, however, domestic rainwater tanks are insignificant in Europe, the USA and other developing countries where drinking water may be rare. Up until 2009, it was illegal to harvest rainwater in Colorado, US! In addition, in the UK, US and Brazil, for example, farmers rarely use multiple earth storage systems for water; instead, expensive pipelines and bores are the preferred 'alternative', even where local rainfall often exceeds local needs.

There are many types of tanks that we can use - the most common in Australia are concrete tanks, poly/plastic or metal/steel tanks. The volume of the tank(s) will largely depend on the size of your household and usage per year. But, about 22,500 L can provide a family with all needed water (drinking, showering, cooking, modest garden water on trickle) for a year.

IMAGE A: All earth water storage systems, and in particular swales, should be planted with vegetation to remove infiltrated water and, in arid areas, to prevent salting problems. Image source: www.equinepermaculture.com

IMAGE B: A regular sight in Australia, water tanks are not common in many other countries. Image source: www.stainlesstanks.com.au

IMAGE C: A swale designed and constructed to collect run-off rainwater from the fields above. Photo by Sophie Barrington.



Dam Types:



Barrier dams are always constructed across a flowing or intermittent stream bed. These dams, therefore, need ample spillways, careful construction, fish ladders on biologically important streams and are made most frequently as energy systems, but are also used for irrigation if they are constructed well above the main valley floors where crops/pasture are grown.

Turkey's nest dams or above-grade tanks are dams where water needs to be pumped into, often by windmill or solar pump. They are common in flatlands as stock water tanks or low-head irrigation.

Check dams come in many forms, which are not intended to store water, but to regulate or direct stream flow. For example, a diversion check dam consist typically of a 'boomerang' wall of rock or clay and diverts intermittent flow to ridges, storages or canals on contours.

Gabion dams consist of permeable barriers of rock-filled mesh 'baskets' (so-called gabions), which create silt fields and spread water across eroding valleys. The scale of the dam will vary but, for farms, construction walls are between 0.5 and 2m high usually. The purpose of gabions is not to store water, but to create a flat area where silt loads can be deposited and form absorption beds in flood conditions.

Images sourced online.



There are two basic strategies of water conservation in run-off areas: the diversion of surface water to impoundments (dams and tanks) for later use, and the storage of water in the soil. Both result in a recharge of groundwater.

Summary

On any property, it is important that you identify all the sources of water, analyse for quality and quantity, and reserve sites for tanks, swales and dams.

Whenever possible, use the slope or raise the tanks to get the benefit of gravity flow to your water points. Detail also a list of trees and plants that, once mature, will grow unirrigated in your situation.

In the general landscape soil, samples (for 40% or more clay fraction) will reveal sites suited for earth-dam construction. Even if the budget does not allow immediate construction, those sites need to be reserved for future storages.

A sequence of primary valleys may enable a Keyline system to be established for downhill fire control and irrigation.

Get good advice and supervise the construction of all dams. Whenever possible, do not impede normal stream flow or fish migration, and place houses, stables, arenas, etc. out of the way in case of dam failure.

In particular, you must allow for an adequate and stable spillway flow that can cope with a 'worst case' rain intensity.

Finally, make sure that all earth storages, and, in particular swales, are planted with vegetation (first a fast-growing cover crop and later trees) to remove infiltrated water and, in arid areas, to prevent salting problems.

Tank water is renewed by rain at any time of the year. Every roof - whether domestic, sheds, stables or industrial - would fill many such tanks, and a simple calculation (roof area x average rainfall in mm or inches) and conversion to litres gives you the expected yield.

Granted that birds, dust or industry can contaminate roof areas, the first precaution is to reject the first flow-off of water and use it on gardens, pastures or swales.

There are a number of methods that you can use such as the downpipe 'first flush' diverters. They are installed at each downpipe that supplies water to the tank and they use a dependable ball and seat system - a simple automatic system that does not rely on mechanical parts or manual intervention.

As the water level rises in the diverter chamber, the ball floats and once the chamber is full, the ball resets on a seat inside the diverter chamber preventing any further water entering the diverter. The subsequent flow of water is then automatically directed along the pipe system to the tank.

First flush systems prevent sediment, bird droppings, spiders, insects, mosquitos and debris entering the rain water tank, and will improve water quality. The system is ideal to use in conjunction with a rain head.

As for the entry of insects, birds and rodents to tanks, a 'U' pipe entry and exit, a sealed tank roof, and an overflow pipe emptying to a gravel filled swale or rock garden all effectively excludes these potential nuisances. If birds persistently perch on the roof ridges, a few fine wires or thread stretched along the ridge as 10cm high 'fence' could discourage them.

Gutters on roofing should be cleaned out regularly or leaf-free gutter or downpipes fitted. Given that most dust and leaves are removed, leftover organic matter is usually harmless. Organic matter 'fixes' itself as an active biological velvety film on tank walls and bases. Nevertheless, to improve water quality for drinking, many people may install filter systems or include products such as limestone, shell or marble chips in the tank to increase the pH level (alkaline), to prevent heavy metals to be taken up from the water.

C



First Training Principles

Human and horse welfare depend upon training methods and management that demonstrate:



1. Regard for human and horse safety

By acknowledging the horse's size, power and flightiness | By learning to recognise flight/fight/freeze behaviours early.

By minimising the risk of causing pain, distress or injury | By ensuring horses and humans are appropriately matched.

2. Regard for the nature of horses

By meeting horse welfare needs such as foraging, freedom and equine company | By respecting the social nature of horses.

By acknowledging that horses may perceive human movements as threatening | By avoiding dominance roles during interactions.

3. Regard for horses' mental and sensory abilities

By acknowledging that horses think, see and hear differently from humans | By keeping the length of training sessions to a minimum.

By not overestimating the horse's mental abilities | By not underestimating the horse's mental abilities.

4. Regard for emotional states

By understanding that horses are sentient beings capable of suffering | By encouraging positive emotional states | By acknowledging that consistency makes horses optimistic for further training outcomes | By avoiding pain, discomfort and/or triggering fear.

5. Correct use of desensitisation methods

By learning to apply correctly systematic desensitisation, over-shadowing, counter-conditioning and differential reinforcement.

By avoiding flooding (forcing the horse to endure aversive stimuli).

6. Correct use of operant conditioning

By understanding that horses will repeat or avoid behaviours according to their consequences | By removing pressures at the onset of a desired response | By minimising delays in reinforcement | By using combined reinforcement | By avoiding punishment.

7. Correct use of classical conditioning

By acknowledging that horses readily form associations between stimuli.

By always using a light signal before a pressure-release sequence.

8. Correct use of shaping

By breaking down training into the smallest achievable steps and progressively reinforcing each step toward the desired behaviour.

By changing the context (trainer, place, signal), one aspect at a time | By planning the training to make it obvious and easy.

9. Correct use of signals or cues

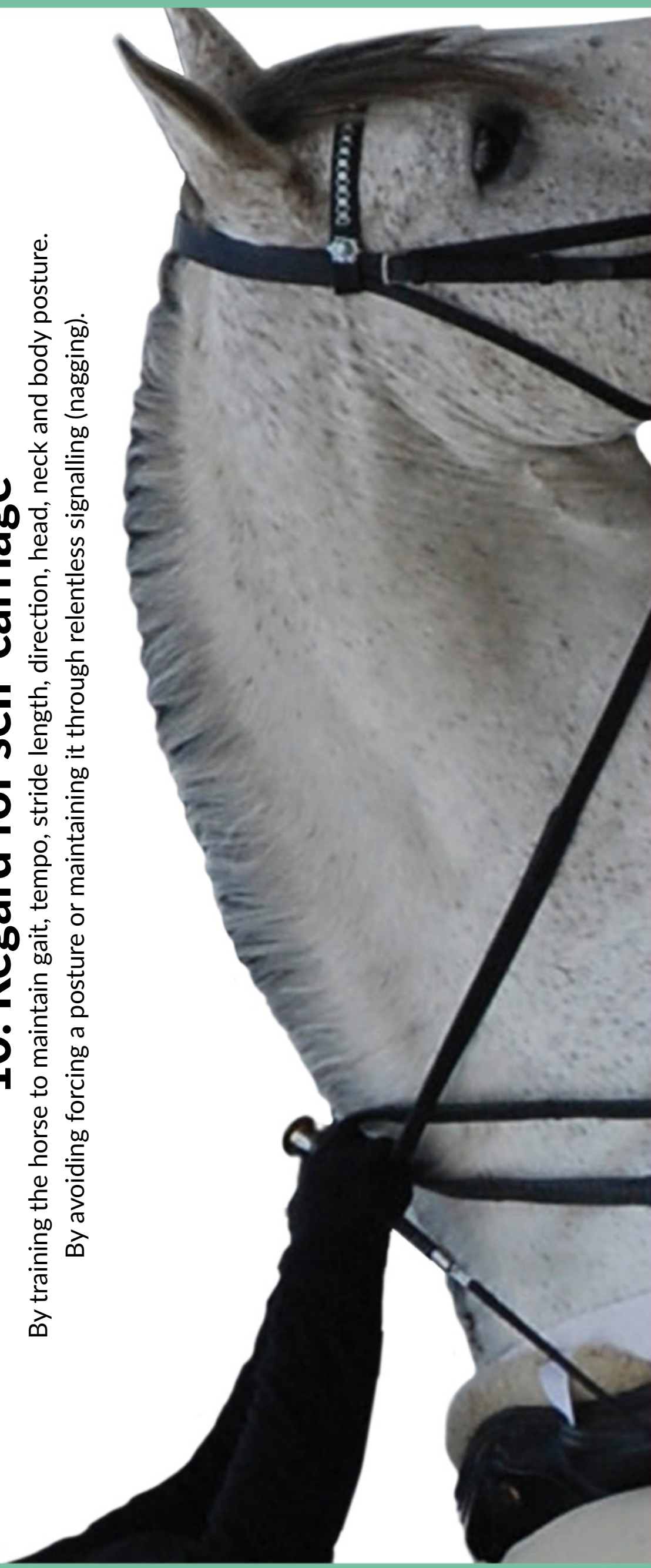
By ensuring the horse can discriminate one signal from another | By ensuring each signal only has one meaning

By timing the signals with limb biomechanics | By avoiding the use of more than one signal at the same time.

10. Regard for self-carriage

By training the horse to maintain gait, tempo, stride length, direction, head, neck and body posture.

By avoiding forcing a posture or maintaining it through relentless signalling (nagging).



This poster is a summary of the First Training Principles. To read the extended version go to:

www.equitationscience.com

Fibre-Beet and Speedi-Beet: Are they Suitable for Horses With Ulcers and Those Prone to Colic?



BROUGHT TO YOU BY Ridley Barastoc
www.ridley.com.au

There are a number of causes of ulceration in the horse. Gastric ulcers can occur when stomach acids burn the unprotected portion of the stomach, whilst microbial disruption, due to incorrect feeding, may allow infection and ulceration both in the stomach wall and along the length of the gastrointestinal tract.

The horse's stomach constantly secretes hydrochloric acid. For a trickle-eater this is essential; acid helps prepare food for enzymatic digestion – and microbial fermentation – in the intestines.

To protect the stomach lining there are also specialised secretory cells (goblet cells) that produce a mucin that coats it. However, if a horse is fed individual meals or is stressed – and stabling, transport, training and unfamiliar surroundings can all be stress factors - there is disruption in normal gastric functioning.

Excess acid is not bound within the food and mucin secretion can stop. Stomach linings can be exposed and the acid can act directly on it. Also, the rising acidity of the contents can encourage specialist bacteria that will digest the stomach wall and ulceration occurs.

Within Speedi-Beet and Fibre-Beet are the components that have been shown to help maintain the normal gustatory/ gastric/ gut processes and so contribute to the integrity of the gastrointestinal tract.

Clinical trials have shown that pectin, at high levels of acidity, forms a gel (in nutritional terms pectins are defined as mucilages) that strengthens and thickens the stomach mucin. The presence of the lecithin – a surfactant – facilitates this process. Plant oils contain appreciable amounts of lecithin and both Speedi-Beet and Fibre-Beet are particularly rich in pectins.

Additionally, these products have high acid binding capacity which means they can soak up excess stomach acid and help maintain the stomach at the correct level of acidity. Being fibrous in nature, they are also well-chewed by the horse, and this action releases saliva that is rich in buffering agents.

Helping to maintain the correct environment in the stomach, also has implications for the gut. High levels of acidity, releasing into the small intestine may overwhelm the natural buffering capacity of the gut and this will disrupt both normal intestinal physiology and microbial populations. This can result in colic and intestinal ulcers.

The pectins that strengthen stomach mucin have been shown to support the mucilaginous secretions of the gastrointestinal tract and so help support protective gut linings and immunological processes.

Although some feeds – especially those high in starch and sugars – can be a factor in ulcer development, claims that other feeds can obviate or avoid the condition cannot be made.

However, within Speedi-Beet and Fibre-Beet are the components that have been shown to help maintain the normal gustatory/ gastric/ gut processes and so contribute to the integrity of the gastrointestinal tract.





GET A GOOD GUT FEELING

There are many reasons why horses develop gastric ulceration and it's easy to see why.

Horses stomachs are small and continuously secrete acid to digest food. Most horses nowadays are not continuously grazing and this means their stomachs may not contain enough food at all times to neutralise this acid. And this can result in Equine Gastric Ulcer Syndrome.

What can you do?



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Targeting Your Horse's Core Strength

Introduction



WORDS BY Dr Lena Clifford

DVM, PhD, Member of the International Veterinary Chiropractic Association (IVCA)

www.biomechanicalsolutions.com.au

ABOVE: There are specific stretches we can teach our horse to practice that are beneficial and will engage important core muscles. Photo by Linda Zupanc.

As we learn more and more about the horse's body and how things are connected, we try and find better ways of keeping our fur-kids safe, healthy and most importantly, happy.

There are lots of new fads that promise quick cures for imbalances, whether they are found in the feet or the upper body, but to find a long-term solution, we need to realise that, unfortunately, these imbalances have an underlying cause.

Usually, the underlying cause is either pain, bad training, ill-fitting gear, an unbalanced rider or husbandry issues.

This means that if the problem is a badly fitting saddle, a change in training is not going to help much. If the horse has grown unbalanced feet due to compensating for shoulder pain, feeding minerals for hoof growth is not the solution. And a horse that is kept isolated and develops behaviour issue as a result, will not become calm and happy with a chiropractic treatment.



There are lots of new fads out that promise quick cures for imbalances, whether they are found in the feet or the upper body, but to find a long-term solution, we need to realise that, unfortunately, these imbalances have an underlying cause.

The nervous system

The nervous system is responsible for all functions in the horse's body and it is made up of two parts. The central nervous system (CNS) is the brain and the spinal cord. The peripheral nervous system (PNS) refers to all other nerves in the body.

The skull and the spine protect the CNS. If we look at the horse's spine, we know that it runs from the back of the head to the tip of the tail. The spine stabilizes the horse's body and protects the spinal cord. The spinal cord is a thick bundle of nerves that send information from the brain to the rest of the body and receives signals from the body and sends them on to the brain.

If a joint in the spine lacks movement, the nerves coming in and out of the spinal cord will be compromised. This means that the signals to and from the brain will be disrupted.

You can think of this like a road with a traffic jam. The road is the nerve and the cars are the signals. The worse the traffic jam, the slower the signals get to their destination. A horse with only a few minor 'traffic jams' will not show many signs, but a horse with major road blocks will have a whole lot of issues.

The cause of these traffic jams can be pain related, of a metabolic nature or can be caused by a disease of the nervous system. But pain related issues are the most common.

Becoming your horse's personal trainer

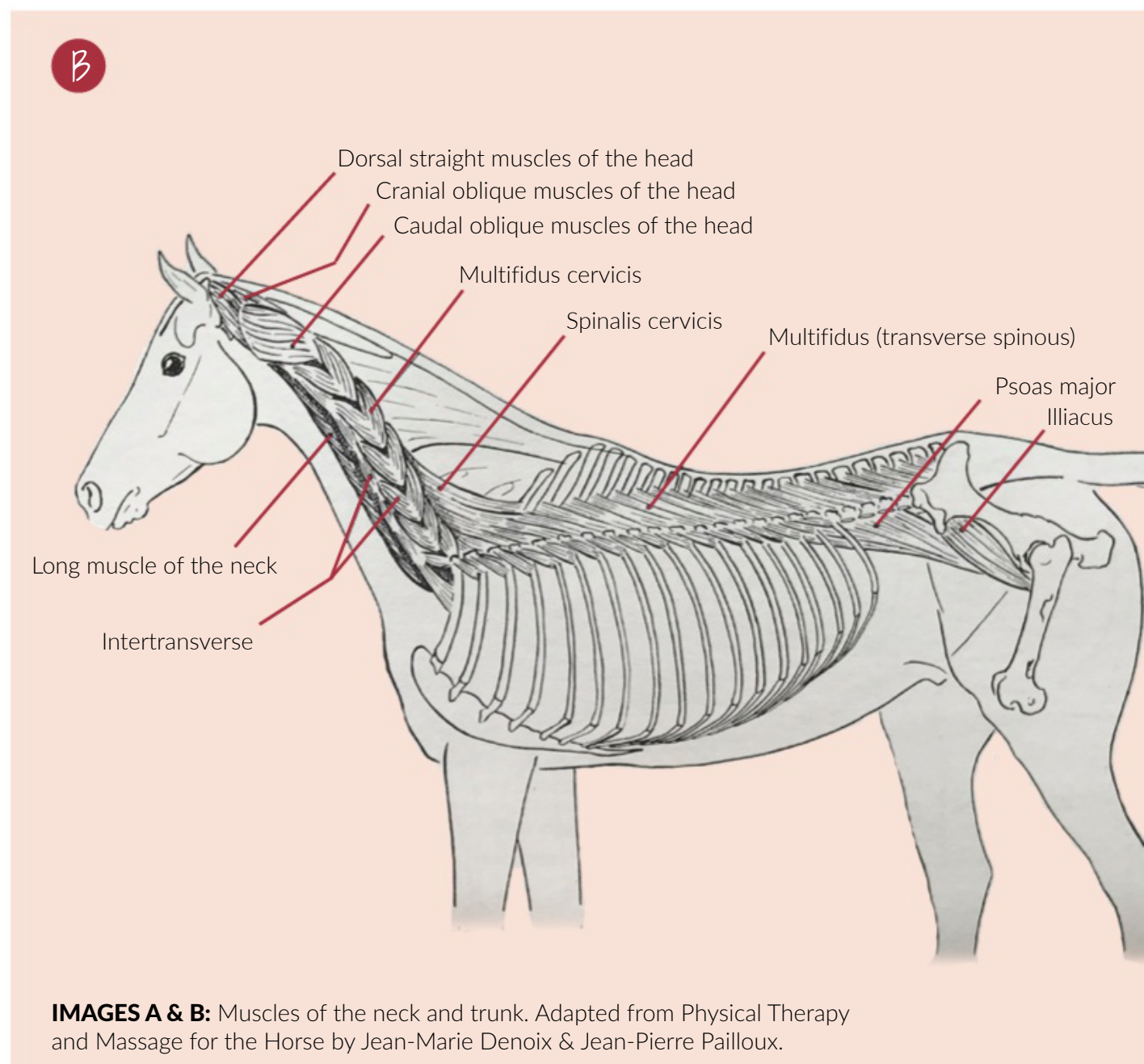
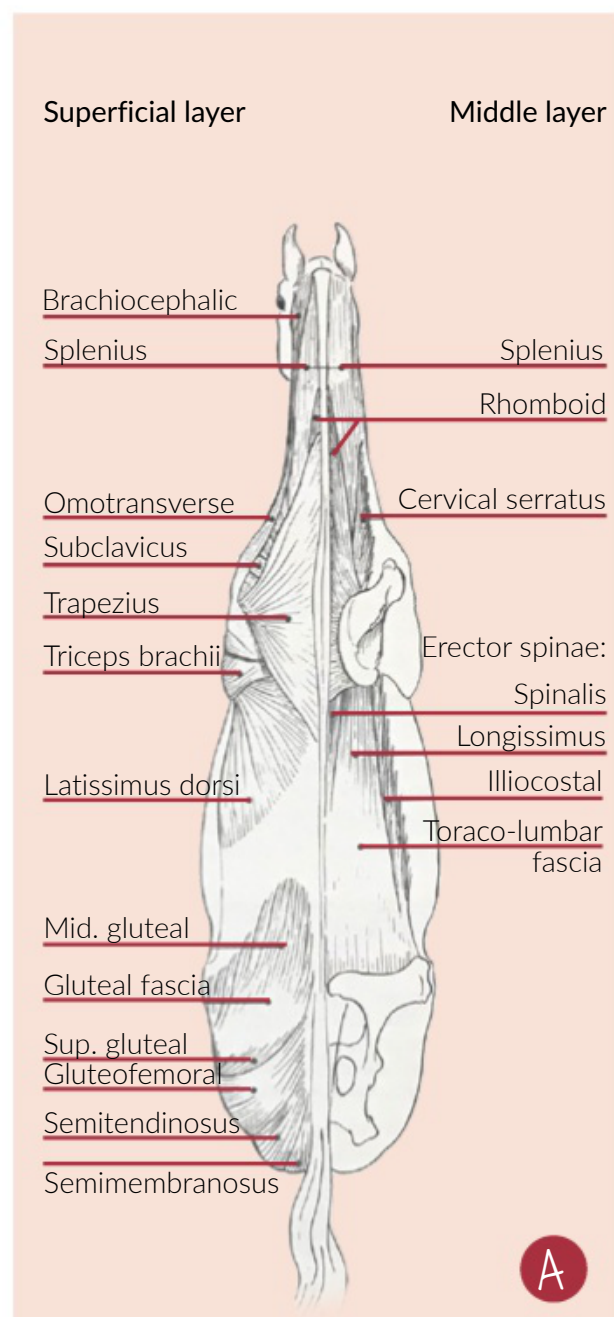
To have a healthy and happy horse, we need a team of professionals to support us on the horse-keeping journey and our horse needs friends, exercise and healthy nutrition. Nevertheless, there are things you can do effectively and on an everyday basis to help your horse stay happy and healthy.

In this series I will explain some beneficial and simple core strengthening exercises and I will team up with trainer and coach Hayley Chambers, from Outback Equines, who will describe how to train the horse to stretch. But first, let's lay the knowledge foundations.

Horses, like any other animal or human, need movement, stability and mobility to stay healthy. Yes, they move while they are in the paddock with their friends and they are moving while being trained, but we can add more specific movements to their day - to help them stay healthy and to help us notice issues before they become big problems. Let's have a closer look at this.

A joint needs to be able to move in a certain way for the whole body to stay healthy. If we get restrictions in a joint or a joint is too loose, we change not only that one joint, but through compensation patterns, we change the whole horse.

And the change doesn't just affect the musculo-skeletal part of the horse but everything from breathing to blood flow, digestion to hoof balance and even the nervous system will be affected.



IMAGES A & B: Muscles of the neck and trunk. Adapted from Physical Therapy and Massage for the Horse by Jean-Marie Denoix & Jean-Pierre Pailloux.

About core strength

Why do you need to worry about your horses core strength?

The medical definition of core muscle is "... the major muscles that stabilize and control the pressure inside the trunk; these are the pelvic floor, abdominal wall, back, and diaphragm muscle"

Your core muscles are almost all muscles in the body except in the legs (and arms in humans).

These muscles are essential to:

- stabilize the horse's back
- resist gravity's pull
- control the horse's centre of mass
- help breathing and digestion
- influence biomechanics.

If the core muscles are weak, the horse's body is not functioning correctly.

Signs of pain-related issues in the horse can vary, from a behaviour problem to lameness, colic, changes in hoof health and hoof balance but also ataxia which means loss of coordination.

To learn more about the different signs of pain, including subtle signs, read the article I wrote for the January-February 2019 edition of the magazine. It is also available on www.horsesandpeople.com.au via this link: <https://bit.ly/2OFcrl6>

Without a healthy spine, a horse cannot perform. Many behaviour and lameness issues are due to back or neck pain.

The issues we find in the horse can be caused by bone lesions (like kissing spines for example), or tissue damage like sacroiliac strains, longissimus dorsi lesions or damage to ligaments around the spine.

Throughout the length of the spine, there are also a number of stabilizer muscles. These are small but important for providing stability, flexibility and mobility. One of these muscles is called the multifidus.

The multifidus

The multifidus is a deep muscle that helps maintain posture, giving support and stability to the spine. If there is a back injury, the multifidus muscle atrophies and long-term, the muscle fibres can be replaced by fatty tissue. Unless we reactivate it through specific exercises this muscle does not recover well.

The multifidus muscle is important for stability and is a major cause for back pain. So if it does not work correctly we can have problems like a lack of top line, lameness, behaviour problems like rearing, bucking, bolting, jaw and teeth problems, inability to maintain contact, rhythm and self-carriage, reoccurring colic, saddle fit issues, the list goes on.

Multifidus atrophy is also the key to some of the common problems and complaints I see on an everyday basis. "He was lame all of a sudden", "she started to buck out of nowhere", "I can't keep weight on her" or "he was the perfect kid's pony until a week ago".

These comments are common and sadly, nine times out of ten, these horses have been putting up with pain and discomfort for a very long time before they displayed such clear signs.

Horses are so good at compensating and hiding pain that it can be hard to notice when things are starting to go wrong. But there are clues in the horse's body that we can use. And, if we are able to notice changes in our horse's body before they become a real problem, we might avoid having to rest our horse for long periods of time or unknowingly cause damage beyond repair.

So how can you, as a horse owner help your own horse and catch little issues before they become major problems?

A simple way is by adding a few stretches and core strength exercises to your horse's everyday routine. They don't take long and the better you know what your horse is capable of, the sooner you will notice when things are 'not right'.

By practicing stretches with your horse on a regular basis (5 to 7 days a week), you also get to know your horse's body.

If suddenly he is not as flexible as he was yesterday or a week ago, you have the opportunity to get these problems addressed before the rest of the body has to compensate too much.

With increased flexibility we also increase joint stability and overall mobility and decrease the risk of injury.

Knowing where our horses are weaker and where they are stronger also helps us put together a better training plan. Regardless of whether you compete at the highest level or you take your horse on a trail ride once every few weeks, the stronger the core the healthier your horse. Because let's face it, nobody is perfect, but we can aim to improve ourselves and our horses so they can stay healthy and happy for as long as possible.

In the following pages and in future parts of this series I will show you some stretches and core strength exercises, you can use on a regular basis to get to know your horse's body better, improve core strength and spinal health and to keep your four legged friend happy.

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Hayley's Hints:

Why target training?

Some people like to do these stretches by bribing the horse with a carrot - but 'carrot stretches' go against the golden rule of clicker training using food, which is to take the treat to the horse' not let the horse's mouth come to the treat.

IMAGE A: With target training, you can achieve and practice the same beneficial stretches whilst teaching your horse great manners around treats.

IMAGE B: Target training is simply teaching any animal to touch an object with his/her nose or a body part repetitively to a signal or cue. In dog training, zoos and marine parks, targeting is a very common skill to teach to all different kinds of animals.

When teaching horses to target, I make a point of teaching them to use their nose only - to simply 'touch' the item on cue without biting, licking or chewing it.

IMAGE C: Whether you use a food treat or a scratch to reward your horse will depend on what he or she finds motivating. Most horses are very motivated and, therefore, easily trained using food treats but some horses are just as motivated by a scratch on a favourite spot!

Photos by Linda Zupanc.

Targeting Your Horse's Core Strength Exercises



WORDS BY Dr Lena Clifford

DVM, PhD, Member of the International Veterinary Chiropractic Association (IVCA)

AND Hayley Chambers

EA NCAS Coach. Dip. App. Sci. Equine Studies, RDA and NHAA Coach

Let's start with the first stretches.

If you practice these exercises on a regular basis you will get to know your horse's body better, improve his/her core strength and spinal health, and help keep your four legged friend happy.

And, to safely teach your horse to stretch, Hayley Chambers from Outback Equines is going to show you in detail how to gradually shape each stretch using targeting, and we'll discuss what to look out for in the process.

Hayley's Hints:

The target

The target can be any object that is distinctive and your horse can learn to recognise easily.

After trialling several devices, from home made to store bought, we found an extendable flag pole, removed the flag and fitted a tennis ball to the end.

Having an extendable pole proves super handy, allowing you to gradually shape the stretch further and further without having to change your position.

For each stretch I include a short section explaining which muscle groups are being activated and what the stretch will help with.

Make sure you always warm your horse up before stretching. Walking for 5-10 min is enough to warm the muscles up.

To ensure the stretches are beneficial, your horse needs to stretch from a square halt. You may want to spend a bit of time training that part correctly - check out Hayley's handy training hints over the next pages.

Neck stretch #1

Head at wither height, stretched forward for a duration from a couple of seconds to 20 seconds, with practice.

See image A.

Improves: Flexibility in the poll, jaw and hyoid (tongue bone), anterior-posterior stability and core strength.

Muscle groups that benefit: jaw, poll, neck, core muscles, top line and abdominal muscles.

Repetitions: 5x before work or 1x day.

Dos: Make sure your horse is warmed up. Make sure your horse is standing square before starting the stretch, always be mindful of your horse's strength and weakness. Only increase duration as the horse gets stronger.

Be sure to prioritise (reward) a square stance and straightness (keeping the ears level, without a head tilt), and increase the stretch gradually over time.

Don'ts: Not for horses in the first three months after any surgery! Make sure the head does not twist as he stretches (check the ears are level).

Don't push your horse past it's comfort zone, Don't stretch when the horses muscles are not warmed up.

Training pre-requisites: Teach your horse to 'park' square, so he follows the target by stretching the head and neck, rather than stepping forward. You might need to refresh 'park' before you stretch.

Variation: Using a stool or a long target stick aim to stretch the neck upwards as if the horse was eating leaves of a high branch. Remember to prioritise straightness (level ears) above the amount of stretch achieved.

This variation will stretch the muscles in the lower neck as well as help with your horse's core strength.

IMAGE A: Stretching the head between the knees - the horse's muzzle at knee height. The horse should be standing square to get the most out of this stretch.

IMAGES B & C: Teaching 'park' - teaching your horse to halt square and maintain the halt - will make practicing different stretches possible.

IMAGES C & D: Pairing the clicker is teaching the horse that the 'click' sound = something nice. Food treats are one thing most horses value, but scratches can also work as rewards.

All photos by Linda Zupanc.



Hayley's Hints:

Pairing the clicker

For a more detailed article check out the January-February 2019 issue of *Horses and People* or read online at: <https://horsesandpeople.com.au/targeting-your-horses-core-strength/>

To begin Target Training you need to first ensure your horse is correctly conditioned to a marker word or a clicker (so he knows that 'click' = 'treat'). This is called 'pairing' the clicker.

A clicker is ideal because it gives a clear and audible sound that is consistent and never changes, but you can also use a distinct voice signal.

The aim is to associate the clicker/sound to your horse's chosen reward – either a food treat or a scratch on a favourite spot – using this sequence: click, treat, repeat.

In a very short period of time (as little as 5-15 mins) the horse will start to understand that the click sound equals something awesome!

Introduce the target (put it near his nose) and click-treat when he touches it. Repeat and soon he'll understand that touching the target with his nose gets the reward. You can then start moving the target around.

Make it easier if he loses interest or becomes confused.



C



D

Neck stretch #2

Stretch the head and neck between the knees (carpal joints) - the horse's muzzle at knee height.

See Image A

Improves: neck flexion, upper thoracic stability and flexibility, shoulder strength and flexibility of the shoulder blade.

Muscle groups that benefit: neck muscles, poll, shoulders, withers.

Repetitions: 5x, before work or 1x day.

Dos: Make sure your horse is warmed up. Make sure your horse is standing square before starting the stretch, make sure the neck is straight with ears level, always be mindful of your horse's strength and weakness and shape the degree of stretch gradually.

Don'ts: Not for horses in the first three months after any surgery. Don't stretch beyond the knees or higher up towards elbows or chest as this puts too much pressure on the upper cervical vertebrae and the lumbar sacral transition. Don't push your horse past its comfort zone, Don't stretch when the horse's muscles are not warmed up.

Hayley's Hints:

Teaching 'park' using combined reinforcement

The term 'park' refers to teaching the horse to 'stay' or 'plant his feet'.

First, your horse should know how to 'Back up' - using either halter pressure or chest pressure, but preferably from a verbal or hand signal, or a light whip-tap/cue on the front legs/chest or on the ground in front of them. (Backing up helps you to correct the horse if they try to walk forwards during the park exercise.)

I use a dressage/driving whip so I can extend my signals when I'm ready to get further away from the horse.

With your horse in a halter and lead, and initially staying close to him, use your clicker/marker whenever his feet are still. Repeat at a close distance several times at a very short duration of 'park' i.e., 1-2 seconds. At this stage we are looking for duration rather than HOW the horse is standing. We can change our park criteria once the horse understands.

If your horse tries to move the feet forward, back them up using one of the signals he knows, and then wait for a very short moment (for his feet to stand still again) and then reward your horse with a release of pressure AND your marker (click-treat) immediately.

Remember when releasing the pressure that your timing is VERY important - use the lowest pressure needed (the LIMA approach of Least Invasive Minimally Aversive) and release that pressure AND click the very moment the horse adheres to that signal. This is combination reinforcement.

We then start SHAPING the behaviour in small increments i.e., park still for one second - click-treat. Park still for 1-2 seconds - click-treat. Park still for 2-3 seconds - click-treat.

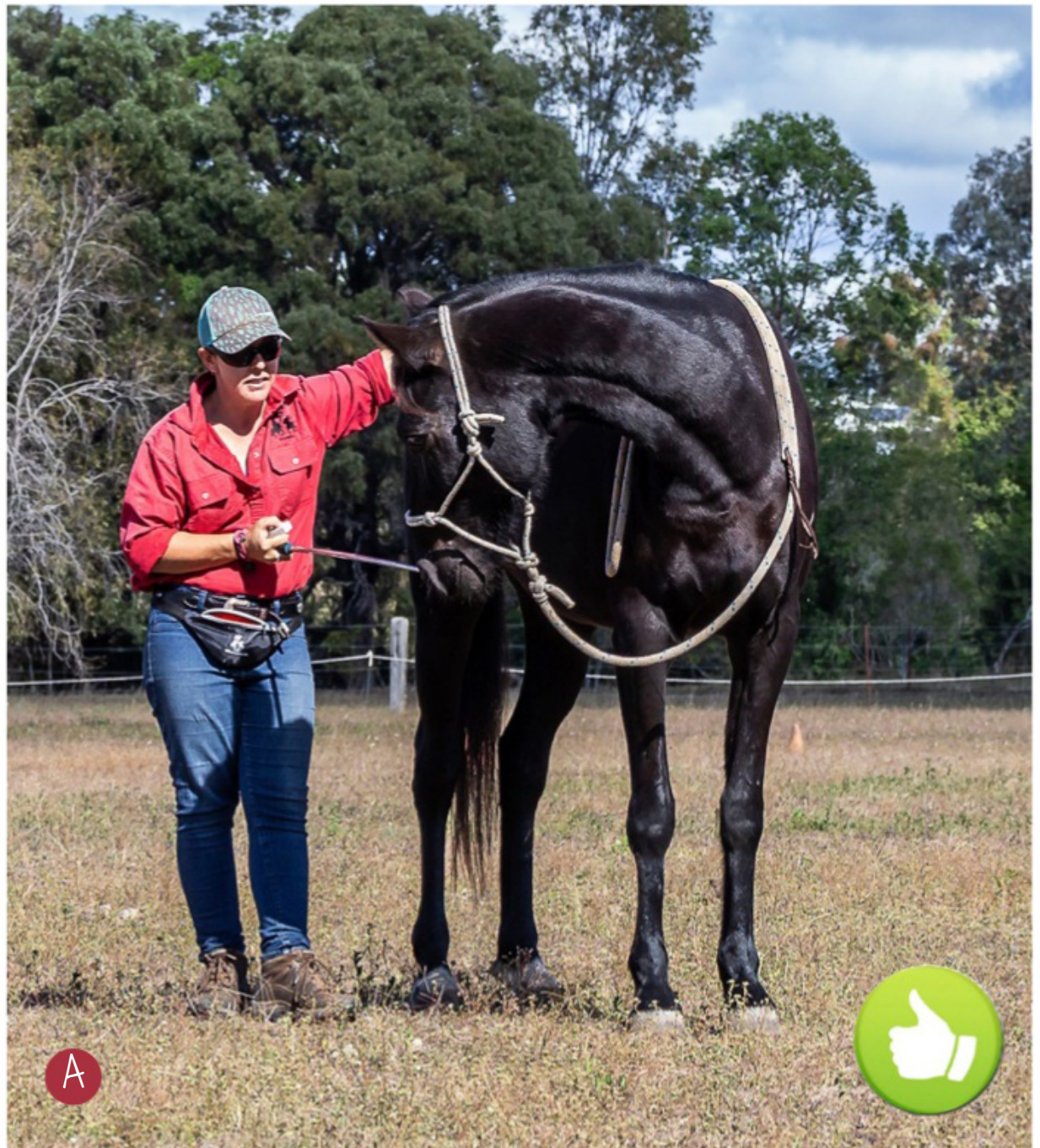
Once the duration of the park has been established, we can look at changing the criteria to the quality of the park, e.g., standing the front and back feet square then park for 1 second, 2 seconds, etc. The horse will already understand duration and the foundations of the 'park' but can then extend the information to the HOW he is standing in the park. Clever pony!

IMAGE A: Stretch head and neck towards the girth area, at elbow height, making sure the ears stay level. This is a difficult stretch, so prioritise the correct posture over the degree of bend. Notice that here, the ears are fairly level and that the horse is standing very square.

IMAGE B: If your horse can only go to 90 degrees or less without tilting the head that's fine. Take things slow. Many horses are stiff in the upper cervical vertebrae.

IMAGE C: Too much bend too soon. Notice that the head has tilted (the ears have become unlevel). Ask for less bend and shape over time.

All photos by Linda Zupanc.



Hayley's Hints:

It's all about shaping!

Shaping means we gradually encourage the horse to engage further and further with the target until they are touching it repetitively over and over.

For example, you may have to start rewarding your horse for simply looking towards the target item - click and treat.

Many horses will, at least, sniff the item out of curiosity. When they realise that engaging with it earns a click-treat, they will very quickly repeat the behaviour.

Targeting is something I often teach in a very short period of time at clinics, lessons and demonstrations. Within 5 to 15 minutes, most horses will be offering a 'touch' to the item with much enthusiasm and positivity.

If your horse tries to mouth, lick or bite the item don't click and treat - remember we are teaching touch - not pick up! (We can always teach them 'tricky stuff' later, if we want to go down that path.)

Once your horse is reliably touching the item over and over (about 98% reliability), we can add in a voice cue or physical signal. I generally use the word '**touch**' or '**target**'. In a short period of time, your horse will pair the verbal signal to the actual action.

Soon you will have your horse reliably 'touching' the target item on cue.

Now we need to test the targeting by moving the target item to different spots. Don't go too far to begin with. Try just slightly to the left. Slightly to the right. Slightly up. Slightly down.

Doing this will test if your horse really understands the 'touch the item to earn a reward' lesson correctly. If he gets stuck - go back a step.

If he continues to follow the target item, start shaping one of the stretches described in this article. Choose the one you think will be easiest for your own horse.

Always start from a square halt and prioritise the correct posture over the amount of stretch your horse achieves. Focus on maintaining the square halt and level ears, for example.

Be very slow to increase the degree of stretch, and then also shape the duration of the stretch by delaying the click-treat a little bit, over time.

If he moves or starts to tilt the head you will know you are asking too much. Go back a step or two and make it easier for him to get it right.

Shaping is all about timing, so keep practicing and don't worry if you make a mistake every now and then, such as click the wrong behaviour! Just notice and try to be more accurate next time.



Neck stretch #3

Stretch head and neck towards the girth area at elbow height, making sure the ears stay level.

This is a difficult stretch for the horse to do with level ears and they will try and tilt their head to make things easier, so make sure you shape it gradually, that is, increasing the reach over time and rewarding for maintaining the square halt and bending with level ears, gradually increasing the degree of bend.

If your horse can only go to 90 degrees or less without a head tilt that's fine! Take things slow as many horses are stiff in the upper cervicals.

Improves: lateral neck flexion, especially the upper neck, thoracic stability and flexibility, shoulder strength and flexibility of the shoulder blade, core strength.

Muscle groups that benefit: neck muscles, poll, shoulders, withers and back muscles.

Repetitions: 5x, before work or 1x day.

Dos: make sure your horse is standing square before starting the stretch. Always be mindful of your horse's strength and weakness, and keep training positive by noticing when he has stretched enough, or done enough repetitions.

Don'ts: Not for horses in the first three months after any surgery. Never push your horse past its comfort zone, don't stretch when the horse's muscles are not warmed up.

Next time...

Next time we will introduce more beneficial stretches you can incorporate into your horse's daily routine.

If you practice these exercises on a regular basis you will get to know your horse's body better, improve his/her core strength and spinal health, and help keep your four legged friend happy.

Disclaimer...

This content is not intended to be a substitute for veterinary advice, diagnosis, or treatment. Always seek professional advice with any questions you may have regarding the health condition of your horse. Never disregard professional advice or delay in seeking it because of something you have read in this magazine!



A Bit More Choice (and a Horse-centred Approach)



WORDS BY Natascha van Eijk
Founder, International College of Bitfit Consultants
www.icpbc.com

Choosing the correct fit for your horse is more challenging than most people might think. Photo by MadebyJessy Photography, courtesy of the International College of Bitfit Consultants. www.icpbc.com.



Choosing the correct bit for your horse is more challenging than most people might think and, particularly so when your horse is coping with 'contact issues' or other training problems you would like to resolve. It is, of course ideal, when you can engage a professional to turn up at your yard stocked-up with a wide selection of different bits to help you make the right choice.

This is how bit fitting services started in the Netherlands. But with certain bit brands behind the beginnings of this new service, these professionals soon became salesmen skilled in promoting a particular brand of bits.

Horses do have thick tongues indeed, and not much space for any bit. But let's be honest... the mouth cavity is filled with the tongue for a reason and that reason is not accommodating a bit!

A bit of a good story

The stories told to horse owners were good but not exactly accurate. One of the main 'theories' that caught on was that since horses don't have that much space in the mouth, they all need bits with thinner mouthpieces.

A quick check inside the mouth makes this storyline quite convincing, since horses do have thick tongues indeed, and not much space for any bit. But let's be honest, the mouth cavity is filled with the tongue for a reason and that reason is not accommodating a bit! There are other aspects to take into account before you can say the horse will better off with a thin mouthpiece.

There's a bit more to the story!

In the Netherlands but also in other countries, not every rider is as soft with their hands as we would like... Thin mouthpieces slide more readily from left to right and they also apply a higher (peak) pressure because of their smaller surface area and, in the wrong hands, they cause rubbing and wounds.

As a horse owner and especially if your horse didn't have mouth injuries previously, you would be very unhappy if you ended up causing a wound after the bit fitting. Especially since you were relying on the advice of someone you thought was a professional.

The explanations given about the action of certain bits may sound quite simple and convincing, but hands-on practice shows that correctly fitting a bit to the horse, is nuanced and requires a horse-centred and holistic approach.

So, how do you know if a so-called bit fitter is properly educated and ready to place your horse's welfare ahead of their bit sales commissions?

As a pioneer in the profession of bit fitting, I admit I've made mistakes (like the one of the thin mouthpieces that I just told you about). I was the first person in the Netherlands to become a full-time bit fit consultant and fortunately, I was able to combine my knowledge of bits with a long background in equine anatomy, body therapy, riding and coaching.

This knowledge has allowed me to recognise whether tension in the horse is a result of poor bit fit more quickly. I began working with all kinds of brands, trusting what the horses were showing me. I did my own research, diving into osteopathy and combining knowledge from different fields.

I often combine a change of bit with a manipulation or mobilisation of the cervical spine (if needed), as well as educating the riders on achieving a better communication with their horses.

I will always remember the time I did a 'psoas stretch' (a stretch of one of the major core muscles) for a horse while the rider was on and he began foaming on both sides of the mouth, instead of just one, and the contact issue of being more heavy on one side was gone.

Since that time, I have fitted more than a thousand horses, mostly dressage horses, and helped riders resolve many contact issues. One of my first was Donnerfee of former Olympic rider Claudia Fasseart, and many more did follow.

A bit more horse-centred

There is much more to making a proper bit choice than just trying different bits or looking in a horse's mouth. On the other hand, a thorough look inside the mouth is the starting point.

While thin bits seem to fit in any mouth, if a tongue is soft and 'squishy' or the palate is very hollow, a thicker bit can be a better choice. Also, the width of the tongue makes a horse sometimes prefer a single jointed over a double jointed, or the other way around.

IMAGE A: There is much more to making a proper bit choice than just trying different bits or looking in a horse's mouth, but a thorough look inside the mouth is the starting point. Photo by MadebyJessy Photography.

IMAGES B, C & D: Becoming a registered bit fit consultant with the International College of Bitfit Consultants is limited to horse professionals with a solid background in equine bodywork and anatomy. The intensive study program includes theory, practice and the completion of a case study. Images courtesy of the International College of Bitfit Consultants.

www.icpbc.com



And it's only when the horse starts moving that we can see the biomechanics at work. Certain conformation traits and ways of moving will create a different position of the tongue which will affect the way a bit rests in the mouth.

Then we factor in the rider. What is the rider doing with the bit? How are the rider's biomechanics, their balance and seat? Is there something he or she can improve on with instruction or is it a more difficult issue (like a physical asymmetry) or a rider problem that will take a long time to resolve? Should I pick a bit that compensates for the rider's unsteady hand? What will make the horse more comfortable?

And then there's the rest of the bridle. How does that fit around the horse's head? Are the straps creating undue pressure, pinching or adjusted too tightly? Like saddle fitting, bridle fitting has also become a part of the bit fit consulting process.

Filling the bit fit education gap

As the years went by and more horses had their contact issues improved, the demand for bit fitters has increased. The existing gap in the education of bit fitters was quickly filled with short courses that resulted in ill-prepared people making mistakes, because they lacked sufficient background, or they believed, without questioning, that what they learned in a two-day course was all they needed to know. Some promoted themselves as elite experts in the field of bit fitting with enviable confidence!

But allowing people to make mistakes in bit fitting eventually hurts the horse and there's no point doing that when it is possible to educate bit fitters well from a correct start.

Such an education has to be built from a foundation that does not rely on the promotion of a particular bit brand but will consider all the pros of the different models as well as acknowledge what can go wrong depending on the horse's mouth anatomy and biomechanics, the rider and their riding style. It should also include a thorough understanding of the muscle connections, biomechanical influences and more.

And this has been the aim the International College for Professional Bitfit Consultants (ICPBC) since its inception in 2016. The first year's graduates are already out in the Netherlands combining the knowledge learned at the ICPBC with their own professional expertise.

In 2019, the ICPBC welcomed the first international students thanks to the development of an online support. It currently has students from Sweden, Denmark, Finland, Latvia, Singapore, South Africa, America, Alaska and already two from Australia. And, being such an excellent horse country, in 2020 we will bring the education course to Australia as well.

For whom is the education?

The ICPBC training is not open to everyone. It is limited to horse professionals with a very broad knowledge of horses. Preference is given to professionals with a solid background in equine bodywork and anatomy.

The study program is very intensive, requiring the completion of case studies of various bit fitting problems and relies on students having a professional background. The course duration (one year) does not allow sufficient time for students to develop the additional knowledge, so at this time, we accept students who are veterinarians, physiotherapists, osteopaths, equine dentists, body-workers, FEI riders and high level judges.

ICPBC has three missions:

1. Providing proper, all-round education and accreditation so horse owners can find registered bit fit consultants, knowing these graduates will not likely make beginner mistakes and they will know how to truly assess contact issues from a whole-of-body perspective.
2. Improving the connection and understanding between horse and rider in any discipline.
3. The last but most important mission is to improve horse welfare.

What does the course entail?

To become officially registered and be able to use the name of the ICPBC, the students need to pass three exams.

Theory exam: The ICPBC is evidence-based, so in the online part of the course we share published research on bit and bitless riding. We want our students to learn the latest knowledge, the welfare issues such as over-tight nosebands, the way the bit affects biomechanics, how bridles interfere with proprioception, and so on. After a study period, students need to pass the theory examination.

Practical exam: There is no registration without a practical exam where students are assessed on performing a proper mouth check while working safely with the horse, making logical bit choices, checking trigger points in the horse's body, informing the client about what to expect with every bit and showing the client how to check that the bit is working well for their horse.

A case study: Every student has to write a case study about a bit related problem. Some of the cases studies submitted by students to date, are on topics like drooling, tongue problems and oral injuries. Students are expected to dive deeply into their cases and establish the connections and solutions by themselves.

Once exams have been passed and the case study is assessed successfully, graduates become registered with the ICPBC as qualified.

An intensive learning program favours the most committed practitioners and this, in turn, helps reassure horse owners that registered ICPBC bit fitters have invested heavily in their profession and are not relying on bit sales for their income.

Graduates also understand biomechanics and will not look for short cuts that could negatively affect the horse's welfare (like tighten a noseband! A great subject I will discuss in a future article).

I am looking forward to welcoming more Australian students and, hopefully this year, register the first Aussie graduates so all horse owners can eventually find help with improving their communication and horse's comfort and wellbeing.



Wider Bays and Facing Backwards Can Help Your Horse Travel



WORDS BY Christa Lesté-Lasserre

It's not like you can buckle their seat belts. You can't exactly give them those fuzzy little neck pillows for the long, overnight trip, either.

Yet horses regularly take long trips, especially in Australia. So how can you make their travel more comfortable and less stressful for them?

For starters, give them more space, researchers say. A new study has just revealed, for the first time, that larger bays provide better balance and welfare benefits compared to 'standard,' narrow bays, according to Barbara Padalino, PhD, researcher at the University Alma Mater Studiorum of Bologna Department of Agricultural and Food Sciences, Division of Animal Sciences, in Bologna, Italy, and her research partner Sharanne Raidal, PhD, of the School of Animal and Veterinary Sciences at Charles Sturt University in Wagga Wagga, NSW.

Transporting horses backwards - meaning they're rear-facing - might also help, she said. However, their study was less conclusive on this point.

What was conclusive, though, was that horses had better balance when they travelled in larger bays and/or when they were rear-facing, Padalino and Raidal said. And furthermore, the group's study showed a clear correlation between loss of balance and gastric squamous ulcer development.



Image courtesy Equi-Trek

A new study has just revealed, for the first time, that larger bays provide better balance and welfare benefits. The study results also suggested that traveling backwards was a better position for horses due to more favourable physiological and laboratory stress-related data,

They found that horses in larger bays (190 cm length compared to the standard 1.2 m²—the required minimum in Australia) showed fewer balancing behaviours such as leaning against the partitions. This kind of leaning can lead to bruising, even severe, as detected in horses arriving at slaughter. (“You can’t see a bruise on a horse because of the coat, but bruises are easy to detect on carcasses,” said Padalino.)

They also had fewer stress-related and balance-related behaviours, such as touching their lead rope or licking the surface in front of them, she said. The licking could essentially be considered a stereotypical behaviour since it serves no purpose but is repetitive, and the rope-touching could be a way for the horse to redirect his stress.

What’s more, these horses had lower levels of cortisol (the “stress hormone”), neutrophils, and white blood cells compared to horses in “single stall” compartments, Padalino explained. “These results suggest an effect on horse health and welfare,” she said.

“So many people continue to believe that horses travel better when they’re in narrow compartments, often because they think the padded partitions help them maintain their balance, but this just isn’t true,” said Padalino. “Ours is finally the first study to confirm this. But if you think about it, it seems obvious that horses need to be able to spread their legs out to deal with the balancing challenges they face during transport. It’s just basic physics, really.”

“We can definitely see that space is really important,” Padalino said. “When horses have more space, they can balance better (by, for example, having more room for spreading out their legs to brace themselves). Position (rear- versus forward-facing) seems to have some effect, but it’s not as important as space.”

In their study, Padalino and Raidal tested a group of research mares during a 12-hour road trip and during a 12-hour stationary holding period in transport-sized stocks. They looked at behaviour, blood samples, physical (bodily) reactions, and stomach testing.

During the transport phase of the study, the horses travelled in two groups in the same truck in varying formats: large bays, narrow bays, forward-facing, and backwards-facing.

Study highlights:

- Horses in wider bays (112 cm wide) had better balance than those in narrower bays (76 cm wide).
- Horses in wider bays showed fewer stress-related behaviours.
- Horses in wider bays had lower physiological measures of stress (cortisol, neutrophils and white blood cells).
- Horses travelling next to a ‘buddy’ interacted a lot and in a positive way.
- Behaviour and balance measures for travelling backwards were less conclusive, however, horses travelling backwards had lower physiological measures of stress.
- Horses that showed more stress-related and balance behaviours had higher temperatures on arrival and were at higher risk of developing stomach ulcers.
- Horses that show more stress related and balance behaviours should be monitored for health-related issues post travel.
- Horses cannot sleep/rest during road transport.
- Previous research led by Padalino showed horses should be allowed to lower their heads during long travel, to clear the airway.

This research was possible thanks to funding provided by Virbac, Goldeners and World Horse welfare. The researchers said their support for research in this area has enhanced our knowledge of horse behaviour and welfare.



As a side note, the researchers observed that horses seemed to travel better when "paired with a buddy" compared to a horse they didn't know or didn't like



While Australia has the above-mentioned space requirement of 1.2 m² per horse, specific space regulations on equine transportation worldwide are rare and aren't based on scientific findings, Padalino said. In Europe, the requirement is greater—1.75 m² per horse. Still, that's less than the 1.9 m² used in this study.

Globally, the World Organisation for Animal Health (OIE) imposes a "vague" space requirement for any animal: "They say that animals should have sufficient space to adopt a balanced position as appropriate to the climate and species transported," she said. "Our findings could be useful for updating OIE and national requirements."

As for rear-facing travel, their results suggested that traveling backwards was a better position for horses due to more favourable physiological and laboratory data, she said. However, the behaviour data was less conclusive. In particular, although the horses showed less 'balancing' behaviour when rear-facing, these study horses actually ended up losing their balance more than horses in the forward position.

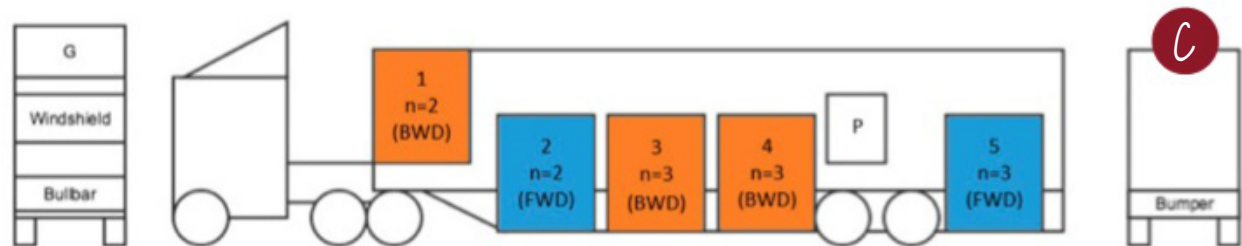


IMAGE A: As for rear-facing travel, the study results suggest that travelling backwards was a better position for horses due to more favourable physiological and laboratory data. Image courtesy Equi-Trek.

IMAGE B: For the study, the horses travelled in a 15-horse trailer attached to a prime mover with video surveillance. The trailer was split into three sections. This section shows two horses in wider bays which measured 190 x 112 cms). Image source: <https://doi.org/10.3390/ani10010160>.

IMAGE C: The truck used in this study was sectioned into five compartments. Blue bays facing forward (FWD) and orange bays facing backward (BWD). Wider bays (190 x 112 cm each) held two horses (n=2) and single bays (190 x 76 cm) held three horses (n=3). Image source: <https://doi.org/10.3390/ani10010160>.

While this might seem contradictory, it's also possible that the results had something to do with the design of their study truck itself, according to Padalino. "The compartments located just behind the cab, at the front of the truck over the axle, were rear-facing," she said. "So the behaviour we're seeing might actually be related to that position more than or in addition to the position of the horse itself. This also means that our findings may be overestimated, suggesting that if we had not had this logistical situation, rear-facing positions would have given much lower balance behaviours in comparison with facing forward."

Furthermore, the researchers found that the horses who showed more stress-related and balance-related behaviours during transit (as viewed by video surveillance) tended to have higher rectal temperatures and heart rates after arrival, according to Padalino.

Since these signs also correlated with a higher risk of stomach ulcer development in their study population, it could be a way to screen for horses that are more likely to develop transportation-related health issues, she said.

Unlike when the horses were confined in stocks for 12 hours, they didn't fall asleep during transit—and this is another important conclusion from the study, Padalino said.

"This is a novel finding, and it suggests that horses can't rest at all while traveling," she explained. "It's possible that they're facing sleep deprivation when traveling overnight (which happens frequently to avoid daytime heat)."

As a side note, the researchers observed that horses seemed to travel better when "paired with a buddy" compared to a horse they didn't know or didn't like, Padalino added. While this wasn't part of the study, it was certainly something the scientists noticed anecdotally.

"When they're buddies they interact a lot in a positive way rather than an aggressive way," she said. "That's especially important after about seven or eight hours of travel when they're getting tired. Horses are like people in that they start to get 'grumpy' when they get tired, and if they're traveling next to a neighbour who's not their friend, they start to get upset."

The authors were keen to acknowledge the funding they received and which made this research possible, from Virbac, Goldeners and World Horse Welfare.

The full paper by Barbara Padalino and Sharanne Raidal was published in *Animals* in January 2020. It is titled: Effects of Transport Conditions on Behavioural and Physiological Responses of Horses.

You can read the full paper online at: <https://doi.org/10.3390/ani10010160>

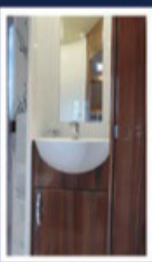


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Setting Good Ground Rules: Part 1



WORDS BY Sophie Wyllie
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In-hand training is an essential part of all horse's training. We lead our horse to and from the paddock every day, and we want to make sure he leads obediently, stays by our side, stands still while we brush him, rug or un-rug him, handle his feet etc.

We also need to our horse to go forwards, backwards and sideways so we can move him around while we work around him.

Stopping the legs enables us to diminish his flight response and makes it easier to habituate him (get him used to) all the different things he will have to deal with, from equipment and rugs to having a rider on his back.

Most importantly, in-hand training is a safe and simple way to establish the aids we need under-saddle. If you have a young horse preparing to start his foundation training it makes the process less intense because he already understands the signals (aids) you'll be using under-saddle.

Even if your horse is older and experienced, it's amazing to see just how much in-hand training can improve his under-saddle responses, or day-to-day human interactions.

In this 5-Part Series, we explain how to teach the basic responses in-hand.

This is a revised and updated version of the series originally written in 2009 for Horses and People magazine by Elsa Davis, former Head Trainer at the Australian Equine Behaviour Centre.

When to start

Because in-hand training lays the foundations for under-saddle training, it's a good idea to start as early as you can.

If you have your horse from birth, early while the foal is still with his mother you can teach some basic responses to pressure (asking the foal to take a step backwards by pressing his chest for example) and then some simple stop and go for leading as a weanling.

However it's best to begin the more thorough in-hand training outlined in the next five articles when your horse is at least one year old.

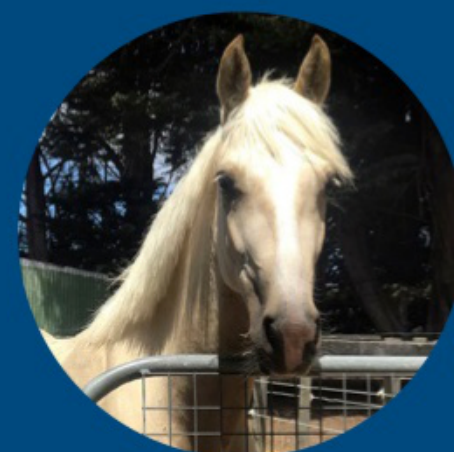
The setting

It is always a good idea to start in a stable, a small yard or round yard with safe footing and fencing, and then progress on to an arena before going on to more open spaces. If possible, you should choose a quiet location where there aren't too many distractions.

The equipment

When starting with yearlings and young naive horses, start with a normal webbing or leather halter. When young ones are learning everything from scratch there is no need to use a rope halter or anything more severe because they will learn quickly from light pressures to respond.

You should, however, train using something stronger like a rope halter or a bit if it is part of the equipment you will use for competing or riding, for example, or if you are re-training a horse (fixing a problem behaviour).



Meet Phillip

Throughout this series you will see photo examples of the exercises with this cute little palomino, 'Phillip'. Phillip is a 3yo Connemara x TB gelding.

Phillip has had some handling since birth, having been bred at Charles Sturt University, and received more extensive training as a yearling when he came to us at ESI. He is now undergoing his foundation training at the Australian Equine Behaviour Centre.

When we purchased Phillip as a yearling, he had the tendency to be a little nervous and quite sensitive to his environment. As his training in-hand has progressed, he has become much calmer, yet is still sensitive and trainable.

IMAGE A: A horse that is trained to 'go' in all situations well, will lead anywhere.

IMAGE B: A mid-length stiff (dressage) whip or light bamboo stick has several advantages, and will improve your timing.

IMAGE C: A normal halter with a lightweight lead rope are all you need for starting young horses from scratch.

IMAGE D: It is a good idea to repeat the training with the bridle that you will be using in competition or under-saddle.

All images courtesy Equitation Science International.



The ideal lead rope is strong, light weight and doesn't stretch, such as the nylon braided ropes (pictured). Cotton lead ropes can be too stretchy which makes the pressure/release less clear, and the yachting type ropes are too heavy and make it harder for the horse to feel a release clearly.

You will also need a mid-length stiff (dressage) whip or bamboo stick (or similar). Try to avoid whips that are too long and floppy as this can affect the timing of your tapping. The stiff whips/sticks also have a more obvious contact when you place it against the horse's body during the habituation process.

You should always wear gloves, a riding helmet and riding boots or safety footwear for training in hand.

The basic training goals...

Our training in-hand mimics the responses we require under-saddle:

1. Go / up gait
2. Stop / down gait
3. Step back
4. Turn forelegs
5. Yield hindlegs

In addition to these responses, we also recommend you train:

6. Park (stand still)
7. Head control (head lowering)

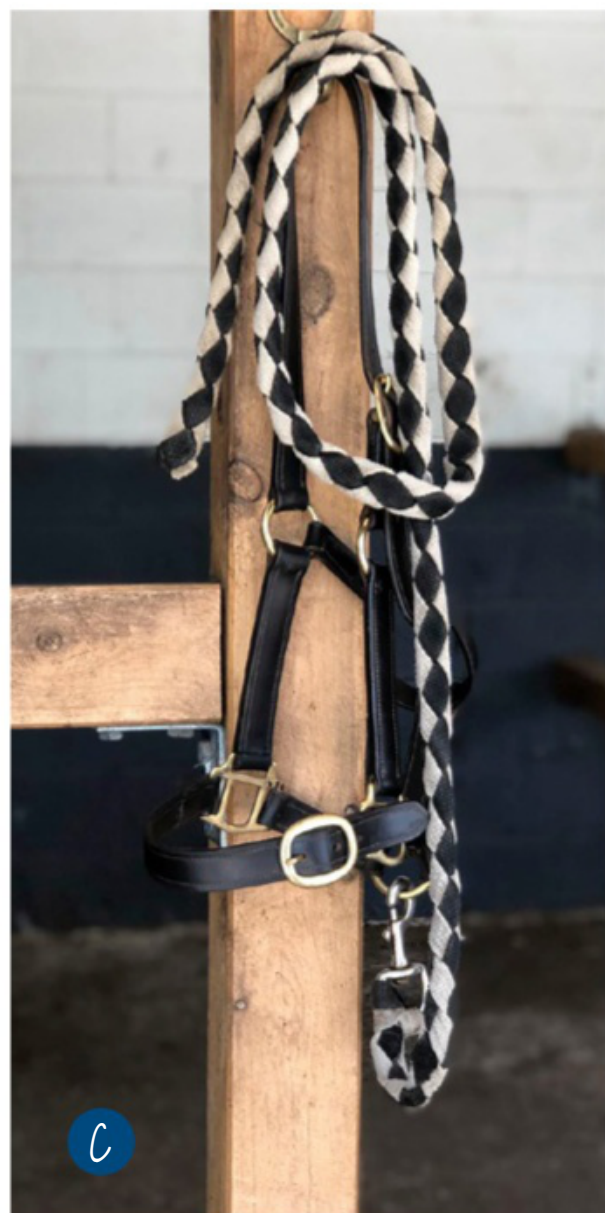
Each of these responses has its benefits for handling the horse, as well as establishing or improving the responses under-saddle. For example:

Go: We need to be able to lead the horse forward, not only bringing him in from the paddock, but to load onto a horse float. A horse that is trained to 'go' in all situations well, will lead anywhere!

Stop: It's important we have the ability to stop the horse, particularly in situations where he may want to flee in fright of something. Training stop in-hand also helps with horses who are heavy mouthed under-saddle.

Step back: Many people do not recognise the significance of this response. Not only does it sharpen the horse's 'stop' response, but it's a fundamental response we need if we handle horses – i.e. we need them to back off the float, or back into the cross ties etc.





Turn forelegs: It's important we can manoeuvre the horse's front legs to help with lunging (moving the shoulders out) and also in float training where the horse may lose straightness.

Yield hindlegs: We need to be able to manoeuvre the hindlegs when we're grooming the horse or saddling, and this one is also handy for mounting the horse when we need him to move closer to the mounting block.

Park: Training the horse to stand still unless asked to move is vital for grooming, saddling, farrier/veterinary/body-work visits, as well as standing still in the float or the racing barriers. It also promotes relaxation as he understands there is nothing asked of him until we give a signal.

Head control: the ability to lower the horse's head is helpful for grooming and bridling, particularly if you have a tall horse or you are small yourself!

A quick theory refresher before we begin...

Over the next 5 articles we will be explaining how we train the horse in-hand using a particular method developed by Andrew McLean.

There are, however, many ways to train a horse. The important thing is to ensure the horse's welfare is protected and the training is effective, and to ensure the methods you use align with the First Principles of Horse Training, which are:

1. Regard for human and horse safety

- Acknowledge that horses' size, power and potential flightiness present a significant risk
- Avoid provoking aggressive/defensive behaviours (kicking/biting)
- Ensure recognition of the horse's dangerous zones (e.g. hindquarters)
- Safe use of tools, equipment and environment

There are, however, many ways to train a horse. The important thing is to ensure the horse's welfare is protected and the training is effective, and to ensure the methods you use align with the First Principles of Horse Training

- Recognise the dangers of being inconsistent or confusing
- Ensure horses and humans are appropriately matched
- Avoid using methods or equipment that cause pain, distress or injury to the horse

"Disregarding safety greatly increases the danger of human-horse interactions"

2. Regard for the nature of horses

- Ensure welfare needs: Lengthy daily foraging, equine company, freedom to move around
- Avoid aversive management practices (e.g. whisker-trimming, ear-twitching)
- Avoid assuming a role for dominance in human/horse interactions
- Recognise signs of pain
- Respect the social nature of horses (e.g. importance of touch, effects of separation)
- Avoid movements horses may perceive as threatening (e.g. jerky, rushing movements)

"Isolation, restricted locomotion and limited foraging compromise welfare"



A

IMAGE A: Teaching your horse to lower his head is helpful for so many things! From grooming and bridling to worming and other veterinary procedures, and also if you have a tall horse or you are small yourself!

Image courtesy Equitation Science International.

3. Regard for horses' mental and sensory abilities

- Avoid overestimating the horse's mental abilities (e.g. "he knows what he did wrong")
- Avoid underestimating the horse's mental abilities (e.g. "It's only a horse...")
- Acknowledge that horses see and hear differently from humans
- Avoid long training sessions (keep repetitions to a minimum to avoid overloading)
- Avoid assuming that the horse thinks as humans do
- Avoid implying mental states when describing and interpreting horse behaviour

"Over- or underestimating the horse's mental capabilities can have significant welfare consequences"

4. Regard for current emotional states

- Ensure trained responses and reinforcements are consistent
- Avoid the use of pain/constant discomfort in training
- Avoid triggering flight/fight/freeze reactions
- Maintain minimum arousal for the task during training
- Help the horse to relax with stroking and voice
- Encourage the horse to adopt relaxed postures as part of training (e.g. head lowering, free rein)
- Avoid high arousal when using tactile or food motivators
- Don't underestimate horse's capacity to suffer
- Encourage positive emotional states in training

"High arousal and lack of reinforcement may lead to stress and negative emotional states"

5. Correct use of habituation/ desensitization/calming methods

- Gradually approach objects that the horse is afraid of, or, if possible, gradually bring such aversive objects closer to the horse (systematic desensitization)
- Gain control of the horse's limb movements (e.g. step the horse back) while aversive objects are maintained at a safe distance and gradually brought closer (over-shadowing)
- Associate aversive stimuli with pleasant outcomes by giving food treats when the horse perceives the scary object (counter-conditioning)
- Ignore undesirable behaviours and reinforce desirable alternative responses (differential reinforcement)
- Avoid flooding techniques (forcing the horse to endure aversive stimuli)

"Desensitization techniques that involve flooding may lead to stress and produce phobias"

6. Correct use of Operant Conditioning

- Understand how operant conditioning works: i.e. performance of behaviours become more or less likely as a result of their consequences.
- Tactile pressures (e.g. from the bit, leg, spur or whip) must be removed at the onset of the correct response
- Minimise delays in reinforcement because they are ineffective and unethical
- Use combined reinforcement (amplify pressure-release rewards with tactile or food rewards where appropriate)
- Avoid active punishment

"The incorrect use of operant conditioning can lead to serious behaviour problems that manifest as aggression, escape, apathy and compromised welfare"

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IMAGE A: Teaching your horse to 'park' or stand still until asked to move, will become useful in all sorts of situations, from grooming, to standing quietly while tied, or in the float.

IMAGE B: Training in-hand can improve our under-saddle responses if we ensure our aids in-hand mimic those under-saddle. For example, the 'Go' response can be improved by training the horse to go from whip taps where the rider's leg would be applied.

IMAGE D: In the series we will explain how to teach your horse to step-back from a light signal.

IMAGE D: The equitation science shaping scale.

All images courtesy of Equitation Science International.



The equitation science shaping scale



C

7. Correct use of Classical Conditioning

- Train the uptake of light signals by placing them BEFORE a pressure-release sequence
- Precede all desirable responses with light signals
- Avoid unwanted stimuli overshadowing desired responses (e.g. the horse may associate an undesirable response with an unintended signal from the environment)

"The absence of benign (light) signals can lead to stress and compromised welfare"

8. Correct use of Shaping

- Break down training tasks into the smallest achievable steps and progressively reinforce each step toward the desired behaviour
- Plan training to make the correct response as obvious and easy as possible
- Maintain a consistent environment to train a new task and give the horse the time to learn safely and calmly
- Only change one contextual aspect at a time (e.g. trainer, place, signal)

"Poor shaping leads to confusion"

9. Correct use of Signals/Cues

- Ensure signals are easy for the horse to discriminate from one another
- Ensure each signal has only one meaning
- Ensure signals for different responses are never applied concurrently
- Ensure locomotory signals are applied in timing with limb biomechanics

"Unclear, ambiguous or simultaneous signals lead to confusion"

10. Regard for Self-carriage

- Aim for self-carriage in all methods and at all levels of training
- Train the horse to maintain:
 - gait
 - tempo
 - stride length
 - direction
 - head and neck carriage
 - body posture
- Avoid forcing any posture
- Avoid nagging with legs, spurs or reins i.e., avoid trying to maintain responses with relentless signaling.

"Lack of self-carriage can promote hyper-reactive responses and compromises welfare"

Where do we start?...

At the most basic level, during the first training sessions we teach the horse to 'go', 'stop', 'step back', and 'park'.

For a young horse with little or no prior training, we can start with the basics of 'step back' as this ensures our safety, and means we can stop him easily when we start to train 'go'.

In the case of re-training we may not be able to train just 'go' or just 'stop' - we may need to work on both, or if the horse has a particular problem such as he is 'pushy', we would start with 'stop' or if he is 'lazy' we would start with 'go'.

The terms 'pushy' and 'lazy' are labels commonly heard in the horse world, so I have quoted them here, but it's important to recognise that the horse simply hasn't learned thoroughly enough the response to the rein/leading aids - he is not choosing to be lazy or pushy, he's simply doing what he has learned (usually by mistake). We just need to retrain his responses to the correct ones!

Training 'stop' is most important because it deletes any quickening and flight responses. Biomechanically, the muscles a horse uses to stop, slow down and step back are the same. The step back in fact is a deeper response to the stop, so training horses to step backwards to a light pressure from the halter or the bit, actually improves their stop.

The step back is in itself, very useful to correct any unwanted movements, and this also ties in with the 'park' response where we teach the horse to stand still until we ask him to move.

You may notice that at the start of the training your horse is distracted and tense but you should notice that as he begins to understand the lesson and respond to lighter aids, he also starts to show signs of relaxation, he may chew, lick his lips, yawn, snort, shake or lower his head.

These are all signs that you are making good progress.

Shaping responses so we avoid frustration and confusion

With every new response we need to train gradually: this is called 'shaping'.

The horse will not likely give you the perfect response straight away and we cannot expect him to. Instead, we aim for a basic attempt at the response and gradually build on that until it is perfect.

On the left, Image C, shows the equitation science shaping scale which shows us the progress of training. If we follow this scale when training each response, the horse will understand clearly and learn without frustration.

Training in sets for efficient learning

It is important to keep the training sessions short, around 20 minutes, especially with young horses. Young foals, however, should be trained for very short periods, around 5 to 10 minutes.

The most effective way to encourage learning is to work in sets of between 3 and 5 repetitions with a break between each set, aiming to finish each task with 3 consecutive, correct or improved responses. So, after 3 to 5 improved responses to the signal/aid, have a rest, then repeat.

Next time...

The next 5 articles over the coming months will cover Stop and Go, Park, Turn and Yield in depth.



How Well do You Know Your Horse?



WORDS BY Kate Fenner
BEqSc (Hons)
www.kandooequine.com

Perhaps one of the things that draws us to horses is how unique they are; how each horse has their own personality, temperament and behavioural characteristics. It is inevitable that at some stage, particularly when we get a new horse, our first aim is to get to know them better, start to measure their qualities and traits. We begin to think, for example, 'this horse is really confident, bold or trainable, more than my other horses'.

Thanks to a team at the University of Sydney, there is now a tool that allows you to investigate this in detail whilst making a contribution to horse behaviour and welfare science... and no PhD is required!

Enter the Equine Behavior Assessment and Research Questionnaire (E-BARQ)!

The E-BARQ Project

Since ancient times, horse behaviour, and the bond between horses and humans, has been a source of intrigue and fascination.

The horse-lore that has accumulated over the centuries is a rich mix of both useful practice (approaching horses from their left side, making them slightly less reactive) and unsubstantiated myth, such as the one that chestnut horses are especially difficult to deal with.

LEFT: E-BARQ is an app that lets you compare your horse to others while you contribute to horse behaviour and welfare science. Image courtesy Kandoo Equine.

This is why the team at the University of Sydney have launched the Equine Behavior Assessment and Research Questionnaire (E-BARQ), a global database of horse behaviour. The study explores how horse training and management interact with behaviour.

It will reveal invaluable information on how our training and management affects behaviour and how, in turn, behaviour affects horse welfare. Beyond the immediate and direct research outcomes, E-BARQ also has great benefits to horse owners, riders and trainers.

On completion of the questionnaire, contributors receive a graph that compares their horse with 1000's of other horses across various different categories. They also receive a private dashboard where they can log each of their horses and view their E-BARQ results. This innovative tool is completely free of charge.

Horse owners can upload photographs to a custom-built app, recording their horse's progress in training over time. For the first time, they'll also be able to compare their horse's behaviour with that of others. The "Share-&-Compare" graphs will reveal their horse's attributes such as trainability, rideability, handling, compliance, boldness, and human social confidence compared to others.

E-BARQ's main benefits:

1. E-BARQ is open to all horse owners/handlers, regardless of breed, height or age and provides users with a free dashboard to store their horses' results and track their progress. You can access the app from your smart phone, tablet or computer.

E-BARQ will reveal invaluable information on how our training and management affects behaviour and how, in turn, behaviour affects horse welfare.

2. Owners can compare their horses' behaviour to others around the world, giving them a useful benchmark.
3. Riders and handlers can monitor their horse's progress over time as they can re-take the questionnaire every 6 months, updating their scores.
4. Owners and riders will get a new insight into which areas their horses are performing well in and where they may require help.
5. As E-BARQ can monitor the longitudinal consequences of different training methods, it can be a powerful tool for advancing horse welfare. It will also inform evidence-based judgments on the ethics and sustainability of horse sports.
6. E-BARQ will reveal the true impact of ancient traditions and modern trends. This can be used by everyone from the general riding public to equine scientists and veterinarians.

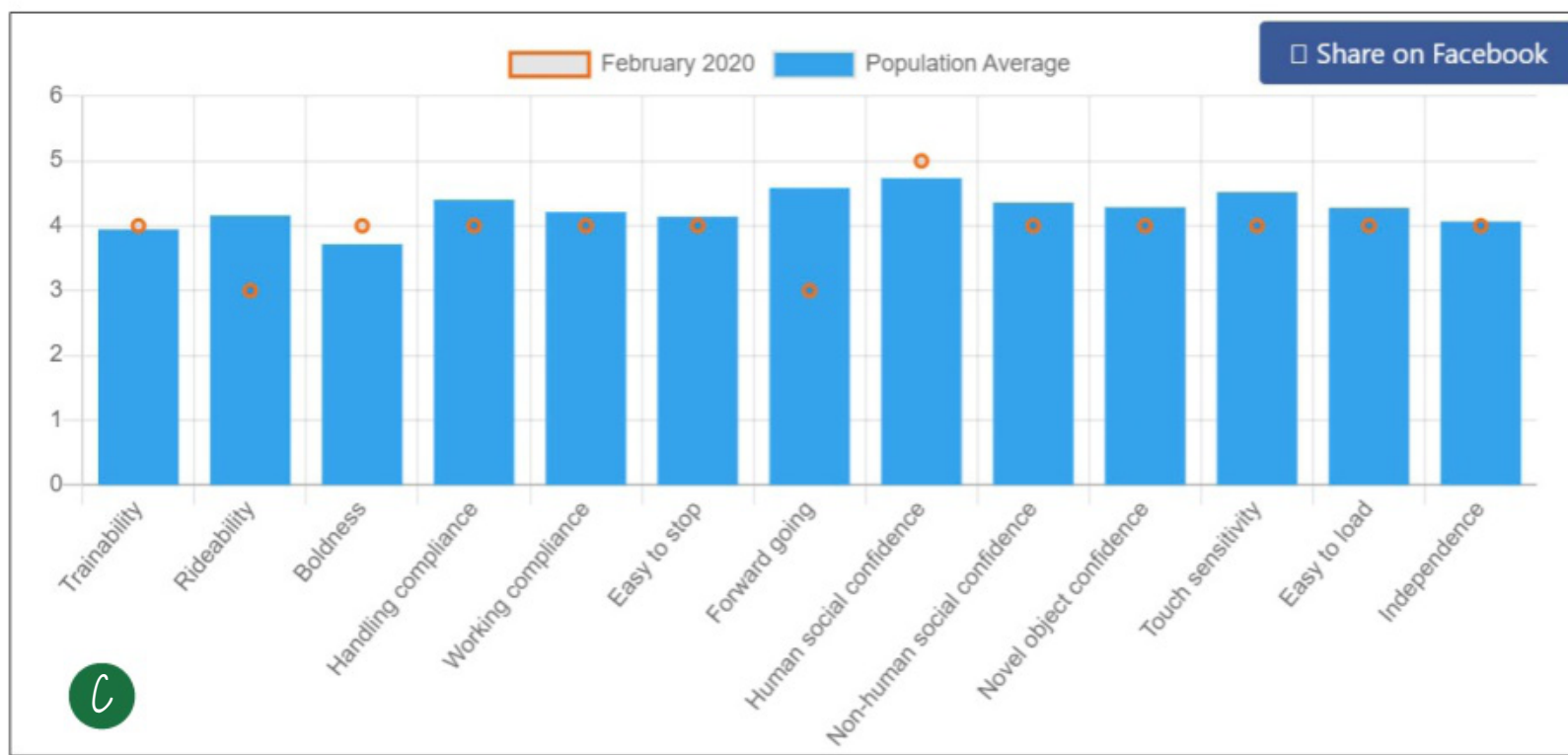


IMAGE A: What does your horse's behaviour reveal?

IMAGE B: How does management affect behaviour?

IMAGE C: How does your horse compare to others?

Get your E-BARQ results.

IMAGE E: The E-BARQ questionnaire is designed to monitor changes in training, management and behaviour over time.

Images courtesy of Kandoo Equine.

E-BARQ's history

This project builds on a similar project for dogs (C-BARQ), which has collected information on over 85,000 dogs and been used in more than 70 research studies that have revealed behavioural differences that relate to head and body shape and the astonishing effect of de-sexing on behaviour. Without doubt, C-BARQ has revolutionised our understanding of dog behaviour.

After eight years of planning, we are very excited about E-BARQ. It is a not-for-profit project that allows the global horse community to contribute their observational data to the University of Sydney and, in return, they will gain useful benefits and knowledge.

What people are saying about E-BARQ:

"The questionnaire made me completely re-think my horse's behaviour. I had thought Pepsi was very skittish and, honestly, not very clever. Her E-BARQ scores tell me she's lacking in confidence – not so much with new stuff or things in the field but with people and training. She actually scored very high on 'trainability' which I was really pleased about. I now feel that I have something to work on with her and understand that she's anxious (and smart!). Thanks to the E-BARQ team for developing this app!"

"I love the Results graph! My boy didn't score brilliantly but I look forward to seeing how I can improve on those scores when I come back."

"Gosh, well done Sydney University's E-BARQ team! The questionnaire is very comprehensive, and the Share-&-Compare graph captured my horse perfectly. I really like the dashboard because I can see all my horses at a glance."



"This app is very interesting. Simply answering the questions and thinking about my horse for that time (it took me about 20 minutes to complete the questionnaire), made me understand her so much better. I have owned Reba for five years now and this reminded me why I love her so much!"

Have a look

- You can access E-BARQ here: <https://e-barq.com/>
- You can access an E-BARQ how-to video here: <https://www.youtube.com/watch?v=TBKry6Wz2gc>
- You can find us on Facebook: <https://www.facebook.com/E-Barq-1234671723358064>

Benefits to horse welfare

The questionnaire and app will expose how training and management influences horse behaviour, and vice versa. They will reveal how breeds differ in responses and illuminate breed-typical personality types, how male and female horses differ,

how horses used in different disciplines (such as show-jumping versus dressage) differ in their behaviour, and how horse behaviour changes with maturation and also with training.

A horse's behaviour has a direct impact on its usefulness and that, in turn, affects its value and (sadly) the care it receives.

There is evidence from Europe that over 65% of horses outside the racing industry that are slaughtered before the age of seven, are slaughtered very often for behavioural reasons.

Information provided by E-BARQ could potentially help buyers identify warning signs of dangerous behaviours and make more informed choices.

E-BARQ also holds great promise in tracking, welfare monitoring, promoting early intervention and the education of new owners in the area of horse rescue and re-homing.

By providing researchers with an unprecedented wealth of information, E-BARQ will help revolutionise the way we train and manage our horses and, as a result, make real and lasting positive changes in horse welfare and the sustainability of horse sports.

E-BARQ builds on a similar project for dogs (C-BARQ), which has collected information on over 85,000 dogs and been used in more than 70 research studies and has revolutionised our understanding of dog behaviour.

For further information, please do not hesitate to contact the E-BARQ research team at info@e-barq.com and be sure to complete an E-BARQ for your horse at <https://e-barq.com/>.



The Window of Tolerance



WORDS BY Dr Kirrilly Thompson
PhD (Social Sciences)

It's a mild summer evening after work and you are swinging along in the arena practicing your dressage test for next weekend. Rhythm is good and your horse seems to be taking weight evenly on all four legs. It feels like the perfect time to head up the centre line.

You halt at X, take the reins in one hand, then find yourself clutching at some mane as the stable cat leaps up onto the post at E and your horse spins about her forelegs to fixate on what just happened.

As she snorts loudly at the cat, you regain your seat. "For goodness sakes, it's just the cat" you say.

You draw your right rein outwards, keen to get back to the centreline and pick up where you left off, but nothing happens.

Now you get frustrated. Not only has your horse seen the cat a million times before, but she is now ignoring your turning aid.

You add some leg into the mix. A squeeze. A nudge. A tap. A few kicks. You ask harder and faster and still nothing. It's like the light is on but no one is home. "Listen!" you say before turning your toes out for full spur effect.

Before you know it, you're bolting back towards the arena gate picking up reins that didn't seem nearly so long before. What on earth just happened?

One explanation is that the cat scared the horse. Others could be that your horse gave more attention to the cat than the rider. Your horse was deaf to the aids. Your horse should have known better. Your horse was being difficult.

With these interpretations in mind, you might decide you need to desensitise your horse to the cat and/or repeat stop and go transitions until you are satisfied that she has remembered what your rein and leg aids mean.

But that's only going to fix one side of the picture – the external side where things happen to the horse. What about what's going on internally, regarding your horse's capacity to respond to and process the external world?

Neuroception

Horses, like humans, are mammals. We both have a mammalian nervous system and, one way to think through your horse's unusual behaviour is to consider what we know about how human nervous systems perceive threats, danger and safety – a process known as neuroception.

When humans perceive danger, they often go into a state of hyperarousal such as screaming, crying, running, etc., or a state of hypoarousal which includes fainting, freezing or acute depression.

We tend to label horses with a wide window of tolerance 'quiet' and those with a narrow window of tolerance as 'spooky', but in reality, their window is never fixed. It is dynamic.

Our nervous system is hardwired to enter these states to help us survive. When we are in these states, we can't control our behaviours and, depending on our prior experiences and present state of health, we may be more likely to go into or stay 'stuck' in them.

To return to our cat example, it is easy to become frustrated because your horse already knows your cat, but it is much more useful to think about our horse's 'window of tolerance', a term coined by Dr Daniel Siegel.

The window of tolerance

If we think of your horse grazing happily with a few other horses nearby, we can say that she is in her window of tolerance.

If something happens, she might take notice but then return to grazing, resting and digesting. This is a calm state of arousal. Arousal is not a bad thing. It is what keeps horses (and us) awake, aware, attentive, engaged, communicative and responsive to the environment.

LEFT: Maybe there are signs that you routinely ignore and your horse's window of tolerance narrows over time. Image sourced from Shutterstock.

IMAGE A: Sometimes, we humans are just too busy or preoccupied to notice some of the equine body language that reveals our horses' nervous states and how close they may be tracking to threshold. Image sourced from Shutterstock.

IMAGE B: The window of tolerance is a term coined by Dr Dan Siegel that is now widely used in all areas of mental health. When an individual is pushed out of their window of tolerance their 'thinking' brain stops functioning and their limbic system takes over. Before they can make sense of the situation, they need to find their way back into their window of tolerance.

IMAGE C: The window is never fixed, it's dynamic. The narrower the window, the more 'space' the cat takes up and the more chances the horse will be pushed over the threshold.

Illustrations by Cristina Wilkins using images sourced from Shutterstock.



Some horses have a wide window of tolerance. They seem able to absorb lots of external stimuli into their window.

Other horses seem to have a narrower window of tolerance. They don't seem to be able to accommodate many external stimuli at all. Depending on what the stimulus is, even the slightest thing might make them spook, buck, bite, rear, kick bolt or freeze.

We tend to label horses with a wide window of tolerance 'quiet' and those with a narrow window of tolerance as 'spooky', but in reality, their window is never fixed. It is dynamic.

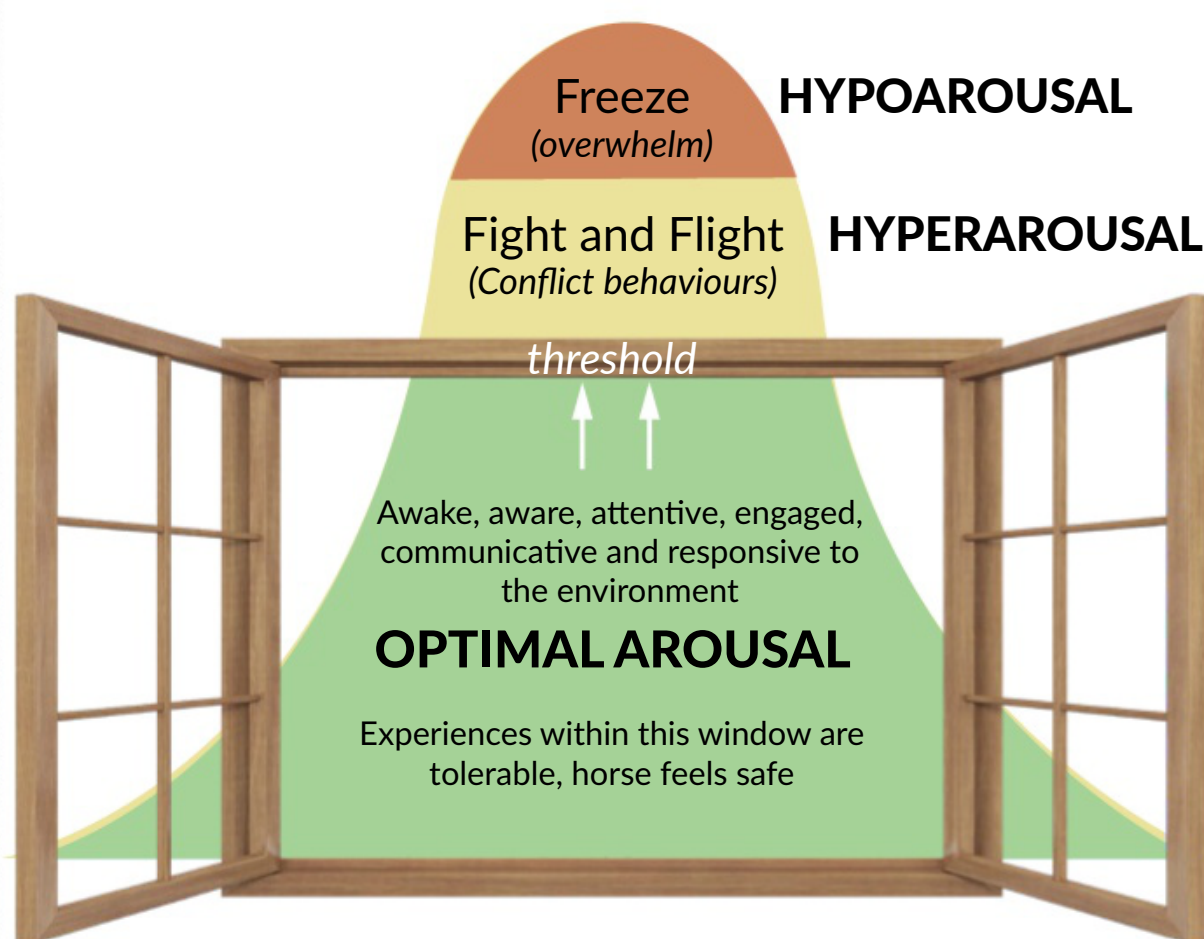
The window of tolerance changes in relation to other factors (such as different riders or even different times of day). It also changes over time and occasion.

The threshold

At the edge of the window is the horse's threshold. That's where we find the behaviours we know as fight, freeze and flight and it is in that exact order that the horse in our example reacted. Turning to face the cat was a fight (hyperarousal) response to the sudden jump that took the horse over threshold.

B

The window of tolerance



C



Narrowed tolerance

Wider tolerance



The rider's additional stimulus of reins and legs pushed the horse even further into freeze (hypoarousal) which was then followed by flight (hyperarousal).

In both states of hypo and hyperarousal, mammals are incapable of communicating and responding (or learning). The rider's aids thus became another stimulus that push the horse even more over threshold.

So, the cat in our example put our horse over threshold. That's fairly clear. But why did the cat put our horse over threshold today when it doesn't normally?

One way to think about this is to use the idea of a window of tolerance (and other mixed metaphors) where the horse's nervous system is calmly aroused. If there is lots of free space in the window, the cat doesn't take up much space.

The nervous system might be aroused momentarily (perhaps manifesting as a slight wobble off the centreline) but – assuming the stimulus is not too big or novel – the nervous system can respond to the shock of the cat's jump, discharge that energy and fairly quickly return to a calm state of arousal.

If the horse came into the arena with a wide window of tolerance, the stimulus of the cat's jump may not have put the horse even close to threshold. If the horse came into the arena already with a narrowed window of tolerance, the cat was literally the final straw that took the horse over threshold.

A different perspective

Now, this gives us a very different perspective on the horse that appeared to make a big and unnecessary deal over the stable cat. The horse's uncharacteristic reaction tells us that she was not coping as well as we had thought. It tells us that she was either close to threshold and/or her window of tolerance was narrowed.

Worse still, your horse may have been in a 'faux' window of tolerance where to human eyes, she was coping well but really she was only managing her behavioural reactions.

Everything that happens creates a ripple that impacts your horse's nervous system and influences their window of tolerance. If you don't let the ripple settle and deactivate, you will end up (sooner or later) creating waves.

Your horse's non-response to the aids tells us, not only that the nervous system was activated, but that she was physically incapable of interpreting your signals (being either hyper or hypo-aroused).

You can say that your horse's 'social engagement system was offline' in the same way that you would not expect to have a thoughtful conversation with an arachnophobe in the presence of a huntsman spider. If you just kept talking louder and louder to get their attention, you shouldn't be surprised if they ignored you, walked off or became aggressive towards you.

In short, the horse was not being stupid, ignorant, willful or difficult. The horse was having a difficult time. If she did indeed "know better", she was physiologically incapable of doing any better due to being over threshold and in a hypo-/hyper-aroused nervous system state.

More options

This knowledge widens our options from simply desensitising the horse to the cat whilst sensitising her to the aids (remembering that, in our example, she is normally responsive to them).

Instead of focusing all our attention on what made your horse go over threshold, we can think about what may have compromised, narrowed or otherwise taken up space in her window of tolerance.

IMAGE A & B: Everything that happens creates a ripple that impacts the horse's nervous system and influences their window of tolerance. You should let the ripple settle and deactivate before you create waves. Images sourced from Shutterstock.

IMAGE C: A different way to visualise the window of tolerance is like ripples. Provided the ripples stay within the tolerance band, the horse can manage his or her reactions to stimuli.

Illustration by Cristina Wilkins.



Stimulus stacking

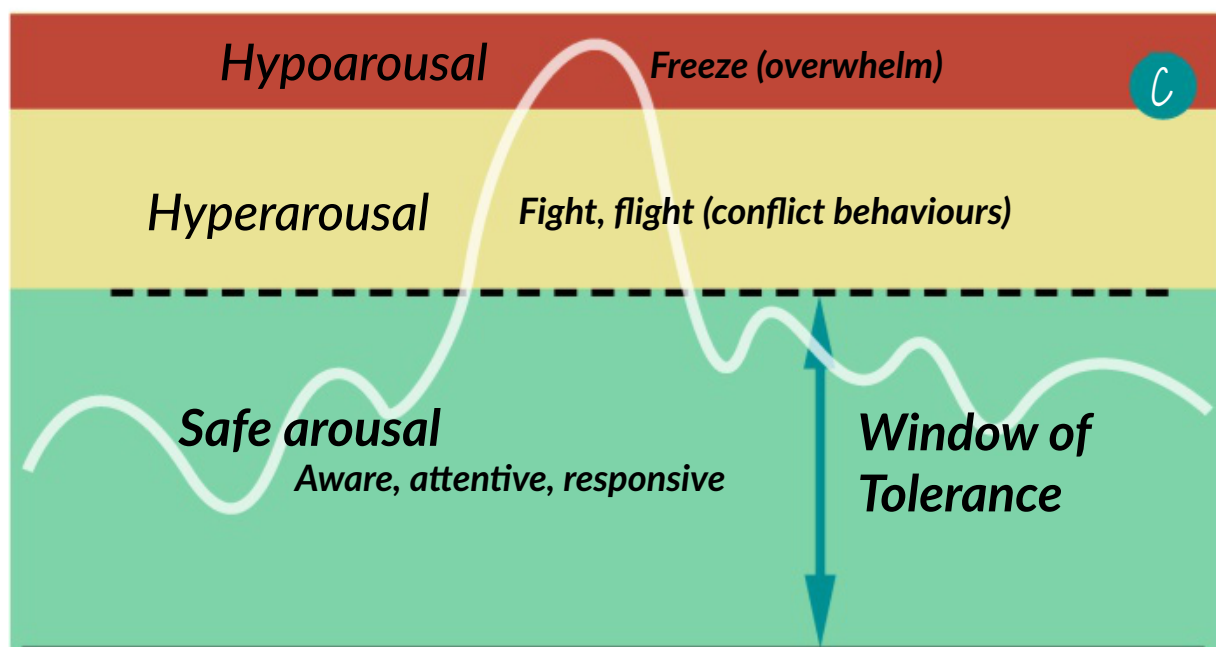
There are some obvious things that horse people are typically good at noticing such as the weather (a windy day), a horse leaving or entering the property, a change of routine, feed or a digestive upset.

Sometimes it's all of the above and, when the nervous system doesn't have a chance to reset back into a calm state of arousal between stimuli, we can have a case of 'stimulus stacking'. Each stimulus brings the horse cumulatively closer and closer to threshold until the slightest thing tips them into hyper- (fight, flight) or hypo-arousal (freeze).

We also experience times where hyper or hypo arousal seem to occur for no apparent reason. The days when your horse does something completely "out of the blue". However, these may have been days when you weren't noticing everything you could have.

Maybe there are signs you routinely ignore and narrow your horse's window of tolerance over time (girthiness is a common example).

Sometimes, we humans are just too busy or preoccupied to notice some of the equine body language that reveals our horses' nervous states and how close they may be tracking to threshold.



You might want to think back to the mounting block when your horse braced her back as you got on, and then back to the way she moved sideways as you put the saddle on her back, and back further, to the tie-up rail when you had to force the bit in her mouth, or even further back to the paddock where you blocked her from walking away so you could get the halter on quickly...

That's when you might realise that you never allowed time for your horse's nervous system to recover before you proceeded with what you wanted to do.

You just kept on despite your horse's attempts at communicating that she was not feeling OK. Whilst your horse didn't seem to go over threshold at each of those points, you were effectively stimulus stacking.

You might even realise it wasn't just the halter, the bridle, or the saddle but you too who was a stimulus that together made the cat in the arena too much to bear on that one 'freak' occasion.

It doesn't matter if the horse has seen the cat, been caught, haltered, bridled, saddled and mounted a million times before. Everything that happens creates a ripple that impacts the horse's nervous system and influences their window of tolerance. If you don't let the ripple settle and deactivate, you will end up (sooner or later) creating waves.

The more I engage with the science of the mammalian nervous system and think through metaphors of windows and thresholds (and ripples), the more I realise that, no matter how quiet or how slow we are, we are probably being louder and faster than our horses would wish.

It really doesn't take long to stop, breathe, go slow, take a step back or wait until we sense a deactivation in the nervous system. In fact, that is precisely how we can help our horses to widen their window of tolerance, be less likely to go over threshold and if they do - more likely to deactivate and return to a state of calm arousal.

Further reading:

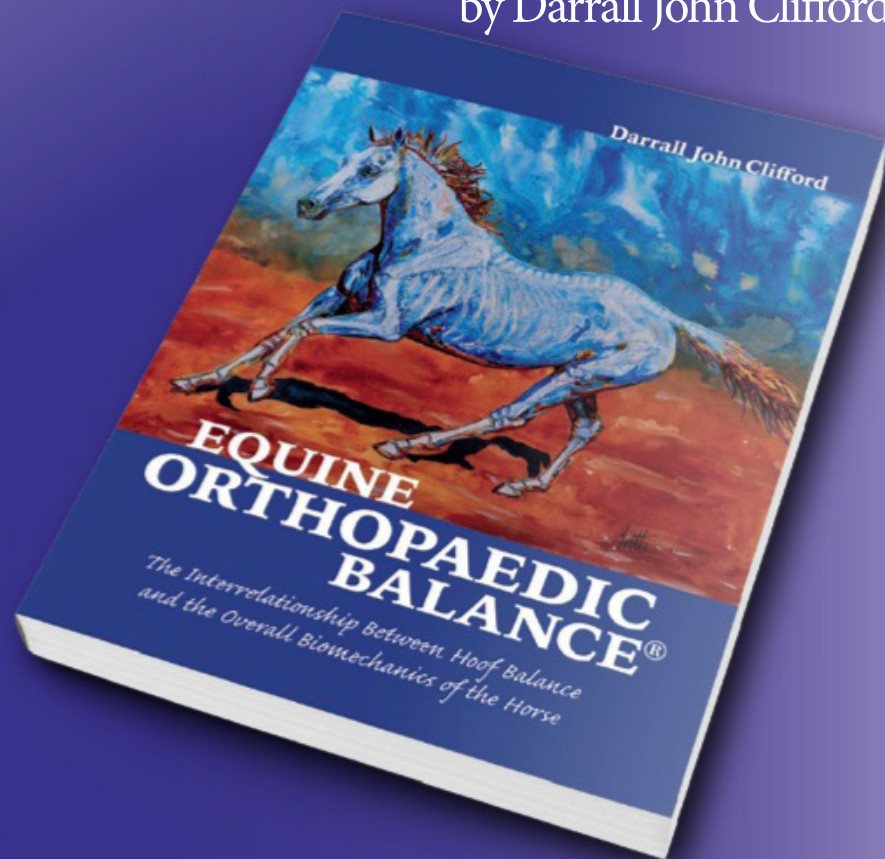
The Developing Mind, Third Edition: How Relationships and the Brain Interact to Shape Who We Are, by Daniel Siegel. On Amazon: <https://amzn.to/2SJhRNf>

Language Signs and Calming Signals of Horses: Recognition and Application by Rachael Draisma. On Amazon: <https://amzn.to/31VdCCf>.

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Image source: www.shutterstock.com

It's Time to Change the Culture



WORDS BY Tanja Mitton
www.tanjamitton.com

I want to comment on a recent article in Eurodressage by Adriane Alvord, "The Pain that Lives Behind the Barn Door" referring to the tragic death of Teresa Butta in the US.

We have lost three professional riders to suicide in the last three months and there are many more I know who were contemplating taking the same action. We can't ignore this anymore and something needs to change.

There are so many people who struggle with life. Most struggle in silence and put on a mask that hides the way they feel. A beaming smile, a chatty conversation and a false assurance, "I am doing fine", is all it takes to hide the way you feel. Not many people have the courage to ask for help and not many friends notice the subtle warning signs.

I am a mindset coach in the equestrian industry and, having worked with riders for over 15 years now, I know how many riders out there are suffering.

We often talk about the financial struggles and the pressure that riders are facing, but that is not all. I have met riders from wealthy backgrounds who have that special horse in their stable and still struggle with the pressure they put on themselves.

I am calling for a big review of how we can include more emotional support for all the participants in our equestrian sport.

The constant striving to be better, living up to expectations (mainly their own), wanting to prove their worth and to earn the recognition of judges, trainers and colleagues often proves too much.

Our competition environment is a no-win situation. No matter what you do, it will never be good enough. There are always scores that need to improve, expectations from owners, coaches and parents that need to be met, and there is that constant drive to earn recognition - to gain the confidence that confirms, "I do belong."

Every rider is only as good as the horses they have in their stable. A horse can be exceptional one day and create opportunities to be on 'that team', get selected into 'that squad' and reach 'that dream'. It all seems just a grasp away and can disappear again in an instant, when the horse goes lame. Who can sustain that pressure over long periods of time?

To top it off, the general view is that riders are tough. There is an expectation that beautiful and skillful riders are confident and happy. After all, they are role models and others out there are looking up to them. So, riders just suck it up, put their heads down, work even harder and ignore the pain. They put the stress and worries aside and just keep on going, hoping that it will all turn out ok. Until one day it doesn't and they break.

This has to stop and I am calling for a big review of how we can include more emotional support for all the participants in our equestrian sport.

We can't just focus on our horse training we also have to focus on life training. It is possible to get mindset coaches involved in junior squads and pony clubs to help young riders develop life skills in how to deal with stress and pressure, but more importantly, creating a culture in our sport that allows them to reach out for help. With people around them they can trust and open up to. Let's teach our young riders that asking for help shows strength and courage, not weakness.

For our older riders and professional trainers. Please hear me when I ask you to make time for yourself. We become so good at putting everyone else before ourselves - you are important, please make time in your day for you!

Get a coach who is there for your own wellbeing not only for your horses.

Speak openly about your problems and the pressures you encounter. Don't bottle it up and hope it will disappear, it won't! Instead, it will grow inside you and gradually consume you.

To the friends out there, take note. If someone doesn't look like they are okay, that means they are not. Don't let them shake you off. Keep an eye on each other and offer your support. That's what friends are for. Picking up the phone when you feel like checking-in with someone can make a world of difference.

To the parents, encourage your kids. Teach them that achievements are measured from within not from the outside. Tell them that validating yourself is far more important than looking for validation from other people. Ask them what they want and make them understand that loving their pony and simply enjoying a ride is more important than winning ribbons.

To all the riders out there who ride for pleasure, take the pressure off! I see so many riders striving for this illusive goal of 'success' only to find that they keep shifting the goal post and whatever they do is never enough.

- You are not wrecking your horse if you make a mistake!
- Your horse is not better off with someone who takes it out competing and brings out the best in him/her. Your horse is better off with the one who loves and cares for him/her!

If someone doesn't look like they are okay, that means they are not. Don't let them shake you off. Keep an eye on each other and offer your support.

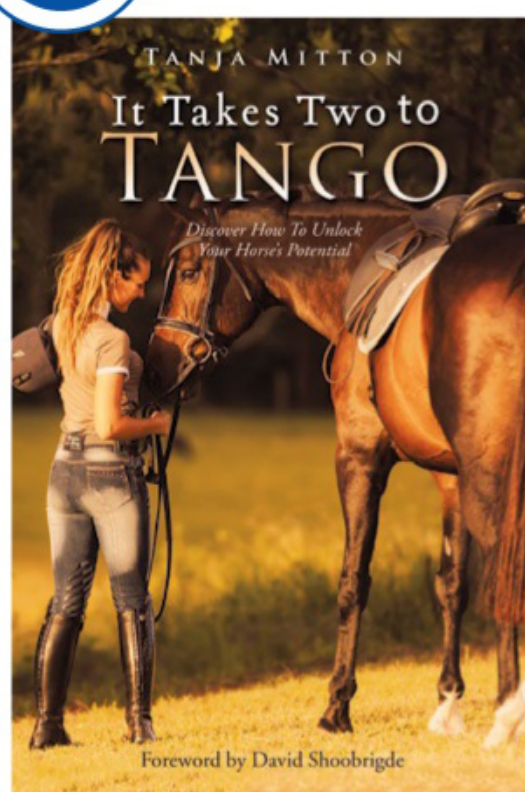
- If you try to please others you will never reach happiness!
- If you wait for someone else to tell you that you are good enough you will never be good enough!

Look inward rather than outward and find your joy, your love for riding, within you. That will make you better at what you do.

If you struggle, ask for help. Speak up and be open. It is time we made our equestrian sport a more supportive environment for everyone.

The Eurodressage article 'The Pain that Lives Behind the Barn Door' can be read here: <https://bit.ly/2vbt80H>

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Beech Bach Flower Essence

WORDS BY Hetty Tapper
www.chakrapark.com.au

Name: Beech Bach Flower Essence

Biological Name: Fagus sylvatica

Description: This essence is for those that are over critical and intolerant, they over care about the welfare of others.

Beech encourages them to see the good in others and gives them the ability to be more tolerant and understanding. It encourages a more accepting attitude.

Positive Qualities: Care for the welfare of others, see that the world is good.

Patterns of Imbalance: Over-meticulous, critical, intolerant, fussy, keep to themselves, lonely.

Shown to have benefited:

- For horses that overreact to minor irritations, like:
 - insects and insect bites,
 - grasses, foods (use Walnut as well) and pollens,
 - allergies, use for those who get a lot allergies,
 - dampness, humidity or any change in barometric pressure, for example, heat, cold, light and dark,
 - pollution and even funny or different smells in the air,
 - stitches after surgery,
 - travelling for long distances.



- For horses who cannot tolerate others and express this by chasing them away or kicking them to show their displeasure. Beech increases tolerance towards others, for example, new people, horses or animals.
- For horses that protest either by kicking or moving around when you are grooming or saddling them. They may be intolerant of grooming and touching or even new things and different approaches, like brushing through the long grass.
- For horses that get irritable when normality is disrupted.
- To increase the tolerance of horses that are living under new conditions.
- This remedy is an excellent way to reduce territorial aggression. It is beneficial for those mares that are unduly protective of their foal or temperamental when in season.
- For horses that are very set in their ways, that get irritable when unexpected things happen. They may even get aggressive.
- For selective or picky eaters.
- Beech may also be effective in the treatment of arthritic conditions.

Herbal supplements should never replace good, evidence-based management and this article is not intended as veterinary advice. We encourage you to make healthcare decisions for your horse based upon research and in partnership with a qualified equine veterinarian and nutritionist.



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Totally Detox is a good blend to use after a course of medications and for horses coming off the track.	
Turmeric 5% Curcumin	1kg was \$17.50 special \$15.50 5kg was \$83 special \$75
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ON THE ROAD

Nutritious, simple, delicious camp food and practical camping tips brought to you by the Australian Trail Horse Riders Association and Peter Wolfe



The Australian Trail Horse Riders Association (ATHRA) is a national association with clubs and members in all states and territories.

Members can ride with any ATHRA club, Australia-wide, wherever horse access is permitted. This means, wherever an ATHRA member travels with their horse, they are sure to be welcomed by the local ATHRA club and enjoy the hospitality of that area.

We were introduced to Peter Wolfe by ATHRA, where Peter is the regular chef for their annual, nine-day, fully catered September camp in Queensland.

Introducing ATHRA & Peter Wolfe

athra.com.au

We have it on good authority, that Peter's cooking is exceptional and his Breakfast Beans Pasties recipe below is one of the riders' favourite breakfasts. Not only are they delicious, they are high in protein and they keep the riders energised until lunch time.

In the coming issues, with the help of ATHRA and Peter we will bring you some tried and tested recipes and tips to help keep you well fed and you and your horses safe and sane on the road. Who better to offer you camping-with-horses tips and delicious recipes?



Breakfast Bean Pasties

RECIPE BY Peter Wolfe

Breakfast Beans Method:

Boil the beans in unsalted water until tender then drain. Melt speck over a low heat then add onion and brown sugar. Cook while stirring for 2 minutes then add tomato paste and cook one more minute. Add beans and stir in until coated then add enough water to just cover. Stirring occasionally to prevent burning, cook until a thick sauce is made. Add more water if it becomes too reduced. Season with salt and pepper and add chilli or garlic to taste and enjoy!

Pasties Method:

Combine the self-raising flour, water and oil. Mix until a smooth dough is formed. Let rest for 5 minutes then make into 4 even sized balls. Roll out or stretch with your hands until you have a 15cm disk. For pan bread cook the disk in a dry pan and top with the beans. For pan pastie fill the centre of the disk with beans, fold in half to form a pastie shape and crimp on edges to hold together. Fry at a low temperature in a little oil. These travel well and make a good lunch cold or hot.

Ingredients

Breakfast Beans

- 200g dried kidney beans (soak overnight to speed up cooking)
- 2 tablespoons tomato paste
- 50g speck
- 1 tablespoon onion flakes
- 1 teaspoon brown sugar
- Salt and pepper
- Chilli or garlic

Pasties

- 1 cup Self Raising Flour
- 1/2 cup water
- 1 teaspoon oil

Delicious camp food made with ingredients that are easy to pack and don't need refrigeration.

For extra tips and variations to this recipe go to:
<https://bit.ly/31VDPR9>

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Drawing Flowers



WORDS BY Jill Griffiths

ARTWORK BY Anne Penelope Murray



Dante continues to have body issues. He's never actually lame, just tight and sore, especially on his right side. Our trainer gives me a new circling exercise to do, to help build muscle tone and create bend and flexion.

We trot a medium sized circle to the right, then I change the bend and ride a smaller circle to the left, with the edges of the two circles just touching. I pick up the medium-sized circle again, then once again add a small circle to the left.

We are drawing flowers on the ground; our medium sized circle is the centre of the flower and the smaller circles are the petals around its edge. I add the petals at random, slowly making a huge flower on the ground. I come back to the flower's centre circle after each petal is drawn. Then I ride to a new spot and begin a new flower, this time with the medium-sized centre circle to the left and the petals as small right-bend circles.

I close my eyes and feel the contact, working hard to maintain evenness on the reins despite Dante's protests. He does protest. It's hard work. He lifts his head and drops his back trying to avoid my requests. He looks for a way to make it easier but by hollowing out he is exacerbating the body issues he has.

By working with the contact, I get him to give, to lower his head and lift his back. He bends and flexes. We have a few good petals then lose it again. We keep working at it in trot, drawing a bouquet of flowers on the ground, working together. I'm working hard on being consistent and balanced. He's working hard on keeping his body together. We're both sweating.

We take a break and go large around the arena, drawing a border around our bouquet, then we come back to our circle exercise, adding more flowers to our bouquet. Dante warms to the task and his body comes together. He gets it. We draw more good flowers with lovely round petals and strong centres.

I don't think Dante is ever going to be a dressage horse or make it in any competition ring. It seems his body simply isn't up to that. It seems he's not an athlete. But then again, neither am I! But he's a sweet horse. Friendly, sensitive, yet bold and inquisitive. We'll work with what we've got, building our relationship as we work through his body issues together. It's a long slow journey, but it's about being present to where we are at.

I used to have ambitions for what I would do with Dante – mainly that we'd ride endurance together. His older brother has proven himself to be a remarkable endurance horse, having successfully completed many 40km and 80km rides, as well as one 160km ride, and has never vetted out. But Dante is a different horse entirely. I've let go of the ambitions I once had for him. Now I am working to keep him sound and sweet, to do what is best for him and his body.

I don't know where that will lead us, or how long it will take us to get wherever 'there' is, but for now I'll stay focused on the many good things we can do. Like drawing bouquets of flowers together.

Green pony chronicles the adventures of Jill Griffiths and her young horse, Dante, who Jill 'accidentally' bought as a yearling in 2014. The first instalment appeared in Horses and People magazine in February 2016 and the series has continued.

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NEXT
ISSUE



Photo by Linda Zupanc

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May-June Issue

- **Horse fencing part 5:** Our exclusive series continues with a look at laying out the fence line. Don't miss this easy-to-follow guide that is, ultimately, horse-centered.
- **Setting Good Ground Rules Part 2:** In the next issue, Sophie Wyllie from Equitation Science International starts explaining how you can train the basic responses in-hand in a way that is clear, efficient and ethical.
- **Targeting Core Strength:** Dr Lena Clifford and trainer Hayley Chambers continue the series with more stretches and core-strengthening exercises for your horse, showing you how to practice them and reward your horse!
- **The Magic of Grass:** Amazing how such a small plant can have such a great impact on the lives of so many creatures on this planet! Dr Mariette van den Berg explains the properties of different species and how this affects the grazing management in your horse property.
- **And Lots More!** Don't miss the May-June issue! Once again, it will be packed with quality stories brought to you by our wide panel of expert contributors.

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