

FEEDING FOR BEHAVIOUR



FIND OUT WHY YOUR HORSE BEHAVES LIKE THEY DO AND HOW TO CHANGE IT SO THEY BEHAVE THE WAY YOU WANT!

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Hey there!

Horses are funny creatures! Some are calm one day but like fire-breathing dragons the next. Others are permanently laid back - to the point of comatose. It's frustrating!!

My horses are my teachers in so many ways and in the 'Hot or Sluggish' department they haven't let me down. My beloved CoaCoa had a beautiful temperament. But underneath her reliable, predictable exterior she was highly strung, claustrophobic and could be a real handful. Her son, Poet (now my main riding horse) is the same. On his *good days* you'd happily put a small child on his back. On his *freaking out days*, I'm struggling to stay up there (and I've got plenty lot of *cling!*)

Quilla on the other hand has been calm, predictable and safe from the get go. But for many years she also felt lazy. She was gorgeous but not forward.

Quilla's daughter Popcorn is - like her mum - quiet and dependable. But she is *very* forward. 'Hot' but not naughty. Super sensitive to aids. She is my 'mindfulness mare' - I have to be fully *with her* whenever I ride her.

I have owned all of these horses since they were babies and know them as well as anyone could. A lot of the way they are is simply '*just the way they are*'. BUT, the way they are *educated* AND *what they eat* affects their behaviour too. A whole lot.

The education side has been a huge area of learning for me. Justin Colquhoun (Horsemanship Educator) has helped me so much with this. Read his tips on page 30 for helping with hot and with lazy behaviour. His methods are simple yet effective.

The rest of this book is designed to help you understand *why* your horse is hot or dopey, and *how to feed them*. Follow my 8 top tips for feeding to help you *calm hot horses down* or *spiff lazy horses up!* Just a few little tweaks and you will have a different horse!

Horses are so much more enjoyable when they are calm yet responsive. I truly hope this information helps you, to help your horse be the best they can be!

With love!

Nerida xx

FeedXL.com Founder & Nutrition Specialist

WHAT YOU'LL LEARN...



THE POSSIBLE REASON WHY YOUR HORSE IS 'HOT' OR 'LAZY'

There are many factors that will cause changes in a horse's behaviour. Learn how to identify these so you can manage them.



HOW EDUCATION PLAYS A FOUNDATION ROLE IN YOUR HORSE'S BEHAVIOUR

Just like kids, horses need boundaries, and clear direction. It makes them feel safe. And when they feel safe, they become calm, yet responsive, and open to learning new things.



FEEDING TIPS FOR MANAGING 'HOT'

Sometimes horses behave 'crazy' because of *the way* they are fed, or *what* they are fed. Learn how to tweak diets to better suit your horse and his temperament.



FEEDING TIPS FOR 'LAZY'

As a rider, 'lazy' is hard work! Learn my top tips on helping your slow friend feel better and work with more enthusiasm!



HOW FEEDXL CAN HELP BEAT FEEDING FRUSTRATIONS

Feeding can be confusing! And without help, getting feeding right is tough. Learn how FeedXL can clear the way for you to feeding with certainty... so you can relax!



Above: Hi! This is me - Nerida - and my
aptly named mare 'Popcorn'

WHY DOES MY HORSE ACT LIKE THEY DO?

*Behaviour is complex.
It's a combination of
personality, past & current
experiences, nutrition &
hormones.*

1. PAIN

No two ways about it, pain will modify behaviour. If your horse is in pain they will behave in a way that minimises the pain. And it can make a horse seem both lazy or hot. Let me give you two examples to illustrate this.

Quilla, my little mare, always seemed 'lazy'. For many years I rode her competitively in low level eventing (big fences scared me!). She was awesome to ride, she loved to jump and she moved nicely... BUT, she was LAZY!! Keeping her moving was an effort! Then, a friend suggested I ride her barefoot. I always suspected she wasn't terribly comfortable in shoes and had tried

her in all sorts of different shoes, but nothing had made a difference.

So, we took them off, trimmed her differently... and she was a different horse! She became forward, responsive and felt happy to work! Nothing else had changed. Same pasture, same rider, same saddle, but she was a different horse with no shoes. I now believe she was in low-level pain with shoes on. I can empathise and I am sure you can too. Wear heels for too long that make your own feet sore and you won't want to walk, let alone run!

The flipside is where pain can cause 'hot' behaviour. Horses with gastric ulcers are a good example of this. The correct treatment and management of gastric ulcers often results in calm behaviour. Horses with ulcers are frequently anxious, distracted and difficult to ride. And it makes sense. Ulcer pain must be intense. Take the pain away, and they can relax and concentrate.



Above: Justin Colquhoun at work. Education is foundational in achieving the behaviour you want

2. EDUCATION

Below is the abridged version of a more detailed article by Justin Colquhoun. Founder of Elite Horse Group. Find his full article on page 30.

PUTTING THE LAZY HORSE ON AUTO PILOT

I feel that the most common issue which creates a lazy horse is over cueing.

The rider has to remain active with their legs and is constantly needing to increase energy, just to hold the horse in the desired gait.

I aim at having all my horses travel on what I call 'auto pilot'. Where they hold themselves in the walk/trot/canter with minimal input from the rider.

The way to create this is rewarding the horse when they are at the gait you ask for. Also it's important to cue them back into the desired gait with consistent cues, when they break gait and slow down. It is all about making the wrong thing hard and the right thing easy.

DEALING WITH THE HOT OR RUSHY HORSE

Rushy or hot behaviours often have a trigger point. It can be something as simple as leaning forward in the saddle. We need to tone down our rushy horse's mind and responses to our cues in order to firstly ensure safety.

The main exercise I start to re-educate the hot or rushy horse with, is what I call the 'serpentine exercise'. This is where you ride a large square or circle and begin to ride 3 – 5 meter wide serpentine patterns, at the trot.

If the rushy horse starts to duck and dive all over, simply start counteracting the horse's movements by asking them to move in the opposite direction to the one they are wanting to go.

This simple redirection of energy and balance slowly but surely starts to change the hot horse's mind about rushing.

“

*It is all about
making the wrong
thing hard and the
right thing easy.*

3. TYING UP

A horse that ties up will be in pain. If they are obviously tying up, it is obvious right... they are stiff, clearly sore, hesitant or sometimes even unable to move. But not all horses that tie up will show these really overt symptoms.

Many horses - especially warmbloods - will tie up in such a mild way that they just seem 'lazy'. They don't want to go forward, they get tired quickly and they struggle to do more difficult movements that require a lot of muscle control.

A blood test may reveal persistently elevated muscle enzyme levels in their blood. But you may or may not catch these elevated enzyme levels. It depends when you test. So sometimes, all you will notice is what you take to be laziness.

Horses that tie up may also exhibit feisty behaviour. I have worked with a gorgeous big grey warmblood who was competing in top level eventing. This boy's biggest issue was what his rider described as serious behavioural issues. She was an exceptionally competent rider, so when she said he was hard to control it was serious!

He would BUCK and be super-hot. Not all the time, but this unpredictability made it worse. His rider had to get a friend to ride him one day because he wouldn't stop bucking and her back wasn't coping. He bucked for a full half hour. All the poor big guy was trying to say was 'would you PLEASE get off my back because it is sore'.

He was a PSSM tying up horse and we realise now that whenever he was sore, he would misbehave. This was the only

way he knew to get the rider off the sore muscles in his back. Makes sense though right... it's not like he could turn around and politely let them know he was sore and could they please not ride him today.

Once we got his diet right his behaviour changed completely and he was able to stay his lovely calm self without his bursts of dangerous behaviour.

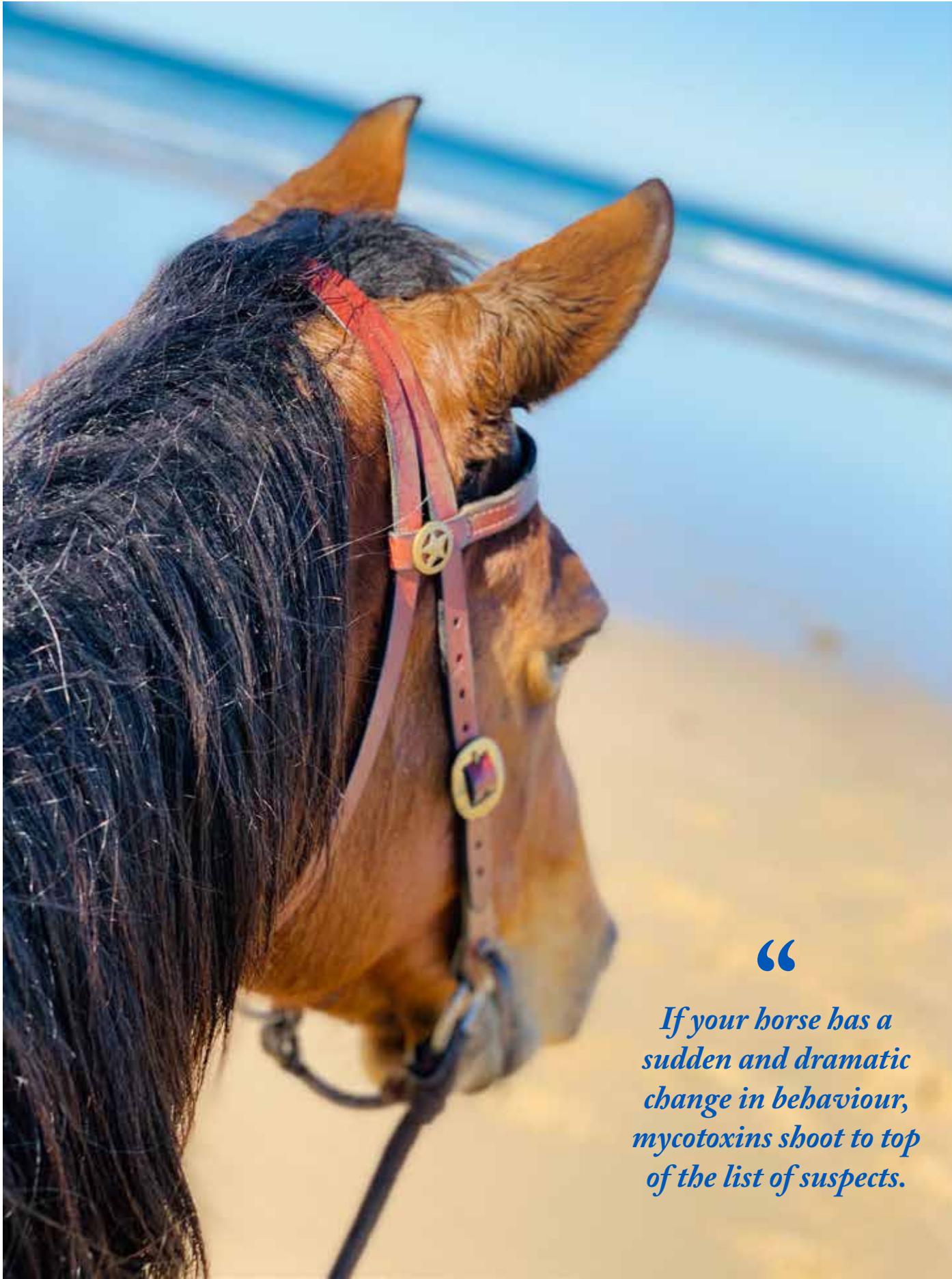
4. MYCOTOXINS

Mycotoxins are toxins produced by fungi (mould) that grows with pasture or may be found on your horse's hay or grains. You can rarely see the fungi that produce these toxins, and you certainly can't see the toxins. Often the first you will know of them being there is your horse will suddenly and radically change his behaviour!

Owners of mycotoxin-affected horses say it's like their horse is hallucinating - highly reactive, aggressive - and they lose all ability to think logically. They spook at things they are normally fine with, jump out of paddocks, buck, shy and behave aggressively toward their riders and other horses. They may also develop head shaking and seem depressed.

Most mycotoxin issues I see are related to perennial ryegrass and fescue pastures or hay. But issues can also arise from other pastures like paspalum and from mouldy grains. Possibly also from damp mouldy pasture in warm, humid climates too.

If your horse has a sudden and dramatic change in behaviour, mycotoxins shoot to top of the list of suspects. And for me, they remain guilty until proven innocent!



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If your horse has a sudden and dramatic change in behaviour, mycotoxins shoot to top of the list of suspects.

5. COMPROMISED GUT HEALTH

In human nutrition we are only just starting to appreciate the huge impact of what we eat on our gut bacteria (I'm writing this as I eat sugary biscuits on a flight... oops!). More importantly we are starting to appreciate the effect of our gut bacteria on our behaviour.

Here's a fun fact for you... 50% of the dopamine (happy hormone) in your human body is produced by your gut bacteria! So if you mess up your gut bacterial balance you will also mess up hormone production and short change yourself on happy hormone. No wonder gut health is linked to our emotions and things like depression!

Research in mice also shows you can transplant *anxious behaviour*, by taking the gut microbiome from one animal and placing it in another! Plus studies into behavioural conditions like autism are starting to show strong links between the gut microbiome and this condition with its distinctive 'anti-social' behaviours. In fact the brains serotonergic system - which plays a key role in emotional activity - does not develop appropriately in the absence of microbes.

Our microbiota are inexorably linked to our behaviour.

For our horses, we don't have the research to say the same thing is true. But my guess is that our horses' gut bacteria also play a significant role in their behaviour.

Papers published in the 1970's described changes in behaviour when a horse has hindgut acidosis. And hindgut acidosis is characterised by a shift from the 'good' fibre fermenting bacteria to the 'bad' starch and sugar fermenting bacteria.

While I do believe these shifts in behaviour during acidosis are at least in part due to *pain*, I also believe there is more to it than this. I think that their bacteria are playing a role in hormonal balance and brain function, which then affects behaviour.

When we create shifts in hindgut bacteria we also reduce production of the B vitamin thiamine (B1). PLUS the bad bacteria actually destroy vitamin B1. With these factors combined, it is reasonable to expect a horse with unbalanced hindgut bacteria may end up vitamin B1 deficient. This will also lead to changes in behaviour.

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“

*If your horse isn't fit,
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been prepared for.*

6. HORMONES

Hormones are powerful little chemicals (trust me!). They can be produced by the horse's own body (like a mare's estrogen) or they can be consumed in the diet. For example there are estrogen-like compounds called phytoestrogens in many plants including clovers and soybeans.

Sometimes, when behaviour changes, particularly for mares, it can be due to a shift in her natural hormones as she comes in and out of season. And while rare, it could also be due to the influence of phytoestrogens from the diet. It is just one of these things to keep in the back of your mind when dealing with behavioural issues in horses.

7. NOT FIT ENOUGH

If your horse isn't fit, they will just feel plain ol' tired if you ask them to do more work than they have been prepared for. I see this a lot in high level dressage stallions. They are so valuable that they are rarely, if ever, taken out of an arena to do fitness work. And they are so educated that they are hardly schooled in an arena either - to save them going sour. Ridden, yes. But not enough to

maintain a high level of fitness.

So when they are hauled long distances and asked to complete multiple high level dressage tests at competitions, they often run out of steam and feel 'lazy'... but it is just because they are unfit!

8. NUTRITION

Nutrition can have a HUGE influence on a horse's behaviour. Too many calories, the wrong type of calories, nutrient deficiencies, digestive disturbances, shifts in bacterial populations, tying up and gastric ulcers can ALL change behaviour. AND, they ALL have their foundations in what (and how) you feed.

So let's look at nutrition in detail. What follows are my *8 best tips* on how to feed for calm, safe, yet responsive behaviour!

THE 8 BEST FEEDING TIPS

FOR CALM, SAFE, YET RESPONSIVE BEHAVIOUR

01

DON'T FEED TOO MUCH. DON'T FEED TOO LITTLE

Make sure the amount you feed is *just right*.

Horses express the amount of energy (calories) in their diet in their behaviour! If you feed more calories than they need, you may see hyperactivity. If you feed less than they need, you may have a horse that feels sluggish and lazy.

Of course there are always exceptions to this... the quiet, old, school horse you can feed like a racehorse without any change in behaviour. Or the hot-headed eventer who you barely supplement feed but is still partially crazy. But for the mostpart, the relationship holds true.

So the key here, is to match the calories you feed, to what your horse needs! If you can get this right, you will overcome so many of the behavioural issues you see in your horse.

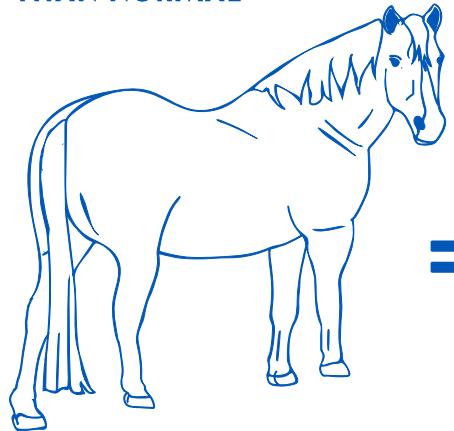
Here is where some 'art' in feeding a horse comes into play. You need to know your horse – intimately – to allow you to adjust calories in the diet to match their exact needs. Use their cues to tell you if they may be getting just a few too many calories. Or too few. Just remember to keep in mind that there are many other things (like mycotoxins or pain) that could be affecting behaviour.

If you have ruled out other causes of behavioural changes though, here is how to work out if you need to change the amount of calories being fed to match your horse's needs...

TIP:

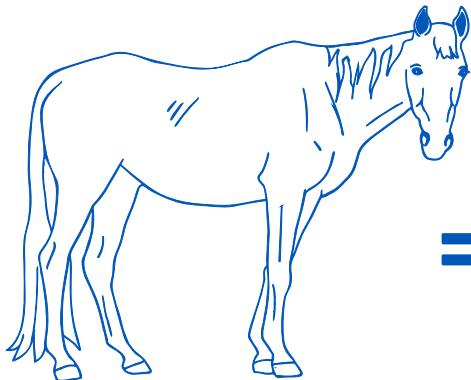
USE FEEDXL TO WORK OUT EXACTLY HOW MANY CALORIES YOU ARE FEEDING. & WORK OUT HOW TO ADJUST THIS AMOUNT UP OR DOWN WITHOUT UNBALANCING THE VITAMINS AND MINERALS IN YOUR HORSE'S DIET.

HORSE IS PUTTING ON CONDITION
OR HORSE IS MORE HYPERACTIVE
THAN NORMAL



FEED
LESS
CALORIES

HORSE IS LOSING CONDITION
OR HORSE IS A LITTLE DULL*



FEED
MORE
CALORIES

* IF YOUR HORSE IS A LITTLE DULL, BUT ALSO TOO FAT, KEEP READING.
FEEDING MORE IS NOT THE SOLUTION HERE

Above: Diagram showing when you need to increase or decrease the calories in your horse's diet

02

CHANGE FEED DAILY ACCORDING TO WORK DONE

Matching the calories you feed, to what your horse needs is so important. And if you can get it right, your horse will be off to a great start in achieving beautiful behaviour.

BUT, if your riding schedule is anything like mine, some days your horses are lightly ridden, some days they work hard and other days they don't work at all!

Which means their requirement for calories is all over the place!

We have all been taught not to make sudden changes to what we feed our horses. That we should feed the same every day. And for the most part, this is true. Suddenly introducing grain, or suddenly switching from grassy to alfalfa/lucerne forage is not advisable.

BUT, you MUST adjust your horse's

MEDIUM WORK DAY DIET
 10 KG (22 LB) OF MIXED MAINLY GRASS HAY
 2 KG (4.4 LB) OF A HIGH ENERGY COMPLETE FEED
 ½ CUP LINSEED OIL
LIGHT WORK DAY DIET
 10 KG (22 LB) OF MIXED MAINLY GRASS HAY
 0.5 KG (1.1 LB) OF A HIGH ENERGY COMPLETE FEED
 40 G CONCENTRATED VITAMIN/MINERAL SUPP.
 ¼ CUP LINSEED OIL
REST DAY DIET
 10 KG (22 LB) OF MIXED MAINLY GRASS HAY
 100 G (0.2 LB) OF A HIGH ENERGY COMPLETE FEED
 50 G CONCENTRATED VITAMIN/MINERAL SUPP.
 20 ML LINSEED OIL

Above: A guide showing how a diet could look for a 500kg (1100 lb) horse on Light Work, Medium Work and Rest days

daily feed to match work done. That way you are matching calories fed to the calories they need. And you can do this in a way that is safe and won't cause digestive upsets.

PUTTING THIS INTO PRACTICE

Create diets for different workloads and feed them according to the work done on any given day.

For example, if your horse has rest, light and medium work days, have a 'Rest Day', a 'Light Work Day' and a 'Medium Work Day' diet. And feed them on each day according to expected workload.

To keep the diets safe, use the same base ingredients and always make sure the diet has plenty of the same forage. Just adjust the amounts of the high calorie feeds to match calorie requirements each day.

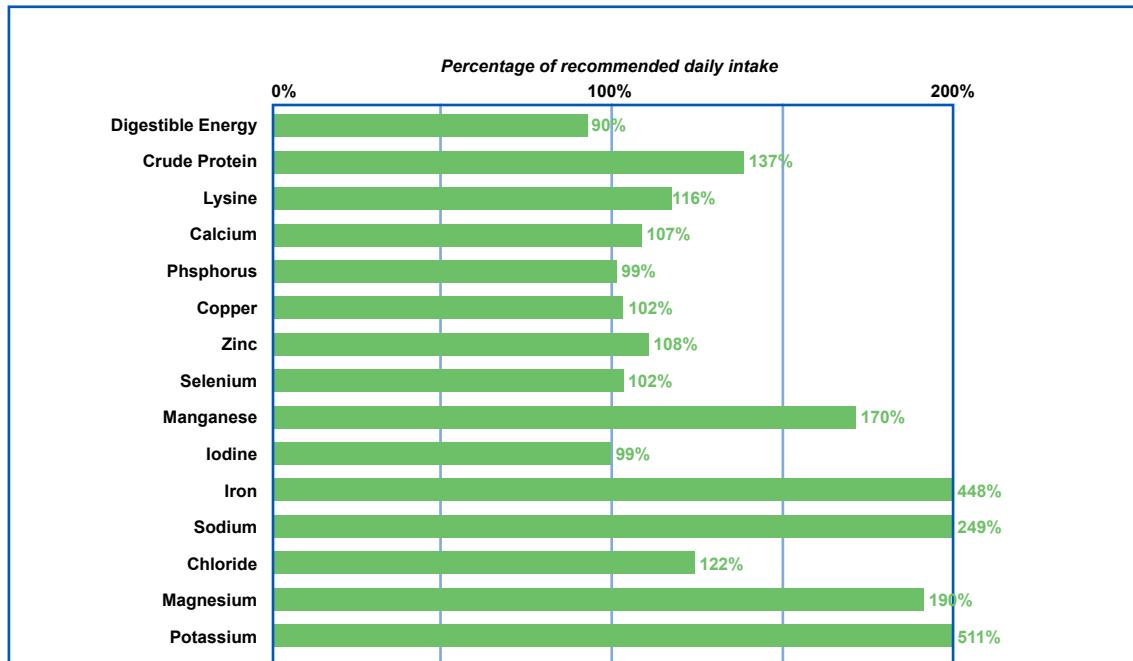
See above for an example of how this works for a 500 kg (1100 lb) horse.



TIP:

USE FEEDXL TO WORK OUT DIFFERENT DIETS FOR DIFFERENT WORK DAYS. FEEDXL WILL HELP YOU ADJUST THE CALORIES IN THE DIET WITHOUT UNBALANCING THE VITAMINS AND MINERALS.

Above: Diagram showing the effect on energy intake of feeding a set diet each day versus a daily diet that is adjusted for workload



Above: A what a balanced diet looks like in a FeedXL report

03

FEED A BALANCED DIET

Nutrition is the foundation of everything. And behaviour is no exception. If you are struggling with hot, or sluggish behaviour, it could be something as simple as a nutrient deficiency causing it.

For example B-vitamin or electrolyte mineral deficiencies may cause a horse to feel sluggish and tired. Or a vitamin B1 and magnesium deficiency may cause unpredictable, ‘hyperactive’ behaviour.

The best way to avoid nutrient deficiencies from causing changes in your horse’s behaviour is to feed a diet that you know meets all requirements!

The problem, until now, has been figuring out what to feed to meet your horse’s requirements. And to do this without overfeeding calories.

This is why we created FeedXL... to give horse owners like you a tool that

allows you to rapidly calculate the nutrients your horse needs. And then to see if what you are feeding is meeting all of those needs.

Once you get your diet balanced, you will hopefully have a calm, confident, yet responsive horse.

And if you don’t, you can be confident that nutrient deficiency is not the base cause of any hot or sluggish behaviour. So you can confidently rule this out and move on to other possible causes of behaviour change.

TIP:

USE FEEDXL TO WORK OUT WHAT YOUR HORSE NEEDS. IT ALSO SHOWS YOU IF WHAT YOU ARE FEEDING MEETS THOSE NEEDS. IF THERE ARE ANY NUTRIENT DEFICIENCIES IN THE DIET, FEEDXL WILL HELP YOU TO FIX THEM, WHILE ALSO KEEPING CALORIE INTAKE IN CHECK. THE END RESULT... A CALM & HEALTHY HORSE.



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*Keeping your horse's
gut bacteria healthy
is a **HUGE** piece
of the puzzle!*

04

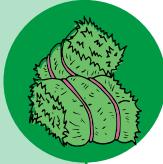
KEEP THE HINDGUT HEALTHY

The bacteria in our gut are tightly linked to our behaviour! And the same is almost certainly true in horses. So keeping your horse's gut bacteria healthy is a **HUGE** piece of the puzzle when we are considering feeding for calm behaviour.

When feeding to keep the hindgut and its bacteria healthy, you should aim to feed the 'good', fibre fermenting bacteria, so their population flourishes. AND to starve the 'bad' starch, sugar and fructan fermenting bacteria so their population is kept to a minimum.

Check out my list of Dos and Don'ts on the next page, for keeping the hindgut and its bacteria healthy. Your horse has around 115 trillion bacteria in their hindgut. Keep them happy and you will keep your horse calm.

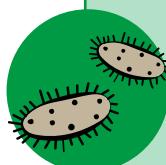
DO



DO FEED LOTS OF FORAGE

For true gut health, **feed at least 2% of bodyweight in forage** per day. This is 10 kg per day for a 500 kg horse (22 lb/day for an 1100 lb horse)

Forage provides lots of fibre. And fibre is the good bacteria's favorite food. When you feed them well, their population will thrive.



DO FEED HIGH ENERGY FIBRES, COOKED GRAINS OR OIL FOR EXTRA CALORIES (ONLY WHEN NEEDED)

These high calorie energy sources will **keep starch out of the hindgut**. They will let the good bacteria continue to be healthy and will not feed the bad guys.



DO FEED IN SMALL MEALS

Small meal sizes mean **feed travels more slowly** through your horse's stomach and small intestine. This gives your horse **plenty of time** to do the work of digestion in the small intestine. This helps to make sure any starch from grains that may have been in the feed will be digested before it reaches the hindgut. (Note: if you are using a grain-based feed, it must be cooked. Oats is the one exception and may be few raw). Getting **starch fully digested in the small intestine prevents it from ending up in the hindgut** and feeding the 'bad' bacteria.

How small is small enough? Ideally keep grain based feeds to 1 kg (2.2 lb) per meal for a 500 kg horse. If you can't manage this, just do everything you can to **keep your meal sizes as small as possible**.

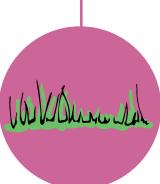


DO MAKE DIET CHANGES SLOWLY WHEN INTRODUCING ANY NEW INGREDIENT.

A gut is smart. It knows what nutrients it needs to process and will up or down regulate the release of digestive enzymes to do the work of digestion. But this means you need to **give your horse time to adapt** to new ingredients, like grains.

For example, if your horse has been on a grain-free diet, and you want to introduce a grain-based feed, **do it slowly over a minimum of 2 weeks**. This lets the gut adapt to digesting more starch and will **stop the starch from ending up in the hindgut** where it will feed the bad bacteria. If you are feeding grain, make sure it's cooked!

DON'T



DON'T FEED HIGH FRUCTAN FORAGES.

Temperate (C3 Type) grasses like ryegrass can accumulate large amounts of a storage carbohydrate called fructan. **Fructan cannot be digested by the horse in its small intestine.** So any fructan in the diet ends up in the hindgut where it feeds the 'bad' bacteria.



DON'T FEED UNCOOKED CEREAL GRAINS

The starch from raw grains, like cracked corn (maize), barley, rice, wheat or rye is bundled so tightly that your horse's enzymes can't cut it up in the small intestine. **If you feed uncooked grains, 70% of the starch will end up in your horse's hindgut. Making it party time for the bad bacteria.** Behavioural changes in horses fermenting starch in their hindgut are well documented. So **if you want good behaviour, never feed uncooked grains!**

Note: oats is the exception and can be fed whole or crushed.



DON'T FEED HIGH GRAIN, LOW FORAGE DIETS

High grain, low forage diets will feed the bad bacteria and limit food for the good bacteria. And even if fed carefully, will still create a shift in a horse's hindgut bacteria. Your horse will always feel and behave better (for multiple reasons) on a high forage diet.

1 Name your diet

What would you like to name your diet? Perignon's Laminitis Recovery Diet

Disease suitability identifiers

To help you choose safe diet ingredients for Perignon with the disease(s) you have indicated, the ingredient coded as follows:

Probably Suitable	NSC content is less than 12%. More	Maybe Suitable	NSC content is likely to be less than 12%.
Possibly Suitable	Does not contain grain but NSC content is unknown and may contain other high-sugar ingredients. You need to do your own research on these. More	Probably Unsuitable	NSC content is likely to be greater than 12% grain with an unknown NSC content.

NSC: Non-Structural Carbohydrates = Starch + Water Soluble Carbohydrates

2 Find and add feeds

Find feed by name: [clear](#)

Forages & Roughage	Grains & By-Products	Complete Feeds	Balancers & Supplements
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3 Specify quantities

Perignon's Lam
Good C3 Type Grass P
Hours: 16 to 24

AVOID

1. OATS, CORN, WHEAT, RICE, RYE, BARLEY, TRITICALE & SORGHUM.
2. MILLRUN, MILLMIX, BRAN, POLLARD, BROLL, WHEATFEED, WHEAT MIDLINGS, MIDDS, RICE BRAN, STABILIZED RICE BRAN & CORN GLUTEN MEAL.
3. ALL MICRONIZED, EXTRUDED, STEAM FLAKED OR PELLETED GRAINS.



Above left: FeedXL lets you know which feeds will be suitable or unsuitable for your horse based on their NSC content

Above: A list of feed ingredients to avoid when feeding horses prone to tying up

05

MANAGE TYING UP

Low level tying up will often cause what a rider describes as 'lazy' behaviour. These horses will resist being forward, they will tire quickly and may also seem unhappy in their work. Or, as already discussed, it may cause unpredictable, 'hot' behaviour.

Most of these horses will have the PSSM (polysaccharide storage myopathy) form of tying up. Which is a condition where their muscles store too much glucose in the form of muscle glycogen. This then leads to pain.

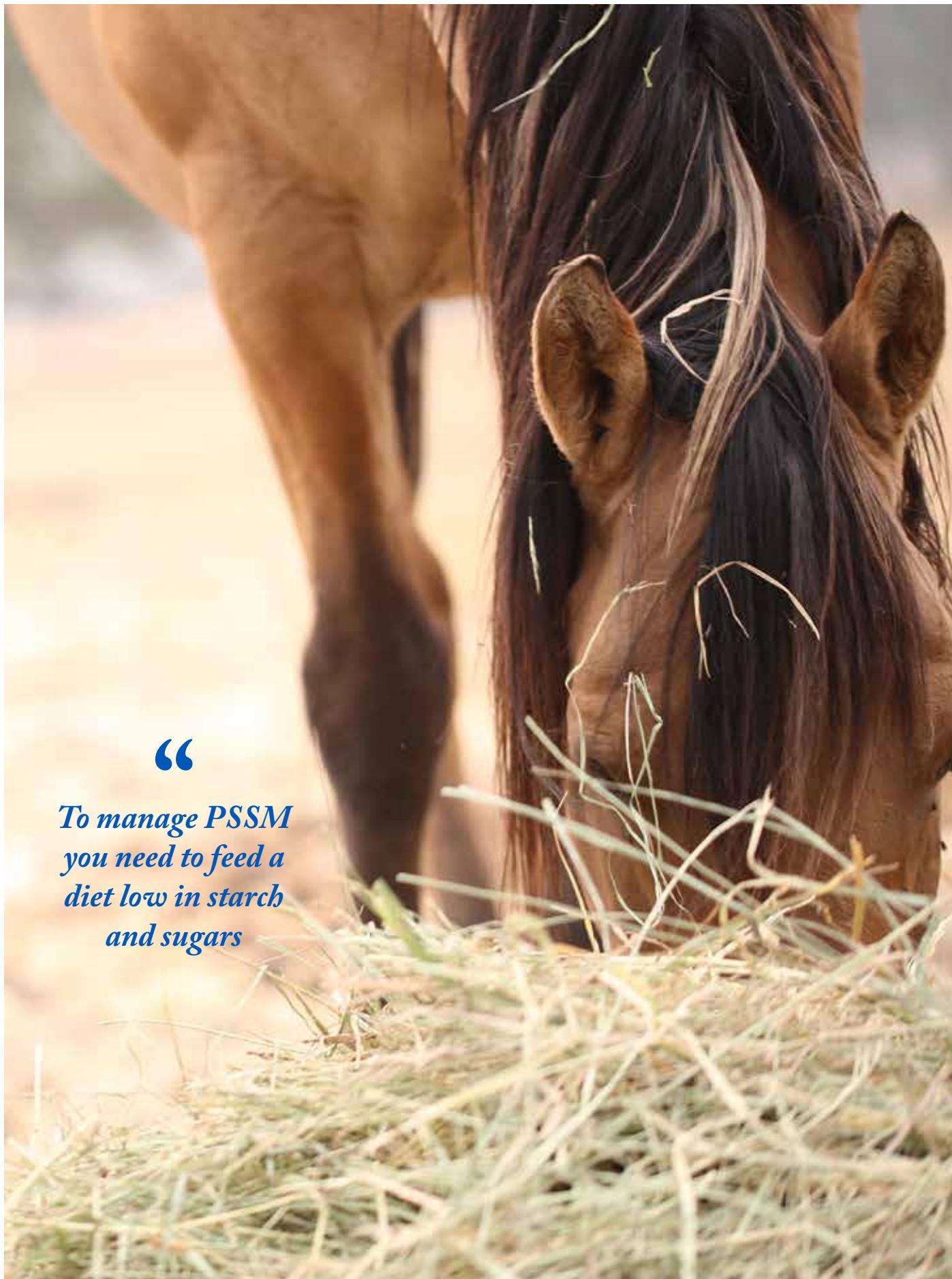
To manage this condition, you need to feed a diet low in starch and sugars. Keeping all ingredients fed to less than 12% non-structural carbohydrates (NSC; NSC = starch + water soluble carbohydrates) will minimize, and often eliminate all symptoms of PSSM tying up.

To do this, you should avoid all grains and grain by-products, molasses and high NSC forages.

READ LABELS CAREFULLY!

Unfortunately there are many feeds that claim to be 'grain-free' or 'low starch'. But if you read the ingredients you realise they are not. If you are searching for a truly grain-free feed, look for and avoid any of the ingredients in the AVOID list above.

To make this really easy, use FeedXL. When you tick PSSM Tying up as a condition in FeedXL, the feeds list will be color coded to show you which feed ingredients are less or more than 12% NSC.



“

*To manage PSSM
you need to feed a
diet low in starch
and sugars*

06

NEVER RIDE YOUR HORSE ON AN EMPTY STOMACH

Riding your horse on an empty stomach will put them at risk of stomach ulcers. Stomach ulcers hurt! So in an attempt to avoid the pain your horse may misbehave to stop you riding them. Or they may grudgingly work for you, but will be sour and unhappy. Neither is fun for either of you.

But there is an easy solution! Keep your horse's stomach full. Especially before you ask them to work! Why? Because the horse's stomach has been designed to always be full. Horses secrete strong hydrochloric acid in the lower section of their stomach. So the lower section was smart enough to protect itself with thick mucous. That way the acid doesn't burn the flesh.

BUT, the top part of the stomach is totally unprotected from the acid. It was protected only by the fact the horse's

HOW MUCH HAY SHOULD I FEED BEFORE WORK?

(FOR A 500 KG / 1100 LB HORSE)



2 KG
(4.4 LB)

IF YOUR HORSE HASN'T EATEN
FOR THE LAST 2 OR MORE HOURS



1-2 KG
(2.2 - 4.4 LB)

IF YOUR HORSE HASN'T EATEN
FOR THE LAST ½ TO 2 HOURS



A NIBBLE

IF YOUR HORSE WAS EATING HAY/
GRAZING RIGHT UP TO WHEN YOU
CAUGHT THEM

Above: A guide for how much hay to feed before work

stomach was always full of fibre. This fibre was able to stop the acid from the lower part of the stomach from splashing to the top part. BUT, with our modern day meal feeding practices, it is common for horses to end up with an empty stomach.

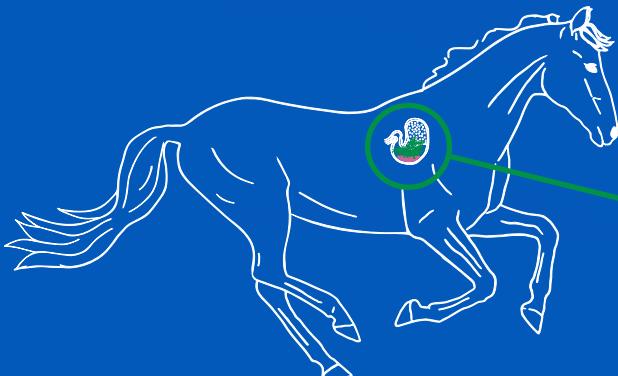
When you ride them, the movement of walk, trot, canter, gallop means the acid gets splashed around, and ends up burning the flesh of the upper stomach, causing ulcers.

HERE IS WHAT YOU SHOULD DO

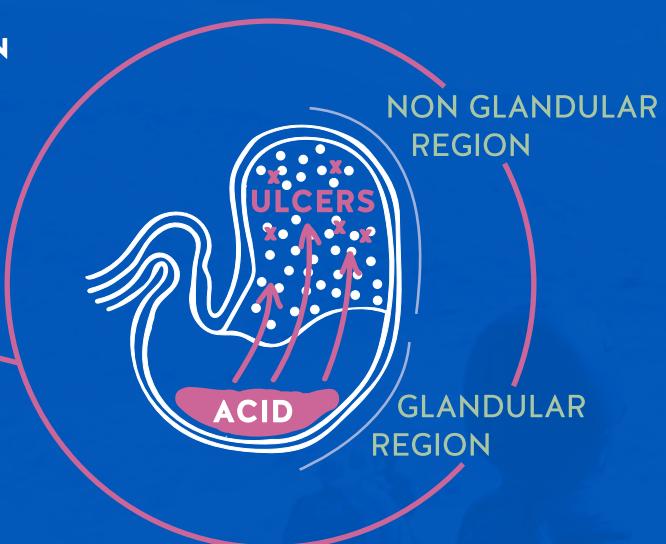
While you are saddling up, let your horse eat hay. Chewing the hay will make your horse create saliva. This saliva buffers the stomach acid, making it less likely to burn the top part of your horse's stomach. AND the fibre will create a protective physical barrier to stop the acid from splashing around and burning the top part of the stomach.

How much hay should you feed? See the guide above.

THIS HORSE HAS A **FULL STOMACH** WHICH PROTECTS THE DELICATE NON GLANDULAR REGION AGAINST ACID SPLASH



THIS HORSE HAS AN **EMPTY STOMACH** WHICH ALLOWS ACID TO SPLASH UP ON THE DELICATE NON GLANDULAR REGION, WHICH CAN CAUSE ULCERS



TIP:

FOR EVEN BETTER BUFFERING, USE ALFALFA/LUCERNE HAY. IT SEEMS TO NATURALLY BUFFER THE STOMACH BETTER THAN OTHER TYPES OF HAY. BUT IF YOU DON'T HAVE IT OR CAN'T FEED IT, ANY HAY WILL DO!

Above: Diagram showing the effects of a full and empty stomach on acid splash onto the delicate part of the stomach when a horse is worked

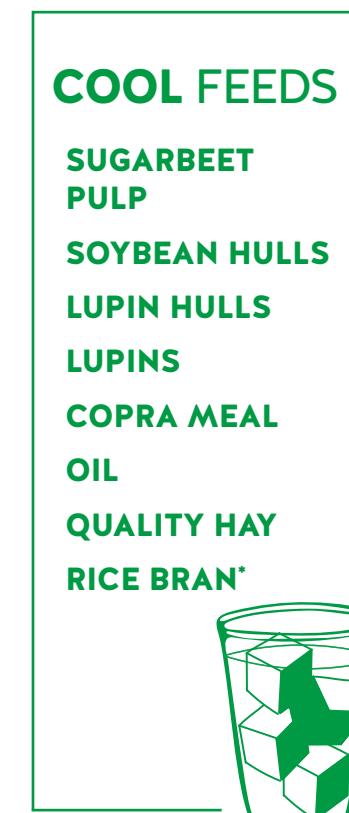
07

FEED ‘COOL’ INGREDIENTS

Sometimes, despite doing all you can, including implementing all the tips above, to manage behaviour, you may find your horse is still hot. There are horses that react to certain feed ingredients. And for these horses, it may take a change of ingredients to achieve calm behaviour.

So, for sensitive horses, that need high calorie feeds, which high calorie feed ingredients are typically ‘hot’ and which are not? See the lists above.

It is really important to remember that not all horses will react to the ingredients in the HOT list. In fact horses fed properly cooked cereal grain based feeds are perfectly capable of being extremely calm. As long as calories fed match the calories your horse needs. See pages 12-15 for more on this.



Above: A guide to which feeds are ‘hot’ and which are ‘cool’

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Some horses react to certain feeds. For these horses it may take a change of ingredients to achieve calm behaviour.



08

ARE MYCOTOXINS INVOLVED?

If your horse has had a sudden and dramatic shift in behaviour, or an uncharacteristic change in behaviour (like a normally quiet and safe horse has become unpredictable, aggressive or dangerous) this could be mycotoxins. To test the theory, you need to try and work out where the mycotoxins may be coming from.

The top 3 culprits are:

1. Ryegrass pasture or hay
2. Fescue pasture or hay
3. Paspalum pasture or hay

If your horse is on any of these forages, and is behaving different to normal, take them completely off the suspected forage. Wait for one to two weeks and see if their behaviour reverts to normal. If it does, there is a good chance mycotoxins are the issue.

What to do about it, is unfortunately, not so simple.

Best case, if you can manage it, is to keep your horse off the offending pasture or

hay. If you can't, you will need to use a mycotoxin binder that is effective against the pasture based mycotoxins. This is too big a subject to cover here, but to read more, you can go to: <https://feedxl.com/50-mycotoxin-binders-do-they-work-on-pasture-toxins/>

Even with a mycotoxin binder, I would still advise limiting access to the offending forage as much as possible.

Note that not all horses seem to be affected in the same way by mycotoxins. So you may have multiple horses on the same forage, with only one or two affected.

TIP:

PASTURES LIKE RYEGRASS AND FESCUE ARE HIGHEST IN MYCOTOXIN CONTENT WHEN THEY ARE OVERGRAZED OR LONG AND MATURE WITH SEEDHEADS. IF YOUR PASTURES ARE AN ISSUE, KEEPING AFFECTED HORSES OFF THEM WHEN THEY ARE EITHER REALLY SHORT OR REALLY LONG WILL HELP.



Above and Right: Photos from two FeedXL members of their peaceful horses. A view of that calm behaviour we all wish for.

A NOTE ON CALMING SUPPLEMENTS

There are a plethora of ‘calming’ supplements on the market aimed at helping to calm a hyperactive horse. Whether these supplements work or not is difficult to establish. Many studies have been conducted to assess their effectiveness with contradicting results. Most however are safe supplements, commonly containing large amounts of the water soluble (and hence virtually non-toxic) vitamin B1. Some also contain magnesium and an amino acid called tryptophan.

If you are fine tuning your horse’s feeding regime to ensure you are not overfeeding, adjusting feeding according to daily workload, feeding a diet based on forage, using cool energy sources when needed and feeding a balanced diet PLUS have your horse well educated and its behaviour is still a problem, then trying calming supplements to see if they have a positive impact is a feasible option. If they work, keep using your chosen supplement. If they don’t, keep adjusting the diet and working on education until the right balance is struck.



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There are lots of equine calming supplements out there - but the jury is still out on whether they actually work.



HOT HORSE ACTION PLAN

1

RULE OUT PAIN OR HORMONES

Rule out pain (for example gastric ulcers) or hormones that may be the root cause of your horse's hot behaviour.

2

ADJUST FEED DAILY

Adjust what you feed daily to match the amount you feed to your horse's workload.

3

WORK ON EDUCATION

Work on education to help the horse understand what you want from them and that they are safe and can be calm and confident.

4

FEED LOTS OF FORAGE

Feed LOTS of forage, with free access, where possible, to pasture and/or hay. This will keep the gut and its trillions of bacteria healthy.

5

BALANCE THE DIET

Use FeedXL to make sure the diet is balanced and meeting all vitamin and mineral requirements.

6

KEEP THEIR STOMACH FULL

Always keep your horse's stomach full, especially before you ride them!

7

FEED COOL FEEDS

Feed 'cool' feeds to help with behaviour.

LAZY HORSE ACTION PLAN

1

RULE OUT PAIN

Rule out pain as the root cause of your horse's 'laziness'.

2

WORK ON EDUCATION

Work on education to help your horse be more willing to go forward and work with you.

3

KEEP THEM FIT

Do plenty of fitness work, with hills if you can, working slowly up to the level of fitness your horse needs to perform well.

4

BALANCE THE DIET

Use FeedXL to make sure the diet is balanced and meeting all vitamin and mineral requirements, without overfeeding calories.

5

SWITCH TO A PSSM SAFE DIET

Consider switching to a PSSM safe diet, where all feeds and forages fed are less than 12% non-structural carbohydrate.

6

KEEP THEIR STOMACH FULL

Always keep your horse's stomach full, especially before you ride them!





Above: Justin Colquhoun

EDUCATION FOR DEALING WITH 'HOT' OR 'LAZY'

by *Justin Colquhoun*

elitehorsemanship.com Founder and Horse Trainer

While teaching clinics worldwide, one of the most common issues I see riders struggling with is how to work with the lazy or hot horse. There are a few simple steps that I take with my students when working with these lazy or hot behaviours. And it all begins by trying to understand things from the horse's perspective.

Once we understand that our horses are only responding to the circumstance and situation we present to them, then we can then start to dissect the issue further and look for a different response from our horse.

PUTTING THE LAZY HORSE ON AUTO PILOT

With the lazy horse, I start by trying to piece together the background on the horse e.g. regularity of work, fitness, soundness, responses to cues, training

gear used (spurs/whips/saddles/bits/etc). And then, I watch, as the horse is lunged or ridden, and see how the horse responds to increased energy from the rider.

Pretty quickly some of the issues come to the surface.

I know some horses are just more naturally lazy than others. But the most common issue I feel creates a lazy horse is over cueing. For example, when completing a lunging exercise with the lazy horse, handlers constantly ask the lazier horse to keep going, via their whip or stick as well as voice cues. In ridden work, the rider has to remain active with their legs (heels) and is constantly needing to increase energy, just to hold the horse in the desired gait.

What I try to do with my students first, is get them to understand the situation from the horse's perspective. Then we figure out what we need to change to get a different response from the horse. I aim at having all my horses travel on

what I call 'auto pilot'. Where they hold themselves in the walk/trot/canter with minimal input from the rider.

To achieve this, I take my students through a simple process of defining and applying primary and secondary cues for forward movement. These cues translate to a 'good deal' then a 'not so good deal' for our horses. Here is how it goes:

Firstly we apply our primary cue (a voice or audible cue) and an active body position promoting forward at the same time. This is the 'good deal'. If our horse doesn't take the 'good deal', then we apply a secondary cue, perhaps by lifting our energy and body movements in the saddle. This is the 'not so good deal'... but it achieves the horse lifting his energy up to move forward.

Then the most important part, I get my students to reward their horse, when they pick up into the faster gait. The reward is a simple pat on the neck while softening their seat and breathing out. You can probably guess what happens 9 times out of 10 when the rider softens their seat and pats their horse on the neck... the lazy horse takes the opportunity to break gait and slow down.

This is ok though, because THIS is where part of the lazy horse problem stems from. We just need to work on cueing our horse back into the desire gait with the exact same primary and secondary cues and repeat the process as many times as required.

Eventually our lazy horse figures out it's better to receive a pat and reward for staying up in the desired gait with forward energy, than it is to slow down and repeat the process all over again. The important thing here, as a rider,

is you must not ask the horse, please, please, please to keep going. Let them slow down, let them break gait, and then, let them know that is not what you wanted, by applying your good, and not-so-good deal cues.

We are just making the wrong thing hard and right thing easy. I have found this process to be very effective in re-training the lazier horse to maintain forward and both horse and rider seem to enjoy the process a lot more than the alternative of just pestering the horse to maintain forward.

DEALING WITH THE HOT OR RUSHY HORSE

At the other end of the spectrum is the hot or rushy horse. These types of horses present a different challenge all together. And often we need to tone down our rushy horse's mind and responses to our cues in order to firstly ensure everyone's safety.

These rushy or hot behaviours often have a trigger point. Once this is defined we can start to re-train our horses to respond differently to the trigger point (cue) and situation. For example a common trigger for the rushy horse can be as simple as a slight weight adjustment forward in the saddle. Which can make a rushy horse simply take off.

If this sounds like your horse, don't despair. We can counteract this with a few simple exercises. The main exercise I start to re-educate the hot or rushy horse with, is what I call the 'serpentine exercise'. Here is how it goes:

Start by riding a large square or circle (20-30m wide) in your arena. Then, begin to ride 3-5 meter wide snake

(serpentine) patterns, left and right at the trot or seated jog.

One TIP for success with this exercise is DON'T OVERTHINK IT! Focus on directing your horse's energy left and right. In the beginning, a lot of rushy horses will take liberty and will start to duck and dive all over the arena, at pace.

What we need to do in this situation is simply start counteracting the horse's movements by asking them to move in the opposite direction to the one they are wanting to go. If your horse dives left, you take them right. This simple redirection of energy and balance

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I get my students to understand the situation from the horse's perspective.

slowly but surely starts to change the hot horse's mind about rushing. And they will eventually start to slow their legs and mind down as the exercise progresses.

If you are struggling with the lazy or hot horse, give these exercises a try. They will help! Seeing both horse and rider beginning to enjoy the training process a little more, and achieving a little more harmony is one of the most rewarding things about what I do as a horseman and educator.

I look forward to hopefully meeting you at one of our events or through my online community soon!

All the best,
Justin.



5 WAYS FEEDXL WILL HELP

01

PLAN OUT DIETS

Plan out work day and rest day diets that control calories but always meet requirements for vitamins and minerals.

02

MEET NUTRIENT NEEDS

Make sure you are meeting requirements for *calming* nutrients like magnesium and B1. And for muscle energy nutrients like B-vitamins and the electrolyte minerals.

03

FIND INGREDIENTS YOU NEED

Find 'Grain Free' or 'Low NSC' ingredients if you need them.

04

FEED ENOUGH FORAGE

Make sure you are feeding enough forage for a healthy hindgut.

05

RELAX!

Put your mind at ease so you can relax. When you are relaxed, your horse often will be too!