

# Choosing the right feed

Choosing the right feed for each horse, and feeding at recommended levels, alongside forage, will deliver a fully balanced diet to meet the individual's requirements.



## no.4 TOP LINE CONDITIONING CUBES

- Non-heating for controllable energy.
- Energy dense so you feed less
- Maintain and promote condition for the lighter types.
- Digestible Energy 13.5 MJ/kg, Protein 12.5%, Oil 5.5%, Fibre 9%



## no.17 TOP LINE CONDITIONING MIX

- Faster release energy, without oats.
- Palatable and highly digestible.
- Maintains condition without making horses heavy.
- Digestible Energy 12.5 MJ/kg, Protein 12.5%, Oil 6%, Fibre 8%



## no.6 ALL-ROUND ENDURANCE MIX

- Reduced starch with a high fibre and high oil content.
- No need to feed additional chaff or oil.
- Ideal for fussy types and TBs with plenty of 'natural energy'.
- Digestible Energy 13 MJ/kg, Protein 12%, Oil 10%, Fibre 12%



## no.21 EASE & EXCEL

- Low starch yet high energy from fibre and oil.
- Suitable for horses prone to gastric ulcers.
- Good for stressed and fussy horses who struggle to maintain condition.
- DE13 MJ/kg, Protein 13%, Oil 10.5%, Fibre 18%



## no.9 ALL-ROUND COMPETITION MIX

- Fast release energy, with oats.
- Fully balanced to support performance without making them heavy.
- Ideal for laid back types.
- DE 12.5 MJ/kg, Protein 12.5%, Oil 5.5%, Fibre 10%



## no.19 PERFORMANCE BALANCER

- Provides essential protein, vitamins and minerals without calories/energy.
- Add to an existing balanced diet when the workload increases to meet nutrient demands without adding calories.
- Ideal for good-doers who'd get heavy on the full amount of a mix or cube.
- Protein 26%, Oil 7%, Fibre 75%



Matias & Antonio with Tom Beim's ponies



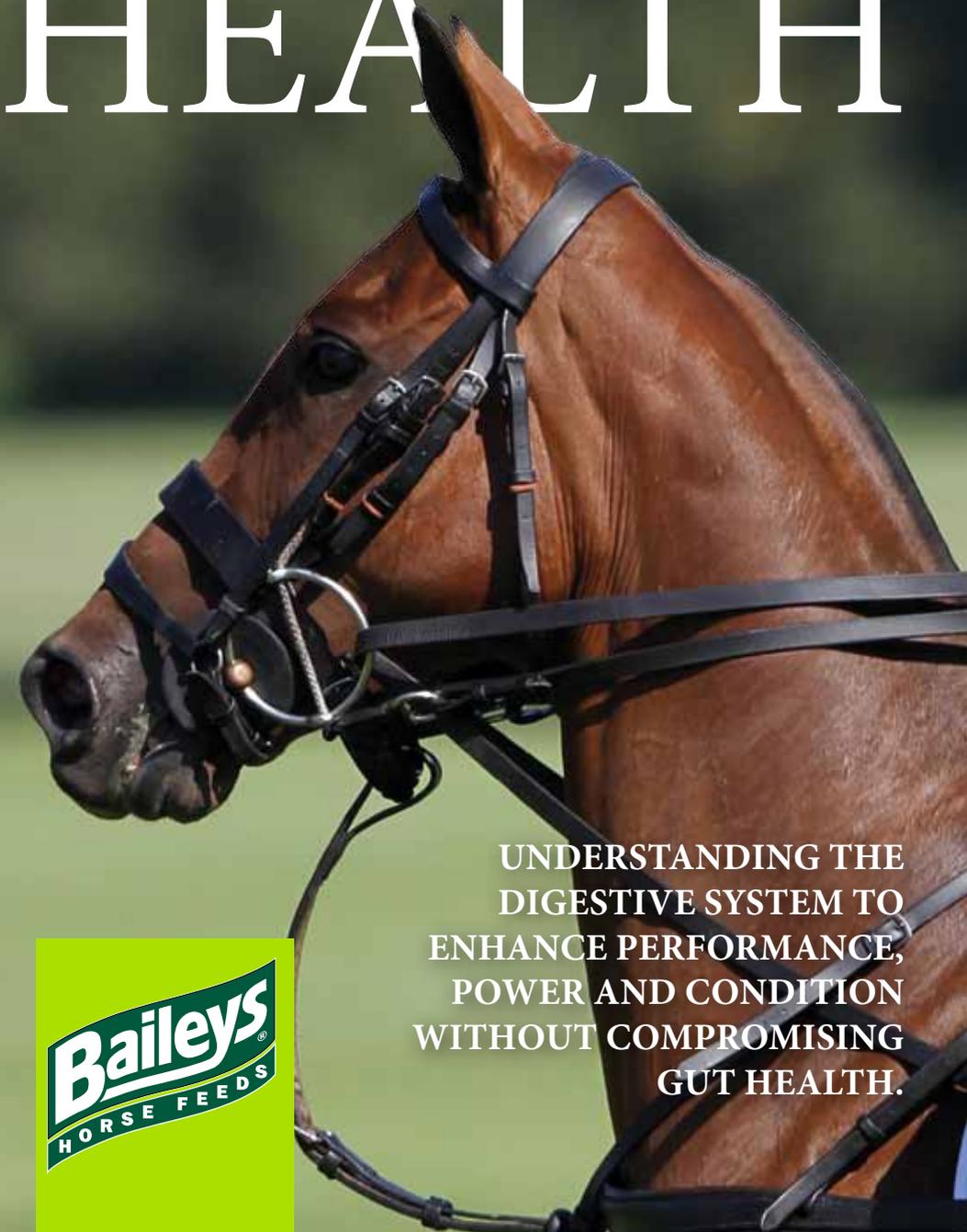
## OUTSHINE high oil supplement if

- Concentrated slow release calories with supporting antioxidants.
- Adds slow release energy to a horse's existing balanced diet.
- Ideal for limited appetites and for helping to improve stamina.
- DE 24 MJ/kg, Protein 12.5%, Oil 26%, Fibre 8%

Baileys Horse Feeds - For practical feed advice that makes the difference, contact Lorna Edgar, Polo Nutritionist: 07808 863 864 lorna@baileyshorsefeeds.co.uk www.baileyshorsefeeds.co.uk



# POLO PONY HEALTH



UNDERSTANDING THE DIGESTIVE SYSTEM TO ENHANCE PERFORMANCE, POWER AND CONDITION WITHOUT COMPROMISING GUT HEALTH.





## *About the Author*

Lorna Edgar worked as a groom, in polo and eventing, for 10 years, in the UK, USA and New Zealand, so she really understands the challenges of the sport and the demands on ponies throughout the year. After hanging up her grooming hat, she graduated from Hartpury College with a BSc (Hons) in Equine Science and has worked for Baileys Horse Feeds since 2003.

As part of her role as a “field-based” nutritionist, Lorna works with players and grooms all over the country, and from low to high goal, on how best to feed and manage their ponies for optimum performance. Time and again, she finds that instilling an understanding of the physiology of the equine digestive system helps clients appreciate how adapting their approach to feeding to be in sympathy with this, reaps results every time.

In this booklet, we look at some physiological facts, why they are relevant and important and how they should influence feeding practise.

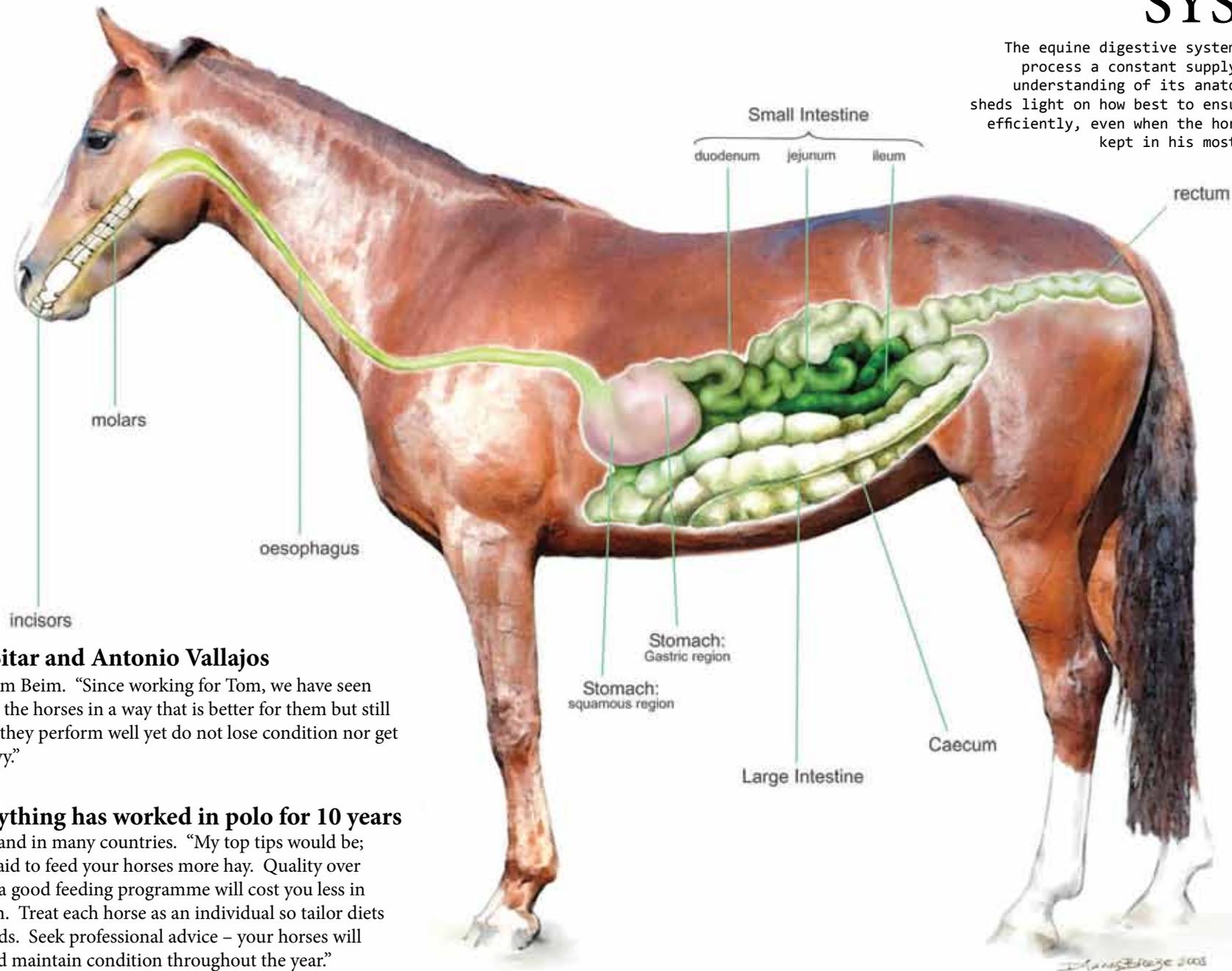
### **MAX CHARLTON (7)**

“My horses have constant access to hay and are never muzzled. I don’t feed oats and each horse is fed as an individual – I use some Top Line Conditioning Mix and some All-Round Endurance Mix. I never underestimate how hard my horses are working and how often they are travelling. Paying attention to the health of the hindgut is as important as the energy-based feeds.”

*Pictured playing on Reservada*

# THE DIGESTIVE SYSTEM

The equine digestive system has evolved to process a constant supply of fibre and an understanding of its anatomy and function sheds light on how best to ensure it functions efficiently, even when the horse is no longer kept in his most natural state.



## Matias Bitar and Antonio Vallajos

work for Tom Beim. “Since working for Tom, we have seen how to feed the horses in a way that is better for them but still makes sure they perform well yet do not lose condition nor get fat and heavy.”

## Steph Blything has worked in polo for 10 years

at all levels and in many countries. “My top tips would be; don't be afraid to feed your horses more hay. Quality over quantity as a good feeding programme will cost you less in the long run. Treat each horse as an individual so tailor diets to their needs. Seek professional advice – your horses will perform and maintain condition throughout the year.”

# Physiological Fact 1

A pony produces 10 to 12 litres of saliva per day but ONLY when it is chewing. Saliva contains bicarbonate which helps neutralise stomach acid.

## Importance/Relevance

If the horse doesn't chew, he doesn't produce saliva but the stomach continues to produce acid. If there is no, or too little, food in the stomach the acid cannot be "mopped" up so the stomach walls are exposed and the acid can cause ulcers.

## Management Advice/Adaptations

- Allow free access to forage, or grazing, so they are able to constantly chew, producing saliva and ensuring the stomach is never empty.

## TOM BEIM (3)

"Since changing from a 'traditional polo diet' to Top Line Conditioning Cubes and ad lib forage, my horses look well and go well all season with plenty of energy."

# Physiological Fact 2

The stomach is similar in size to a rugby ball and is fairly rigid so does not stretch to accommodate large amounts of feed, unlike the human stomach. Feed passes through the stomach in 20 to 30 minutes.

## Importance/Relevance

The horse has evolved as a trickle feeder whose stomach is generally only ever around three-quarters full. Large meals of grain or concentrates risk feed "over-flowing" from the stomach into the small intestine too quickly, which means it can reach the hindgut before it has been properly digested. This disrupts the fibre-digesting bacteria in the hindgut and can cause colic or laminitis.

## Management Advice/Adaptations

- Keep meal sizes manageable to avoid overloading the stomach so divide the total daily feed requirement into 3 or 4 feeds per day, where possible.
- Feed no more than 1 ½ Stubbs scoops per meal, including beet and/or chaff.
- Feeding concentrate feed up to 3 hours before exercise/playing will not affect performance.



Tom Beim's rears!



#### **OLI HIPWOOD (4)**

“My horses are never muzzled and have access to hay all day and it makes no difference to their energy levels; complemented by the correct hard feed, they feel great all season. We always feed three times per day so their meals are not huge.”

*Oli Hipwood on Silk*

## Physiological Fact **3**

There are **two distinct regions** in the equine stomach.

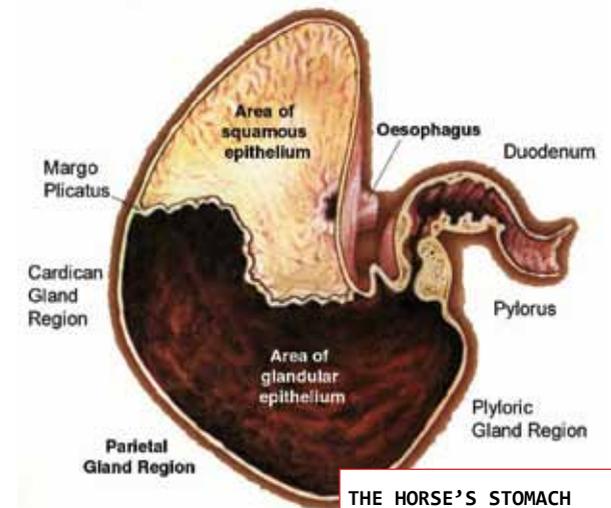
1. The lower, glandular region, where gastric acid is produced and which is protected by a layer of mucus.
2. The upper, squamous region, which does NOT have mucus protection and relies on fibre as a physical barrier.

### Importance/Relevance

Ulceration of the upper squamous region can occur when acid splashes up from the lower region, either because there is insufficient fibre in the stomach and/or through the physical effect of exercise. Ulcers in the glandular region are less common but can occur when the protective barrier is compromised, for example, through stress or continued use of drugs, like “bute”. Gastric ulcers are present in 90% of racehorses and 60% of performance horses so their prevalence is likely to be similar in polo ponies. Gastric ulcers can reduce appetite and have a negative impact on performance, general condition, behaviour and well-being.

### Management Advice/Adaptations

- Allow **FREE** access to forage (hay/haylage) and **DO NOT MUZZLE** or keep muzzle time to a minimum so there is always something in the stomach to “mop up” the acid.
- Give a Stubbs scoop of alfalfa before exercise, or playing, to help ‘mop up’ stomach acid and form a “raft” on top of the acid and stomach contents to reduce acid splash during exercise.
- Alfalfa contains natural antacids to help neutralise stomach acid.
- Give hay/haylage straight after exercise/playing to reduce the amount of time without fibre.
- If you suspect gastric ulcers or have had them diagnosed, look for low starch compound feeds, like Baileys Ease & Excel, to provide the necessary energy and supporting nutrients, alongside forage.



**THE HORSE'S STOMACH**  
Acid production is 24 hours per day, 1.5 litres PER HOUR - whether food present or not.



## Physiological Fact 4

The small intestine is responsible for absorbing proteins, oils, cereals and some vitamins and minerals. Its diameter is narrow to encourage maximum absorption of the nutrients from feed.

### Importance/Relevance

If individual meals are too large, feed is forced too quickly through the stomach and small intestine. This increases the risks of digestive upsets or colic and the absorption of feed is not maximised, which is a waste of money!

### Management Advice/Adaptations

- To provide energy, in addition to that provided by forage, choose good quality feeds which are energy-dense (provide more energy per scoop), are cooked to be as digestible as possible and contain bioavailable minerals for maximum absorption

## Physiological Fact 5

The adult horse's body mass is 65-75% water (brain 85% water, muscles 75%, and bones 30%). Horses have a large muscle mass and generate a lot of muscle heat and sweat when worked hard. Sweat is made up of water and electrolyte salts which are important for cell function, including muscle and nerve cells.

### Importance/Relevance

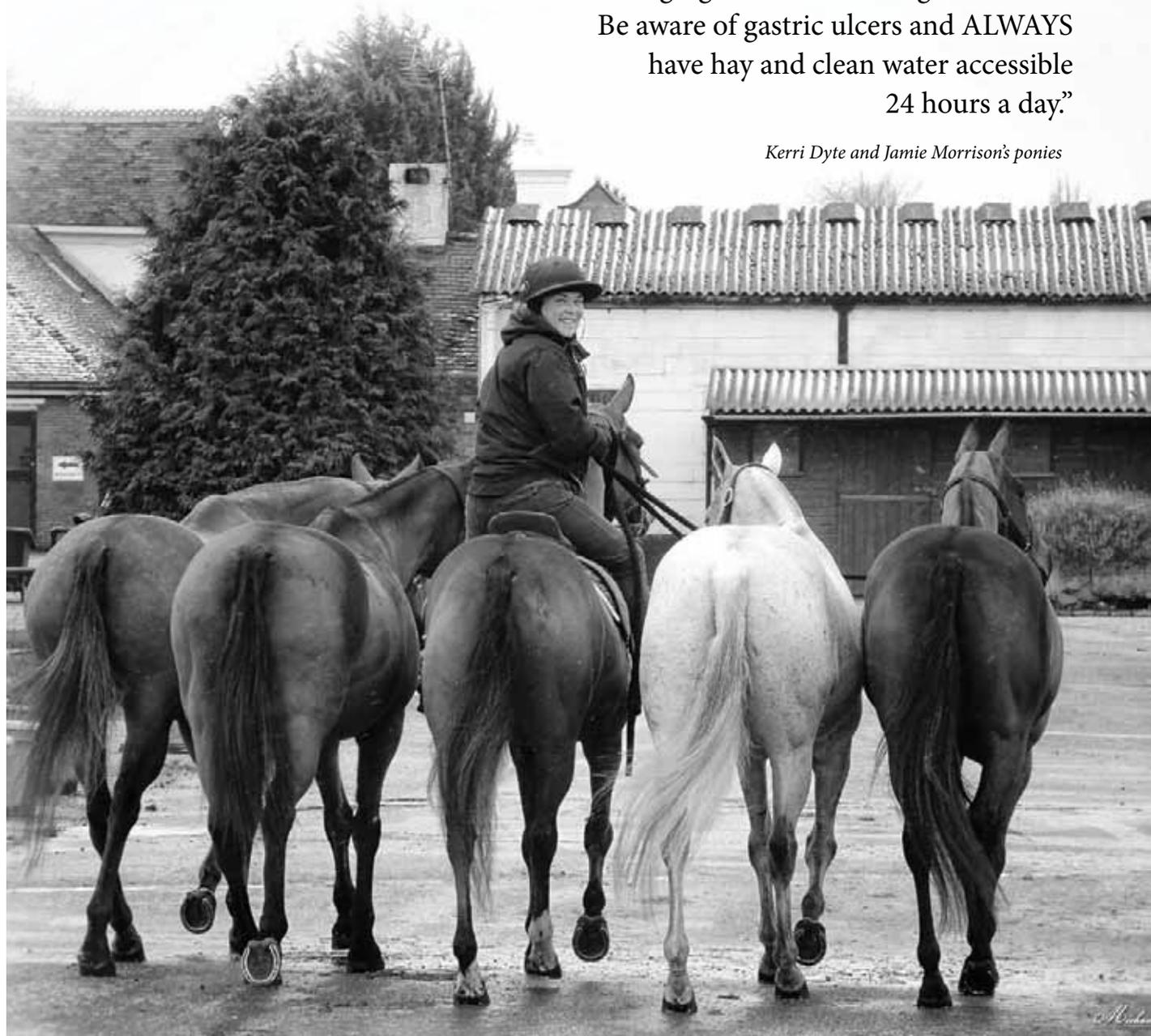
A 2% loss of body water compromises performance, digestion (increasing colic risks), joint lubrication, temperature regulation and elimination of waste – think of how we feel with a hangover, which is usually with a 1% loss of body water! During hot weather and humidity, considerations of water intake must be carefully monitored as ponies' water requirements may increase by 79%.

### Management Advice/Adaptations

- Offer water on arrival at polo AND again as soon as they have finished playing – it won't cause colic. After 20-30 minutes, the horses' thirst response will diminish so ensuring they drink little and often speeds up recovery.
- Giving electrolytes in water or a wet, sloppy feed will help replace those lost through sweating and aid recovery.

**Kerri Dyte** has worked in all levels of polo over 20 years. Her top tips are, “Treat each horse as an individual, changing its feed according to its work. Be aware of gastric ulcers and ALWAYS have hay and clean water accessible 24 hours a day.”

*Kerri Dyte and Jamie Morrison's ponies*





Oli Hipwood's Rise & Shine

## Physiological Fact **6**

The equine hindgut comprises the caecum and large intestine and both contain beneficial bacteria which ferment fibre in the diet to release energy. Some hindgut bacteria manufacture vitamins, including B vitamins and vitamin K. Water and electrolytes are also absorbed in the large intestine.

### George Meyrick (6)

“My top tip is allowing hay *all the time*. The horses self-regulate their intake, are so much happier for it and their performance is never hindered.”

### Importance/Relevance

While fibre is being fermented in the hindgut, it acts as a reservoir for water and electrolytes, so, without sufficient fibre, from forage, this function is diminished. Long periods without fibre/forage can also raise acidity levels in the hindgut, compromising the beneficial bacteria. A reduction in the production of B vitamins, by hindgut bacteria, has a negative effect on appetite and energy levels, while ulcers can occur in the hindgut due to increased acidity, known as “acidosis”. Loose droppings and acidic smelling droppings indicate disruption of the hindgut bacterial populations and insufficient fibre/forage intake.

### Management Advice/Adaptations

- Always allow access to forage, even on match days. Withholding hay to keep the horses ‘lighter’ compromises the stomach, reduces gut motility and reduces the reservoir effect in the hindgut, leading to increased dehydration.
- Always allow access to water.
- The quality of the hay/haylage can have as much of an effect on gut-fill and water turnover as the amount being fed. High performance horses should be fed high quality forage which is more digestible so spends less time sitting in the gut.
- Avoid hay/haylage which has been cut later in the season, has lots of stem and not much leaf, providing indigestible fibre that sits longer in the hindgut while the bacteria attempt to ferment it. It feels prickly to squeeze in the hand and, when fed, can give rise to a ‘hay belly’ appearance.
- Proportionally, haylage has a higher moisture/water content than hay so more must be fed, by weight, to ensure adequate fibre is given. Feeding less haylage than you would hay risks insufficient fibre, resulting in loose droppings.
- Probiotics provide live beneficial bacteria and are useful to help replenish those lost by a horse during times of stress. Prebiotics, like Baileys Digest Plus, act as a food source for beneficial hindgut bacteria to help them flourish at the expense of pathogenic species. These can be given on an ongoing basis or just at times of stress, like travelling, hard matches or during course of oral antibiotics.

## Physiological Fact

# 7

A fully balanced diet is key to optimum performance in any athlete, whether horse or human, ensuring adequate amounts of essential nutrients, including protein, vitamins and minerals as well as energy and fibre, to support workload.

### Importance/Relevance

Protein is made up of amino acid building blocks, some of which are essential in the diet as the body cannot manufacture them from other components. Protein is vital for muscle development and function, hoof growth and general tissue integrity and repair.

Vitamins and minerals are essential for good health and the metabolism of energy. Minerals, in particular, interact with each other so it's vital they are supplied in the correct balance as over-supply of one may "tie-up" another, making it less available.

Energy and calories are the same thing and are supplied by a number of different dietary sources including, fibre, cereals and oil. Cereals are easily digested to supply "quick release" energy, while fibre and oil are digested and metabolised more slowly for "slow release" energy.

An unbalanced diet increases the risk of injury, lack of performance and poor muscle tone/development.

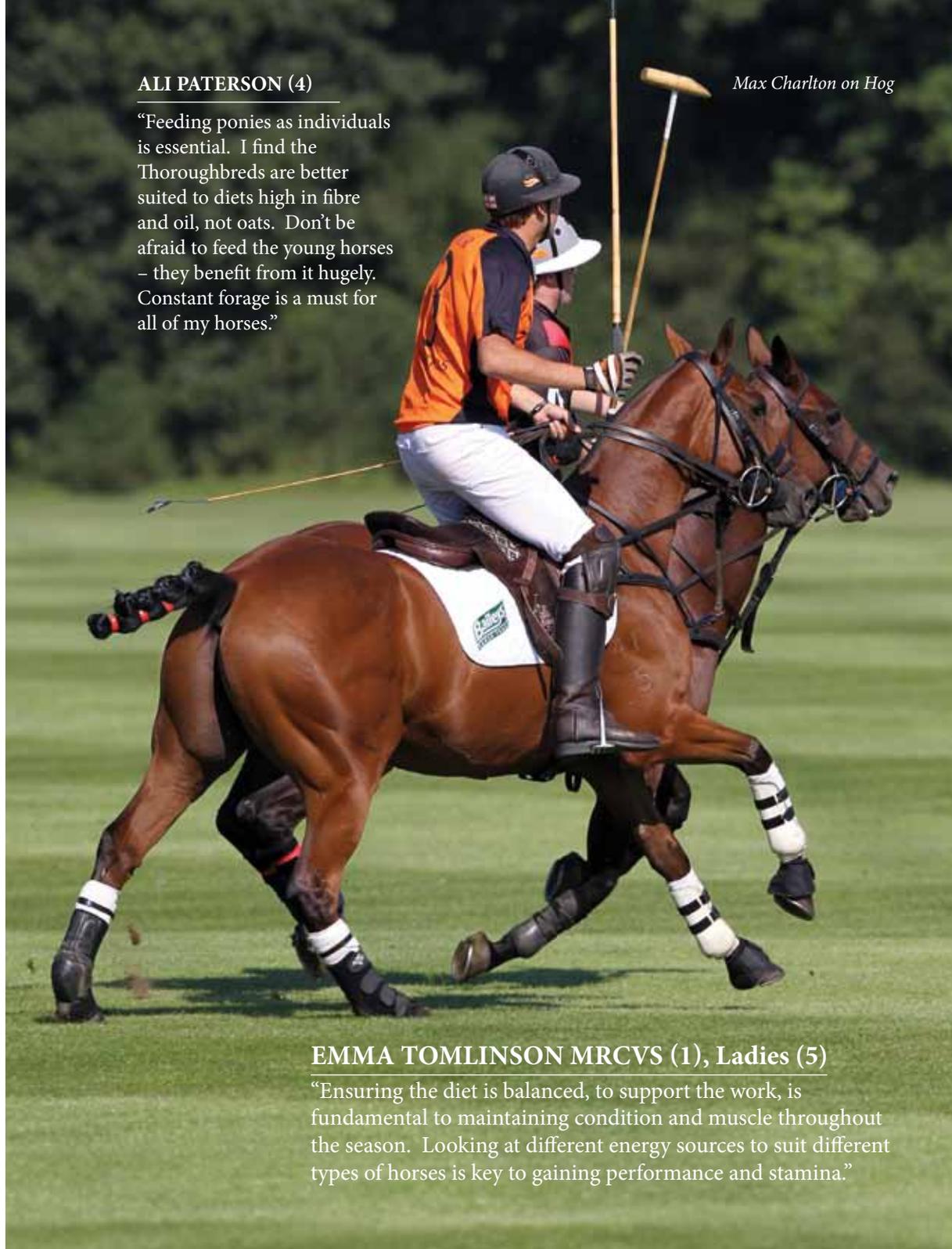
### Management Advice/Adaptations

- Feeding the recommended amount of a good quality mix, cube or balancer, alongside forage, will provide a fully balanced diet. Manufacturers' recommendations are based on the horse's bodyweight and workload/body condition. Giving less than this will mean the horse/pony is missing out on essential nutrients.
- Mixes and cubes provide energy, protein, vitamins and minerals and are formulated to suit different requirements according to workload. A low energy feed, fed at recommended levels, will provide a balanced diet for a horse at rest or in light work but will fall short for a horse in harder work.
- Balancers, like Baileys Performance Balancer, provide protein, vitamins and minerals without the energy/calories associated with a mix or cube so are ideal for good-doers. They are also useful for topping up reduced amounts of hard feed to bring nutrient levels up to achieve a balanced diet without adding unwanted calories.
- Oats are high in energy/calories and phosphorous but low in quality protein, and minerals = AN UNBALANCED FEED. When added to a mix or cube they unbalance the diet, so a balancer MUST to be added to provide the necessary extra nutrients. Without the correct supporting vitamins and minerals, the pony cannot release the energy supplied by the diet so simply adding extra oats, without a balancer, will not necessarily give a pony more energy.
- When ponies' workloads drop, their diet must be adjusted accordingly otherwise they are likely to gain weight or have other problems.
- When on box rest, a balanced diet is important to support healing and recovery. Balancers are useful for providing essential nutrients without unwanted calories.

### ALI PATERSON (4)

"Feeding ponies as individuals is essential. I find the Thoroughbreds are better suited to diets high in fibre and oil, not oats. Don't be afraid to feed the young horses – they benefit from it hugely. Constant forage is a must for all of my horses."

Max Charlton on Hog



### EMMA TOMLINSON MRCVS (1), Ladies (5)

"Ensuring the diet is balanced, to support the work, is fundamental to maintaining condition and muscle throughout the season. Looking at different energy sources to suit different types of horses is key to gaining performance and stamina."