

Stud & Racing Guide



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Our Story

SPILLERS™ produced the first ever compound feed for horses, SPILLERS™ Horse and Pony Cubes back in 1958 and has since continued to lead research, innovation and development in equine nutrition and feeding. Now the best-known feed brand in the UK, SPILLERS™ produces feeds to suit all types of horses and ponies, including a range of fibres and balancers, Laminitis Trust and BETA EGUS approved products and a superior range of thoroughbred breeding and racing feeds.

Quality Matters

SPILLERS™ is part of Mars Inc. who put quality at the heart of everything, in fact it's one of the 'Five Principles' that forms the cultural fabric of the business. SPILLERS™ is committed to delivering quality and value to its customers and the thousands of horses and ponies that consume SPILLERS™ products every day. Daily quality meetings are held in the on site laboratory where at least one product from every batch of feed manufactured is carefully inspected. This ensures that the feeds produced meet the high standards demanded ensuring owners and trainers can be confident they deliver the very best consistent nutrition to their horse.

Naturally Occurring Prohibited Substances (NOPS)

A positive post-race or competition dope test is not only a disaster for the trainer or rider concerned, but also for the sport and any company whose products might be found to contain a prohibited substance.

SPILLERS™ is accredited to the British Equestrian Trade Association (BETA) Naturally Occurring Prohibited Substances (NOPS) Code. The BETA NOPS Code requires members to evaluate the risk of NOPS contamination during every step of the production process, including the sourcing, storage and transport of raw ingredients and the actual manufacturing of all accredited products.

Conforming to the Code allows the use of the BETA NOPS logo on products and literature to provide reassurance to owners and trainers of the stringent quality management procedures adhered to.

SPILLERS™ continues to work via BETA with sporting and government regulatory bodies to ensure that appropriate, workable measures are in place to reduce the risk of prohibited substances being present in equine feeding stuffs.

SPILLERS™ is proud of its quality standards and is transparent about the policies and processes followed to maintain them. If you would like any further information the SPILLERS™ Care-Line will be happy to assist on 01908 226626.



**BETA NOPS
Approved**

Packaging

At SPILLERS™, our fibre products are packaged in LDPE plastic to ensure freshness and preserve the product inside. LDPE can be recycled, however, you will need to check with your Local Authority where your nearest collection point is. Our paper bags are recyclable too and can go with mixed household paper recycling curbside collection.

Our Team

Our people are a vital part of our brand and SPILLERS™ is home to a dedicated team of Thoroughbred Nutritionists who work closely with breeders and trainers to provide specialist nutrition support. Regular visits are offered free of charge to yards with 10 horses or more and can be individually tailored to include weighing, ration formulation and forage analysis as required.



Our Science

WALTHAM™ is a leading scientific authority on pet nutrition and is home to the WALTHAM™ Equine Studies Group, led by Dr. Pat Harris MA PhD VetMB DipECVCN MRCVS. This internationally renowned group provides the science underpinning the SPILLERS™ brand. Pat is a qualified veterinary surgeon and European specialist in veterinary clinical and comparative nutrition who has authored or co-authored more than 500 scientific papers. Dedicated to the scientific advancement of nutrition, the WALTHAM™ Equine Studies group collaborates with scientists and nutritionists throughout the world and by publishing their research, is committed to sharing knowledge for the benefit of all veterinarians, owners and trainers.



Photo Credit: Nanna Luthersson and Erin Kelly

Our Thoroughbred Services

We always strive to offer the very best services to our clients, our skilled Thoroughbred Nutritionists are happy to offer the following:

- ◆ Full on yard dietary evaluation, including use of the weighbridge if applicable
- ◆ Access to the full nutrition support team including Dr. Pat Harris
- ◆ Forage analysis
- ◆ Youngstock evaluation



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Combining science with the latest feed technology

All the cereal grains used in SPILLERS™ feeds are cooked to ensure maximum starch digestibility and energy delivery. Mixes contain a blend of steam cooked flaked barley, maize and peas, whilst our higher energy mixes also contain British rolled oats. The ground cereals in our cubes are conditioned with steam, and then double pelleted using a combination of heat and compression for optimum pellet quality.



However, cereal starch is not the only source of energy, and the SPILLERS™ range of Racing and Stud feeds includes several low and restricted starch products, all of which contain a carefully formulated blend of highly digestible fibres and oil to support digestive health without compromising on energy delivery. In fact, the WALTHAM™ Equine Studies Group played an important role in the original research that showed that performance horses can be successfully fed on diets containing high levels of fibre and oil with restricted levels of starch.

Protein is vital for muscle development and growth but whether feeding a broodmare, foal or racehorse in training, the quality of protein in the diet, which is determined by the profile of amino acids, is equally if not more important as the amount. A number of our racing and stud feeds include soya bean meal which is rich in the essential amino acids lysine, methionine and threonine. All the soya bean meal in SPILLERS™ feeds is toasted ensuring safety, palatability, and protein digestibility.

Although vitamins and minerals are required in relatively small amounts, they are involved in many essential processes in the body which is why the vitamin and mineral premixes used in SPILLERS™ feeds are precisely formulated to our exacting specification.





Stud

.....
*Our Stud feeds are
meticulously formulated and
cover the full breeding cycle*

The Mare

From breeding to weaning the mare goes through four periods of differing nutritional needs; early and late gestation and early and late lactation.

Early Gestation

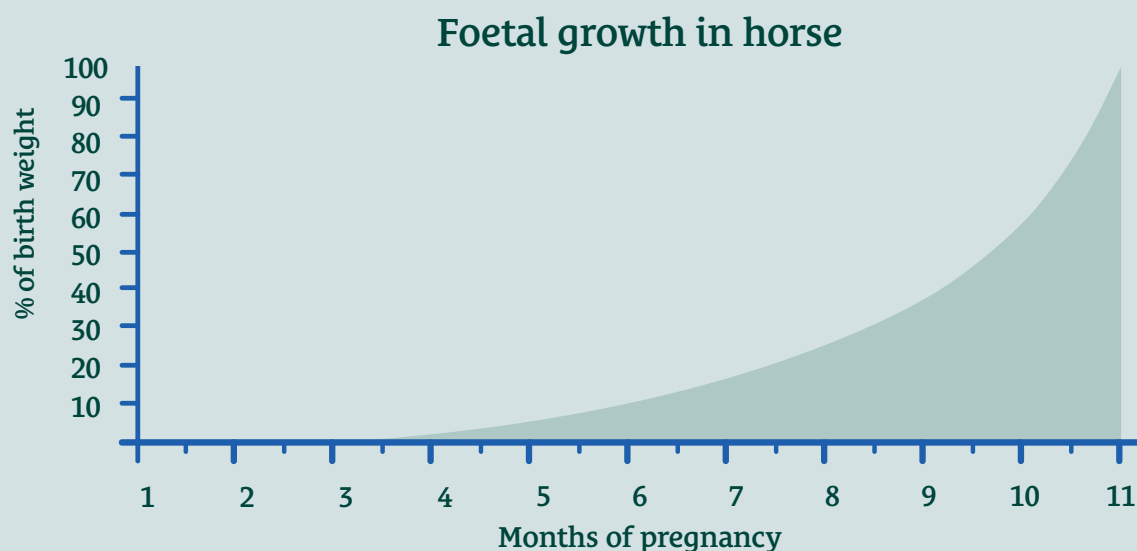
Although it is often quoted that there are no additional nutritional requirements during early gestation, due to foetal growth being relatively slow compared to the end of gestation, it is actually a critical time for the developing placenta and foetus. Inadequate nutrition during pregnancy can increase the risk of abortion, low birth weight and can affect the future growth and development of the foal.

- ◆ Although mares don't often require extra calories above maintenance during this time a balanced diet with an optimal supply of amino acids, vitamins and minerals is essential to support foetal development.
- ◆ For good doers, warmbloods, natives and thoroughbreds in good condition forage alongside a feed balancer such as SPILLERS™ Gro N' Win™ Balancer is ideal to provide balanced nutrition without unnecessary calories.
- ◆ For mares requiring condition or with a foal at foot, a stud feed such as SPILLERS™ Stud and Youngstock Mix or SPILLERS™ Stud and Yearling Cubes is ideal.



Last 3 Months of Gestation

During the last three months of pregnancy the foetus undertakes 60% of its total growth, which increases the mare's nutritional requirements. Her energy requirements will increase by 10-20% leading up to the birth. However, it is not just her energy requirements that increase; she also needs extra protein, calcium, and phosphorus for foetal development and milk production. Optimum levels of vitamins and minerals are also needed at this time.



- ◆ During the 8th month of pregnancy the diet needs to be gradually transitioned to an appropriate stud feed such as SPILLERS™ Stud and Youngstock Mix or SPILLERS™ Stud and Yearling Cubes.
- ◆ For mares foaling onto spring pasture or native or warmblood mares that don't require the additional calories traditional stud feeds provide, SPILLERS™ Gro N' Win™ Balancer will supply essential vitamins, minerals and amino acids needed during this critical time but without the unwanted calories.

Lactation

Producing milk for a new born foal places greater demands on the mare's body than running a race every day. In fact energy requirements increase by a massive 90% over maintenance. All this effort goes into producing up to 3% of the mare's own bodyweight as milk for her foal, who may suckle up to 10 times per hour in the first week.

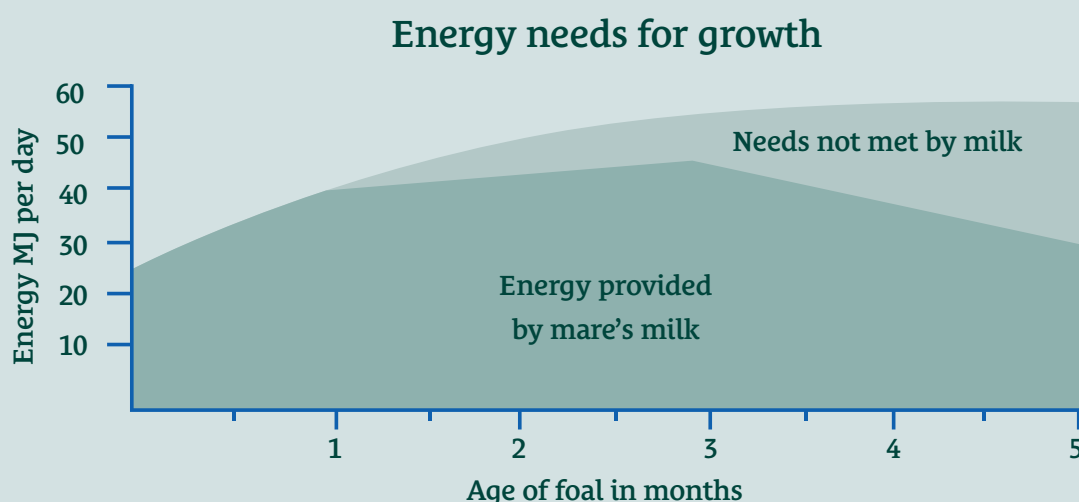
Lactation is often split between early lactation when nutritional demands on the mare are at their highest and late lactation when both the quality and quantity of milk production decreases and the mare's nutritional requirements drop. Allowing the mare to significantly drop condition during this time will have a knock on affect on the mare's fertility and her own foal's growth.

- ◆ Mares foaling onto spring and summer pasture will gain a significant amount of their protein and energy requirements from grass however, they will need an extra supply of vitamins, minerals and amino acids that can be provided by SPILLERS™ Gro N' Win™ Balancer.
- ◆ For thoroughbreds foaling early in the season or mares needing extra condition SPILLERS™ Stud and Youngstock Mix or SPILLERS™ Stud and Yearling Cubes are ideal.

The Foal

The newborn foal will weigh approximately 10% of its mature weight. At the end of its first year, if well nourished, it will have grown to approximately 60% of adult weight, 80 - 90% of adult height and achieved 95% of adult bone growth. The main objective when rearing a foal, whether it's a pony or a potential racehorse, is to produce a sound, healthy athlete.

For the first month foals are usually dependent on the mare's milk for nutrients. They may suckle up to 25% of their own bodyweight every day. After the first month, the foal's needs exceed the ability of the mare to supply them with her milk, especially the minerals and trace elements the growing foal requires. The foal is born with adequate liver stores of copper for 6 weeks. After this time the foal needs to be receiving enough nutrients via the diet. By the third month, the foal's increasing needs are coupled with a drop off in milk quality - a critical time by which intake of supplementary nutrients should be well established.



- ◆ It is a good idea to introduce a small amount of feed at the earliest opportunity, usually at around two weeks of age. This way the foal will become familiar with eating from a bucket and this will ensure its micronutrient intake is maintained.
- ◆ The type of feed will depend on the situation; for thoroughbreds SPILLERS™ Stud and Youngstock Mix is ideal for both the mare and the foal.
- ◆ Native or warmblood types will benefit from a good micronutrient supply without the additional calories; SPILLERS™ Gro N Win™ Balancer is ideal in this situation.
- ◆ Aim for a feed intake which supports steady growth as growth spurts can increase the risk of growth problems. For foals that hit a growth spurt reduce feed intake or switch to a stud balancer such as SPILLERS™ Gro N' Win™ Balancer.
- ◆ Monitor the foal's growth to ensure an even growth curve, by weighing fortnightly, measuring at the withers and condition scoring on a regular basis.
- ◆ All SPILLERS™ Stud feeds have been carefully formulated with a balanced supply of chelated trace elements, vitamins and minerals, quality protein and live yeast to support the growing foal at every critical stage of its growth.

Weaning the Foal

This generally takes place between 4 to 6 months of age and can be very stressful for the foal, causing weight loss and an interruption in growth rates. There may be a temptation to significantly increase feed after weaning in an attempt to overcome this problem. However, this could lead to growth-related conditions and should be avoided. Establishing the foal on some feed and forage prior to weaning and developing a level of independence with feeding will help prevent setbacks. Management strategies to help prevent the stress of rapid weaning should be employed. These include keeping weaned foals in family groups, ideally with a quiet companion for comfort.



Yearling & Sales Preparation

By the age of one year, yearlings should not weigh more than 80% of their mature bodyweight. Protein and energy requirements start to fall as the majority of their growth has been achieved, so at this stage maintaining a balanced diet, rather than increasing feed, is key.

For thoroughbred yearlings destined for the sales, preparation will involve building condition, muscle tone and topline alongside a gleaming coat. It is also important at this time to keep yearlings level headed, in optimal

health and without forcing a growth spurt. Building condition safely is key during this pre-sales period in order to help achieve the best sales price. SPILLERS™ Stud and Yearling Cubes provide quality protein to support excellent topline development, oil for a gleaming coat and a full complement of vitamins and minerals to ensure optimal health and well-being.

Make sure forage is fed at a minimum of 15g (dry matter) per kg of bodyweight per day to help support digestive health.



Photo Credit: www.tattersalls.com

The Breeding Stallion

Stallions vary immensely in their level of activity in the breeding season. Some, including young stallions and those used for competition and covering, may only cover a few mares in the spring/summer, while others at the height of their commercial value are required to cover several mares per day from February to July. The former will be able to undertake coverings without any change to their existing diet, if they are already fit and working. The latter can be assumed to require a similar level of energy to a fit, hard-working, competition horse.

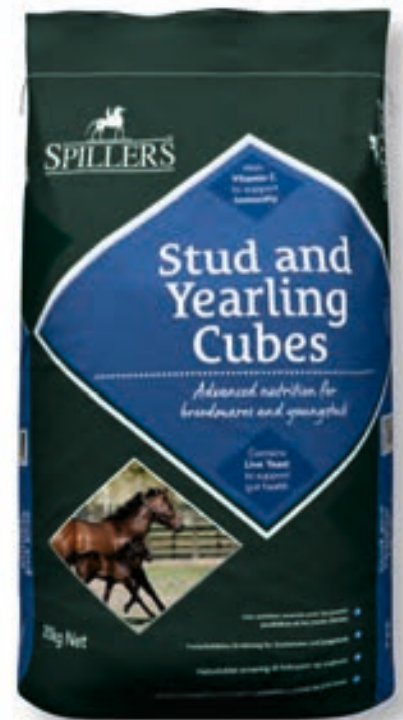


Photo Credit: Stallion AI Services (Horse Power Creative)

SPILLERS™ Stud and Yearling Cubes

Advanced nutrition for broodmares and youngstock

- ♦ Energy dense, highly digestible cube suitable for broodmares, stallions, foals from 6 months of age and yearling prep.
- ♦ Highly digestible fibre and a restricted level of starch supports gut health and promotes calm behaviour.
- ♦ Contains quality protein including an optimal balance of lysine, methionine and threonine to support the development of muscle tone and topline.
- ♦ High in vitamin E which is proven to support the transfer of passive immunity via the mare's colostrum to the foal and maximum fertility in the mare.
- ♦ Contains a careful balance of calcium, phosphorus and magnesium to promote optimal bone health and skeletal development.
- ♦ Includes chelated zinc, copper and manganese to promote maximum absorption.
- ♦ Contains a high level of added vitamin C to support the respiratory and immune system.
- ♦ With added live yeast to support hindgut health, optimum digestion and nutrient absorption.



Ideal for:

- ♦ Mares in late gestation and lactation.
- ♦ Mares in early pregnancy that require condition or with a foal at foot.
- ♦ Yearlings to two year olds including those undergoing sales preparation.
- ♦ Stallions during the covering season.



Digestible Energy (MJ/kg)	11.5
Oil (%)	4.75
Protein (%)	16.0
Fibre (%)	10.0
Starch (%)	17.0
Sugar (%)	5.5
Vitamin A (iu/kg)	15,000
Vitamin D3 (iu/kg)	2,500
Vitamin E (iu/kg)	500
Vitamin C (mg/kg)	350
Biotin (mg/kg)	3.0
Selenium (mg/kg)	0.3
Copper (mg/kg)	50
Zinc (mg/kg)	150

Cu

Did you know.....

Copper is a 'power house' nutrient required to support many elastic and connective tissues within the body. It is particularly important in growing horses as it's needed for the formation of bone, collagen and cartilage. It's also needed in red blood cell production and has many interactions with other minerals particularly zinc, which is why these two trace elements need to be provided in a balance with one another. All SPILLERS™ feeds are designed to meet published daily nutrient requirements when fed at the recommended amount.

SPILLERS™ Stud and Youngstock Mix

Advanced nutrition for broodmares, foals and youngstock

- ◆ Energy dense mix with steam cooked barley, peas and oats coated in a palatable blend of oil and molasses suitable for youngstock between 2 weeks and 2 years, broodmares and stallions.
- ◆ Contains quality protein including an optimal balance of lysine, methionine and threonine to support the development of muscle tone and topline.
- ◆ Includes oil for a gleaming coat and concentrated energy.
- ◆ High in vitamin E which is proven to support the transfer of passive immunity via the mare's colostrum to the foal and maximum fertility in the mare.
- ◆ Contains a careful balance of calcium, phosphorus and magnesium to promote optimal bone health and skeletal development.
- ◆ Includes chelated zinc, copper and manganese to promote maximum absorption.
- ◆ Contains a high level of added vitamin C to support the respiratory and immune system.
- ◆ With added live yeast to support hindgut health, optimum digestion and nutrient absorption.



Ideal for:

- ◆ Mares in late gestation and lactation.
- ◆ Mares in early pregnancy that require condition or with a foal at foot.
- ◆ Foals from two weeks to two years of age including those undergoing sales preparation.
- ◆ Stallions during the covering season.

Digestible Energy (MJ/kg)	11.8
Oil (%)	4.75
Protein (%)	16.0
Fibre (%)	8.0
Starch (%)	26.0
Sugar (%)	5.0
Vitamin A (iu/kg)	15,000
Vitamin D3 (iu/kg)	2,500
Vitamin E (iu/kg)	500
Vitamin C (mg/kg)	350
Biotin (mg/kg)	3.0
Selenium (mg/kg)	0.3
Copper (mg/kg)	50
Zinc (mg/kg)	150

Vitamin
E

Did you know.....

When a foal is born it has very little in the way of immunity from disease and environmental challenges. For a healthy start a foal needs colostrum (the first milk) from the mare as it's rich in immunoglobulins that will help protect it for the first few delicate weeks of life. This is called passive immunity and research has shown that supplementing the diet with higher levels of vitamin E and selenium can be of benefit in order to support this transfer of immunity.

SPILLERS™ Gro N' Win™ Balancer

Concentrated nutrition for broodmares, stallions, foals & youngstock

- ◆ Nutrient rich formula ideal for broodmares, foals, youngstock and stallions that do not require the high level of calories provided by traditional stud feeds.
- ◆ Rich in the essential amino acids lysine, methionine and threonine to support growth and muscle development.
- ◆ Provides the vitamins and minerals required to balance forage, including chelated minerals to help maximise absorption.
- ◆ High in vitamin E to support muscle and immune health.
- ◆ Contains probiotic live yeast to support digestive health.
- ◆ Whole cereal grain free, low in starch and sugar.

Ideal for:

- ◆ Mares in early and mid-gestation.
- ◆ Natives, warmbloods and good doers, especially mares foaling in the spring months.
- ◆ Growing horses experiencing a growth spurt; provides concentrated vitamins and minerals without unnecessary calories, for an even growth curve.
- ◆ Topping up vitamins and minerals if feeding less than the recommended amount of stud feed.



Digestible Energy (MJ/kg)	12.0
Oil (%)	5.0
Protein (%)	32.0
Lysine (g/kg)	22.0
Fibre (%)	5.0
Starch (%)	7.0
Sugar (%)	6.0
Vitamin A (iu/kg)	44,000
Vitamin D3 (iu/kg)	4,400
Vitamin E (iu/kg)	1,500
Vitamin C (mg/kg)	125
Biotin (mg/kg)	1.7
Selenium (mg/kg)	1.5
Copper (mg/kg)	150
Zinc (mg/kg)	450
Calcium (%)	3.0
Phosphorus (%)	1.5
Magnesium (%)	0.6
Manganese (mg/kg)	200



Did you know.....

Amino acids are the building blocks of protein and are critical in growth and development. They are split between essential amino acids (those that can't be made by the body and must be provided by the diet) and non-essential. The most important for growth are lysine and threonine.

SPILLERS™ Digest+ Conditioning Cubes

High fibre, low starch cube for optimum condition & digestive health

- ◆ High calorie conditioning cube designed to build condition whilst maintaining a healthy digestive system.
- ◆ Rich in highly digestible fibre and high in oil to provide slow release energy and reduce the reliance on cereal starch.
- ◆ Low starch, molasses free with no added sugar reduces the risk of excitability and supports gastric and digestive health.
- ◆ With pre and probiotics to support a healthy population of good bacteria.
- ◆ With quality protein to support good muscle tone and topline development.
- ◆ With added vitamins and minerals to provide a balanced diet every day.

Ideal for:

- ◆ For underweight mares in the first 8 months of pregnancy that require extra condition.
- ◆ For prepping yearlings for the sales.



Digestible Energy (MJ/kg)	12.0
Oil (%)	6.0
Protein (%)	14.0
Fibre (%)	18.0
Starch (%)	11.5
Sugar (%)	3.0
Vitamin A (iu/kg)	10,000
Vitamin D3 (iu/kg)	1,500
Vitamin E (iu/kg)	450
Selenium (mg/kg)	0.4
Copper (mg/kg)	30.0
Zinc (mg/kg)	120

Prebiotics

Did you know.....

Prebiotics are non-digestible ingredients (typically high in fibre) that beneficial micro-organisms can use as an energy source. They are used in the gut to increase populations of healthy bacteria and support digestion, particularly of fibre in the hindgut. Beneficial bacteria play a significant role in regulating the immune system by inhibiting the growth of pathogens (disease causing bacteria).

SPILLERS™ Shine+ Conditioning Mix

For building up topline and optimum condition

- ◆ Carefully formulated to promote condition and topline in horses that are prone to weight loss.
- ◆ High in oil to enhance coat condition and show ring shine.
- ◆ Provides a careful balance of energy sources to effectively build condition safely.
- ◆ Lower in starch than traditional conditioning mixes helping to reduce the risk of excitability.
- ◆ With probiotic live yeast to support a healthy population of good bacteria.
- ◆ With added vitamins and minerals to provide a balanced diet every day.

Ideal for:

- ◆ For underweight mares in the first 8 months of pregnancy that require extra condition.
- ◆ For prepping yearlings for the sales.



BETA NOPS
Approved

Digestible Energy (MJ/kg)	12.0
Oil (%)	6.0
Protein (%)	14.0
Fibre (%)	12.0
Starch (%)	18.0
Sugar (%)	5.5
Vitamin A (iu/kg)	10,000
Vitamin D3 (iu/kg)	1,500
Vitamin E (iu/kg)	450
Selenium (mg/kg)	0.4
Copper (mg/kg)	30.0
Zinc (mg/kg)	120

Fatty Acids

Did you know.....

Oil provides fatty acids some of which are essential meaning the horse is unable to synthesise them so they have to be supplied in the diet. Oil is very energy dense, having around three times the number of calories as carbohydrate making it an excellent way to build and maintain weight. Due to its relatively slow energy release, it's ideal for horses that tend to 'fizz up' on cereal starch. Oil also helps coat condition and shine.

Feeding Guide

Mares & Stallions

- ♦ Good quality forage should be fed at a minimum of 15g/ kg bodyweight (dry matter) per day.
- ♦ Feed no more than 2kg/4.4lbs of feed per meal for horses (400kg and over), less for ponies.
- ♦ Introduce all new feeds gradually. As a guide, replace 500g (1lb) of old feed for 500g of new feed every other day for horses.
- ♦ Try to add some chopped fibre, ideally containing alfalfa, to each meal to help extend eating time and increase saliva production.
- ♦ Ensure fresh water is available at all times.
- ♦ Weigh all feed and balancers regularly to ensure you are feeding the correct amounts.

Foals & Youngstock

- ♦ Provide ad lib forage, trying to choose soft hay/ haylage for young foals.
- ♦ Introduce all changes to feed and forage gradually.
- ♦ Ensure foals are established on their own ration of feed or balancer prior to weaning.
- ♦ Feed no more than 1kg (2.2lbs) of feed per meal to thoroughbred foals of 6 months of age and under.
- ♦ Weigh all hard feed and balancers regularly to ensure you are feeding the correct amounts.
- ♦ Provide fresh water at all times, making sure foals can access buckets/ troughs.

As a guide 1 Stubbs scoop holds approximately:

SPILLERS™ Stud and Yearling Cubes. 1.9kg

SPILLERS™ Stud and Youngstock Mix. 1.5kg

SPILLERS™ Alfalfa-Pro Fibre 600g

1 SPILLERS™ Balancer cup holds approximately 250g of SPILLERS™ Gro N' Win™ Balancer

SPILLERS™ Digest+ Conditioning Cubes 1.9kg

SPILLERS™ Shine+ Conditioning Mix. 1.5kg

Example Diets

500kg mare in late gestation

4kg SPILLERS™ Stud and Youngstock Mix per day divided into a minimum of 2 meals.

Double handful of SPILLERS™ Alfalfa-Pro Fibre per meal.

Ad lib forage.

500kg mare in early lactation

5kg SPILLERS™ Stud and Youngstock Mix per day divided into a minimum of 3 meals.

Double handful of SPILLERS™ Alfalfa-Pro Fibre per meal.

Ad lib forage.

6 month old foal estimated mature bodyweight 500kg

3kg SPILLERS™ Stud and Yearling Cubes per day divided into a minimum of 3 meals.

Double handful of SPILLERS™ Alfalfa-Pro Fibre per meal.

Ad lib forage.

3 month old foal estimated mature bodyweight 500kg

1.5kg of SPILLERS™ Stud and Youngstock Mix per day divided into at least 2 meals.

Double handful of SPILLERS™ Alfalfa-Pro Fibre per meal.

Ad lib forage.

6 month old foal estimated mature bodyweight 500kg

3kg of SPILLERS™ Stud and Youngstock Mix per day divided into at least 3 meals.

Double handful of SPILLERS™ Alfalfa-Pro Fibre per meal.

Ad lib forage.

Yearlings 12-24 months estimated mature bodyweight 500kg

4.5kg of SPILLERS™ Stud and Yearling Cubes per day divided into at least 3 meals.

Double handful of SPILLERS™ Alfalfa-Pro Fibre per meal.

Ad lib forage.

For specific advice please contact one of our nutritionists.



Racing

.....
*Our Racing feeds have been
specially designed to support
racehorses at every stage
of training*



Factors Affecting the Racehorse

Hydration and Electrolytes

Intense work results in higher sweating rates, which increases the risk of dehydration and electrolyte imbalances.

Muscle Health

Inappropriate feeding and management practices, stress and high starch, low forage diets may challenge muscle health.

Digestive and Gastric Health

Prolonged periods of stabling and the combination of low forage, high starch diets may compromise digestive health.

The SPILLERS™ fed 2017 Randox Health Grand National Handicap Chase (Grade 3) winner, One For Arthur. Trained by Lucinda Russell.



Behaviour

Reduced turnout, training and high starch diets may exacerbate nervous or sharp temperaments.

Respiratory Health

Prolonged periods of stabling, travelling and heavy training can challenge natural lung defences.

Appetite

Heavy training and increased fitness may lead to reduced appetite.

Challenges to Digestive Health

The horses' digestive system is delicate and has evolved to digest a high fibre, low starch diet. However modern feeding and management practices may contradict this and challenge digestive health.

Gastric Health

Stress, intense work and high starch, low forage diets have been associated with an increased risk of gastric ulcers. Gastric acid is produced continuously and whilst the bicarbonate ions in saliva provide a natural buffer, horses only produce saliva when they chew, leaving those on low forage diets with limited capacity to neutralise this acid. Gastric pH also drops in horses that have not eaten for several hours. Furthermore, exercise increases abdominal pressure which results gastric acid 'splashing' on to the upper region of the stomach, where it can challenge the stomach lining and contribute to ulcer formation.

It has been reported that up to 90% of racehorses have some level of gastric ulceration. Although the causes are multi-factorial feeding and feeding management can have a significant impact. In order to reduce the risk of ulcers developing, base as much of the diet on forage as possible (at least 9kg of hay or 11kg of haylage for a 500kg horse per day on as fed basis). This will increase chewing time and saliva production.

Choose low starch and sugar feeds such as SPILLERS™ Ulca Balancer or SPILLERS™ HDF™ Lay Off Cubes for pre training, SPILLERS™ HDF™ Lay Off Cubes for light training and SPILLERS™ Ulca Power Cubes and/or SPILLERS™ Ulca Fibre for heavy training. Feeding short chopped fibre such as SPILLERS™ Alfalfa-Pro Fibre prior to exercise will help form a protective fibre mat on top of the stomach contents to help prevent gastric splashing which may damage the stomach lining.

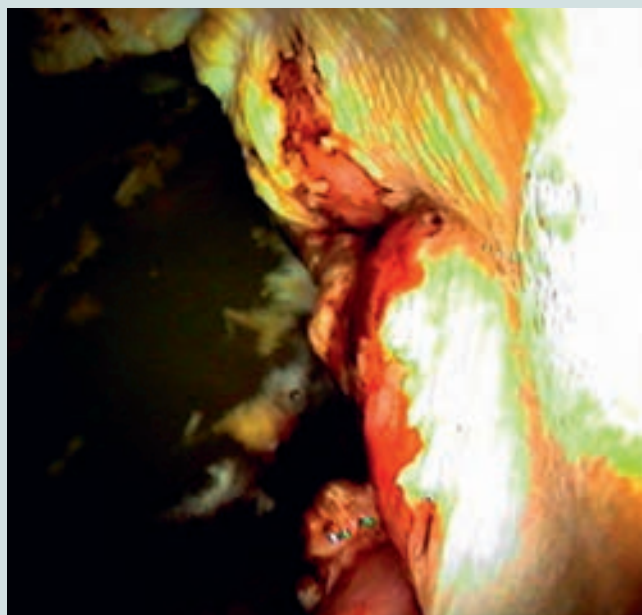


Photo Credit: Nanna Luthersson

SPILLERS™ BETA EGUS Approved feeds

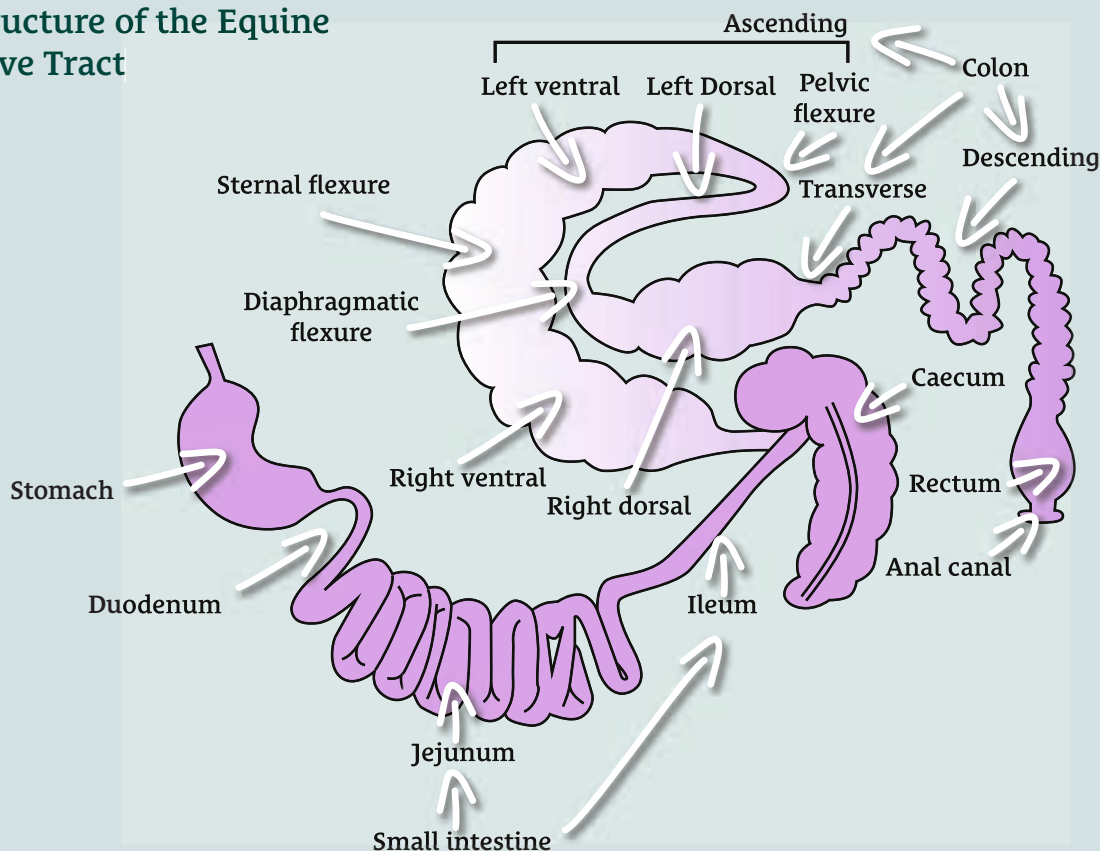
SPILLERS™ have the largest range of racing feeds approved by the BETA EGUS scheme which identify them as suitable for equines prone to gastric ulcers.



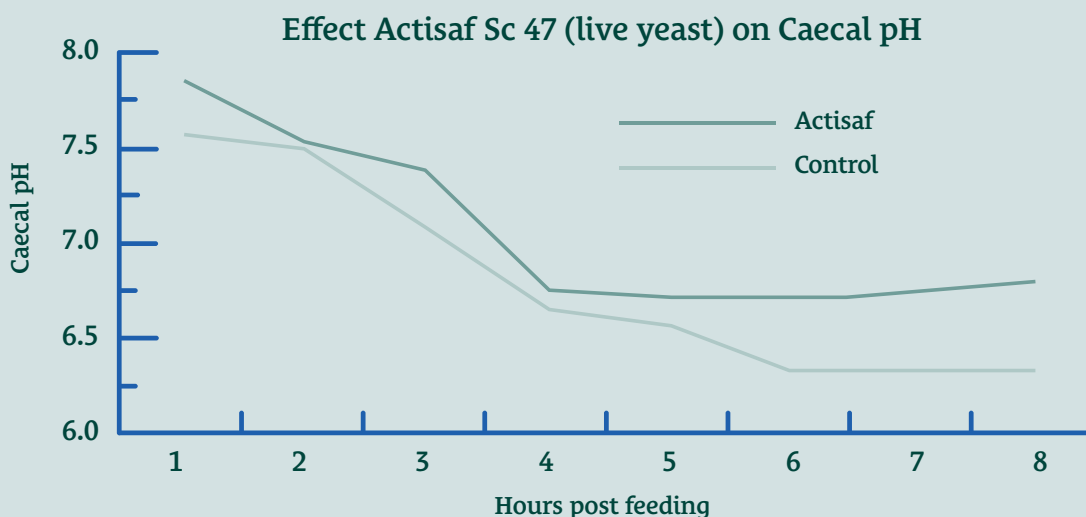
Hindgut Health

Health of the large intestine or 'hindgut' relies on sufficient fibre intake which is why forage should be fed at a minimum of 15g (dry matter) per kg of bodyweight per day. Due to the higher moisture content approximately 20-50% more haylage should be fed than hay by weight to maintain fibre intake and help prevent digestive challenges.

The Structure of the Equine Digestive Tract



Feeding large, high starch meals can exceed the capacity of the small intestine leading to the rapid fermentation of undigested starch in the large intestine. The consequent rise in acid and lowering of pH upsets the microbial population of the gut which may in turn compromise hindgut health. To help reduce the risk of digestive challenge, choose restricted starch feeds with the addition of live yeast which has been shown to support 'good' bacteria and maintain a healthy hindgut pH. Keep meal size to a maximum of 2kg (less for ponies) and avoid rapid dietary changes both to compound feed and forage which can also upset the microbial population in the hindgut. As a result, all changes should be made gradually. As a guide, replace up 0.5kg old feed for 0.5kg of new feed every other day.



Hale, C.E and Hemmings, A. (2013) The effects of live yeast (NCYC Sc47) on faecal pH in horses maintained on a hay and concentrate diet. World Veterinary Congress Czech Republic.

Challenges to Muscle Health

Providing a balanced supply of vitamins, minerals and amino acids supports muscle development and recovery during training. Challenges to muscle health are a concern for all trainers and can be associated with numerous risk factors including stress, genetics, changes in exercise routine, inappropriate feeding and management practices and high starch, low forage diets. Diet plays two key roles in supporting muscle health; the first being to help keep the horse calm. Excitement or nervous behaviour can contribute to general muscle tension and increase the risk of a muscle challenge. Secondly a fibre based diet can support digestive health which may also help electrolyte absorption. A balanced supply of electrolytes is important in maintaining healthy muscle function.

Supporting Muscle Health through Diet

Maximising forage intake helps to reduce the reliance on compound feed and supports gut health. Good quality forage should be fed, with approximately 20-50% more haylage provided than hay on a fresh weight basis. If muscle health is a concern, consider having forage analysed for water soluble carbohydrate (WSC) which can be deceptively high in both hay and haylage.



El Bodgeon, trained by James Ferguson.

Choose feeds appropriate to the horse's level of training taking care not to increase feed in anticipation of increased work. If muscle health is a concern, look for feeds that utilise higher levels of fibre and oil and contain a restricted level of starch such as SPILLERS™ HDF™ Power Cubes. Reduce hard feed on days off from the evening before until the evening after.

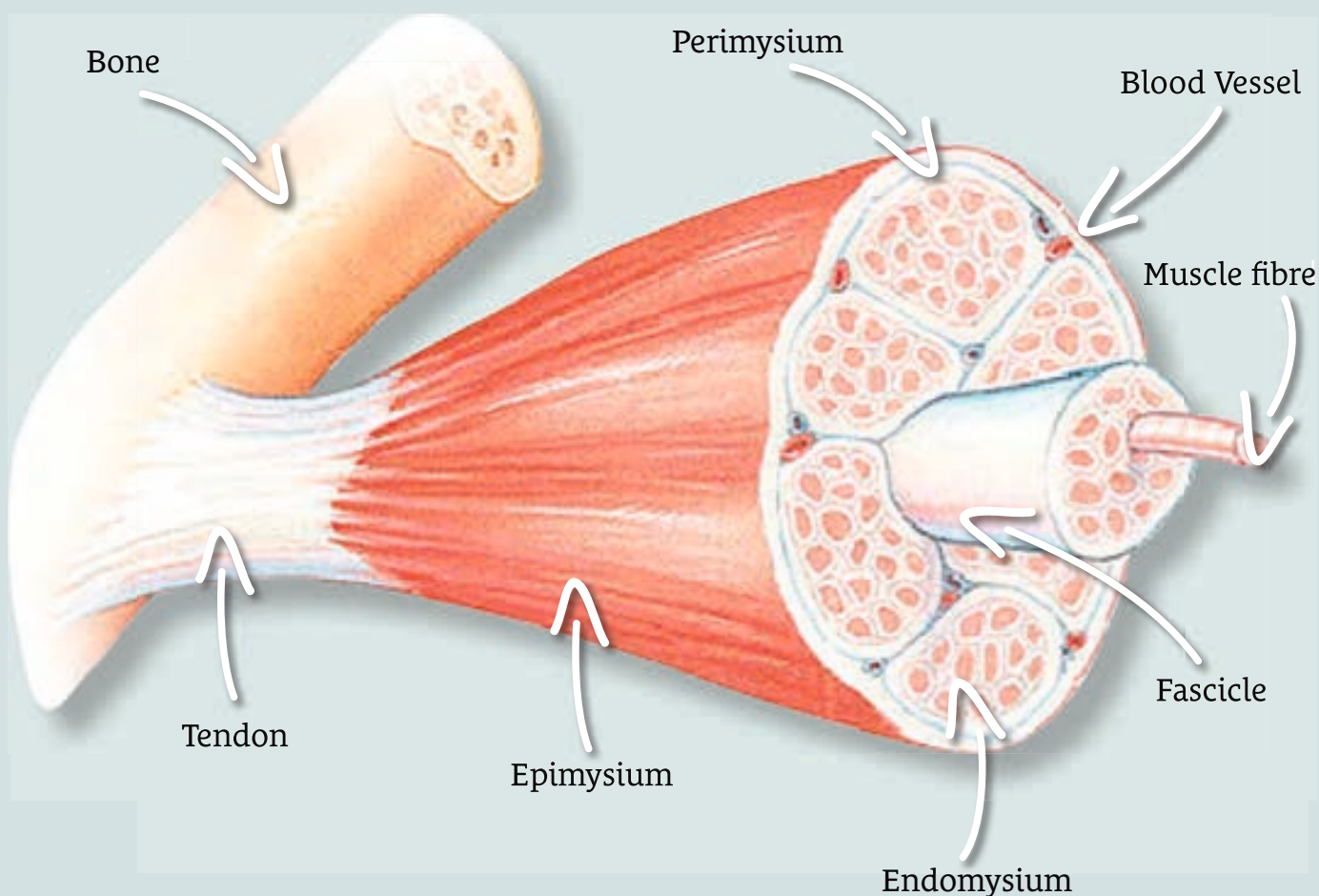
Vitamin E & Selenium

Vitamin E and selenium are important antioxidants which work closely together and play a key role in supporting muscle health. Vitamin E is essential for supporting muscle health during exercise and consequently, requirements increase in line with workload. All SPILLERS™ Racing feeds contain a high level of vitamin E and carefully formulated level of selenium to support horses in training.

Electrolytes

Maintain electrolyte balance in the diet either by feeding salt or a specialist electrolyte supplement. Call the SPILLERS™ Care-Line on 01908 226626 for specific advice.

Structure of a Skeletal Muscle



Hydration

Water is the most important component of the horse's diet. It accounts for approximately 65% of body mass in adult horses and is involved in almost every physiological process in the horse's body. Maintaining hydration is therefore key to maintaining both health and performance. Although water is lost continuously, sweating during exercise results in the greatest losses and in hot weather, sweating rates can be as high as 10-15 litres per hour. Dehydration may lead to compromised muscle and digestive health, poor performance, heat stroke, exhaustion and in the most serious of cases can be fatal.

Pre & Post Exercise Watering

Allowing horses to drink directly after exercise will not cause colic but withholding water may delay rehydration. Offer small amounts of water in the first 30 minutes and free access once the horse has cooled down fully. Water should not be withheld prior to exercise.

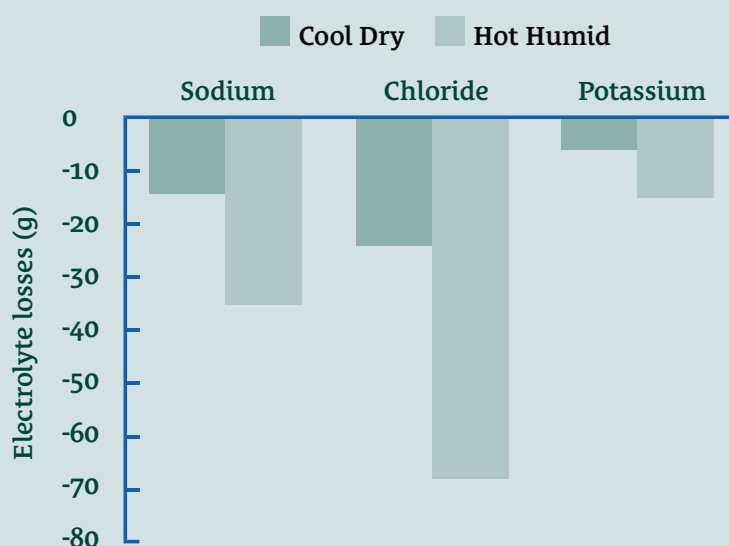
Electrolytes

When horses sweat they lose electrolytes, the main ones being sodium, potassium and chloride. Electrolytes are essential for many cell functions including muscle contractions and the transmission of nerve impulses. The body also needs electrolytes to retain water and replacing some of those lost through sweating will rehydrate the horse more effectively than drinking alone. Electrolyte imbalances may lead to heat stress, fatigue, synchronous diaphragmatic flutter (thumps) and compromised muscle health.

The Importance of Fibre

Depending on the diet, gastrointestinal fluid accounts for approximately 19-21% of the horse's bodyweight. Importantly, the 'reservoir' of fluid in the large intestine or 'hindgut' is thought to provide a source of water and electrolytes that can be drawn upon during exercise. Research has shown that the amount and type of fibre in the horse's diet may affect the size of this 'reservoir', with horses on high forage diets having been seen to be less dehydrated following a standard exercise test than horses on low forage diets.

Comparing electrolyte loss during exercise in hot and cold conditions



Respiratory Health

The horse's respiratory system is highly specialised and serves the equine athlete well. At rest the horse takes approximately 8-12 breaths per minute, with the primary function of the respiratory system being to replace carbon dioxide in the blood with oxygen so it can be transported around the body. Respiration is linked to locomotion in a 1:1 stride: breath ratio enabling the galloping horse to take approximately 150 breaths per minute, increasing maximal oxygen uptake by up to 40 times over rest compared to 6-8 times in an elite human athlete.

Despite this, the respiratory system does not adapt to training and therefore even small challenges to respiratory health can have a significant effect on the horse's ability to perform. In fact, respiratory challenge has been identified as one of the most common causes of poor performance in athletic horses. In typical stable conditions, horses inhale approximately 12 million particles including dust particles, mould spores and allergens which, in addition to the stress of travelling and heavy training, can challenge lung defences.

Supporting Respiratory Health Through Diet

All hay and haylage contains a degree of tiny airborne dust particles, mould spores and yeasts which are collectively referred to as 'respirable particles'. Once inhaled, these particles can compromise respiratory health. Although soaking hay causes the majority of these particles to swell so that they are ingested rather than inhaled, research has shown that steaming also reduces mould, bacteria and yeast counts thus making it the most effective option for improving hygienic quality. Vitamin C is vitally important to the horse's natural lung defences which is why all SPILLERS™ Racing feeds contain a high level of vitamin C.



Onassis, trained by Charlie Fellowes.

SPILLERS™ HDF™ Lay Off Cubes

Low starch, high fibre cube ideal for early training

- ♦ Low energy cube for racing and performance horses at rest and during early training.
- ♦ High in fibre and low in starch to support gastric, digestive and muscle health.
- ♦ With a high level of lysine to support muscle tone and development.
- ♦ Includes probiotic live yeast to support hindgut health.
- ♦ With added vitamin C for respiratory support.
- ♦ High in vitamin E the most important antioxidant to support immune and muscle health.
- ♦ Rich in calcium to support bone re-modelling during rest and early training.
- ♦ Includes chelated zinc, copper and manganese to help maximise absorption.

25kg bag.

Ideal for:

- ♦ Racehorses on box rest, on the easy list and in pre training.
- ♦ Mixing with high energy feeds to reduce the starch and energy content to suit individual needs.



Digestible Energy (MJ/kg)	9.4
Oil (%)	3.5
Protein (%)	10.0
Fibre (%)	20.0
Starch (%)	12.0
Sugar (%)	4.0
Vitamin A (iu/kg)	11,000
Vitamin D3 (iu/kg)	1,500
Vitamin E (iu/kg)	400
Vitamin C (mg/kg)	625
Selenium (mg/kg)	0.3
Copper (mg/kg)	35
Zinc (mg/kg)	120

**Digestible
FIBRE**

Did you know.....

Fibre is critical in maintaining a healthy horse for many reasons including supporting optimum gut, gastric and immune health, satisfying the horse's psychological need to chew, supporting positive behaviour and reducing the risk of muscular challenges. This is why forage should be fed at a minimum of 15g per kg of bodyweight (dry matter) per day which is approximately 9kg of hay fresh weight for an average 500kg racehorse.

SPILLERS™ HDF™ Lay Off Mix

Reduced starch mix ideal for early training

- ♦ Low energy mix for racing and performance horses during early training.
- ♦ Contains a palatable blend of steam flaked barley, maize and peas.
- ♦ With a high level of lysine to support muscle tone and development.
- ♦ Includes probiotic live yeast to support hindgut health.
- ♦ With added vitamin C for respiratory support.
- ♦ High in vitamin E the most important antioxidant to support immune and muscle health.
- ♦ Rich in calcium to support bone re-modelling during early training.
- ♦ Includes chelated zinc, copper and manganese to help maximise absorption.

Ideal for:

- ♦ Racehorses on box rest, on the easy list and in pre training.
- ♦ Mixing with high energy feeds to reduce the starch and energy content to suit individual needs.



Digestible Energy (MJ/kg)	10.4
Oil (%)	3.5
Protein (%)	10.0
Fibre (%)	14.0
Starch (%)	23.0
Sugar (%)	4.0
Vitamin A (iu/kg)	11,000
Vitamin D3 (iu/kg)	1,500
Vitamin E (iu/kg)	400
Vitamin C (mg/kg)	625
Selenium (mg/kg)	0.3
Copper (mg/kg)	35
Zinc (mg/kg)	120

Live
YEAST

Did you know.....

All SPILLERS™ Racing feeds contain live yeast, which studies have shown improves the digestibility of fibre by allowing the 'good' bacteria to thrive. In addition to this in vitro studies have found live yeast supplementation reduces the accumulation of lactic acid and helps maintain a more stable pH in the hindgut.

SPILLERS™ Racehorse Cubes

High energy racing cube for ultimate performance

- ♦ High energy cube for racing and performance horses in full training.
- ♦ With cooked cereal starch to provide quick release energy and high in oil for condition and coat shine.
- ♦ Includes probiotic live yeast to support hindgut health.
- ♦ With added vitamin C for respiratory support.
- ♦ Natural bio-available vitamin E is included to support immune and muscle health.
- ♦ High in quality protein including lysine to support muscle development and performance.
- ♦ Includes chelated zinc, copper and manganese to help maximise absorption and added biotin to support hoof health.

25kg bag.

Ideal for:

- ♦ Racehorses in full training.



Digestible Energy (MJ/kg)	12.2
Oil (%)	6.0
Protein (%)	14.0
Fibre (%)	10.0
Starch (%)	28.0
Sugar (%)	6.0
Vitamin A (iu/kg)	11,000
Vitamin D3 (iu/kg)	1,100
Vitamin E (iu/kg)	400
Vitamin C (mg/kg)	625
Biotin (mg/kg)	2.0
Selenium (mg/kg)	0.3
Copper (mg/kg)	35
Zinc (mg/kg)	120

B
vitamins

Did you know.....

B vitamins are involved in many body processes particularly energy and carbohydrate metabolism. In some cases, a deficiency of B vitamins can be the reason for suppressed appetite. Feeding plenty of forage supports healthy hindgut digestion, allowing adequate production of essential B vitamins in most cases. However, in horses that are working very hard, or those that are under stress or are fed low levels of forage, B vitamin production may fall short of requirements. Supplementing B vitamins to horses with reduced appetite may help stimulate appetite.

SPILLERS™ Racing Mix

High energy, oat based mix for ultimate performance

- ♦ High energy, oat based mix for racing and performance horses in full training.
- ♦ Includes a highly palatable blend of steam flaked barley, oats, maize and peas, alongside naked oats for concentrated energy.
- ♦ Rich in cereal starch to provide quick release energy and high in oil for condition and coat shine.
- ♦ Includes probiotic live yeast to support hindgut health.
- ♦ With added vitamin C for respiratory support.
- ♦ Natural bio-available vitamin E is included to support immune and muscle health.
- ♦ High in quality protein including lysine to support muscle development and performance.
- ♦ Includes chelated zinc, copper and manganese to help maximise absorption and added biotin to support hoof health.

Ideal for:

- ♦ Racehorses in full training, especially those running on the flat and fussy feeders.



Digestible Energy (MJ/kg)	13.0
Oil (%)	6.0
Protein (%)	14.0
Fibre (%)	10.0
Starch (%)	34.0
Sugar (%)	5.0
Vitamin A (iu/kg)	11,000
Vitamin D3 (iu/kg)	1,100
Vitamin E (iu/kg)	400
Vitamin C (mg/kg)	625
Biotin (mg/kg)	2.0
Selenium (mg/kg)	0.3
Copper (mg/kg)	35
Zinc (mg/kg)	120

Balanced
DIET

Did you know.....

A balanced diet means a diet that provides nutrients to meet the nutritional requirements of the horse whilst remaining in balance with one another. This is particularly important with minerals as if over supplied they can often effect the absorption and usage of other minerals therefore calcium and phosphorus should be supplied in a ratio of at least 1.2:1 and the zinc to copper ratio should ideally fall between 3-4:1. All SPILLERS™ feeds are carefully formulated to supply optimal ratios of minerals and trace elements and where appropriate are chelated (bound to a protein) to help maximise absorption.

SPILLERS™ HDF™ Power Cubes

High energy, low starch cube for ultimate power and performance

- ♦ High energy, low starch cube for racing and performance horses in full training.
- ♦ Rich in highly digestible fibre and oil to reduce the reliance on starch for energy.
- ♦ Lower in starch than traditional racing feeds helping to support optimum digestive and muscle health.
- ♦ Includes probiotic live yeast to support hindgut health.
- ♦ With added vitamin C for respiratory support.
- ♦ Natural bio-available vitamin E is included to support immune and muscle health.
- ♦ High in quality protein including lysine to support muscle development and performance.
- ♦ Includes chelated zinc, copper and manganese to help maximise absorption and added biotin to support hoof health.

25kg bag.

Ideal for:

- ♦ Racehorses in full training.
- ♦ To increase the fibre content of the diet in horses fed haylage or restricted forage rations.



Digestible Energy (MJ/kg)	12.7
Oil (%)	6.25
Protein (%)	14.0
Fibre (%)	14.0
Starch (%)	18.0
Sugar (%)	6.0
Vitamin A (iu/kg)	11,000
Vitamin D3 (iu/kg)	1,100
Vitamin E (iu/kg)	400
Vitamin C (mg/kg)	625
Biotin (mg/kg)	2.0
Selenium (mg/kg)	0.3
Copper (mg/kg)	35
Zinc (mg/kg)	120

Energy

Did you know.....

Energy is derived from different sources within feed, the main ones being 'instant' energy derived from starch and 'slow release' energy from oil and fibre. However, once the energy from feed is stored in the body it is either stored as muscle glycogen which is predominantly used by fast twitch muscle fibres or fat that is utilised mostly by slow twitch muscle fibres.

SPILLERS™ HDF™ Power Mix

High energy, reduced starch mix for ultimate power and performance

- ♦ High energy, reduced starch mix for racing and performance horses in full training.
- ♦ With highly digestible fibre and oil to reduce the reliance on starch for energy.
- ♦ Lower in starch than traditional racing mixes helping to support digestive and muscle health.
- ♦ Includes probiotic live yeast to support hindgut health.
- ♦ With added vitamin C for respiratory support.
- ♦ Natural bio-available vitamin E is included to support immune and muscle health.
- ♦ High in quality protein including lysine to support muscle development and performance.
- ♦ Includes chelated zinc, copper and manganese to help maximise absorption and added biotin to support hoof health.

Ideal for:

- ♦ Racehorses in full training.



Digestible Energy (MJ/kg)	13.0
Oil (%)	5.5
Protein (%)	14.0
Fibre (%)	12.0
Starch (%)	22.0
Sugar (%)	6.0
Vitamin A (iu/kg)	11,000
Vitamin D3 (iu/kg)	1,100
Vitamin E (iu/kg)	400
Vitamin C (mg/kg)	625
Biotin (mg/kg)	2.0
Selenium (mg/kg)	0.3
Copper (mg/kg)	35
Zinc (mg/kg)	120

Vitamin
C

Did you know.....

All SPILLERS™ racing feeds contain high levels of vitamin C, an antioxidant that is important in supporting lung health. This antioxidant has been found to be decreased in the lung lining fluid of horses with an airway challenge. Research has shown that supplementation with the form of vitamin C used in SPILLERS™ racing feeds results in higher levels of vitamin C within the lung lining fluid, which is important in maintaining respiratory health.

SPILLERS™ Ulca Power Cubes

High energy, low starch cube for optimum gastric health and performance

- ◆ SPILLERS™ Ulca Power Cubes are the only racehorse cube with the BETA EGUS Approval Mark
- ◆ High energy, low starch cube for racing and performance horses prone to gastric ulcers.
- ◆ Includes marine derived bioavailable calcium to help maintain a healthy stomach pH.
- ◆ Contains lecithin and pectin to support the stomach lining.
- ◆ Includes probiotic live yeast alongside prebiotic MOS and FOS, reducing the need for digestive supplements.
- ◆ With added vitamin C for respiratory support.
- ◆ Natural bio-available vitamin E is included to support immune and muscle health.
- ◆ High in quality protein including lysine to support muscle development and performance.
- ◆ Includes chelated zinc, copper and manganese to help maximise absorption.

25kg bag.



BETA NOPS
Approved



BETA EGUS
Approved

Digestible Energy (MJ/kg)	12.5
Oil (%)	6.0
Protein (%)	14.0
Fibre (%)	16.0
Starch (%)	12.0
Sugar (%)	5.5
Vitamin A (iu/kg)	11,000
Vitamin D3 (iu/kg)	1,100
Vitamin E (iu/kg)	500
Vitamin C (mg/kg)	300
Biotin (mg/kg)	2.0
Selenium (mg/kg)	0.3
Copper (mg/kg)	35
Zinc (mg/kg)	120

Did you know.....

The BETA EGUS Approved Mark is awarded to feeds that have met strict nutritional criteria. The feed is independently assessed for its suitability for horses prone to gastric ulcers, analysed to ensure it delivers the required nutrition and that all the claims associated with it are evidence based.



SPILLERS™ Ulca Balancer

Multi-vitamin & mineral balancer with added gastric & digestive support

- ◆ Multi-vitamin & mineral balancer for horses and ponies prone to gastric ulcers; ideal for those that maintain weight easily on forage alone.
- ◆ Includes apple pectin and lecithin to help support the stomach lining.
- ◆ Contains a natural source of calcium and FOS to help maintain a healthy pH in the stomach.
- ◆ Formulated with probiotic live yeast alongside prebiotic MOS & FOS to support digestive health.
- ◆ Whole cereal grain free, low in starch and sugar.
- ◆ Contains 15mg of biotin per 500g serving proven to support hoof health.

Ideal for:

- ◆ Horses on box rest or in pre training that maintain weight easily on forage and SPILLERS™ Alfalfa-Pro Fibre.
- ◆ Horses at rest or in light training that maintain weight easily on reduced rations of compound feed.



Digestible Energy (MJ/kg)	10.5
Oil (%)	6.0
Protein (%)	25.0
Lysine (g/kg)	17.0
Fibre (%)	8.0
Starch (%)	9.0
Sugar (%)	5.0
Vitamin A (iu/kg)	40,000
Vitamin D3 (mg/kg)	4,000
Vitamin E (iu/kg)	2,500
Biotin (mg/kg)	30.0
Selenium (mg/kg)	2.0
Copper (mg/kg)	200
Zinc (mg/kg)	600
Calcium (%)	3.0
Phosphorus (%)	1.2
Magnesium (%)	0.6
Manganese (mg/kg)	200

Did you know.....

Lecithin and pectin may help to support stomach health by forming water repellent barrier over the stomach lining.

SPILLERS™ Perform & Restore Mash

Supports optimum condition & recovery in performance horses

- ◆ Fast soaking fibre blend to support optimum condition and recovery in performance horses.
- ◆ Low starch, molasses free blend of highly digestible fibre and oil to support digestive health and reduce the risk of excitability.
- ◆ Formulated to assist hydration and complement the replacement of electrolytes post exercise.
- ◆ Supplies powerful antioxidants including vitamin C to support respiratory health and natural, bioavailable vitamin E to support immunity, muscle health and athletic performance.
- ◆ Includes branch chain amino acids to support muscle synthesis post exercise.
- ◆ High level of the essential amino acid lysine, to support muscle tone and topline.
- ◆ With probiotic live yeast alongside prebiotic MOS and FOS to support digestive health.

Ideal for:

- ◆ Supporting hydration.
- ◆ Mixing with compound feed to tempt fussy eaters.



Digestible Energy (MJ/kg)	11.5
Oil (%)	5.0
Protein (%)	13.0
Fibre (%)	20.0
Starch (%)	9.0
Sugar (%)	2.5
Vitamin A (iu/kg)	11,000
Vitamin D3 (iu/kg)	1,500
Vitamin E (iu/kg)	500
Vitamin C (mg/kg)	900
Selenium (mg/kg)	0.3
Copper (mg/kg)	35
Zinc (mg/kg)	130

Did you know.....

Feeding mashes helps to support hydration by increasing water intake. Feeding mashes may also help to increase voluntary water intake in some horses.

SPILLERS™ Alfalfa-Pro Fibre

High oil alfalfa blend for optimum condition and digestive support

- ♦ Soft, alfalfa blend ideal for feeding alongside compound feeds and balancers.
- ♦ High in oil to enhance coat shine and provide slow release energy for optimum condition.
- ♦ Includes short chopped alfalfa, rich in quality protein and bioavailable calcium to extend eating time and provide a natural buffer to stomach acid.
- ♦ Low in sugar and starch to support digestive health and reduce the risk of excitability.
- ♦ Ideal for horses and ponies prone to gastric ulcers.
- ♦ With added vitamin E, the most important antioxidant, to balance the high oil content.

Ideal for:

- ♦ Adding to all meals to slow eating down and increase chewing and saliva production.



BETA NOPS
Approved



BETA EGUS
Approved

Digestible Energy (MJ/kg)	12.5
Oil (%)	10.0
Protein (%)	12.0
Fibre (%)	25.0
Starch (%)	3.5
Sugar (%)	4.5
Vitamin E (iu/kg)	200
Calcium (%)	1.5
Potassium (%)	2.0

Did you know.....

Alfalfa sometimes referred to as lucerne is not a grass its a legume related to peas and beans. It's high in protein, fibre and minerals and can yield as much energy as a medium energy feed making it an ideal feed for horses working hard or requiring extra condition.

SPILLERS™ Conditioning Fibre

Builds great condition and shine from within

- ♦ Soft, short chopped fibre feed formulated to build condition coat shine without excitability.
- ♦ High in oil to support ultimate coat shine and provide slow release energy for condition.
- ♦ Low in sugar and starch to support digestive health and reduce the risk of excitability.
- ♦ Includes a blend of short chopped alfalfa and straw to extend eating time.
- ♦ Provides quality protein to support muscle and topline.
- ♦ Enriched with a full range of vitamins and minerals to balance the diet.

Ideal for:

- ♦ Adding to all meals to slow eating down and increase chewing and saliva production.



Digestible Energy (MJ/kg)	11.0
Oil (%)	10.0
Protein (%)	12.0
Fibre (%)	21.0
Starch (%)	7.0
Sugar (%)	5.0
Vitamin A (iu/kg)	10,000
Vitamin D3 (iu/kg)	1,000
Vitamin E (iu/kg)	400
Selenium (mg/kg)	0.20
Copper (mg/kg)	25
Zinc (mg/kg)	110

Did you know.....

Chewing produces saliva that acts as a natural buffer to the acid that is continually produced in the stomach. High levels of gastric acid can damage the delicate stomach lining.

SPILLERS™ Ulca Fibre

Ultra-low starch, high oil fibre feed for those prone to gastric ulcers

- ♦ Ultra-low starch, low sugar fibre feed ideal for horses and ponies prone to gastric ulcers or requiring a low starch diet.
- ♦ Proven* to help support horses prone to gastric ulcers following veterinary treatment.
- ♦ Includes soft short chopped alfalfa to extend eating time and provide a natural buffer to stomach acid.
- ♦ High in oil for slow release energy to fuel optimum condition and performance.
- ♦ High in vitamin E the most important antioxidant to support immune and muscle health.
- ♦ High in quality protein including lysine to support muscle development and performance.
- ♦ Includes a full range of added vitamins and minerals including chelated copper, zinc and manganese to help maximise absorption.
- ♦ A highly versatile feed that can be fed on its own or in addition to a suitable low starch compound feed such as SPILLERS™ Ulca Power Cubes.



Ideal for:

- ♦ Those prone to gastric ulcers or other digestive challenges.
- ♦ Those with excitable or nervous temperaments.

*Luthersson N, Bolger C, Fores P, Barfoot C, Nelson S, Parkin TDH & Harris P (2019) Effect of changing diet on gastric ulceration in exercising horses and ponies following cessation of omeprazole treatment JEVS 83 article 102742



Digestible Energy (MJ/kg)	12.5
Oil (%)	10.0
Protein (%)	15.0
Fibre (%)	23.0
Starch (%)	5.0
Sugar (%)	4.0
Vitamin A (iu/kg)	14,000
Vitamin D3 (iu/kg)	2,000
Vitamin E (iu/kg)	450
Selenium (mg/kg)	0.5
Copper (mg/kg)	45
Zinc (mg/kg)	125

Did you know.....

SPILLERS™ Ulca Fibre is the only feed proven to support gastric health post veterinary treatment. Horses that had their diet changed to one containing SPILLERS™ Ulca Fibre maintained the improvement seen post veterinary treatment compared to those that stayed on their previous diet where ulcer scores returned to pre-treatment levels.*

Feeding Guide

Racing

- ♦ Divide daily feed & forage rations in to as many small feeds as possible.
- ♦ Feed no more than 2kg/4.4lbs of feed per meal (less for ponies).
- ♦ Do not feed within 3 hours of exercise but do allow access to small amounts of forage or chopped fibre.
- ♦ Introduce all new feeds gradually. As a guide, replace up to 500g (1lb) of old feed for 500g of new feed every other day.
- ♦ Try to add some chopped fibre, ideally containing alfalfa, to each meal to help extend eating time and increase saliva production.
- ♦ Feed forage at a minimum of 15g/kg bodyweight (dry matter) per day.
- ♦ Feed approximately 20-50% more haylage than hay by weight.
- ♦ Ensure fresh water is available at all times – do not withhold water prior to exercise.
- ♦ For horses and ponies in light work/training we advise access to a salt lick. For all others please contact the SPILLERS™ Care-Line for specific advice.
- ♦ Weigh all feed & forage regularly to ensure you are feeding the correct amounts.

As a guide 1 Stubbs scoop holds approximately:

SPILLERS™ Racehorse Cubes	2.3kg
SPILLERS™ Racing Mix	1.6kg
SPILLERS™ HDF™ Power Cubes	2.0kg
SPILLERS™ HDF™ Power Mix	1.7kg
SPILLERS™ HDF™ Lay Off Cubes	1.9kg
SPILLERS™ HDF™ Lay Off Mix	1.5kg
SPILLERS™ Perform & Restore Mash	1.7kg
SPILLERS™ Conditioning Fibre	600g
SPILLERS™ Alfalfa-Pro Fibre	600g
SPILLERS™ Ulca Fibre	0.9kg
SPILLERS™ Ulca Power Cubes	2.0kg

NB. 1 SPILLERS™ balancer cup holds approximately 250g of SPILLERS™ Ulca Balancer

Example Diets (500kg horse)

Box rest

- 3kg of SPILLERS™ HDF™ Lay Off Cubes.
- Double handful of SPILLERS™ Conditioning Fibre per meal.
- Ad-lib hay/ haylage (minimum of 9kg hay or 11-12kg haylage).

Pre training

- 3-5kg of SPILLERS™ HDF™ Lay Off Mix.
- Double handful of SPILLERS™ Conditioning Fibre per meal.
- Ad-lib hay/ haylage (minimum of 9kg hay or 11-12kg haylage).

Heavy training

- 6kg of SPILLERS™ HDF™ Power Cubes.
- Double handful of SPILLERS™ Alfalfa-Pro Fibre per meal.
- 9kg of hay or 11-12kg of haylage.

Heavy training

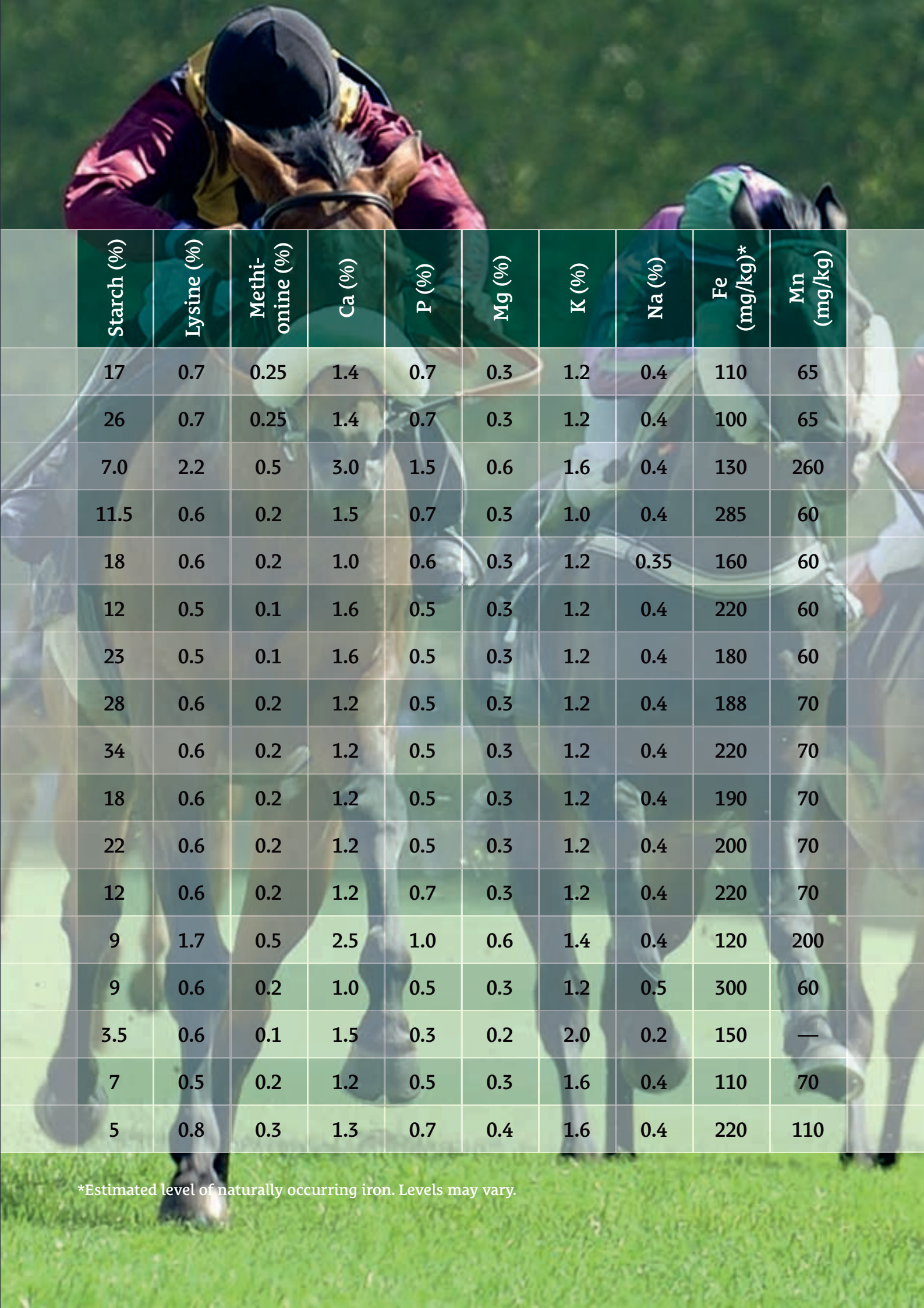
- 4kg of SPILLERS™ Ulca Power Cubes.
- 2kg of SPILLERS™ Ulca Fibre.
- 9kg of hay or 11-12kg of haylage.

For specific advice please contact one of our nutritionists.



Nutritional Analysis Table

	Energy (MJ DE/ kg)	Oil (%)	Protein (%)	Fibre (%)	Ash (%)	Sugar (%)	
SPILLERS™ Stud and Yearling Cubes	11.5	4.75	16	10	7.5	5.5	
SPILLERS™ Stud and Youngstock Mix	11.8	4.75	16	8	8	5	
SPILLERS™ Gro N' Win™ Balancer	12	5	32	5	15	6	
SPILLERS™ Digest+ Conditioning Cubes	12	6	14	18	8.7	3	
SPILLERS™ Shine+ Conditioning Mix	12	6	14	12	7.5	5.5	
SPILLERS™ HDF™ Lay Off Cubes	9.4	3.5	10	20	7	4	
SPILLERS™ HDF™ Lay Off Mix	10.4	3.5	10	14	7	4	
SPILLERS™ Racehorse Cubes	12.2	6	14	10	7	6	
SPILLERS™ Racing Mix	13	6	14	10	7	5	
SPILLERS™ HDF™ Power Cubes	12.7	6.25	14	14	6	6	
SPILLERS™ HDF™ Power Mix	13	5.5	14	12	7.5	6	
SPILLERS™ Ulca Power Cubes	12.5	6	14	16	7.7	5.5	
SPILLERS™ Ulca Balancer	10.5	6	25	8	13.4	5	
SPILLERS™ Perform & Restore Mash	11.5	5	13	20	7.8	2.5	
SPILLERS™ Alfalfa-Pro Fibre	12.5	10	12	25	9	4.5	
SPILLERS™ Conditioning Fibre	11	10	12	21	8	5	
SPILLERS™ Ulca Fibre	12.5	10	15	23	10	4	



	Starch (%)	Lysine (%)	Methi- onine (%)	Ca (%)	P (%)	Mg (%)	K (%)	Na (%)	Fe (mg/kg)*	Mn (mg/kg)
	17	0.7	0.25	1.4	0.7	0.3	1.2	0.4	110	65
	26	0.7	0.25	1.4	0.7	0.3	1.2	0.4	100	65
	7.0	2.2	0.5	3.0	1.5	0.6	1.6	0.4	130	260
	11.5	0.6	0.2	1.5	0.7	0.3	1.0	0.4	285	60
	18	0.6	0.2	1.0	0.6	0.3	1.2	0.35	160	60
	12	0.5	0.1	1.6	0.5	0.3	1.2	0.4	220	60
	23	0.5	0.1	1.6	0.5	0.3	1.2	0.4	180	60
	28	0.6	0.2	1.2	0.5	0.3	1.2	0.4	188	70
	34	0.6	0.2	1.2	0.5	0.3	1.2	0.4	220	70
	18	0.6	0.2	1.2	0.5	0.3	1.2	0.4	190	70
	22	0.6	0.2	1.2	0.5	0.3	1.2	0.4	200	70
	12	0.6	0.2	1.2	0.7	0.3	1.2	0.4	220	70
	9	1.7	0.5	2.5	1.0	0.6	1.4	0.4	120	200
	9	0.6	0.2	1.0	0.5	0.3	1.2	0.5	300	60
	3.5	0.6	0.1	1.5	0.3	0.2	2.0	0.2	150	—
	7	0.5	0.2	1.2	0.5	0.3	1.6	0.4	110	70
	5	0.8	0.3	1.3	0.7	0.4	1.6	0.4	220	110

*Estimated level of naturally occurring iron. Levels may vary.

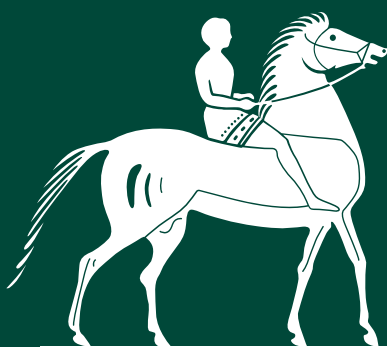


	I (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Zn (mg/kg)	Se (mg/kg)	Vitamin A (iu/kg)	Vitamin D3 (iu/kg)	Vitamin E (iu/kg)	Vitamin C (mg/kg)	B1 (mg/kg)
	0.5	0.1	50	150	0.3	15,000	2,500	500	350	11
	0.5	0.1	50	150	0.3	15,000	2,500	500	350	11
	2.0	0.1	150	450	1.5	44,000	4,400	1,500	125	78
	0.4	0.1	30	120	0.4	10,000	1,500	450	—	10
	0.4	0.1	30	120	0.4	10,000	1,500	450	—	10
	0.4	0.1	35	120	0.3	11,000	1,500	400	625	10
	0.4	0.1	35	120	0.3	11,000	1,500	400	625	10
	0.3	0.1	35	120	0.3	11,000	1,100	400	625	33
	0.3	0.1	35	120	0.3	11,000	1,100	400	625	33
	0.3	0.1	35	120	0.3	11,000	1,100	400	625	33
	0.3	0.1	35	120	0.3	11,000	1,100	400	625	33
	0.3	0.1	35	120	0.3	11,000	1,100	500	300	33
	2.0	0.1	200	600	2.0	40,000	4,000	2,500	2,000	100
	0.3	0.1	35	130	0.3	11,000	1,500	500	900	10
	—	0.1	—	—	—	—	—	200	—	—
	0.2	0.1	25	110	0.2	10,000	1,000	400	—	33
	0.5	0.1	45	125	0.5	14,000	2,000	450	—	14

	B2 (mg/kg)	B6 (mg/kg)	Niacin (mg/kg)	Pantho- enate (mg/kg)	Folic acid (mg/kg)	Choline (mg/kg)	Biotin (mcg/kg)	B12 (mcg/kg)
	8	4.5	65	17.5	3	1,037	3,000	22.5
	8	4.5	65	17.5	3	1,037	3,000	22.5
	23	8.0	140	50	20	1,215	1,700	220
	7	4.0	60	15	2	1,025	50	15
	7	4.0	60	15	2	1,025	50	15
	7	4.0	60	15	2	1,025	50	15
	7	4.0	60	15	2	1,025	50	15
	9	4.5	80	20	15	1,050	2,000	30
	9	4.5	80	20	15	1,050	2,000	30
	9	4.5	80	20	15	1,050	2,000	30
	9	4.5	80	20	15	1,050	2,000	30
	9	4.5	80	20	15	1050	2,000	30
	100	60	100	100	60	1,200	30,000	650
	7	4.0	60	15	2	1,025	50	15
	—	—	—	—	—	—	—	—
	9	4.5	80	20	15	1,050	100	30
	9	4.2	60	15	5	1000	200	30







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