



*Scientifically-Based
Supplements
for Horses*



PROUDLY PRODUCED
IN IRELAND



All Plusvital supplements are manufactured in a UFAS and BETA NOPS accredited facility.



Safe for use in competition

Plusvital are committed to maintaining the highest quality products which adhere to international anti-doping regulations and no ingredients within Plusvital supplements are present on any banned substance lists in any equine discipline.

Plusvital products are safe to use at FEI competition level and in all racing regions globally. To provide a further level of assurance, all natural raw materials are tested externally to confirm the absence of Naturally Occurring Prohibited Substances (NOPS) by a third party international specialised laboratory.



supply the the following ingredients included within some Plusvital supplements:

ACTIGEN®
BIOPLEX®
SEL-PLEX®

Empower Performance

Plusvital has been a leader in equine science for more than 40 years since the company's formation in 1975. Offering a range of scientifically-based products, Plusvital empowers performance for the serious competitor in racing, breeding and equine sports. Plusvital remains a family-owned business, with all products proudly manufactured in Ireland and reaching Plusvital distributors in over 30 countries worldwide.

Since the launch of the company's first product, the iconic Plusvital Racing Syrup, the team at Plusvital has continued to develop innovative, scientifically-based supplements used successfully by leaders in the equine industry across the world. The development of the world's first nutrigenomic supplement for horses, EnerGene-Q10, provides further evidence of Plusvital's focus on empowering the performance of our clients.

Our range of feed supplements are developed in collaboration with leading equine nutritionists, scientists and anti-doping experts in Europe and the USA and are carefully formulated to ensure that each horse has the appropriate nutritional balance in their diet to maintain a high level of performance. Our products are manufactured to exacting EU feed hygiene standards and comply with international anti-doping rules.

Plusvital is also the world's leading provider of genetic tests to the Thoroughbred industry. Powered by Equinome's cutting edge genomic tools, Plusvital provide tests which analyse the DNA of the horse to predict optimum race distance, optimum race surface and performance potential. Plusvital's clients include leading trainers, owners and breeders in all of the major thoroughbred regions around the world.

Plusvital's on-going, multi-million euro genomic and nutrition research program is driven by a commitment to scientific excellence, with an extensive research and development team led by Plusvital's Chief Scientific Officer Prof. Emmeline Hill.

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Why supplement your horse?

General Health

In order to ensure a horse is in good general health, especially during training and competition when nutrient requirements increase, it is important to have an adequate, balanced supply of all the essential vitamins and minerals, which are specifically important to equine dietary requirements.

- See **Racing Syrup** on page 7
- See **Sport Syrup** on page 13

Healthy Circulatory System

Blood is pumped around the body, carrying oxygen through a network of blood vessels. Some ingredients have a beneficial effect on the circulatory system. Hesperidin promotes blood flow, vitamin K is integral in the blood clotting process and antioxidants, including citrus bioflavonoids, protect against free radicals that can damage blood vessels and the heart.

- See **Bioflavidex** on page 19

Gastrointestinal Health

Horse diets that contain low quantities of forage and frequent travel can lead to impaired gastro-intestinal health. Threonine is one of the main amino acids in the protein mucin, which forms a mucosal barrier that protects the stomach and intestine. Boswellia extract has beneficial effects on the immune system and promotion of healing.

- See **Neutragast** on page 23
- See **Carron Oil** on page 29

Support Growth

Young horses have a particular set of nutritional demands related to their increased rate of growth compared to adult horses. Nutritional factors play a role in developmental orthopedic diseases in growing horses. Calcium and phosphorus (and their dietary intake ratio) are essential nutrients that are important for growth of healthy bones.

- See **Breeding Robust** on page 15
- See **Breeding Syrup** on page 15

Vitamin C / E Deficiency

Vitamin C is an essential nutrient involved in collagen synthesis and a water soluble antioxidant. Vitamin E is a fat soluble antioxidant that plays a pivotal role in the body. Both vitamins are necessary for normal tissue cell reproduction and the maintenance of healthy cells.

- See **Vitamin C 100** on page 25
- See **E-Dash** on page 21

Recovery Support

Providing the relevant nutrients after intense exercise can help to support the recovery process. Ingredients targeted at this function include skeletal muscle protein components such as branched chain amino acids for muscle repair, omega-3 oils for reduction of post-exercise inflammation, antioxidants such as bioflavonoids, curcumin and selenium to protect against the free radicals generated with intense exercise, and electrolytes to replenish those lost through sweating.

- See **EnerGene-Q10** on page 31
- See **Recovery-7** on page 9
- See **Re-Zest** on page 13
- See **Electrolyte Plus** on page 25

Liver/Kidney Support

The liver processes and metabolises food absorbed in the intestine as well as many medications administered and potential toxins absorbed. The health of the individual liver cells and thus the overall liver structure can become compromised while carrying out its many complex roles.

- See **Hepatic Balance** on page 26

Muscle Stiffness/Cramping

During strenuous training or exercise or over exertion it is possible for some horses to be prone to muscle stiffness or soreness either during the competition/training or in the days after. Potentially a large contributor to this problem is the release of large amounts of lactic acid by skeletal muscle cells.

- See **Ty-Relief** on page 27

Joint / Flexibility Support

Modern competition inflicts a large amount of strain and concussion on the joints of horses and, as they get older, this becomes more apparent. Glucosamine, chondroitin sulphate and sodium hyaluronate are the building blocks of cartilage and synovial fluid. Additionally, arthritis is an inflammatory process and MSM is beneficial due to its anti-inflammatory properties.

- See **Flex Supp** on page 17

Iron / Copper Deficiency

Iron is contained in hemoglobin, myoglobin and many enzyme systems. It has an integral role in oxygen transport and cellular respiration. Copper is essential for several enzymes involved in the synthesis and maintenance of elastic connective tissue. It is also needed for the process of moving iron to areas of the body where it is needed.

- See **Iron Syrup** on page 11

Nervous Horse

There are some key compounds which can help to promote nerve cell health. L-Tryptophan is the amino acid starting material for the calming neurotransmitter serotonin, inositol is a sugar that has functions in the nervous system and thiamine (vitamin B1) is required for healthy nerve cells. Active yeast also aids in the health of the digestive system and the microbiome potentially has an effect on the brain through the gut-brain axis.

- See **Tryptocool** on page 19
- See **Chillax** on page 27

Pregnancy Support

Key nutrients including lysine/methionine and calcium/phosphorus are required for muscle and bone development. Folic acid is essential for DNA synthesis and cell formation. Additionally, other B vitamins are also involved in cell reproduction and growth of tissues. Essential minerals for cartilage, connective tissue and bone development include copper and manganese.

- See **Breeding Syrup** on page 15

Poor Hoof Quality

There is an old but true saying “no hoof, no horse” and maintenance of healthy hoof quality in certain individual horses can be challenging. Nutrients including biotin, copper, zinc and lysine all help to promote healthy new hoof production from the coronary band, which replaces damaged hoof over time.

- See **Acti-Hoof** on page 21
- See **Hoofcare** on page 33

Poor Coat Quality


An important aspect of coat quality is an adequate supply of natural oils to prevent the coat becoming dry and dull. Additionally, a low foaming shampoo means less water is required to rinse the coat after washing which means less of the oils will be washed out during the rinse.

- See **Shampoo** on page 33
- See **Carron Oil** on page 29

Tiredness / Fatigue

Tiredness/fatigue can occur for a wide variety of reasons in horses from lack of supply of energy or key nutrients in the diet to increased demand for energy from the diet in high exercise regimes. Co-enzyme Q10 is an integral cog in the process of aerobic energy production from glucose within every cell in the body. Ribose is a sugar which makes up part of the energy molecule ATP.

- See **EnerGene-Q10** on page 31
- See **Iron Syrup** on page 11
- See **Racing Pellets** on page 11
- See **ATP-10** on page 9

A man, Johnny Murtagh, is shown from the chest up, wearing a dark blue quilted puffer jacket and a matching baseball cap. Both the jacket and cap feature the Plusvital logo, which includes a stylized horse head and the text 'Plusvital Powered by Equinome'. He is smiling and looking towards the right. The background is slightly blurred, showing what appears to be a racetrack or outdoor event area.

Plusvital Racing Syrup is actually my favourite supplement at the moment, because I can give it to my horses five days before a race and it perks them up enough to hopefully give the extra edge needed to come out on top.

Johnny Murtagh, five-time Champion Jockey and Group winning trainer

Racing

Our focus in the Racing range of products has always been to provide the main nutritional supplementation requirement for the performance horse. This range has been formulated to take account of our detailed knowledge of forage analyses from Europe, UAE, Australia and Japan and ensure that the correct amount of vitamins, minerals and trace elements required are provided. Both Racing Syrup and Racing Pellets are complete solutions providing all the vitamins, trace elements and amino acids typically required by the horse in intensive training. ATP-10 and Recovery-7 are intensive programs of supplementation designed to support the racehorse before and after competition. Iron Syrup is designed to provide dietary iron to horses in need of additional support during illness, convalescence and heavy training.

Racing Syrup

Palatable molasses-based multivitamin, amino acid and trace element balancer supplement. Scientifically formulated to take the guesswork out of balancing the daily feed ration of the racehorse.



DESCRIPTION

The original Plusvital product, first introduced in 1975, has been reformulated to reflect current scientific thinking. Our revised formulation now contains 30 key vitamins, minerals, trace elements and amino acids that play a vital role in equine nutrition. The intensive modern training programmes of racehorses require a diet that provides all the key nutrients to combat the stress and to maximise the horse's athletic potential.

KEY FEATURES

- 30 vitamins, minerals, trace elements and amino acids
- Meets and exceeds NRC recommendations
- Increased Vitamin E to reduce oxidative stress
- Selenium to neutralise free radicals and support the immune system
- Branched Chain Amino Acids and Threonine to support muscle recovery
- Zinc and Biotin to support growth of healthy hoof and hair

KEY INGREDIENTS

Per 60 ml / 2 oz dose: **Vitamins:** Vitamin A 40,000 IU, Vitamin D3 5,200 IU, Vitamin E 1,000 mg, Vitamin B1 62.5 mg, Vitamin B2 60 mg, Vitamin B6 26 mg, Vitamin B12 240 µg, Pantothenic Acid 50 mg, Folic Acid 15 mg, Niacin 120 mg, Biotin 1 mg, Choline Chloride 120 mg. **Trace Elements:** Iron 90 mg, Iodine 3 mg, Copper 80 mg, Manganese 100 mg, Zinc 150 mg, Selenium 0.25 mg. **Amino Acids:** Lysine 500 mg, Methionine 500 mg, Threonine 144 mg. **Branched Chain Amino Acids:** Leucine 96 mg, IsoLeucine 48 mg, Valine 48 mg. **Minerals:** Calcium 180 mg, Phosphorous 18 mg, Sodium 924 mg, Potassium 504 mg, Magnesium 294 mg.

Available Sizes & Feeding Days:



83 days



33 days

Directions for Use:

- 60 ml / 2 oz daily.
- Dispensing pump available for both sizes.
- Pump dispenses 30 ml / 1 oz doses.



molasses based



multivitamins



branched chain amino acids



I've been using Plusvital since 1977. To me, Plusvital is absolutely necessary.

**Jim Bolger, Multiple Group 1 winning
Trainer and Breeder**

ATP-10

Protein based dietary fat supplement for additional energy.



Description:

ATP-10 is designed as a feed supplement that provides a careful blend of dietary fat, protein and vitamins to encourage glycogen sparing effect in order to promote stamina and more efficient use of energy. Reformulated to provide a dietary boost in the ten days before competition. Scientific research has shown that the presence of dietary fat in a horse's feed may have a sparing effect on the glycogen stores during peak performance. By combining fat with selected vitamins and protein including branched chain amino acids, this supplement aims to encourage the metabolism of lipid energy stores to delay muscle fatigue.

Key Features:

- Amino Acids to provide energy source and support muscle growth
- Ribose to aid in ATP production, which is a key source of energy in exercising horses
- Dietary fat and protein to assist in building energy stores
- Natural Polyphenols as antioxidant and anti-inflammatory agents
- Active Yeast and short-chain Fructooligosaccharides (scFOS) to support digestive health
- Easily absorbed, bio-available Chelated Zinc to help maintain the immune system
- Boswellia extract, an anti-inflammatory agent in times of stress

Key Ingredients:

Per 500 g / 17.6 oz:

Vitamins: Vitamin B12 120 µg, Vitamin C 2,000 mg, Choline Chloride 120 mg. **Trace Elements:** Zinc 300 mg. **Amino Acids:** Lysine 9,350 mg, Methionine 2,775 mg, Threonine 7,580 mg, Leucine 13,100 mg, IsoLeucine 8,250 mg, Valine 9,000 mg, Histidine 3,350 mg, Arginine 9,350 mg, Glutamate 29,950 mg. **Natural Antioxidants:** Flavouring compounds (Vitamin E equivalent) 1,500 mg. **Minerals:** Calcium 10,050 mg, Phosphorous 6,050 mg, Sodium 10,000 mg, Potassium 2,000 mg, Magnesium 800 mg. **Other Additives:** Boswellia Serrata 1,000 mg, D-Ribose 5,000 mg, scFOC 30,000 mg. **Digestibility Enhancers:** Yeast 4,000 mg.

Available Sizes & Feeding Days:



10 days

Directions for Use:

- 10 days before a race, gradually replace 500 g / 17.6 oz of usual feed with Plusvital ATP-10.



branched chain amino acids



slow release energy



multivitamins

Recovery-7

Highly concentrated formula to aid in muscle recovery after intense exercise.



Description:

There is significant research which indicates that providing vitamins to horses post intense exercise can help support the recovery process. Plusvital Recovery-7 is designed to provide a wide range of antioxidants, vitamins, Omega-3 fatty acids and amino acids (including BCAA's) to support the horse in the 7 days after a race or during periods of intense exercise. It combines 6 trace elements, 12 vitamins, 9 amino acids and active yeast.

Key Features:

- Vitamin E to support the immune system
- Natural Polyphenols which are antioxidant and anti-inflammatory agents
- Lysine & Methionine and Branch Chain Amino Acids to support muscle recovery
- Magnesium to support the nerve system and for muscle recovery
- Algae-based Omega oils as a source of fatty acids to reduce post-exercise inflammation
- Convenient 7 day supply, individual sachets
- Quickly absorbed

Key Ingredients:

Per 50 g / 1.7 oz sachet:

Vitamins: Vitamin A 30,000 IU, Vitamin D3 2,500 IU, Vitamin E 2,000 mg, Vitamin B1 60 mg, Vitamin B2 50 mg, Vitamin B6 26 mg, Vitamin B12 85 µg, Vitamin C 2,000 mg, Pantothenic Acid 60 mg, Folic Acid 15 mg, Niacin 120 mg, Biotin 3 mg. **Trace Elements:** Iron 50 mg, Iodine 1 mg, Copper 40 mg, Manganese 100 mg, Zinc 100 mg, Selenium 0.5 mg. **Amino Acids:** Lysine 1,000 mg, Methionine 400 mg, Threonine 660 mg. **Branched Chain Amino Acids:** Valine 500 mg, Iso-Leucine 500 mg. **Flavouring Compounds:** L-Leucine 1,000 mg, Natural Antioxidants (Vitamin E equivalent) 3,000 mg. **Minerals:** Calcium 108 mg, Phosphorous 12 mg, Sodium 1,800 mg, Potassium 294 mg, Magnesium 300 mg. **Digestibility Enhancers:** Yeast 4,000 mg.

Available Sizes & Feeding Days:



7 days

Directions for Use:

- One 50 g / 1.7 oz sachet per day to be mixed with the evening feed for 7 days after a race or intense exercise.
- Ensure plenty of water is available.



antioxidant



booster



concentrated



We use Plusvital EnerGene-Q10 on our staying horses and it definitely makes a difference in their performance as well as reducing recovery time.

Danny O'Brien, multiple Group 1 winning Australian trainer

Iron Syrup

Concentrated iron-enriched molasses syrup with added B Vitamins, Vitamin K and Copper that is carefully formulated to promote red blood cell production and for extra support during training and convalescence.



Description:

Stress and illness can increase the demand for iron in the diet, leading to deficiency and fatigue. Iron, combined with B Vitamins, Vitamin K & Copper, aids in the formation of red blood cells. Red blood cells carry haemoglobin which transports oxygen around the body and is necessary for a healthy circulatory and respiratory system and, therefore, for the health and stamina of the performance horse.

Key Features:

- Iron boosting formula
- Supports red blood cell formation
- Palatable molasses taste
- Easily absorbed
- Includes Zinc to support the immune system and to promote faster healing times
- Vitamin K, known as the anti-haemorrhagic vitamin, essential for blood clotting and the maintenance of the horse's blood coagulation system
- Copper involved in the utilisation of iron stores in the body

Key Ingredients:

Per 60 ml / 2 oz dose:

Vitamins: Vitamin B1 160 mg, Vitamin B2 80 mg, Vitamin B6 30 mg, Vitamin B12 300 µg, Pantothenic Acid 80 mg, Folic Acid 20 mg, Niacin 200 mg, Biotin 1 mg, Vitamin K 5 mg. **Trace Elements:** Iron 175 mg, Copper 50 mg, Zinc 100 mg.

Directions for Use:

- **Horses:** 60 ml / 2 oz added to the daily feed for as long as required.
- **Ponies/young horses:** 30 ml / 1 oz daily.
- Dispensing pump is available. Pump dispenses 30 ml / 1 oz per dose.

Available Sizes & Feeding Days:



Animal Type	Feeding Days
Horses	83 days
Ponies / Young Horses	166 days



source of
B vitamins



iron
boosting



source of
copper



supports red
blood cells

Racing Pellets

Soy-based blend of 34 active ingredients in pelleted form. Designed to provide broad supplementation in the diet of the racing horse. Provides all the benefits of Plusvital Racing Syrup but in pelleted form.



Description:

Plusvital Racing Pellets contain 30 key vitamins, minerals, trace elements and amino acids, which play a vital role in equine nutrition. This product provides all of the key nutrients that intensive modern training programmes require in a pelleted form and helps in enabling a racehorse to achieve its maximum potential. While some of these nutrients come from the normal feed, additional supplementation may be required to meet recommended guidelines.

Key Features:

- Includes Branched Chain Amino Acids
- Source of Vitamin E & natural Polyphenols as antioxidant and anti-inflammatory agents
- Biotin and Zinc are added for their role in supporting healthy hoof & hair growth
- Choline Chloride is added to support muscle recovery
- Significant source of protein & fats

Key Ingredients:

Per 150 g / 5.3 oz dose:

Vitamins: Vitamin A 40,000 IU, Vitamin D3 5,000 IU, Vitamin E 1,000 mg, Vitamin B1 63 mg, Vitamin B2 40 mg, Vitamin B6 26 mg, Vitamin B12 240 µg, Pantothenic Acid 44 mg, Folic Acid 15 mg, Niacin 120 mg, Biotin 5 mg, Choline Chloride 120 mg. **Trace Elements:** Iron 90 mg, Iodine 2 mg, Copper 90 mg, Manganese 100 mg, Zinc 100 mg, Organic Selenium 0.25 mg. **Amino Acids:** Lysine 2,130 mg, Methionine 1,005 mg, Threonine 1,530 mg. **Branched Chain Amino Acids:** Leucine 2,985 mg, IsoLeucine 1,875 mg, Valine 2,040 mg, Histidine 765 mg, Arginine 2,130 mg, Glutamate 6,810 mg. **Natural Antioxidants:** Flavouring compounds (Vitamin E equivalent) 500 mg.

Available Sizes & Feeding Days:



40 days

Directions for Use:

- 150 g / 5.3 oz daily mixed with feed.
- A 200 ml measure is provided which, when full, provides 150 g of Racing Pellets.



reduces free
radicals



branched chain
amino acids



multivitamins

We've found out first hand just how beneficial Plusvital Sport Syrup in particular can be for showjumpers.

Luke and Matt Garrigan, Irish International Showjumpers

Sport

Performance horses in sport disciplines, such as Showjumping, Eventing, Dressage and Polo, have very unique dietary requirements for training and competition. This Sport range is designed to cater for those individual needs and takes into account the nutritional demands put on the horse through different intensities of competition. Sport Syrup is a balancer which has been specially formulated for the sport horse. Re-Zest is a convenient, post-exercise supplement that helps replenish the horse's nutritional status and aids in muscle recovery. Both Sport Syrup and Re-Zest have been formulated to provide the nutrients needed to meet the demands of competition.

Sport Syrup

Complete multivitamin solution for sport horses.



Description:

Plusvital Sport Syrup has been specially formulated to provide both a comprehensive blend of vitamins and trace minerals along with essential amino acids. Building on our experience since 1975 in designing balancers for the horse, this supplement formulated for the sport horse has high levels of selected B Vitamins (Niacin and B12) as well as Biotin and Selenium. Additional support is provided in the form of the prebiotic FOS which help ensure that a healthy digestive system is maintained.

Key Features:

- Vitamin A & D added for their roles in supporting bone growth and maintenance
- Vitamin E has antioxidant properties to reduce free radicals
- B Vitamins added for a number of important roles in the body, including food metabolism, energy production, cell reproduction and growth
- Selenium is an important mineral for reducing the effects of free radicals
- Amino Acids added for the building of proteins and muscle. Essential amino acids must be provided in the diet and we have included Lysine, Methionine & Threonine in this balancer at appropriate levels
- Fructooligosaccharides (FOS) have been added as a prebiotic. This is to support the good microbes within the gut and maintain a healthy digestive system

Key Ingredients:

Per 60 ml / 2 oz dose:

Vitamins: Vitamin A 40,000 IU, Vitamin D3 5,200 IU, Vitamin E 1,000 mg, Vitamin B1 62.5 mg, Vitamin B2 60 mg, Vitamin B6 26 mg, Vitamin B12 0.5 mg, Pantothenic Acid 50 mg, Folic Acid 15 mg, Niacin 420 mg, Biotin 5 mg, Choline Chloride 120 mg. **Trace Elements:** Iron 90 mg, Iodine 3 mg, Copper 80 mg, Manganese 100 mg, Zinc 150 mg, Organic Selenium 0.5 mg. **Amino Acids:** Methionine 1,000 mg, Lysine 5,000 mg, Threonine 500 mg.

Available Sizes & Feeding Days:



83 days



30 days

Directions for Use:

- Performance horses in training and competition - 60 ml / 2 oz per day.
- Dispensing pump available for both sizes.
- Pump dispenses 30 ml / 1 oz doses.



digestive support



multivitamins



source of selenium

Re-Zest

Concentrated post-competition supplement to aid in muscle recovery.



Description:

Strenuous exercise puts the horse under a lot of stress and can lead to muscle damage due to free radical build up. In order to combat this, antioxidants must be provided post-exercise in order to support muscle recovery. It was previously thought best to provide the horse with vitamins & minerals pre-exercise, however, recent research shows that giving antioxidants post exercise is more beneficial, especially in terms of muscle recovery. Combining Bioflavonoids, natural Polyphenols and Boswellia Extract with vitamins, minerals, amino acids and fatty acids, Re-Zest is formulated to be quickly absorbed and to rapidly restore the nutritional balance of the horse, aiding in a swifter return to training and performance.

Key Features:

- Natural Polyphenols to support the immune system and recovery response
- Branched Chain Amino Acids to aid in muscle recovery and reduction of lactic acid build up post exercise
- Lysine, Methionine & Threonine - limiting amino acids required for the utilisation of other amino acids
- Organic Selenium to protect against cell membrane damage from free radicals
- Boswellia Extract, known for its anti-inflammatory properties, also aids in calming the digestive & respiratory systems
- Vitamin C is added for its antioxidant and immune functions
- Omega-3 Fatty Acids to help mediate the inflammatory response
- Magnesium to support the nervous system and muscle

Key Ingredients:

Per 50 g / 1.7 oz dose:

Vitamins: Vitamin A 30,000 IU, Vitamin D3 2,500 IU, Vitamin E 2,000 mg, Vitamin B1 60 mg, Vitamin B2 50 mg, Vitamin B6 26 mg, Vitamin B12 85 µg, Vitamin C 2,000 mg. **Trace Elements:** Zinc 100 mg, Organic Selenium 0.5 mg. **Amino Acids:** Methionine 400 mg, Lysine 1,000 mg, Threonine 660 mg. **Branched Chain Amino Acids:** Valine 500 mg, IsoLeucine 500 mg. **Flavouring Compounds:** L-Leucine 1,000 mg, Natural Antioxidants (Vitamin E equivalent) 3,000 mg. **Other Additives:** Citrus Bioflavonoid Complex 1,000 mg, Hesperidin Complex 1,000 mg, Boswellia Serrata 500 mg, Curcuma Longa 500 mg.

Available Sizes & Feeding Days:



5 days

Directions for Use:

- One 50 g / 1.7 oz sachet to be mixed with the evening feed daily for 5 days post intense exercise.



antioxidant



source of bioflavonoids



muscle support



concentrated



Since adding Plusvital Breeding Syrup to my feeding regime, the yearlings I am preparing for the sales look fantastic. They are developing well and have super coats. The syrup is suitable for all breeding stock so my mares, foals and store horses will be getting this balancer also.

**Timmy Hillman, Owner/Manager
of Castledillon Stud**

Breeding

Broodmares and young horses have supplementation requirements that are distinct from horses in high intensity training. Our Breeding range seeks to match these unique needs through combination of multivitamins and targeted supplements. Breeding Syrup is a complete balancer solution with a range of vitamins, trace elements and amino acids, while Breeding Robust is specifically formulated to provide supplementation that supports healthy bone growth.

Breeding Syrup

Great source of vitamins, minerals and amino acids to help support the breeding horse and foal.



Description:

A specially designed, palatable syrup formulated to balance the feed of the horse during the all-important breeding season. The breeding season is a time when the nutrient requirements of the horse must be carefully considered and met in order to provide sufficient energy for growth and lactation. As well as supporting the mare in the time leading up to and after foaling, this multivitamin balancer also supports the nutritional needs of the growing foal right through to the yearling. Plusvital Breeding Syrup can also be used to supplement the diet of the stallion in service.

Key Features:

- Highly palatable molasses-based balancer
- Supports the needs of the Mare and Stallion during the breeding season
- Complete multivitamin, amino acid and mineral formulation
- Folic Acid essential for cell formation and for DNA metabolism
- Essential amino acids, Lysine & Methionine - crucial for growth and bone development
- B Vitamins - Thiamine (B1), Riboflavin (B2), Niacin (B3), Pantothenic Acid (B5), Folic Acid (B9) and Cyanocobalamin (B12) - have been added for their role in cell reproduction and growth

Key Ingredients:

Per 60 ml / 2 oz dose:

Vitamins: Vitamin A 60,000 IU, Vitamin D3 5,000 IU, Vitamin E 400 mg, Vitamin B1 44 mg, Vitamin B2 40 mg, Vitamin B6 26 mg, Vitamin B12 35 µg, Pantothenic Acid 15 mg, Folic Acid 15 mg, Niacin 120 mg. **Trace Elements:** Iron 112 mg, Iodine 2 mg, Copper 40 mg, Manganese 100 mg, Zinc 100 mg. **Amino Acids:** Methionine 1,500 mg, Lysine 1,500 mg.

Directions for Use:

- **Broodmares** - 60 ml / 2 oz daily
- **Foals & Yearlings** - 30 ml / 1 oz daily
- **Stallions in Service** - 90 ml / 3 oz daily
- **Stallions in Maintenance** - 60 ml / 2 oz daily
- Dispensing pump is available. Pump dispenses 30 ml / 1 oz per dose.

Available Sizes & Feeding Days:



molasses based



source of protein



enhanced flavour

Breeding Robust

Scientifically formulated nutritional supplement designed to balance the diet of the growing horse.



Description:

Nutritional imbalances have been shown to play a role in the occurrence of developmental orthopaedic disease in growing horses. Breeding Robust ensures the growing horse gets the adequate nutrients for healthy skeletal development. These convenient pellets utilise the bone building strength of Calcium and combines it with the other essential elements necessary for healthy skeletal development and maintenance. By combining specific minerals, such as Calcium & Phosphorus, vitamins and amino acids in a highly palatable soy protein base, this product is designed to protect against dietary inadequacies that may lead to metabolic bone diseases. Breeding Robust also contains Copper, Zinc, Vitamin A, Vitamin D3 and the essential amino acids Lysine & Methionine.

Key Features:

- Highly palatable soy protein base
- Promotes healthy skeletal development
- A source of Copper and Zinc
- High levels of Vitamin A & D which are necessary for normal bone growth
- Strengthens bones
- Contains all the essential elements required for healthy skeletal structure
- Source of Calcium & Phosphorus for their role in the healthy growth & formation of bones

Key Ingredients:

Per 133.33 g / 4.7 oz dose:

Vitamins: Vitamin A 60,000 IU, Vitamin D3 5,000 IU. **Trace Elements:** Copper Sulphate 64 mg, Copper Chelate 16 mg, Zinc Oxide 80 mg, Zinc Chelate 20 mg. **Amino Acids:** Methionine 480 mg, Lysine 1,147 mg.

Directions for Use:

- **Broodmares** - 2 measures daily
- **Foals** - 1/2 measure daily
- **Weanlings/Yearlings** - 1 measure daily
- **Racing, Endurance, Sport Horses** - 1 measure daily
- A 200 ml measure is provided which, when full, provides 133.33 g of Breeding Robust.

Available Sizes & Feeding Days:




soy based



source of protein



enhanced flavour

A photograph of a rider, Tim Rusbridge, jumping a brown horse over a wooden obstacle. The horse is in mid-air, clearing the jump. The rider is wearing a black helmet, red-tinted sunglasses, a black vest, white breeches, and black boots. The obstacle is made of wood and decorated with white and yellow flowers. A white flag is on the right side of the jump. The background shows a grassy field and trees.

It is often an uncertain time when changing to new products, but I can honestly say we have never looked back. The team at Plusvital have been fantastic. Their products and customer service are second to none. Specifically, we have seen a huge difference in energy and stamina levels for the horses we have put on the EnerGene-Q10. I can highly recommend this product.

Tim Rusbridge, International Event Rider for New Zealand

Support

In addition to the broad supplementation of the Racing or Sport range, trainers and horse owners may feel that their horse requires additional specific support. The Support range is designed to meet this requirement. EnerGene-Q10 is the world's first nutrigenomic supplement for horses based on published scientific evidence, linking nutritional requirements of a horse to its genetic make-up. Electrolyte Plus combines electrolyte salts with antioxidants to aid recovery after exercise. Carron Oil provides a rich source of essential fatty acids from high quality, cold-pressed Linseed Oil with critical health benefits including digestive aid and immune support. E-Dash, Flex Supp, ActiHoof, Tryptocool, Hepatic Balance, Ty-Relief, Chillax, Neutragast and Vitamin C 100 each also provide nutritional care for horses with more specific dietary needs.

EnerGene-Q10

The world's first nutrigenomic supplement for horses based on published scientific evidence, linking the nutritional requirements of the horse to its genetic make-up.



DESCRIPTION

EnerGene-Q10 has been scientifically formulated to contain a highly bioavailable form of the mitochondrial Co-enzyme Q10 (CoQ10) to support more efficient energy production within a horse's muscles. The formulation also contains antioxidant properties to aid in delaying fatigue and enhancing recovery following intense exercise.

This specifically tailored supplement increases and maintains the energy levels of horses during exercise, with particular benefit for T:T type horses as categorised by our Speed Gene Test.

In a published scientific study, it was found that T:T horses (i.e. suited to exercise requiring stamina) had significantly lower cellular levels of CoQ10 than C:C horses (i.e. suited to sprint exercise). However, field trials have shown that using EnerGene-Q10 results in increased levels of CoQ10 in muscle cells, which is particularly important for horses requiring increased aerobic energy production.

BENEFITS FROM AN INCREASE IN CoQ10:

- Contains MicroActive® CoQ10, a highly bioavailable source of CoQ10 to support more efficient energy production within a horse's muscles.
- More efficient energy production
- Delayed onset of fatigue
- Improved response to training
- Enhanced recovery following intense exercise



nutrigenomic supplement



energy booster



MicroActive® Co-enzyme Q10



highly bioavailable

FIELD TRIALS HAVE SHOWN THAT ENERGENE-Q10 DELIVERS COQ10 TO THE MUSCLE

A key question in oral supplementation is whether the nutrient reaches the target region in sufficient quantities. In a field trial involving 19 Thoroughbred horses at a leading trainer's yard in Ireland, daily supplementation of EnerGene-Q10 increased the level of CoQ10 in the muscle ($P < 0.01$). After nine weeks of supplementation the CoQ10 concentration in the muscle increased by 40%.



KEY INGREDIENTS

Vitamin E, Vitamin C, Organic Selenium, Curcuma Longa, Co-enzyme Q10 as MicroActive® Co-enzyme Q10, Ribose.

Per 25 g / 0.9 oz dose: Vitamin E 1,000 mg, Vitamin C 250 mg, Selenium - Se Organic 1 mg, Curcuma Longa 200 mg, Co-enzyme Q10 as MicroActive® Co-enzyme Q10 200 mg, Ribose 500 mg.

Available Sizes & Feeding Days:



60 days



30 days

Directions for Use:

- Add 25 g / 0.9 oz per day to feed. A 25 g / 0.9 oz measure is provided.
- EnerGene-Q10 may also be administered orally via a dosing syringe by dissolving 25 g / 0.9 oz in water.



I have been using Neutragast on my horses and I found the results fantastic. My top horse at the moment, Minority Report, has really changed since he has been on it.

**Paddy O'Donnell, Irish
International Showjumper**

Flex Supp

Complete supplement for horses combining Glucosamine, Chondroitin Sulphate, MSM and Rosehip with antioxidants for the maintenance of healthy joints.



DESCRIPTION

Repeated exercise and training can put a lot of stress on the joints of the horse. Flex Supp combines superior ingredients to support the mobility and joint health of the performance horse. The combined power of Glucosamine, Chondroitin Sulphate & Sodium Hyaluronate work together with the added benefits of MSM, Rosehip, Selenium and Vitamin C.

Glucosamine is added to this supplement at appropriate levels as it is required for its role in the formation of glycosaminoglycans or GAG's which are the building blocks for cartilage. Chondroitin Sulphate is the main GAG found in articular cartilage and is added as research suggests that it aids in prevention of joint degeneration. MSM or Methylsulfonylmethane is a source of bio-available Sulphur and is vital for healthy connective tissue and joint health. Studies have shown that MSM has significant anti-inflammatory and analgesic properties. Sodium Hyaluronate is a major component of synovial fluid which keeps the joint lubricated.

Rosehip (Rosa Canina), Selenium and Vitamin C have been added for their antioxidant and anti-inflammatory properties. Rosehip in particular has been shown to improve mobility and performance in supplemented horses and is a good source of Bioflavonoids.

KEY FEATURES

- Supports healthy joints and performance
- Glucosamine at 5,000 mg per dose, Chondroitin Sulphate at 1,000 mg per dose & Sodium Hyaluronate at 100 mg per dose for healthy joints
- MSM at 5,000 mg per 30 mg dose for analgesic & anti-inflammatory effects
- Rosehip at 1,000 mg per dose is added for its anti-inflammatory properties
- Source of organic Selenium
- Algae as a source of fatty acids to support joint tissue

KEY INGREDIENTS

Lithothamnium Calcareum, Dried Algae (Aurantiohytrium SP), Methyl Sulfonyl Methane (MSM), Glucosamine, Chondroitin Sulphate, Sodium Hyaluronate.

Per 30 g / 1 oz dose: MSM 5,000 mg, Glucosamine 5,000 mg, Chondroitin Sulphate 1,000 mg, Sodium Hyaluronate 100 mg, Vitamin C 1,000 mg, Organic Selenium 0.5 mg, Rosa Canina 1,000 mg, Natural Antioxidants (Vitamin E equivalent) 500 mg.

Available Sizes & Feeding Days:



2.7 kg /
6 lbs

90 days



900 g /
32 oz

30 days

Directions for Use:

- Add 30 g / 1 oz daily to the feed for as long as desired.
- A 15 g / 0.5 oz measure is provided.



formulated
for horses



joint
support



antioxidants



source of
rosehip



fatty
acids



I've been using a number of Plusvital supplements for a while now and have noticed a real difference in the general well-being of my horses.

**Elizabeth Hayden, former Irish Junior and Young Rider
European Eventing Medalist**

Bioflavindex

Highly concentrated Bioflavonoid and Hesperidin complex which aids in the maintenance of healthy blood capillaries of horses in training.



Description:

Plusvital Bioflavindex is designed to support healthy lungs and circulatory system which can be put under a lot of stress during exercise. Natural Bioflavonoids are combined with antioxidants, natural Polyphenols and Selenium. Added to this formulation is Vitamin K for its role in pulmonary support and strengthening of blood vessels.

Key Features:

- Includes several types of Bioflavonoids including Hesperidin
- Vitamin K - for pulmonary and circulatory support
- Organic Selenium - for its role in reducing free radicals
- Polyphenols to aid in reducing inflammatory response

Key Ingredients:

Per 50 g / 1.7 oz dose:

Vitamin K 40 mg, Natural Antioxidants (Vitamin E equivalent) 250 mg, Citrus Bioflavonoid Complex 10,000 mg, Hesperidin Complex 10,000 mg, Grape Seed Extract 750 mg, Organic Selenium 0.25 mg, Calcium 10,175 mg.

Available Sizes & Feeding Days:



30 days

Directions for Use:

- Add 50 g / 1.7 oz daily to the evening feed for as long as desired.
- A 25 g / 0.9 oz measure is provided.



formulated for horses



source of boswellia extract



digestive support



active yeast

Tryptocool

Source of Tryptophan, Magnesium and B Vitamins to support the nervous system with added benefit of active yeast.



Description:

Tryptocool is a powdered supplement designed to alleviate stress in horses prone to excitable behaviour. Tryptocool can be used in many different situations that are known to cause stress to animals, such as travelling, showing and competition. Tryptophan is an essential amino acid and is a precursor for serotonin. Serotonin is a neurotransmitter associated with inhibition of fear or stress. Magnesium is added as it is essential for normal nerve & muscle function. The addition of active yeast serves as both a calming agent and a digestive aid. Horses prone to digestive upsets can be irritable and this product aims to soothe both the nervous and digestive system for the benefit of the horse's health and performance.

Key Features:

- Source of Tryptophan
- Magnesium for normal nerve function
- B Vitamins to support the nervous system
- Active Yeast is added for a calming effect and to soothe the digestive system

Key Ingredients:

Magnesium 8.50%

Per 50 g / 1.7 oz dose:

Vitamin B1 500 mg, Inositol 500 mg, L-Tryptophan 2,000 mg, Saccharomyces Cerevisiae 4,000 mg.

Available Sizes & Feeding Days:



15 days

Directions for Use:

- Add 50 g / 1.7 oz daily to the feed for as long as desired or in anticipation of stressful situations.
- A 25 g / 0.9 oz measure is provided.



tryptophan



source of magnesium



source of B vitamins



formulated for horses



active yeast

E-Dash

Innovative antioxidant support for the performance horse.



Description:

Designed to support performance horses during training with high concentrations of antioxidants, Vitamins E and C as well as natural Polyphenols and organic Selenium. Antioxidants are molecules needed to prevent damage caused by free radical build up. The extra athletic effort exerted by the performance horse through exercise can accelerate the generation of free radicals in the body. Therefore performance horses may need extra antioxidant supplementation as the amount of free radicals generated may be in excess of the levels of antioxidants provided in their basic feed.

Key Features:

- Vitamin E for its well-known antioxidant properties
- Organic Selenium which protects cell membranes from free radicals
- Addition of Vitamin C to help support the immune system
- Magnesium to promote muscle recovery
- Naturally derived blend of Polyphenols for anti-inflammatory properties

Key Ingredients:

Per 50 g / 1.7 oz dose:

Vitamin E 2,500 mg, Natural Antioxidants (Vitamin E equivalent) 1,000 mg, Vitamin C 2,000 mg, Organic Selenium 0.5 mg, Magnesium 2,000 mg.

Available Sizes & Feeding Days:



30 days

Directions for Use:

- Performance horses in training and competition - 50 g / 1.7 oz dose mixed daily with feed.
- A 25 g / 0.9 oz measure is provided.



antioxidant



reduces free radicals



immune support



formulated for horses



source of selenium

Acti-Hoof

A rich source of Biotin, amino acids and minerals for healthy and strong hooves.



Description:

Plusvital Acti-Hoof is specifically formulated to nourish the structures of the hoof from the inside out. Designed for horses that are prone to weak and brittle hooves, this powder provides all the nutrients required for optimum hoof health. This product aims to promote hoof growth using a combination of Biotin along with Copper and Zinc. Methionine and Lysine are included as essential amino acids, required for the formation of Keratin which is the key constituent of hooves and hair. Vitamin B6 is included as a key factor in the transformation of amino acids. Acti-Hoof has also the additional benefit of a probiotic yeast. Research has shown that probiotics help enhance gastrointestinal digestion which may reduce the occurrence of laminitis and toxins.

Key Features:

- Biotin for strong & healthy hooves
- Source of Copper, Zinc & Selenium
- Essential amino acids - Lysine & Methionine for hoof growth
- Active yeast for improved digestion and absorption of nutrient

Key Ingredients:

Per 25 g / 0.9 oz dose:

Vitamin B6 25 mg, Biotin 40 mg, Copper Sulphate 40 mg, Copper Chelate 10 mg, Zinc Sulphate 200 mg, Zinc Chelate 50 mg, Organic Selenium 0.5 mg, Methionine 1,000 mg, Lysine 5,000 mg, Saccharomyces Cerevisiae 2,000 mg.

Available Sizes & Feeding Days:



80 days



30 days

Directions for Use:

- Add 25 g / 0.9 oz daily to the feed. A 25 g / 0.9 oz measure is provided.
- **Note:** best results are seen with continuous supplementation to give the new hoof time to grow.



hoof support



source of zinc



biotin



formulated for horses



branched chain amino acids



Overall, I find Plusvital supplements boost everything. Their coats look fantastic, they're in great form, they have a pep in their step. In particular, Plusvital Neutragast has transformed my horses.

Vickie Anderson, Irish Amateur Showjumper



Neutrast

Comprehensive gut support for horses prone to gastric disturbances.

DESCRIPTION

It is well documented that high starch cereals, if fed in large amounts, can lead to digestive problems. Research suggests that the fitter the horse gets, the smaller the capacity of the hind gut. This can lead to a reduction of microbiota available to produce vitamins. Plusvital Neutrast combines active and natural ingredients to balance gastrointestinal function.

The horse has a unique and sensitive digestive system and changes in the gut can lead to serious problems, such as gastric ulcers, acidosis and laminitis. By combining B Vitamins, Calcified Seaweed, Boswellia Extract and Active Yeast, Neutrast is designed to soothe and help prevent digestive disturbances.



KEY FEATURES

- Supports digestive health
- Source of B vitamins to help with food metabolism
- Boswellia Extract to calm & soothe the digestive tract
- Saccharomyces Cerevisiae to improve fibre digestion and microbial balance
- Calcified Seaweed to act as a buffer against excess acid in the stomach

KEY INGREDIENTS

Per 75 g / 2.6 oz dose: Vitamin B6 26 mg, Vitamin B12 35 µg, Zinc 50 mg, L-Threonine 1,000 mg, Saccharomyces Cerevisiae 2,000 mg, Boswellia Extract 250 mg.

Available Sizes & Feeding Days:



80 days



20 days

Directions for Use:

- Add 75 g / 2.6 oz daily to the feed for as long as desired.
- A 25 g / 0.9 oz measure is provided.



formulated for horses



source of boswellia extract



digestive support



active yeast

Hip 40
\$510,000
The Saratoga Sale
Fasig-Tipton

Hip 40
\$510,000
The Saratoga Sale
Fasig-Tipton



I can't believe the difference that I've seen in my horses since using Plusvital supplements. My clients and I have seen a marked improvement in both physical appearance, and ability to condition at an improved rate. Plusvital Breeding Syrup provides each horse with all the nutrients needed to keep them in the best of health, truly a game changer.

Carl McEntee, Managing Partner at Ballysax Bloodstock



Electrolyte Plus

Unique apple-flavoured preparation that combines electrolyte salts with antioxidants to aid recovery after exercise. Our formulation has increased levels of electrolyte salts as well as reduced sugar levels.



Description:

Plusvital Electrolyte Plus is designed to replace essential salts that can be lost through high intensity activity. The loss of these salts through sweating can lead to reduced performance and delayed recovery as they are vital for many functions within the body, including muscle contraction, the nervous system and maintenance of the correct fluid balance. Electrolyte Plus contains these salts in an appropriate balance while also providing antioxidant ingredients to support recovery. This reduces the glycaemic impact placed on the horse.

Key Features:

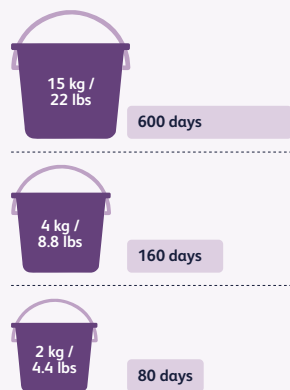
- Improved formulation - increase in electrolyte salts
- Less than 6% glucose which reduces the glycaemic impact
- 2,000mg of Vitamin C per dose for immune support
- Magnesium to aid recovery of muscle tissue
- Palatable apple flavour to encourage the horse to drink
- Easily dissolves in water

Key Ingredients:

Per 25 g / 0.9 oz dose:

Vitamin E 400 mg, Vitamin C 2,000 mg, Sodium 5,000 mg, Chlorides 10,220 mg, Glucose 1,489 mg, Potassium 2,950 mg, Magnesium 250 mg.

Available Sizes & Feeding Days:



Directions for Use:

- 25 g / 0.9 oz after exercise. Dilute 25 g / 0.9 oz into 10 litres / 2.6 gallons (one bucket) of drinking water. May also be mixed with the evening feed or used to make a saline drench. A saline drench is recommended to be administered by a veterinarian.
- A 25 g / 0.9 oz measure is provided



formulated for horses



enhanced flavour



dissolves easily



with added electrolytes

Vitamin C 100

Simply 100% Vitamin C.



Description:

Vitamin C is an important antioxidant that works with Vitamin E to reduce free radicals. Normally, it is produced in sufficient quantities given the presence of enzyme, L-gulonolactone oxidase. That said, horses under stress from training and competition and the older or convalescing horse may have depleted plasma levels of Vitamin C, therefore, supplementation may be required to support immune function.

Key Features:

- Concentrated
- Supports the immune system
- Helps reduce free radicals
- Antioxidant
- Aids in collagen synthesis

Key Ingredients:

Per 1 kg / 2.2 lbs:

Vitamin C L-Ascorbic Acid 1,000 g.

Available Sizes & Feeding Days:



Directions for Use:

- **Horses:** 5 g / 0.2 oz per day for 3-5 days in times of ill health/ stress or intense exercise.
- A 5 g / 0.2 oz measure is provided.



source of vitamin C



antioxidants



reduces free radicals

Hepatic Balance

Comprehensive liver protector supplement for horses to support the maintenance of healthy liver and kidney function.



DESCRIPTION

The liver is a critical organ, with over 500 important biological functions. These include roles in carbohydrate, protein and lipid metabolism, synthesis of clotting factors, production of bile for breakdown of fats and elimination of waste, production of blood plasma proteins, processing of haemoglobin, metabolism of drugs and toxins, conversion of ammonia to urea and formation of immune factors. However, in carrying out these roles, the liver cells or hepatocytes (and therefore the overall internal liver structure) are susceptible to damage.

Plusvital Hepatic Balance is a unique blend of hepatoprotective compounds, with significant evidence demonstrating their effectiveness in scientific literature. In supplementing with this product, the liver cells and general liver health will be supported in carrying out their wide range of functions.

KEY FEATURES

- Supports healthy liver and kidney function
- Includes Milk Thistle extract to protect the liver and decrease hepatic inflammation and fibrosis
- Contains Artichoke extract for antioxidant, hepatoprotective and anticholestatic effects
- Alpha-lipoic acid and L-Carnitine work together to increase the efficiency of energy production from fats and in this way benefit liver health
- Methionine included for hepatoprotective properties
- Contains Choline Chloride to aid in preventing accumulation of fats in the liver.

KEY INGREDIENTS

Per 40 ml / 1.5 oz dose: **Vitamins:** Vitamin B1 50 mg, Vitamin B2 50 mg, Vitamin B6 25 mg, Vitamin B12 0.6 mg, Pantothenic Acid 60 mg, Niacin 100 mg, Choline Chloride 1,000 mg, Vitamin K 20 mg, Carnitine 500 mg, Inositol 100 mg. **Other Additives:** Milk Thistle 2,000 mg, Methionine 1,000 mg, Alpha-lipoic acid 600 mg, Artichoke 200 mg.

DIRECTIONS FOR USE

- *Horses requiring additional liver and kidney support due to medication or if recommended by your veterinarian:* 40 ml / 1.4 oz daily.
- Bottle comes with a built-in measure. Ensure cap is on the bottle and shake well before filling the required daily dose.
- Never exceed recommended dose. Consult your equine nutritionist/veterinarian before use.

AVAILABLE SIZES & FEEDING DAYS



25 days



milk
thistle



source of
artichoke extract



anti-
oxidant

Ty-Relief

Designed to neutralise lactic acid during episodes of tying-up and act as a buffer when acidosis occurs.



Description:

Lactic acid accumulation in the muscle and blood stream can lead to muscle stiffness, tying-up (cramping of the muscles) and damage to the muscle fibres. Damage severity varies and can result in anything from mild stiffness to an inability to move. This can happen sporadically and acutely or in a more recurrent nature. The acute form can happen for several reasons, with lactic acidosis being a large contributing factor. Ty-Relief is aimed at neutralising any lactic acid that accumulates in the bloodstream or skeletal muscles. The product also contains branched chain amino acids, which make up 35% of the amino acids in skeletal muscle proteins, and are included to assist any repair required to muscle fibres after an episode of tying-up. Vitamin E is included to help deal with free radicals that may cause damage to skeletal muscle cell structure through oxidative lipid stress.

Key Features:

- Contains Trisodium Citrate which neutralises lactic acid produced in skeletal muscle and circulating in the bloodstream
- Citric acid acts as a buffer to reduce acidity
- Branched Chain Amino Acids (Leucine, Isoleucine and Valine) to aid in muscle recovery and reduction of lactic acid built up post exercise
- Natural Vitamin E acts as an antioxidant to defend against free radicals produced during intense exercise.

Key Ingredients:

Per 90 ml / 3 oz dose: **Vitamins:** Vitamin E 200 mg. **Branched Chain Amino Acids:** Leucine 1,000 mg, Isoleucine 500 mg, Valine 500 mg. **Other Additives:** Sodium Citrate 27,750 mg, Citric Acid 9,250 mg.

Available Sizes & Feeding Days:



55 days

Directions for Use:

- **Race Horses in Training and Performance Horses:** 90ml per day in the evening feed. Can also be administered via syringe.
- Shake well before placing pump into bottle and before each use.
- Should be used in conjunction with normal electrolyte supplementation. Do not exceed the recommended feeding instructions.
- Dispensing pump available. Pump dispenses 30 ml / 1 oz doses.



neutralises lactic acid



source of natural vitamin E



branched chain amino acids

Chillax

Restores chemical balance to the central nervous system and helps to calm excitable horses in stressful conditions.



Description:

Some horses are naturally nervous animals and some are affected by particular situations such as travelling, competitions, sales and clipping. Horses have different thresholds in how they react to particular situations and as such require a supplement flexible enough to adapt to different situations.

Chillax is a scientifically designed nutritional supplement blend of chelated Magnesium, marine and dairy peptides designed to restore chemical balance to the central nervous system and to help calm excitable horses in stressful conditions, therefore maximising equine performance.

Key Features:

- Contains a highly digestible protein from a fish hydrolysate source to reduce anxiety and stress
- Acetyltaurinate Magnesium allows Magnesium to travel into nerve cells
- Both Magnesium and the amino acid Taurine have the capacity to reduce the stress and anxiety, calm and enhance cardiac function
- Source of Tryptophan, which is an essential amino acid and the precursor of the neurotransmitter Serotonin
- Includes Vitamin B6, which is essential for nervous system activity.

Key Ingredients:

Fish protein hydrolysate (highly digestible protein), Sorbitol (Highly digestible carbohydrate), Acetyltaurinate Magnesium 3,000 mg, L-Tryptophan 50,000 mg, Vitamin B6 1,000 mg.

Available Sizes & Feeding Days:



3 dose supply

Directions for Use:

- For Animal Use Only. **Contains no prohibited substances.**
- Administer 20 ml / 0.68 oz orally, 90 minutes prior to stressful activity.
- This can be adjusted up to 60 ml / 2 oz, depending on horse's specific response to a lower dose of 20 ml / 0.68 oz.



apple flavour



calms & relaxes



suitable for competition use



I've been really impressed with how Plusvital supplements have kept my horses in great shape throughout the year, so that they can perform consistently at the top level.

**Cathal Daniels, Irish European Eventing Championships
and World Equestrian Games Eventing Medallist**

Carron Oil

A rich source of essential fatty acids from high quality, cold pressed Linseed Oil with critical health benefits including digestive aid and immune support.



DESCRIPTION

Plusvital Carron Oil is a high quality blend of essential dietary fatty acids made from cold pressed linseed oil with the addition of calcium hydroxide. The omega-3 and omega-6 fatty acids provided in large supply by Plusvital Carron Oil have several beneficial functions in the body. Calcium Hydroxide is also present in Carron Oil to assist with the digestion of the fatty acids.

KEY FEATURES

- Supports a healthy skin and coat condition
- Benefits the digestive and immune systems, with Calcium Hydroxide to improve the efficiency of the digestive process
- Contains high quality, cold pressed linseed oil, which supplies the largest amount of the omega-3 fatty acid α -linolenic acid when compared to other vegetable oils
- Omega-3 fatty acids are structurally important compounds within cell membranes in the body
- Other positive functional roles of omega-3 fatty acids include reducing the production of molecules and substances linked to inflammation
- A rich source of the omega-6 fatty acid linoleic acid, which has an anti-inflammatory effect in the body.

KEY INGREDIENTS

Linseed Oil, Calcium Hydroxide, Magnesium Sulphate Heptahydrate.

DIRECTIONS FOR USE

- **Horses:** 60 ml / 2 oz per day.
- **Ponies:** 30 ml / 1 oz per day.
- Shake well before placing pump into bottle and before each use.
- Add in directly to concentrate feed. Can be split over two feeds if desired.
- Do not exceed the recommended feeding instructions.
- Dispensing pump available. Pump dispenses 30 ml / 1 oz doses.

AVAILABLE SIZES & FEEDING DAYS



333 days



83 days



omega
3 & 6




linseed
oil



enhances
coat quality



immune
support

A full-page photograph of a rider, Michelle Kenny, in a red jacket and white breeches, jumping a brown horse over a white and red striped bar. The horse is in mid-air, and the rider is smiling. The background is a blurred landscape with greenery and a blue sky.

We have been using Plusvital Hoofcare for some time in our yard. My farriers notice a visible difference and a much healthier hoof.

Michelle Kenny, Irish International Showjumper and European Eventing Medallist

Care

Supplementation is not the sole requirement for performance horses. The Care range seeks to provide yard products that assist both rider and horse. Our proprietary products have been in use for over 35 years and have been a consistent presence in tack rooms across the world during that time. Hoofcare assists in correct hoof maintenance. Shampoo is a unique low-foaming hair care product that cleans without removing essential oils. Effivet is a topical, anti-bacterial, anti-fungal and anti-viral skin cleansing liquid for flushing wounds and hydrogel solution for wound repair.

Shampoo

Highly effective shampoo formula that thoroughly cleans the coat of the horse without removing the natural coat oils.



Description:

A low foaming formula requiring a minimal amount of rinsing after use further maintaining the natural lustre of the coat.

Key Features:

- Low foaming
- Can be used regularly
- Maintains natural moisture barrier

Usage:

- Mix in 30 ml / 1 oz of Plusvital Shampoo in a bucket of lukewarm water. Wash horse thoroughly. Rinse with plain water.

Available Sizes & Washes:



83 washes



33 washes

Directions for Use:

- See usage note above.



anti-microbial



silicone



eucalyptus oil



low foaming

Hoofcare

Unique blend of oils and resins designed to maintain the hoof structure and flexibility while ensuring optimum moisture content and condition. The antiseptic properties help protect the hoof against disease while the oils and resins form a barrier to lock moisture in.



Description:

A firm favourite among Plusvital customers worldwide. This unique topical preparation is designed for the daily protection of the horse's hooves. The horse's hoof is a complex structure and it needs to be cared for so that it does not lose moisture and become vulnerable. As the hoof wall is approximately 25% water, undue evaporation from the horn can result in brittleness and lead to cracks and weaknesses. Plusvital Hoofcare is very versatile and can be used for both wet and dry conditions.

Key Features:

- Protects the hoof from drying out
- Keeps the horny structure of the hoof more flexible
- Assists in the retention of water in the hoof wall
- Provides a natural sheen to the hoof
- Helps strengthen the hoof wall

Usage:

- Apply using a clean, soft brush, massaging into the coronary band. May be applied under the hoof in wet conditions as a protective measure.

Warning:

- For external use only / do not feed to animals
- Do not apply to abraded or damaged skin
- Keep away from eyes
- Wash hands after use



Available Sizes:



Directions for Use:

- See usage note above.



hoof support



moisture barrier



natural ingredients



I've been using Plusvital EnerGene-Q10 since last year and I've really noticed the difference in my horse, Sorbet, on the cross-country phases and in his recovery after events.

Melanie Young, former Irish International Pony, Junior and Young Rider Eventing Medallist

Wrap

Good quality cohesive bandage ideal for holding dressings in place and for use in training and competition.



Description:

Breathable, durable, stretchy and sticky. Plusvital Wrap sticks to itself, not to the skin or hair, so there is no discomfort to the horse.

Key Features:

- Breathable
- Easy to apply
- Easy to cut or tear
- Self adhesive
- Water resistant
- Lightweight

Usage:

- Once positioned, Plusvital Wrap will not loosen or slip
- Do not apply too tightly.
- Do not apply to open wounds.
- Change regularly, at least daily.
- Apply the last turn without tension, and press firmly in place

Warning:

This product contains natural rubber which may cause allergic reactions.

Directions for Use:

- See usage note above.

Available Sizes & Colours:

Available in a variety of colours.

Sold in boxes of 18



easy to apply



self adhesive



water resistant



light weight

Poultice

Animal dressing that may be used either warm and wet, cool and wet or dry to suit your horses needs.



Description:

Animal dressing that may be used either warm and wet, cool and wet or dry.

Key Features:

- Highly absorbant
- Muscle support
- Moisture barrier
- Easy to apply

Usage:

Cut dressing to size and apply to affected area with plastic backing away from skin using one of the following methods:

- **Warm and Wet:** Allow boiled water to cool to 38°C, soak briefly, lightly squeeze and apply dressing.
- **Cool and Wet:** Chill boiled water, soak briefly, lightly squeeze and apply dressing.
- **Dry:** Apply dressing directly to affected area.

Dressings should be changed at least every 12 hours. Hold dressing in place using a Plusvital Wrap cohesive 20 cm x 40 cm bandage (avoid applying too tightly).

Warning:

Consult a veterinary surgeon if Plusvital Poultice is to be used in conjunction with medical preparations.

Directions for Use:

- See usage note above.

Available Sizes:

Sold in boxes of 10



muscle support



water resistant



easy to apply

I've been using Plusvital supplements for well over a year now and couldn't recommend them highly enough to other event riders, particularly Plusvital EnerGene-Q10.

Fraser Duffy, Irish Event Rider with Fernhill Sport Horses



Effivet

A topical, anti-bacterial, anti-fungal and anti-viral skin cleansing liquid for flushing wounds and hydrogel solution for wound repair.

DESCRIPTION

During the process of wound repair, the main aim of wound care is to provide the conditions necessary to allow the natural repair and regenerative process to proceed and not be hindered by things such as bacterial infections.

Effivet is a potent germ killer containing a patented technology that allows it to mimic the body's own immune system. Hypochlorous Acid is a weak acid that is released by cells of the immune system to kill bacteria. It is anti-bacterial, anti-viral and anti-fungal, as well as being very effective at breaking down the cell wall of bacteria and killing the bacteria internally. It is safe to be ingested as it is naturally occurring in the body and is non-irritating.



KEY FEATURES

- Anti-bacterial, anti-viral and anti-fungal
- Kills a wide range of germs including: *Staphylococcus aureus*, *Pseudomonas aeruginosa*, *Escherichia coli*, *Influenza*, *Rhinovirus*
- Eliminates odour causing bacteria
- No rinse required and can be ingested safely
- Suitable for a range of uses including: wound flushing and dermal cleansing, wound debridement, skin scrapes, hot spots, relief from scratching (natural anti-histamine), navel cleansing, minor eye irritations, insect bites, minor burns and scalds, reduction of wound odours, moistening/lubrication of dressings and also kills the fungal organism that causes ringworm
- Hydrogel form adheres to the site where it is applied which allows for penetration of hypochlorous acid into wounds, lubrication of wounds and acts as a barrier to dirt in the environment.
- Dermatologically tested as suitable for sensitive skin.

KEY INGREDIENTS

Effivet Farm Hydrogel: Hypochlorous Acid 0.034%,
Effivet Farm Liquid: Hypochlorous Acid 0.032%

DIRECTIONS FOR USE

Step 1: Clean area of wound by applying Effivet Liquid to prevent infection.

Step 2: Once the area is clean, apply Effivet Hydrogel liberally and directly onto the affected area allowing to dry naturally.

Step 3: No need to rinse as this will seal the wound.

AVAILABLE SIZES



wound care



kills bacteria



cleans & soothes



pH neutral



navel care

I have been really impressed with the results from Plusvital supplements. My horses are looking, and more importantly, feeling fantastic.

Susan Fitzpatrick, Irish International Showjumper





Plusvital Genetics

Plusvital is the world's leading provider of genetic tests to the Thoroughbred industry. Powered by Equinome's cutting edge genomic tools, Plusvital provide tests which analyse the DNA of the horse to predict optimum race distance, optimum race surface and performance potential. Plusvital's clients include leading trainers, owners and breeders in all of the major thoroughbred regions around the world, with over 20,000 Thoroughbred horses tested worldwide to date.

Since the discovery of The Speed Gene in 2009 at University College Dublin, Ireland, by Plusvital CSO Prof Emmeline Hill, the company has maintained strong research links with both Trinity College Dublin and University College Dublin, releasing over 40 peer-reviewed papers in partnership with these esteemed academic institutions.

This ongoing research has subsequently led to the development of eight different genomic tests, analysing over 60,000 genetic markers for each Thoroughbred and providing information related to support breeding, training and race entry decisions.

The Speed Gene Test

The test categorises horses as one of three genetic types:

- **C:C horses** (suited to sprint exercise)
- **C:T horses** (suited to exercise requiring speed and stamina)
- **T:T horse** (suited to exercise requiring stamina)

This test result is based on the combination of "C" and "T" genetic variants, one inherited from each parent. Multiple studies have

provided evidence that race distance aptitude is almost entirely determined by the genetic make-up of this gene.

The Speed Gene Test can be utilised to benefit horses of all ages:

- **Foals:** Make more informed plans from an early age on how to optimise your foal's potential
- **Yearlings:** Utilise scientifically-based information to compliment the management of stock decisions
- **Breeding:** Identify best breeding prospects for stallions & mares with objective scientific support for mating decisions
- **Horses In Training:** Determine optimum race distance for Horses In Training with over 90% accuracy

In addition to The Speed Gene Test, Plusvital also offers a range of state-of-the-art genetic tests for Thoroughbred horses to support breeding, training and race entry decisions:

Racing GenePak

Refines Speed Gene Test distance range prediction, separating horses into short or long (e.g. C:C Short, C:C Long, etc) and identifies if a horse is more likely to be suited to dirt or turf racing.

Elite Performance Test

Predicts genetic potential for elite performance with three outputs:

- Genomic Racing Value
- Genomic Breeding Value
- Genomic Inbreeding Value

Ingredients Glossary

Plusvital is dedicated to delivering optimum care through balanced nutrition and science. Each product has been carefully and scientifically formulated to bring you the best in equine supplementation. Our team of equine scientists, nutritionists and formulation experts ensures that each product is of the highest quality. Each ingredient in our products is carefully selected in line with current scientific thinking. Outlined below is a glossary of the individual ingredients used in our products, as well as their unique features and benefits.

ALPHA-LIPOIC ACID is a naturally occurring sulphur-containing compound which is involved in energy metabolism in mitochondria. Lipoic acid has strong antioxidant properties and works with vitamin C and glutathione to protect cell membranes. Lipoic acid has been reported to be beneficial in conditions relating to liver disease.

ARTICHOKE EXTRACT is an extract from the bulb vegetable *Cynara scolymus* containing polyphenolic compounds, fibres, inulin, vitamin C and minerals. The extract has antioxidant properties and has the ability to prevent damage to the liver. It also promotes the flow of bile from the liver into the intestine and has anti-cholesterol effects.

BOSWELLIA EXTRACT is a herbal extract taken from the *Boswellia serrata* tree and contains several compounds (Terpenes and Boswellic acids) which have been shown to have effects which include anti-inflammatory properties, analgesic properties and increased speed in healing from infections.

BRANCHED CHAIN AMINO ACIDS including Leucine, Isoleucine and Valine. They account for 35% of all the essential amino acids in muscle proteins. These promote protein synthesis and turnover and thus aid in muscle recovery. They promote the metabolism of glucose and reduce lactic acid build up.

CALCIFIED SEAWEED (from *Lithothamnium Calcareum*) is seaweed which has calcium carbonate within its cell walls. This seaweed is used to act as a buffer against excess acid in the stomach.

CALCIUM is a macromineral which provides strength to bones and teeth. It is involved in many processes in the horse's body such as muscle contraction, blood clotting and maintaining cell wall structure. Calcium and Magnesium have a synergistic relationship.

CHONDROITIN SULPHATE is the main glycosaminoglycan (GAG) compound found in articular cartilage. It provides much of cartilages resistance to compression. Additionally it has anti-inflammatory properties and inhibits enzymes that decompose joint cartilage.

CITRIC ACID is a weak organic acid occurring naturally in citrus fruits and whose derivatives have a buffering capacity and in

biological fluids will reduce acidosis if it is occurring as a result of lactic acid build up.

CITRUS BIOFLAVONOID COMPLEX is a large class of "polyphenolic" plant derived compounds which have antioxidant and anti-inflammatory properties. They protect the body from free radical damage and oxidative stress. They also enhance the effect of vitamin C within the body.

COPPER is essential for several enzymes involved in the synthesis and maintenance of elastic connective tissue. It is also vital for bone maturation. Additionally it is integral in the mobilisation of iron stores, functioning in the process of moving iron to areas of the body where it is needed.

CURCUMIN is a compound obtained from turmeric. Curcumin functions as a powerful antioxidant, anti-inflammatory and has anti-cancer properties. As a result of these properties, it reduces the damage caused by free radicals.

ESSENTIAL AMINO ACIDS include Lysine, Methionine, Valine, Leucine, Isoleucine and Threonine. They are the building blocks of protein which is essential for the proper growth of tissue, muscles and ligaments which all play a part in correct skeletal development.

FISH PROTEIN HYDROLYSATE is fish protein which has been through a process termed hydrolysis to produce a mixture of amino acids and short peptides of a very specific size that are biologically active and more easily absorbed. These produce a stress-relieving effect on the central nervous system.

GLUCOSAMINE is an amino sugar and a crucial precursor for the synthesis of glycosylated proteins and lipids. For this reason it supports the structure and function of articular cartilage in joints.

GRAPE SEED EXTRACT contains vitamin E, linoleic acid and a class of bioflavonoids called proanthocyanidins. These have antioxidant properties and evidence shows a positive benefit on blood vessel health.

HESPERIDIN is a bioflavonoid compound sourced primarily in citrus fruits (mainly oranges). Hesperidin functions in supporting healthy circulation with an effect of promoting blood flow through the circulatory system. Hesperidin additionally has physiological antioxidant effects.

HYPOCHLOROUS ACID is a weak acid which is released by cells of the immune system to kill bacteria. It is anti-bacterial, anti-viral and anti-fungal. It is very effective at breaking down the cell wall of bacteria and killing bacteria. It is pH neutral and non-toxic to the body.

INOSITOL is a sugar compound with a structure similar to glucose. It plays an important role as structural basis for many secondary neurotransmitters and messenger compounds within the body.

IODINE is a trace element necessary for the synthesis of thyroid hormones that regulate basal metabolism. General signs of deficiency include lethargy, dull coat/hair loss, lack of appetite, thickened skin, and cold intolerance.

IRON is a trace element contained in haemoglobin and myoglobin. It has an integral role in oxygen transport and cellular respiration. Haemoglobin which transports oxygen from the lungs to the tissues requires iron. 60% of the iron stored within the equine body is within haemoglobin.

L-CARNITINE is an amino acid compound, synthesised, almost exclusively in the liver, from lysine and methionine. Its primary function is to increase the ability of mitochondria to produce energy from fats. L-Carnitine works synergistically with alpha-lipoic acid. L-Carnitine has been reported to have positive effects on liver function, lipid plasma profile and liver cellular health.

LINSEED OIL obtained from the flaxseed plant, *Linum usitatissimum*. It is an edible oil which contains the largest amount of the omega-3 fatty acid α -linolenic acid when compared to other vegetable oils. It has been used for many years in horse diets for its properties as a mild digestive aid.

MAGNESIUM is a trace element essential in energy production (ATP). The interdependence of magnesium and ATP means it has a role in nerve transmission/excitation and normal muscle function. Magnesium aids in maintaining balance of minerals such as sodium, potassium and calcium.

MANGANESE is a trace element essential for carbohydrate and lipid metabolism and for synthesis of chondroitin sulphate in cartilage. It is also part of superoxide dismutase, an antioxidant which helps defend against damage caused by

free radicals.

METHIONINE is an amino acid which is combined with ATP by liver cells to form a compound called S-Adenosyl-L-Methionine (S-AdoMet). Decreased hepatic biosynthesis of S-AdoMet occurs in chronic liver disease. Evidence shows that S-AdoMet is hepatoprotective and may be used for increasing the acidity of urine, treating liver disorders, and improving wound healing.

METHYL SULFONYL METHANE (MSM) is an organic, bioavailable form of sulphur. It is a natural analgesic compound, antioxidant compound, reduces inflammation and enhances the anti-inflammatory action of cortisol. It also helps to reduce crosslinking in collagen and thus scar formation.

MICROACTIVE® COQ10 is a cyclodextrin encapsulated, bioavailable form of Coenzyme-Q10 (CoQ10) which has been shown to be more available to the body after digestion by the gut. It also provides a slower 24 hour release of CoQ10 which means it will stay at higher levels in the body for longer.

MILK THISTLE EXTRACT is a fat-soluble extract from the seeds of the plant *Silybum marianum* and is composed of three flavanolignans conjointly called Silymarin. Silymarin has antioxidant properties, decreases hepatic inflammation and protects the liver during exposure to various toxins.

NATURAL POLYPHENOLS are a family of molecules with a chemical structure and antioxidant capabilities similar to those of Vitamin E.

OMEGA 3 FATTY ACIDS are algae based long chain fatty acids which are required for the production and distribution of a class of hormones called prostaglandins, which have effects on the inflammatory system within the body. Also function in maintenance of cell membrane stability.

PHOSPHORUS is a macromineral which is a main component of bone. It is also required in the body for synthesis of phospholipids (cell membranes), DNA and RNA. Additionally, it is involved in energy transfer reactions through the energy molecule ATP.

POTASSIUM is a macromineral which is involved in maintaining the acid-base balance in the horse's body as well as being involved in muscle contraction and proper nerve function.

RIBOSE is a naturally occurring sugar which is one of the building blocks in the body for energy. In the body, energy is transferred around using an "energy molecule" known as Adenine triphosphate (ATP). Each ATP molecule contains one adenine unit, three

phosphate units and one ribose (sugar) unit.

ROSA CANINA extract from the dog rose plant contains polyphenols and anthocyanins which are believed to ease joint inflammation and prevent joint damage. It is also rich in vitamin C which has antioxidant properties.

SACCHAROMYCES CEREVISIAE is a probiotic yeast that can help maintain digestive function. It improves fibre digestion and microbial balance. *Saccharomyces cerevisiae* is particularly effective at combating changes to the diet such as tackling problems associated with feeding higher starch diets.

SELENIUM (SE) is a trace element and it is a component of the enzyme glutathione peroxidase, which prevents free radical peroxides from attacking cellular membranes. Complementing vitamin E, it is an important element in supporting the integrity of cell membranes.

SHORT CHAIN FRUCTO-OLIGOSACCHARIDES (scFOC) are prebiotics composed of plant sugars linked in chains that promote the growth of certain beneficial bacteria within the digestive tract. They are fermented more rapidly and earlier in the digestive tract improving overall digestion of the horse.

SODIUM is a macromineral which is involved in the regulation of fluids within the body. Sodium is an integral part of the thirst mechanism and loss during intense exercise or competition through sweating results in a decreased thirst drive which in turn may then lead to dehydration.

SODIUM HYALURONATE is a GAG compound found in various connective tissues. It is a viscous compound which is a component of synovial fluid in joints. In this location it functions as a lubricant to aid in healthy movement of joints.

THREONINE is an essential amino acid necessary for gastro-intestinal health in horses. It is one of the main two amino acids in the protein mucin that forms the mucosal barrier and protects the gut wall. Additionally, Threonine aids in nutrient absorption. It is also a component of immunoglobulins which aid in healing processes.

TRISODIUM CITRATE is a weak base which can act as a buffer or acidity regulator. It neutralises lactic acid produced in the muscles and circulating in the bloodstream and thus can potentially reduce damage to skeletal muscle cells from lactic acid.

TRYPTOPHAN is an essential amino acid and a precursor for Serotonin. Serotonin is synthesised in the body from tryptophan by the enzyme tryptophan hydroxylase. Serotonin is a neurotransmitter associated

with inhibition of fear or stress.

VITAMIN A is a fat soluble vitamin, which is essential for bone and muscle growth in young horses. It is also required for maintaining good vision, healthy skin, and reproductive health and can boost the immune system.

VITAMIN B GROUP include Thiamine (B1), Riboflavin (B2), Niacin (B3), Pyridoxine (B6), Folic Acid (B9) and Cyanocobalamin (B12). They have a range of functions including food metabolism/energy production, support of the nervous system and cell reproduction/formation of DNA and growth.

VITAMIN B4 (CHOLINE CHLORIDE) the principal function of this compound is to contribute methyl chemical groups to various cellular processes. Essential for building and maintaining the structure of cells. Also has a role in fat metabolism within the liver promoting utilisation and transport of fats.

VITAMIN B7 (BIOTIN) is a sulphur containing vitamin which is necessary for cell growth and the production of both fatty acids and amino acids. Biotin has functions related to hoof health and structural integrity.

VITAMIN C is a water soluble antioxidant vitamin that works with Vitamin E to reduce free radicals. As well as supporting the immune function, one of the most important functions of vitamin C is its involvement in collagen formation. Vitamin C is essential for the formation and maintenance of collagen.

VITAMIN D is a fat soluble vitamin required to regulate the uptake of calcium and phosphorous from the diet. Vitamin D facilitates calcium absorption from the gut and its re-uptake within the kidney tubules. It also affects movement of calcium into and out of bones.

VITAMIN E is a fat soluble antioxidant vitamin and is important for normal function of the muscular, immune and neurologic systems. The vitamin E family comprises of 8 naturally occurring compounds which can be sub-divided into two groups, tocopherols and tocotrienols.

VITAMIN K is a group of similar compounds required by the body for successful synthesis of proteins which are involved in blood coagulation. In the absence of vitamin K blood clotting is seriously impaired. Vitamin K has also been shown to have beneficial effects in terms of overall vascular health.

ZINC (ZN) is a micromineral that is involved in the metabolism of carbohydrates and proteins. This mineral is part of many important enzymes within the body which are responsible for blood clotting, insulin production and wound healing. Zinc is also essential for DNA and protein synthesis.

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