

# TALKING DRESSAGE

ISSUE 4 2010



## From the editor...

Dressage is flourishing! Besides the traditional weekly competitions in many areas, the CDI and National competitions and dressage in sports such as eventing, there is an increasing popularity of pony and even donkey dressage (yes, you read it correctly and many of the riders are very serious and the donkeys quite skilled!). The enthusiasm for dressage training can only serve to increase the already growing popularity of the sport.

In this issue, we highlight lameness and joint 'wear and tear' in dressage horses, focusing on the underlying causes and which movements in dressage may relate to certain lameness conditions. We also briefly discuss travelling during hot weather and the effect on long distance travel to the health and performance of dressage horses.

For those of you who are competing at the Nationals in late October, we hope you enjoy the competition, experience and the social aspect of meeting fellow competitors and their horses.

All the best,

*Dr John Kohnke BVSc. RDA*

## Lameness Focusing on Dressage Horses

Years of research have been devoted to the causes, diagnosis and management of lameness in fast gaited racing horses because of the potential earnings and the outlay in purchasing young racehorses. However, the purchase cost of a young Warmblood with basic dressage training is now on parity with the average Thoroughbred racehorse. Whilst much of the knowledge can be applied to many of the common lameness problems which affect dressage horses, the types of lameness are more specific to conditions influenced by heavier body weight, slower more skilled exercise movements, increased suspension phase and hind limb propulsion exertion in competitive dressage horses. Many of the associated lameness

problems become clinical lameness issues as the horse ages. Many race horses are retired by 5 years of age (except harness horses which retire on average at 6.5 years of age), as compared to a well trained dressage horse which may be still competing successfully at demanding higher levels at 15 years or older.

Therefore, although joint and tendon lameness, similar to those caused by high speed exercise and acute overload injuries in sprint horses, do occur in dressage horses, the majority of lameness problems are often more low grade and develop into chronic joint, tendon or bone problems as a competitive horse ages.

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**Plus handy hints and lots more!**

#### HANDY HINT 1: An Occasional Cough when Warming Up

It is relatively common for a horse after recovering from the 'stable virus' (EHV-1, EHV-4), to be left with a 'ticklish' or 'throaty' cough which often occurs during the warm-up period prior to training. The cough is often triggered by mucus retained in the back of the throat or pharynx. During warm-up exercise, airway irritation from the inhalation of cold air, dust pollutants and pollen (especially from ryegrass in late spring) can cause a cough. It is most common in spring and the early summer season. The risk is higher in 3-4 year olds as they can be left with a reactive throat tonsil area (referred to as Pharyngeal Lymphoid Hyperplasia or PLH) which produces excess mucus and inflammatory secretions as their immune system is unable to overcome residual viral organisms harboured in the throat tonsil. These horses can become 'carriers' of the 'stable virus', infecting other horses in close proximity or when travelling together, by way of aerosol droplets breathed out into the stable airspace or when enclosed in a float or truck. It is helpful to provide specific nutritional support by supplementing with a product such as **Kohnke's Own Active-8™**, at 2 scoopsful daily for 10 days, then once daily for another 10-14 days, to provide nutrients which have a role in maintaining adequate immune function. Also giving a mixture of 30mL of glycerine and 1.5mL of 10% Betadine (or 1.0mL (14 drops) of Fauldings Sore Throat Gargle (15% PVP iodine) available from a pharmacy, given over the tongue by oral syringe about 10-15 minutes before working the horse each day for 10 days, provides a sticky, anti-bacterial preparation which clings to the back of the throat and may assist in resolving the PLH condition and an annoying cough. Consult your own vet for advice.

#### HANDY HINT 2: Encouraging a Horse to Drink after Exercise or Travelling

With the warm weather approaching, it is important to ensure a horse maintains hydration to assist its work effort and recovery. Offering 4-5 litres of luke-warm water, with 2 teaspoonsful of plain, fine table salt added per litre (50g or 2½ tablespoonsful table salt in 5 litres luke-warm water) after taking the bridle and gear off in the wash bay, will help to rehydrate the animal within 5-10 minutes. Horses can be trained to drink this simple rehydration mix by offering it to them each time they come back from training or after they come off the float after travelling. Adding 50g glucose (dextrose) with the 50g salt in 5 litres encourages them to drink and the glucose assists in sodium uptake from the small bowel.

#### HANDY HINT 3: Nutrition as a Foal can Influence Soundness

It is important that a young Warmblood foal, in particular, is provided with the correct balance of bone and joint forming nutrients during the first 12-18 months, complemented by the opportunity for free exercise to help promote the formation of strong bones and joints. Studies in Holland by Dr. Peter Van Werrin in the early 2000's, found that a combination of adequate nutrition, bone minerals and trace-minerals in the mare's diet and the feed the foal shares with her until weaning, helps set the foundation for long term musculoskeletal soundness. Monitoring young growing foals to avoid excess growth rate and body weight up until yearling age is essential to avoid overweight related bone and joint problems. A trim, active young horse supplemented with important trace-minerals (copper, zinc, manganese and selenium) in its diet during the first 2 years, will help avoid soundness issues as the horse reaches maturity and starts dressage training. All too often, young Warmbloods are fed excess energy relative to their needs - size does matter if the young horse is too heavy - in an attempt to produce a tall and strong young horse. A daily supplement of **Kohnke's Own Cell-Grow**, dosed as directed, is formulated to the latest NRC 2007 standards to provide adequate levels of all important bone minerals, trace-minerals and vitamins to make up shortfalls in pasture and hard feed diets.

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**Kohnke's Own® Contact Details**

FREECALL 1800 112 227 - FREE FAX 1800 112 228

Website: [www.kohnkesown.com](http://www.kohnkesown.com) - Email: [info@kohnkesown.com](mailto:info@kohnkesown.com)

Postal Address: PO Box 3234, Rouse Hill, NSW, 2155

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# Lameness Focusing on Dressage Horses

## Common Lameness in Dressage Horses

The most common lameness conditions in dressage horses occur as joint sprains and associated primary and long term chronic forms of osteoarthritis and the hocks, front fetlocks, knees and lower back area. The risk of horses developing movement associated lameness is influenced by conformation, the working surface, the body weight of the horse and also the relative soundness of a young horse during its formative first 2 years before it enters dressage training.

## Conformation

Certain conformation problems can lead to a risk of lameness as a horse ages. These include:

- 1. Weak, Upright Hocks** - Surveys have shown that the hock joints are usually the first joint in dressage horses to develop arthritic changes because of the 'impulsion' loading which is often aggravated by heavy body weight, working in deep sand arenas and leaving the hind toes too long. Excessive length of the hind toes mechanically increases the strain loading on the hocks, especially when a horse reaches more sophisticated movements, where it is pivoting or transferring more loading onto its hocks.

### HANDY HINT 5: Heavy Body weight and Thin, Athletic Limbs and Joints

Warmblood - Thoroughbred crossbreds are favoured by some dressage riders because of the more athletic build and body proportions, as well as often being cheaper to purchase as compared to a purebred Warmblood. However, many of these horses inherit the Warmblood temperament, barrel and body size (and appetite) which is carried by thin, lower limbs from the Thoroughbred genes. These horses are often 'good movers' with a long stride length, but the lower limb build may be more easily overloaded by the relatively higher body weight and the types of suspended movement required in dressage training. When purchasing a crossbred for dressage, carefully assess the strength and build of the lower limb bones and joints to help ensure that the horse can carry its weight and movement loading as a dressage horse, particularly as it ages.

Consult your vet for advice.

- 2. Long front pasterns and over flexion of the fetlock joint** - The front fetlocks are usually the second joint to develop arthritic 'wear and tear' as a result of poor conformation, which is magnified by excessive body weight and working a horse on an arena surface of deep, heavy sand. Long pasterns increase the 'leverage' and flexion degree of the front fetlocks as the horse bears weight and loading forces during exercise. They can mechanically increase the stretch required in the tendons as loading flexes the fetlock downwards during exercise. When this type of conformation is combined with low heels, especially in the front hooves, it is likely to increase the risk of flexor tendon and suspensory ligament strain during exercise. Foals which develop upright pasterns as a result of rapid body growth and weight gain on a diet high in energy (normally more than 125% of the NRC 2007 recommended Digestible Energy (DE) intake), have an increased risk as they mature of developing fetlock concussive 'wear and tear' injuries and osteoarthritis if they are over-weight, tend to work on the forehand or are trained on arena surfaces with inadequate depth of cushioning to absorb concussion. Many of the early front fetlock problems in 3-4 year olds in dressage training are a manifestation of DOD or Development Skeletal Problems (DSPs) associated with joint cartilage malformation and overload as a form of OCD during the rapid growth phase of a young horse's formative first year.

- 3. Weak Hind Quarters** - Most Warmbloods do not suffer from a lack of hindquarter size because they generally inherit 'bulky' croup and upper hind limb muscles and are usually "good doers", but many lack topline and hindquarter bulk as a result of sacroiliac pain and arthritic conditions as they age or due to a fall, working on heavy arenas or simply weak hindquarter development. This can result in chronic low grade pain and reluctance to stretch out fully in the hind limbs during exercise, which in turn, reduces the stimulus to maintain the topline muscles and the bulk of the croup and hind quarter muscles. They develop a chronic weakness and lack of power and impulsion when working. This can not only affect impulsion power, but lead to additional 'wear and tear' on the lower vertebral column, resulting in a risk of vertebral bone 'kissing' arthritis and spondylosis as the horse ages.

### HANDY HINT 4: Lower Back Sacroiliac Injuries and Diagonal Front Fetlock Lameness

Sacroiliac joint arthritis and dorsal sacroiliac ligament sprain and other lower back injuries in the lumbar vertebrae and lumbo-sacral joint, are relatively common in dressage horses as they age due to the seat position being further back in the saddle for extended movements and the long, powerful impulsion strides with the hind limbs extending further under the body. Often the horse loads more weight onto the diagonal front limb as a result of lower back discomfort on one side and appears to be uneven or short in the stride on the diagonal front limb. Long term transfer of the load onto the diagonal front limb of a horse with chronic sacroiliac and lower back pain, can lead to diagonal front fetlock arthritic conditions and lameness. Consult your vet for diagnosis and management advice.

- 4. Unevenness of Hoof Pairs** - It is well established that body shape, stance and conformation may influence performance and increase the risk of limb overload injuries in horses, with a particular focus on Warmbloods. Many European Warmblood stud book classifiers base their selection criteria on the conformation and unevenness of hoof pairs. Uneven hooves, with misshapen hooves, upright quarters and flared out sidewalls and flat soles, are considered to be undesirable conformational faults in the lower limb. They are thought to result from uneven limb loading in the growing horse, inadequate monitoring of hoof shape in young horses, poor farriery techniques and irregular or lack of corrective hoof trimming as a young horse grows to 2 years of age. Horses with uneven hoof pairs have a higher risk of limb weakness and injury, particularly during long term training. Research has shown that hoof unevenness in horses is not inherited and can also be caused by grazing young horses on hilly country and lack of an adequate and balanced intake of trace-minerals and vitamins to correct low pasture or feed levels in the young growing horse.

## Dressage Movements

Some lameness experts consider that certain lateral dressage movements may increase the risk of joint and tendon overload, particularly as a horse ages. Lateral movements increase the directional loading forces and flexion stress on lower limb joints and the overall musculoskeletal system. Repetitive lateral movements may lead to sprain of joints, abnormal joint surface loading and wear, as well as strain on joint ligaments, particularly in the lower limb. Common movements, such as shoulder-in and half pass movements impose abnormal lateral forces away from the direction of straight line movement. Transition movements and the extended trot places higher suspensory phase loading during change in movement speed and the longer stride of the movement. The straight line walk and trot has the least lateral loading on the joints. Keeping a horse well muscled by regular exercise and avoiding the excessive loading forces during these movements as a result of overweight condition will help to reduce the risk of movement associated injury.

## Fetlock Injuries and Lunging

As a horse turns at a speed greater than a walk, extra download loading forces are placed on the inside front limb, especially an increase in the flexion loading on the fetlock joint. In race horses, this additional loading has been measured at 10 times the body weight of the horse when galloping around a circle on a race track. The highest loading occurs when circling on a flat surface, such as an arena, even at the trot or canter.

Observations over 15 years ago, indicated that excessive loading occurs within 3 minutes on the inside fetlock joint when a horse is lunged at the trot on a 15 metre circle. If lunging on a tight circle to take the 'heat' or energy out of a horse daily as a routine before riding the animal is repeated on a regular basis, overloading can occur and facilitate fetlock joint deterioration.

## Effects of Aging

As some horses reach middle-age (around 15 years), there is evidence that neurological and muscle movements become less controlled, with increasing risk of over-flexion and delayed muscle control, which could impact on joints by increasing uncontrolled movement and uneven loading. It is often an individual occurrence. As a horse ages, it has less efficient digestion of calcium, so it should be provided with a calcium supplement, such as **kohnke's Own Cal-Xtra**, to help maintain the strength of subchondral joint cartilage to assist maintenance of subchondral bone and joint integrity.



## Hilly Country

Horses confined to hilly country are at risk of developing abnormal loading on the hoof structures and may be more prone to developing sidebone as they age. Ideally, an undulating, well drained, sheltered paddock, with the feed bin and waterer located well apart to encourage regular free exercise, will help to keep a horse on the move when grazing. Recent observations indicate that a horse walks an average of 5-7 km per day in a 5 acre paddock, which serves to reduce compression loading on joint cartilage as the horse exercises without the weight of the rider, in contrast to a horse confined to a stable and only exercised under saddle.

## Stable Confinement

Studies have not been carried out to compare the risk of dressage horses developing arthritis when confined to stables for the majority of their competitive career to those with a walk-in/walk-out stable and yard. However, in young Thoroughbred racehorses, studies show that horses confined to stables after training, with little or no opportunity to walk around in a yard, have a higher risk of developing fetlock and knee arthritic injuries on the race track. This was linked to long term weight loading on these joints during confinement. Joint cartilage has no blood or nerve supply and relies on movement to allow the compressed joint cartilage as it bears weight to rebound as the weight is shifted off the joint as the horse walks, to draw in joint nutrients from the joint fluid to 'feed' the cartilage. Horses standing for long periods in a stable or opting not to lay down to rest and stand upright to snooze or sleep, are unable to efficiently nourish their joint cartilage to maintain its health and function. One would presume that a heavily conditioned Warmblood stabled for the greater part of the day would also have an increased risk of developing joint deterioration and arthritis.

## Management to Avoid Joint Problems

There are a number of important practical measures which can be adopted to help maintain better joint, tendon and ligament function and long term soundness in a dressage horse.

1. Maintain a horse in moderate to 'fleshy' condition to avoid, excessive body weight and loading on the limbs.
2. Ensure an adequate warm-up period before exercise. Adopt a progressive loading program when a horse comes into training from the paddock. This should include a step-wise increase in exercise duration starting at 15 minutes per day at the walk and trot to allow the joint cartilage to thicken as it adapts to exercise loading over a period of 2-3 months.
3. Monitor the shape of hooves in young growing horses and seek advice on trimming and corrective farriery to maintain good hoof shape, avoiding long hind limb toes and ensure adequate height in the heels for a horse in training.
4. It is important to avoid uneven hoof pairs, as they are considered a conformational fault and can lead to an increase in joint and limb problems as a horse ages.
5. Work a horse each way if it is warmed up on the lunge before exercise, limit the time to 3 minutes each way on at least a 15-17 metre radius circle. Lunging should be avoided in horses with a history of fetlock joint or hock arthritis. Warm-up should ideally be carried out by working in straight lines, such as along the quarter lines and turning with large end circle turns on a cushioned working surface with 8-10 cms of supportive surface material. Including a warm-up routine of walking on a loose lead (do not ride the horse) at a 45° approach angle over 3 poles parallel and spaced 2 horse lengths apart for 4-5 'figure 8' loops also helps to improve flexion without the weight of the rider and strengthens the topline and lower back sacroiliac area muscles and ligaments before exercising the horse under saddle in training.

## Handy Hint 6: Control 'Hot' Behaviour by Feeding Rather Than Lunging

Lunging is a potentially harmful form of warm-up exercise, even though the weight of rider is not included, as it magnifies the loading on 'cold' joints which have not had an opportunity to improve circulation and cartilage nutrition processes before they are subjected to overloading and high 'wear and tear' bodyweight and centrifugal forces on the circle lunge. Many overseas dressage riders warm their horses up at the walk and slow trot on a treadmill for 10-15 minutes before exercising the horse under saddle. If a horse is 'over-energetic' or 'above itself' which makes training difficult for control and comfort, then it is recommended to either walk and trot the horse for 10-15 minutes to 'burn' up excess energy, or to adjust its feed to remove excess starch based feeds. Steam-rolled barley is one of the 'coolest' natural feeds available and most feed companies have a 'cool' slow-release energy feed mix which will provide sustained energy without excessive 'heat'. Feeding an organic magnesium supplement, such as **Kohnke's Own Mag-E**, with organic magnesium for optimum absorption, will help to correct low intake of magnesium from pasture or cereal/grass hay based diets fed to dressage horses for normal nerve and muscle function to assist in managing difficult, 'frisky' and 'nervy' behaviour in horses in training or competition.

## Handy Hint 7: Assessing the Long Term Risk of Lameness

It is essential to take into account a horse's anatomy, conformation and breed characteristics, as well as the type of work it is doing, when assessing its potential for long term soundness as a dressage horse. For example, some bloodlines of Belgium Warmbloods appear to be predisposed to knee and hock problems and other Warmblood breeds have a risk of inherited weak backs and an increased risk of lower back injuries when under saddle. Dressage involves sitting back in the saddle, more towards a horse's rear end and therefore places extra loading on the hindquarters, especially the hocks, when 'on the bit' and using their hind limbs for impulsion. When purchasing a young horse for dressage training, ensure that it is well conformed, has well developed solid bone and strong hocks and that it is sound in all other joints. In an older advanced horse, it is important to seek a soundness check, focusing on the hocks, front fetlocks, pasterns and knee joints, as these are 'high risk' joints which are prone to 'wear and tear' and arthritic change as a dressage horse ages.

## Handy Hint 8: Rising Trot compared to Sitting Trot

Recent studies have compared the load bearing characteristics on the joints of a horse as a rider works a horse at a rising trot, to those of the same horse and rider combination working at a sitting trot. It was found that horses worked at a rising trot had 20% less weight bearing on the backline as compared to a sitting trot. A deep or heavy arena surface is also likely to increase the strain forces at a sitting trot as compared to a rising trot.

6. Cool the limbs and joints after exercise - If you work in bandages to protect the limbs during exercise from interference (at speeds greater than a trot, bandages have little support benefit), it is important to remove the bandages within a few minutes of finishing work and if possible, hose the lower limbs, especially over the tendons to cool them and remove retained heat. Icing the limbs with a bulk of ice is also useful to remove heat. However, cold water hosing for 3-4 minutes is more effective at removing retained heat as compared to the popular 'gel' icepacks which have only 1-2 minutes of effective cooling. These thin 'gel' packs, even when applied frozen (below 0°C), quickly form a layer of 'warm' gel on the surface adjacent to the limb as heat is absorbed and their efficiency at cooling is subsequently reduced.
7. Use of joint supplements - Joint supplements containing glucosamine and joint cartilage protective compounds, are popular to help maintain and restore joint health and function. There are a multitude of claims and counterclaims about the benefits of oral joint supplements in assisting joints resist 'wear and tear' injuries, but little scientific evidence exists as to their action and overall benefit. However, many horses with low grade arthritic conditions in the hocks, fetlocks and knees clinically respond to glucosamine based joint supplements, restoring soundness and freedom of movement in many cases.

A combination of management to include the use of working bandages to reduce limb joint 'wobble' and potential 'wear and tear' movement, ice packing or cold water hosing after exercise to reduce joint swelling, judicious use of anti-inflammatory (eg corticosteroids and 'bute'), combined with injectable joint therapies, such as pentosan polysulphate and hyaluronic acid, as well as arthroscopic joint surgery to 'clean up' eroded or calcified edges of joint cartilage surfaces, complemented by daily oral joint supplements, may help to maintain sound joints in a horse in dressage training. Consult your vet for advice.



### Handy Hint 9: Recognise Joint Problems early by Regular Checks

A hock or fetlock joint initially responds to overload and concussive trauma by releasing a cytokine hormone mediated inflammatory reaction, with symptoms of 'warmth' in the joint, invasion of inflammatory cells into the joint environment. These result in elevated destructive enzyme levels which degrade and damage joint cartilage.

The swelling of the joint with increased joint fluid (such as an early 'bog spavin' in the hock) may develop to cause restricted flexion with a reduced stride length before the horse exhibits lameness at the walk. Early joint inflammation will normally show as 'warmth' in the joint and as clinical lameness at the trot, particularly when a horse is worked under saddle, although the horse may appear to be striding out normally at the walk. Stiffness and a longer warm-up time and resting the affected limb(s) after exercise are also signs which indicate early joint disease.

Any subtle 'head bobbing' or hesitation in transitions should be investigated by your vet, rather than wait to see if it gets better with 'bute' and a let-up from training. Proper diagnosis by joint blocks and X-rays of a 'warm' or swollen joint if the history of the joint swelling is not related to a fall or other mishap, is important to establish the type, degree and long term effects of joint deterioration as early as possible. Specific treatment and management can then be instigated and hopefully not compromise a horse's future soundness for dressage, especially in an aging, highly trained competitive horse.

### Handy Hint 10: Provide a Daily Joint Supplement

There are a number of joint supplement products to choose from in the market place. In Australia, all joint supplements are classed as listed medicines and must be approved by the APVMA to ensure consistent quality, be made in an APVMA registered production facility and must not be promoted with exaggerated label claims. **Kohnke's Own Nutricart®** (APVMA Listed No: 64346) is a new generation joint supplement which does not contain chondroitin. Over 3 years of extensive field trials in horses with joint problems failed to demonstrate any clinical benefit from chondroitin, with a similar result being shown in human GAIT studies in the USA. **Nutricart®** contains an increased content of glucosamine (not derived from sea food or shark cartilage sources so as to eliminate the risk of sea food allergies in horse owners as they mix it into feed), chelated trace-minerals (organic copper, zinc and manganese), MSM and high levels of Vitamin C. It is effective at a 20g standard dose and is one of the most economical joint supplements available.

## Travelling - Preparation is Important

Many dressage horses are floated to lessons and competitions on a regular basis. Whilst many become accustomed and 'seasoned' to travel, young horses, in particular, can find it an anxious experience and become unsettled and stressed in anticipation of travelling and by loading. Horses are very intelligent animals and have fears and concerns similar to humans if they have had a bad prior experience or are frightened by movement or confinement in a float or truck. Some horses travel more settled in a truck in comparison to a double horse float.

The other major concerns are the loss of fluids and salts as a result of sweating during longer distance travel under warm conditions, which can lead to dehydration and sap energy to perform, as well as the accumulation of lung cleaning fluids in the lower lobes of the lung when the head is tied short and held up during travelling. Both these travel related problems can ultimately affect a horse's performance as well as increase the risk of muscle damage and 'travel sickness' due to fluid retention in the lungs during a long interstate trip for dressage competition. **Preparation for the travelling is essential.**

1. Ensure that the horse is well hydrated and not showing any signs of respiratory sickness, such as a runny nose, coughing or recent history of having the 'stable virus' (EHV-1, EHV-4) when planning to travel for distances greater than 300km or 4 hours in duration. It is also a good idea to take at least enough hard feed for 2-3 days if you are travelling interstate. Ideally, take the feed mix which the horse recognises and is likely to eat, as well as 20-30 litres of its usual water in a large, well-used plastic drum, to avoid any 'new' plastic taste concentrating in the water. If the horse is used to drinking dam water, take 100g of clay from the dam edge to add to 30 litres of tap water to provide a 'muddy' taste.

### Handy Hint 11: Provide Adequate Water and Salts

Providing a salt mix, such as Kohnke's Own Cell-Salts, in the feed daily – mixed 'scoop for scoop' with plain fine salt to help make up shortfalls of sodium, potassium and magnesium in the diet, along with access at all times to cool, clean water, will help to ensure that the horse is well hydrated prior to travelling. You should also provide a daily drink after exercise and 30 minutes prior to loading to travel, of 4-5 litres of luke-warm water, plain salt and glucose, as described in Handy Hint 2, as a pre-travel drink. This drink can also be offered at rest stops during long distance travel to help maintain body fluid levels and again on arrival.

2. Plan the trip carefully with a rest stop every 6 hours to enable the horse to be unloaded and allowed to graze or eat dampened lucerne hay with its head down for at least 15 minutes to drain accumulated lung cleaning fluids to reduce the risk of pleuropneumonia (chest infection) associated with travel sickness. It takes 4 hours with the head tied up above chest height to accumulate up to 4 litres of lung cleaning fluid in the lower lobes of the lung and only 15 mins to drain the fluid when the head is down to ground level as a horse feeds.

Many horses suffer from gastric acid 'burn' to the sensitive, unprotected upper lining of the stomach when travelling on an empty stomach or if they are anxious travellers. A horse continuously secretes up to 500mL of gastric acid per hour, whether it has food or no food in its stomach, or its stomach empties as the food mass is passed into the small bowel during extended travel. A horse only secretes saliva as it chews, so if it does not have feed to nibble during travelling, it can accumulate excess gastric acid and risk the development of, or aggravate an existing gastric ulcer or gastric lining 'burn'. This can increase the discomfort and anxiety when travelling and horses can associate stomach pain with travelling and become restless and paw the floor.

3. On completion of the trip, walk the horse for 10 minutes on a loose lead to assist the blood circulation within the hooves and allow it to put its head down to pick grass to help it relax, drain its airways and recover from a long trip.

### Handy Hint 12: Feed Dampened Lucerne Chaff to Buffer Stomach Acidity

Feeding a small feed of 500g (4 litres) of dampened lucerne chaff with 3 scoopsful of **Kohnke's Own Gastro-Coat™** and 40g (2 tablespoonsful) of powdered limestone (Ag-Lime) about 30 mins before travelling, at planned rest stops and again on arrival will help maintain normal stomach conditions by buffering gastric acid and encouraging salivation as the horse consumes the chaff. Providing dampened lucerne hay in a hay net (to minimise dust inhalation into the lungs in the enclosed space of the float), at below chest height during extended trips, will also help keep a horse more contented. If a horse is an anxious traveller, then supplementation with organic magnesium to correct low feed levels may help it to travel in a more unfazed manner. (Refer to Handy Hint 6 regarding **Kohnke's Own Mag-E**).

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## Product of the Month

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