

Horses

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Introduction

I'm no fan of horses. I fell off one onto my bottom and was knocked unconscious (by the pain, I presume) at agricultural college in 1948 and my back has never been the same since. I was stupid though, for riding it bare-back. My older brother, a motor mechanic, would not get on one. "Fit steering and brakes and I'll try", he would say.

So this chapter is far from a complete thesis, however those keen on horses usually know all the tricks and there are many books on horses. The main message here will be fencing, minerals, and grazing. Much of what is in GrazingInfo applies to horses and their health.

Horses are like pigs - they drop their manure in one place and eat in another. If set stocked, horse manure areas grow long grass that they never eat, so is wasted. Other animals will eat the grass in the horse dung areas. With controlled grazing this is avoided. If allowed, they will graze selectively to the ground and eliminate the grasses they like best such as prairie grass. Daily moves eliminate this.

Horses need to graze for about 15 hours a day because they have small stomachs, so don't work on the ruminant grazing practise of filling them for the day in about three hours grazing.



If you have valuable and/or agile horses you should build high fences (to discourage jumping) and visible fences (so they see them) of at least 2.5 mm (12.5 gauge) high tensile wire with close to 5,000 volts high energy (10 or more joules) and have an energiser that monitors the system and warns you of problems so if the voltage drops because a horse is entangled you can turn the power off and get there quickly to free it.

A problem that can occur with horses in a rotation where wires are moved is that some horses can't see a single electric wire very well, so wide white polytape should be used. Also make sure that they are getting enough zinc to help their vision. Analysing the pasture will tell you the level. If low, it only takes 6 kg/ha (6 lb/acre) of zinc sulphate per hectare per annum to fix it. Feeding a soluble mineral mix containing zinc, in their water will help.

Training

As with everything, horses need training to power fencing. Animals soon learn that electric fences are things to be avoided - provided they can see them.

Some owners are not prepared to train their horses to power fencing and controlled grazing. Some say that electric fencing can't be used with horses so they try to justify their belief with all sorts of way-out statements. Meanwhile others, including Arab stud breeders like Art Snell of San

Antonio, Texas, saved thousands of dollars by being one of the first in USA to use high power Gallagher fencing in the 70s.

To improve visibility, and to protect the horses and reduce breakthroughs, use wide white



polytape as shown here, the benefits of which really show at night when most breakthroughs occur, many times just because some animals can't see the fence.

Horses can be silly and run around like maniacs into fences and become entangled in wires, especially in new and small paddocks. To reduce this happening use rails around the small paddocks and walk them along the fence lines of new paddocks that don't have rails before letting them loose.

To help train them to power fencing, place an electrified offset wire or tape on

both rail and conventional fences and always give horses time and space. High power fencing is so effective that if horses are behind a temporary fence for a week or so and the fence is then removed, they hesitate to go into the new area.

Horses, if spooked, can even become entangled in non-electrified fences which have no warning system to alert owners. Also always have wire cutting pliers handy to cut animals free and a remote fence controller to switch the energiser off from wherever you are. This problem is where Gallagher High Power fencing with an alarm excels. It can warn the owner of a failure in the fence, possibly caused by animal entanglement, anywhere within cell phone range. If the owner is hours away, he can phone someone to check the animals and fix the fences.

Foundering

This occurs mostly in horses, because so many have the ability to over-eat. As with humans, over-eating, strains and kills. Reduce the lush pasture fed by less fertilising, grazing it when longer and sowing coarser less palatable grasses such as Cocksfoot or Orchard grass (*Dactylis glomerata*), Velvet grass (Yorkshire Fog) (*Holcus lanatus*). Note that these grasses won't last with over-grazing that uncontrolled horse do by repeatedly grazing the same areas.

Grazing horses after cattle reduces the possibility of them foundering, and they eat the left-overs around the cattle manure. Don't leave them in the paddock for too many days of they'll eat the regrowth.

Adequate magnesium has been shown to reduce foundering. See Pasture Analysis for optimum levels and fertilise accordingly.

Mob stocking horses

Intensive grazing in a mob makes the horses trample much of their dung and spread it, and eat more weeds, but don't graze them too intensively and ensure that they can get feed every few hours. They can be grazed with cattle and/or sheep, but feed must then be limited or they can get too fat.

A way of preventing obesity (apart from exercise) is to have them following other animals, but they may still need locking in a small area with access to water trough, using a live wire.

Long wet pasture can cause rain rot on their legs and short, wet lush pasture can cause blisters around their muzzle and make them suffer colic and/or founder (similar to laminitis in cattle), especially if changed to it too quickly, or given too much. As with ruminants, make feed changes gradually over ten days.

High endophyte grasses can make horses very sick or even kill them. See Animal Health - Endophyte.

Earthworms don't like the coarse fibrous parts of horse dung, so you may have to harrow or drag it with a spreader made of vehicle tyres. Don't use tyned harrows that damage the pasture, pull some of it out, and tear up valuable grass, and are not necessary except for sod bound turfs. A V roller packer will also spread dung with minimum pasture damage, and make the paddock smoother if the soil is soft. If you don't have a roller, rubber tyres clamped together is cheap to make. Spreading lime over the dung areas will encourage earthworms, but firstly analyse the pasture to ensure that lime is needed. See Pasture > Pasture Analysis.



Controlled Grazing

As can be seen, these horses near Matamata in the Waikato have eaten buttercup and other weeds, but don't overdo it, because too much buttercup and some others can be toxic.

Where a small number of mixed animals (cattle, horses, sheep, etc.) are being grazed on a small farm all can be kept in one mob to reduce the number of paddocks required to achieve a grazing rotation. If over-fed, there can be problems so be careful with this.

Horses can be very bossy and chase or herd other animals for hours on end, even until the chased animals collapse and die. Some horses never do this, some never stop. It doesn't mean that none can be grazed with other animals, but be warned and avoid having small animals in with problem horses.

Controlled grazing reduces the amount of worm drenching needed.

Foaling

The foaling process is different to that of ruminants. Foals at birth normally lie for a few minutes with their back legs in the mare's vagina with the umbilical cord attached while they start breathing and gain strength while still fed from the mother. It is important to avoid upsetting foaling at this stage.

Most membranes clear off the foal's nose, but if they don't it is important to gently break and clear them off the foal's head. If foals don't get oxygen soon after birth they can be adversely

affected and show this by being weak, slow to move and wander around as if lost.

If the foal doesn't drink within three hours of birth it should be helped to get at least a litre of colostrum. Keep frozen colostrum in store for emergencies.

Treat the navel to promote drying and reduce infection.

Check the mare for mastitis.

Inject the foal against tetanus on the day of foaling and give an antibiotic if necessary.

Check that the foal passes its first dung within a few hours of birth. If not it may need more milk or the vet.

Ensure both are on clean spelled pasture and not with other horses.

Make regular inspections of the foal and mare.

Hay

Bad mouldy silage, baleage or hay can cause animal losses. Mould in haylage killed about 100 horses in Florida, USA in 2008. See Silage > Mould.

Supplements

Some horses are valuable so have had many products and feeding system developed for them. Your vet and feed store will know about some. Check them all and speak with several users before using any. Herbal products have also been developed for horses.

If calculating supplements per horse, 500 kg (1,100 lb) is an average weight of a normal farm riding horse.

Minerals

If a good soluble mineral mix is supplied through the drinking water, horses on pasture improve in condition, colour, sheen and bloom. A sleek coat shed rain and reduces problems such as hair rain-rot.

A horse breeder wrote that there are no "nutty" horses, just ones lacking important minerals. He pointed out that low magnesium can cause stress in horses, so as with cattle, analyse the pastures and fertilise accordingly. See Pastures and Fertilisers.

There is ample evidence that salt (37% sodium and 60% chloride) is essential for soil and animal health. It is an essential element for digestion and cellular uptake of glucose and amino acids, and nerve transmission. Sodium controls muscle contraction and plays a part in nerve impulse transmission and the rhythmic action of the heart and the efficient absorption of amino acids from the small intestine requires adequate sodium. Salt is important in almost every cell of an animal's body, regulating blood, digestive and excretion processes. Salt helps maintain a constant body temperature minimising winter cold stress and summer heat stress. Some people when in heat or exercising excessively and lacking sodium can feel faint and even bilious. Some athletes lacking sodium have collapsed.

Tropical pastures are sodium deficient, unless near the coast, or in very low rainfall areas so chronic salt deficiency occurs especially in soils that are low in sodium, tropical grasses and in high rainfall areas.

When concentrates are fed, salt and other deficient minerals should be included. There are many reasons why supplying salt (and trace elements) in the drinking water through an on-line all plastic dispenser are beneficial. When horses exercise they generate heat and rely on sweating to cool their body temperature. The provision of potable water is essential, but sweat includes

electrolytes - sodium, chloride, potassium, calcium, magnesium and others we may not know about. Also the soluble mineral mix is like an electrolyte and TMR because it mixes with the feed in the rumen.

People have been wrongly convinced that salt must be kept to a minimum for human health, whereas really it should be kept at optimum levels, especially if exercising a lot, but not if one is fat with and sits around lot. All horses and especially ones thought exercised need salt. A horse in training in cool conditions should get about 50 grams of salt a day and in summer double that depending on the amount in the feed. Pasture on the coast where winds come off the sea can have 0.2% Na, while in the middle of continents only 0.01%



Recent research has shown that the voluntary intake of salt by horses in work is highly variable. The study showed that the sodium (Na) intake of 4 out of 6 horses was well below even the maintenance requirement. It must be provided in the feed or drinking water. See Elements > Sodium.

Beautiful trouble-free horses, courtesy of www.driftwoodhorses