

Feeding Horses Affected by Natural Disaster

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Whether it is in the form of hay or pasture, forage should be the mainstay of every equine diet, and all other feedstuffs should complement that forage. In general, horse people should focus much of their attention on providing the highest quality forage for their horse, particularly following periods of high stress and no available pasture, such as circumstances commonly experienced by equine survivors of bushfire.

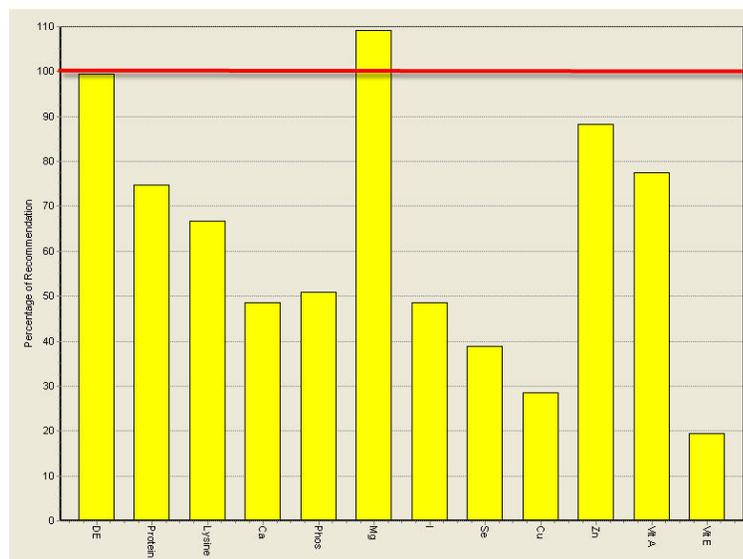
Start with what you've got – all horses need at least 1% of their body weight each day as forage (hay, pasture, chaff) to maintain their digestive system. If you only have access to hay and no hard feed then you will need to feed at least 1.5 – 2% of your horse's body weight in forage to avoid weight loss. Restricting forage intake and over feeding grain based feeds often leads to dire consequences including; weight loss, colic, gastric ulcers, hindgut acidosis, stable vices, lack of appetite and general failure to thrive.

MINIMUM daily forage requirements based on approx. 1.5% of body weight

Horse Type	Height	Weight Estimation	Estimated Kilos of forage minimum required
Pony	13hh	300kg	4.5kg
Cross Bred	14.2hh	450kg	6.5kg
Thoroughbred	16hh	550kg	8kg
Warmblood Cross	17h	650kg	10kg

Build On A Base of Forage

The type of forage you use will go a long way towards helping you decide what sort of grain and supplement or pre-mixed feed your horse requires.



Example Diet Using Oaten Hay and/or Chaff

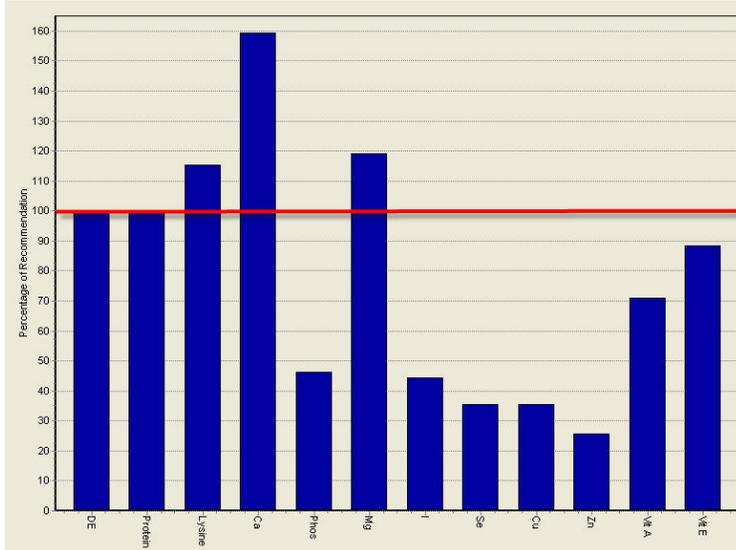
Figure 2

The graph indicates the levels of nutrients found in a typical oaten hay or chaff consumed at a rate of 8kgs per day by a 550kg 16h horse. The red line indicates 100% of the horse's daily nutrient requirements. As you can see the 8kgs of oaten hay/chaff per day provides sufficient levels of energy and magnesium. However, this forage source is lacking in protein, lysine, calcium, phosphorus, iodine, selenium, copper, zinc, vitamin A and vitamin E. It would be suggested that if your horse was consuming forage which mainly consisted of oaten/cereal hay or chaff

then it would be wise to balance your horse's diet with a supplement containing: a high levels of calcium, phosphorus, iodine, selenium, copper and vitamin E as well as a moderate levels of zinc and vitamin A.

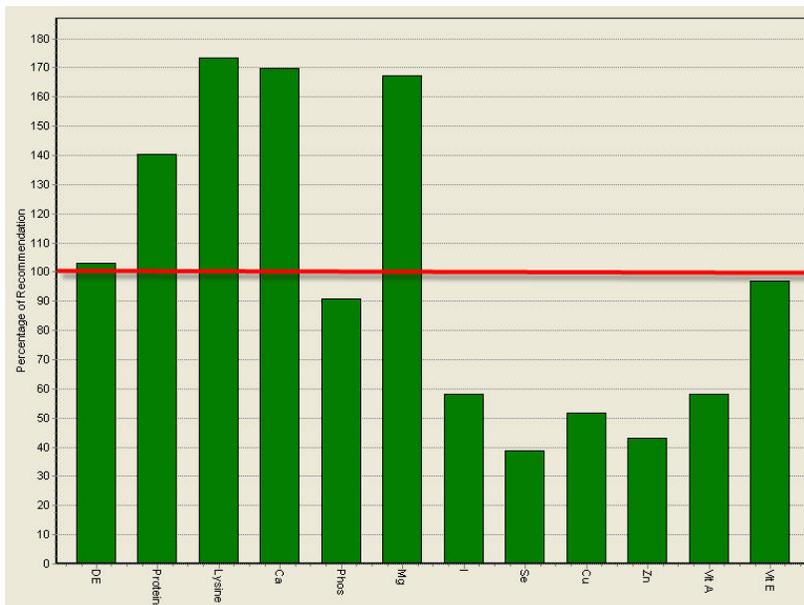
Example Diet Using Grass Hay *Figure 3*

The graph indicates the levels of nutrients found in a typical Victorian grass hay consumed at a rate of



8kgs per day by a 550kg 16h horse. The red line indicates 100% of the horse's daily requirement. Although the forage provides an excellent level of energy, thus maintaining the horse in a good body condition, along with high levels of protein, lysine, calcium and magnesium it is clearly evident that this forage is deficient in phosphorus, iodine, selenium, copper, zinc and vitamin A. If your horse is consuming a similar diet, you would need to provide them with a broad spectrum supplement containing moderate levels of additional phosphorus, iodine, selenium, copper, zinc, vitamin A and a moderate level of Vitamin E.

Example Diet Using Lucerne Hay and/or Chaff *Figure 4*



The graph indicates the levels of nutrients found in a typical lucerne hay/chaff consumed at a rate of 8kgs per day by a 550kg 16h horse. The red line indicates 100% of the horse's daily requirement. As you can see the 8kgs of lucerne hay/chaff per day provides sufficient levels of energy, protein and vitamin E, the levels of lysine calcium and magnesium are well above the horse's daily requirements and need to be taken into consideration when supplementing in order to balance the diet. If your horse was consuming a similar diet to that above it would be

suggested that you would need to provide additional nutrients to your horse via a supplement containing phosphorus, iodine, selenium, copper, zinc and vitamin A to maintain your horse's health and well-being.

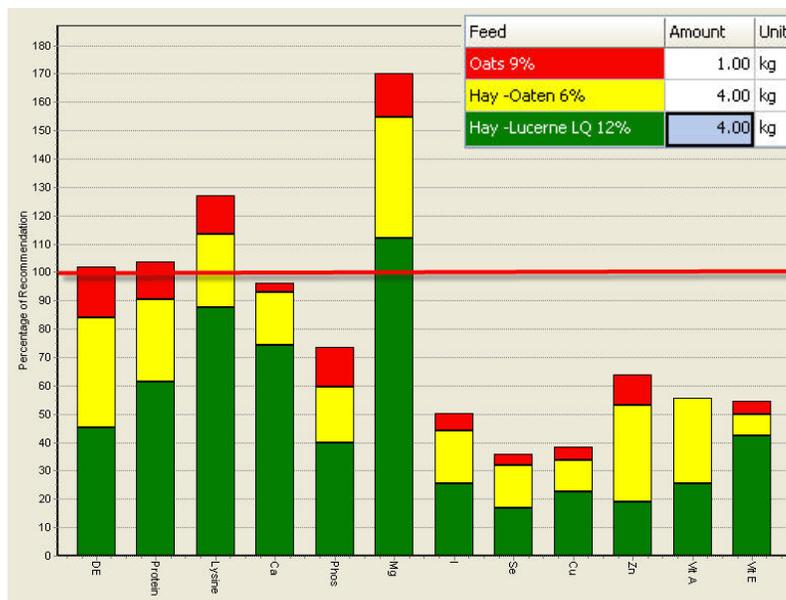
Grain, Supplement, Pre-Mixed Feed?

You have now established the forage type that your horse will be consuming, how do you balance the diet to ensure that all of your horse' nutrient requirements are met?

Forage and Grain Ration
Figure 5

The Downfalls of Grain and Forage only Diets

Although a forage and grain diet such as *figure 5* provides sufficient levels of energy, protein, lysine and magnesium a diet such as this is clearly deficient in phosphorus, iodine, selenium, copper, zinc, manganese, vitamin A and vitamin E and to a lesser degree calcium. In the short term these deficiencies may not be apparent but over the longer term a horse consuming such a diet may present with muscle soreness, poor appetite, compromised skeletal strength, lowered immune function, slow recovery and an increased risk of muscle disorders.



Pre-Mixed Complete Feed – What type is suitable for my horse?

Complete Feed – Sweet Feed or Pellet. Usually designed to be fed at a rate of 3-6kg per day plus roughage (refer to manufacturers feeding directions). Different feeds cater for different types of horses:

Breeding Feed - For pregnant mares, lactating mares or young growing horses as they generally contain a higher protein and different levels of vitamins and minerals than those found in working or maintenance horse feeds. It is recommended that breeding feeds are not fed to maintenance or working horses unless no other feed is available.

Maintenance or Working Horse Feed - If your horse is at maintenance or about to come back into light work then use a feed specifically designed for work or maintenance. It is preferable not to feed a working horse a breeding feed as the working horse has a greater daily requirement for such nutrients as sodium and potassium and generally a lower requirement for protein.

Senior Horse Feed - When your horse reaches its 'mid to late teens' and no longer in full work it's nutritional requirements will again change. Senior horses generally require feeds containing a higher level of protein, vitamins and minerals than their younger counterparts.

If you prefer to feed a complete feed then make sure you feed AT LEAST THE MINIMUM RECOMMENDED AMOUNT for your horse's body weight and work level to ensure that your horse is receiving an appropriate level of vitamins and minerals. If not, seek an alternative feed.

Alternatives to Complete Feeds

Semi - Concentrate (Sweet Feed or Pellet)

There are now feeds available that squeeze all the vitamins and minerals into a much smaller dose. Many of these are designed to be fed at between 1.5kg and 2.5kg per day in addition to roughage. Use these for horses who don't require a lot of feed. Again you need to feed at least the minimum recommended amount to ensure that your horse receives an appropriate level of vitamins and minerals otherwise seek an alternative feed.

Concentrate - Feed Balancer Pellet

A feed balancer pellet is basically a cross between a supplement and a semi-concentrate, and is fed in conjunction with your horse's daily roughage intake. The feed balancer is ideal for horses requiring additional vitamins and minerals without too many additional calories. Generally a feed balancer pellet is fed at a rate between 500g and 1kg per day. A balancer can be fed alone and is ideal to feed out as a supplement in the paddock without needing to add chaff or any other ingredients in order to get the horse to eat them. They can also be used as the base of a home mix diet to which you add grains as required. An example of a feed balancer pellet would be KER All-Phase, again you need to feed at least the minimum recommended amount to ensure that your horse receives an appropriate level of vitamins and minerals.

Supplements - Powder or Pellet

There are lots of different types with doses ranging from 15g to 150g per day but for general use, use a broad range supplement designed for the level of work your horse is doing. There are supplements for breeding horses, young growing horses and hard working horses as well as for those at maintenance all designed to meet their requirements when fed according to directions. They generally need to be mixed with some chaff to make them appetising and can even be used as a 'top up' if you are feeding a little bit of a hard feed e.g. feed half the recommended amount of a pellet or sweet feed mix and top up with half the daily recommended amount of a powder all round supplement. If you are only feeding straight grains and forage it is virtually essential that you also feed a broad spectrum vitamin and mineral supplement. A diet consisting only of grain and forage will be deficient in a wide variety of vitamins and minerals.

It is strongly recommended that where practical breeding and growing horses that may be located in areas affected by natural disaster with no pasture availability should be relocated until pastures are re-established. A balanced diet is really the starting point and the ongoing foundation for the overall health and longevity for all horses.

In conclusion, begin with the available forage as the base of the diet and build on the nutrients provided by the forage and identify any that may be lacking. From this point develop the rest of the diet by including a commercially prepared feed, grain and/or supplements as required so as to as accurately as possible provide a balanced diet for the horse. Remember more is not necessarily better, overloading the horse with vitamins and minerals can be just as detrimental to well-being as a lack of nutrients, so consider each aspect of the ingredients in your horse's daily diet.

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