

# Feeding the endurance horse for optimal performance



Endurance riding is arguably the toughest test of a horse and rider's fitness and stamina. Horses competing in this sport therefore have rather different nutritional requirements to allow them to maintain their pace throughout the competition.

The key issues for endurance horses are:

- Adequate hydration
- Sustained energy release, but sufficient energy for their needs
- Electrolytes to replace sweat losses

The moist, high energy forage feeds from Fiber Fresh containing a unique high nutritional fibre are an excellent way to meet all of these heightened needs in endurance horses. Their range of products all have health and performance benefits for horses, but some in particular are ideally suited to endurance.

Dehydration is a major concern for horses competing over long distances, especially in hot conditions, and serious colic can result if water intake is not adequate.

Although regular watering points are provided throughout the course, it is known that feeding a moist form of forage maintains the internal gut hydration at a higher level than drinking alone. In a small scale pilot study, the water intake (by drinking) of horses fed either a moist Fiber Fresh product or dry chaff was compared. Twelve thoroughbred-type (unexercised) horses were used in the controlled study, and the intake of water through drinking was monitored over 24 hours. Although horses fed the moist feed drank less, when the water intake from forage was included, they actually consumed 3.6 litres, or 8%, more water over the period.

In addition, the lucerne (alfalfa) base of Fiber Fresh feeds provides an excellent and well digested source of fibre, which is

**“Dehydration is a major concern for horses competing over long distances, especially in hot conditions, and serious colic can result if water intake is not adequate.”**

important in keeping the horses digestive system healthy and producing good levels of energy via hind gut fermentation. Energy from fermentation comes from the volatile fatty acids (VFA's) produced in the hind-gut, and additionally the Controlled Fermentation® process, used in Fiber Fresh feeds, turns the available sugars into VFA's. This results in sustained, natural non-heating energy released over a period of time – which is ideal for endurance competition.

In comparison to dry lucerne (alfalfa) chaff, Fiber Fresh products have 22% more digestible energy (DE). The highest energy product from the Fiber Fresh range of moist forage feeds is *FiberMix*®, which is a combination of lucerne and freshly harvested oat crop fermented together to give the final product.

*FiberMix*® is a well-balanced feed that has been developed for horses used in more demanding activities, including endurance. When trialed in 10 horses, the digestible energy of *FiberMix*® was determined to be

**“Feeding a moist form of forage maintains the internal gut hydration at a higher level than drinking alone.”**

12.35 MJ/kg on a dry matter basis. Whole rolled oats has a DE of 13.6 MJ/kg DM by comparison, so *FiberMix*® represents a very high energy forage diet without the problems associated with feeding large amounts of grain and with the additional benefits of hydration and better electrolyte supply.

Under extreme exercise conditions, muscle tissue undergoes high rates of turnover which must be replaced by protein synthesis for the horse to maintain condition and topline.

*FiberMix*® has been shown to be an excellent source of quality protein, calcium, potassium, magnesium and chlorine – key nutrients in endurance horses to replace muscle tissue and electrolytes lost in sweat during vigorous exertion.

