



# MITAVITE®

## LEADERS IN EQUINE NUTRITION

### Feeding Management for Golden Oldies

In horses, as in humans, chronological age does not always match the ageing process, and although the average life span of the horse is reported as 24 years, well-cared for horses and ponies can live well into their 30's. Many older horses are truly sweet and will tolerate and school inexperienced riders. This, and the attachment we have for them, makes many older horses the most valued equine on the property!

Anyone can recognize an old horse - but what constitutes 'old' will vary from horse to horse. Scientists are working hard to understand the ageing process and how to postpone it. Genetic programming signals when to stop growing, hormone levels begin to decline, metabolism slows and digestive processes become less efficient. The impact of exercise, injury, toxins and the environment generate dangerous free radicals. Combined with inadequate nutrition, dental changes and a reduction in appetite, these processes contribute to the tissue weakening that accompanies ageing.

Health problems associated with age in horses include pituitary and thyroid tumors, colic, parasite damage, chronic infections, arthritis and compromised immune, kidney, liver and large intestinal function (Table 1). Geriatric horses also have a higher incidence of choke and impaction colic. There may also be neurological signs of aging that are apparent in horses and well documented in humans. These include changes in mental status, reflexes, equilibrium, and strength – however, excessive drowsiness may be due to sleep deprivation secondary to pain or loneliness. As in humans, most horses seem quieter with age, less excitable and have reduced attention capacity and environmental acuity.

Many horses over 20 years old have conditions that require special care, many do not. There are several basic principles that can assist in the overall management of horses as they age. Firstly, older horses are more sensitive to severe weather, be it heat or cold, and often suffer weight loss when temperature fluctuations are extreme. Adequate shelter should be provided and the higher energy needs in winter met by providing increased feed in a more highly digestible form such as pelleted or extruded feeds. If the horse does not drink well, feeding water soaked feeds (2 to 4 liters of water per feeding) will help increase fluid intake. Addition of 30 to 60 grams of salt to the feed may also encourage increased water intake but should be done

only if the horse has unlimited access to water. And, as with all horses, but especially ageing horses, vaccinations and deworming schedules should be carefully maintained. To slow the ageing process and maintain health in horses (and humans!), a very high quality diet should be fed at all times. To protect against free-radical damage, accommodate reduced Digestive efficiency and prevent dietary insufficiencies, supplementary anti-oxidant nutrients, chelated minerals and a highly digestible source of energy, protein and oil is essential.

Second, every effort should be made to assist older horses in maintaining ideal body weight and condition – once they lose weight or become obese, it can be difficult for them to regain optimum condition and body composition. The ability to digest protein, phosphorus and fiber is reduced in older horses. What this means for body composition, is a decrease in muscle mass - making it essential to pay attention to the amino acid balance of the dietary protein. To maintain working muscle mass, older horses that do not have reduced kidney function, benefit from a diet more similar to that recommended for weanlings than that for normal adult maintenance and a higher protein feed is required.

Horses with unexplained weight loss will need a clinical examination and possibly blood tests. These evaluations can be used to correct physical, health and dental problems and to institute feeding modifications in horses where specific medical conditions are diagnosed.

#### DENTAL

The feeding programme will be affected by the presence of dental conditions. Horses may be said to have a 'geriatric' mouth when "expired" or "worn-out" teeth first appear – which may be as young as 16 years of age, or as old as 25. If the front incisors are missing or badly aligned, pasture cannot be relied upon as a major source of nutrition. In these cases the horse should be fed loose hay and/or hay cubes as their major source of roughage since they cannot graze effectively. Nutrition can play a key role in dental health. The consistency of a diet, as well as the nutritional components, can affect the rate of calculus accumulation. Given that overall health problems increase with age, it is essential that not only dental but also all age-related, diet-sensitive problems be addressed on a daily basis through diet and soaking the hay is necessary if horses have a tendency to choke on their feeds, or are insulin resistant.

#### HORMONAL CONDITIONS

There is a long-recognized syndrome in middle-aged horses characterized by laminitis and obesity. Ponies and aged horses are most at risk. The phenotypic characteristics of affected horses are a cresty neck and abnormal distribution of fat over the neck, rump and prepuce. It is difficult for these horses to lose weight with dietary restriction and mares often do not breed successfully. Insulin resistance (IR), pituitary and thyroid dysfunctions are common and horses with Equine Metabolic Syndrome (EMS) and Cushing's require special consideration.

Dietary management is the most important factor for treatment of these horses. EMS or IR is similar to a person with diabetes, so excessive sugar (soluble carbohydrates) should be avoided. High glycaemic index feeds, such as corn, barley, oats and molasses, should be avoided. High fat, extruded feeds with limited molasses content help control this problem, while 'sweet feeds' (>3% molasses) should be avoided at all costs. Thick hair coats should be clipped in the summer, in addition to providing shelter from the sun and investigating pharmacological treatments. Adequate shelter is also a must in winter, but confinement of an arthritic aged horse to a stall is not doing the animal any favors.

Most equine nutrition experts and veterinarians now make the following specific dietary recommendations for aged horses (Table 2):

1. The diet should be based on pasture and/or good quality hay or silage fed at a minimum of 1 kg/100 kg bodyweight
2. A low starch-high oil-low glycaemic index, highly digestible, extruded concentrate fed at 250-500g/100kg bodyweight
3. Supplementary digestive aids (probiotics, humates), extra vitamin C and E
4. Chelated minerals
5. Omega 3 supplement

Significant changes have occurred in the last 5 years in our understanding of ageing and the nutritional support required by older horses. We now have greater understanding of several nutritionally related diseases and improved feeding practices are the result. The formulation of Vitmavite Golden Oldies is based on this knowledge.

**Mitavite (A Division of Ingham's Enterprises Pty Limited)**

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