

Care of the Senior Horse

Over the past 100 years, the workload of horses has decreased significantly. Today most horses are used for pleasure or competition, rather than hard work.

At what age is a horse considered geriatric?

- ◆ Depends on the individual because some age more gracefully than others.
- ◆ General rule is that a horse 18 to 20 is entering the golden years.
- ◆ Some remain in excellent health until they die.
- ◆ Others deteriorate quickly or slowly over time.
- ◆ Because of normal physiological changes associated with aging, geriatrics require special adaptations in health care, environment, and diet.

BODY CONDITION



- ◆ Range 1-9
- ◆ 1 - Very thin
- ◆ 5-6 - Good
- ◆ 7 - Fat
- ◆ 8 - Very fat
- ◆ If you see the ribs or backbone, the horse is too thin.



Age alone should not be a criterion for retirement or special management. If the horse is in good body condition, healthy and active even at 20+ years, don't change the routine.

Changes occurring with age

- ◆ Decreased nutrient absorption
 - Loss of body condition
- ◆ Poor teeth
- ◆ Loss of appetite
- ◆ Environmental and herd stress
- ◆ Disease

Nutrient Absorption

- ◆ The effectiveness of the intestinal lining to absorb nutrients decreases with age, which makes it difficult for nutrients to reach the bloodstream. Research has documented the decrease in phosphorus, vitamins, and protein in aged horses.
 - allergies



Nutrient Absorption con't

- ◆ Production of the enzyme necessary for starch digestion may decrease, allowing too much starch to reach the hindgut. (teeth loss)
- ◆ Microbial fermentation of starch will make the hindgut more acidic, making the horse more susceptible to laminitis and founder
- ◆ When teeth fail to masticate food sufficiently, the size of the food particle is too large for enzymes and microbes to effectively digest it. The result is more food passing through undigested.



Nutrient Absorption con't

- ◆ Protein digestion appears to be a problem in geriatric horses, particularly with parasitic damage in the digestive tract.
- ◆ Muscle tissue wasting is a common occurrence in the older horse.
 - Diet & exercise



Dental Problems

- ◆ During normal tooth growth, the root continually erupts from the jaw bone; the result is shorter roots over time. Over time these teeth can get loose.
- ◆ Teeth become irregular in the way they wear, therefore, this creates problems in chewing. The biting surface can become wavy.
- ◆ In other cases, horses that lose incisors will have trouble tearing the grass blade away from the root, so pasture may become too difficult to eat.
- ◆ Hooks and sharp points may cause irritation to the cheek. Recommend a dental exam twice per year for older horses.



Dental Problems

- ◆ Tooth problems may cause older horses to choke more.
- ◆ Chewing less will cause the horse to produce less saliva, therefore less lubricant to aid the passage of feed to the stomach. Less enzyme production.
- ◆ Make sure food is prepared appropriately for the state of dentition. WET!!!



Environmental and Herd Stress

- ◆ Older horses do not handle changes in environment well.
- ◆ Relocation of older horses from one farm to another or even one pasture to another can be quite stressful, especially if it means changing pasture mates.
- ◆ Older horses tend to be at the bottom of the pecking order, and will not be able to compete for food. The result is loss of appetite, weight loss. Carefully observe and adjust feeding appropriately.



Environmental and Herd Stress cont'

- ◆ Environmental temperature changes get harder to tolerate.
- ◆ Some sensitivity to cold may be from the reduction of body fat.
- ◆ Changes in hormone production, which regulates the body's ability to adjust to external heat or cold.
- ◆ If fiber digestion in the hindgut produces heat, and if there is a reduction in the intake of fiber, there will be a reduction of internal heat produced.



Environmental and Herd Stress cont'

- ◆ During cold weather, a horse will limit the intake of cold water since it lowers internal body temperature.
- ◆ Common for these horses to colic due to self-induced dehydration and subsequent impaction.
- ◆ Feeding meal with warm water, or adding salt to the meal will enhance water intake.



Environmental and Herd Stress cont'

- ◆ Pain may also cause a horse to lose the desire to eat.
- ◆ Principle cause of pain in older horses is arthritis.
- ◆ Exercise at will is important, and it is advisable to keep older horses out all the time. Stall confinement will cause the joints to become stiff.
- ◆ Attention to proper trimming and shoeing may help avoid unnecessary stresses on joints.



Disease in the Older Horse

- ◆ Age related disorders and diseases make life more challenging for the older horse and may not be related to previously discussed problems.
- ◆ Some include: chronic infection, adrenal gland atrophy, liver failure or kidney dysfunction.
- ◆ Other problems are anemia, lowered disease resistance, and allergic respiratory problems. Skin tumors are frequently observed, particularly on grey horses. Tumors can also be found in the thyroid or pituitary glands. These symptoms are indicative of Cushing's syndrome.



Disease in the Older Horse con't

- ◆ Symptoms of Cushing's Disease caused by a pituitary tumor are: long hair coats that shed late in the year or in patches, loss of muscle mass, and excessive water intake.
- ◆ In a study of geriatric horses, over 70% of horses 20 years of age showed sub-clinical signs of pituitary or thyroid dysfunction.
- ◆ Horses with Cushing's respond to diets that are lower in starch and higher in fat and fiber.



Disease in the Older Horse con't

- ◆ Anemia can be treated with B Vitamin supplementation. Chronic infection and lowered disease resistance may respond to Vitamin C supplementation (10-15 grams/day).
- ◆ Dietary changes for kidney problems would be decreased calcium, therefore eliminate alfalfa. A abnormal high incidence of renal calculi has been seen in aged horses fed straight alfalfa.
- ◆ Respiratory disease can be treated by minimizing exposure to the assailants to the lungs. Reducing dust from feed and bedding will help.



Nutrition of the Senior Horse

- ◆ Roughage is a vital part of the equine diet, and without proper amounts, problems will occur.
- ◆ Problems tend to happen when an older horse is asked to get its roughage from hay only.
- ◆ Signs of problems: Low hay intakes, rolling or wading hay in the mouth, observance of hay balls in feces.
- ◆ Ideally at least 1% of BW as long stem roughage. Soaked hay cubes



Summary

- ◆ Added Fat > 6% Crude Fat. Balanced Omega 6 to Omega 3 ratio (Flax).
- ◆ Added super fibers (beet pulp and soy hulls) > 15% Crude fibre.
- ◆ WATER WATER and more WATER
- ◆ 1% of BW as long stemmed fibre. Soaked hay cubes
- ◆ Additional antioxidants, B-vitamins and vitamin C.
- ◆ Probiotics –yeast
- ◆ Proper management – teeth, feed & stress