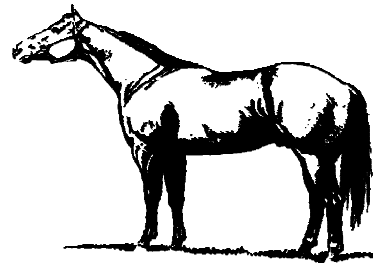


## **Animal Science Horse Information Series**

**Phone: 865-974-7294  
e-mail: fharper@utk.edu  
<http://animalscience.ag.utk.edu>**



### **SPRING PASTURE FOR YOUR HORSES**

**Dr. Frederick Harper  
Extension Horse Specialist  
Department of Animal Science  
University of Tennessee**

**After a winter of hay feeding, horses and their owners look forward to green spring pastures. Spring pastures are a great solution to the “winter blahs.”**

**Owners should not just rely on nature to provide pastures of the best nutrition. All horse pastures should be soil tested every two to three years. If you do not know how or when to soil test your horse pasture, contact your county Extension agent. The county Extension office will be listed in the phone book under County Government or check the University of Tennessee Extension web site at: <http://www.utextension.utk.edu/>. Click on “People Search” on the left side bar then on Regional and County offices. You can then highlight your county on the map and find a listing of Extension agents, phone number(s) and the address.**

**A soil test will tell if your horse pastures require lime and/or fertilizer. Too often,**

**pastures are fertilized when lime is required. Fertilizer is not used as effectively or efficiently if the soil pH of the pasture is too low. Lime is applied to bring the soil pH to the correct level for maximum utilization of the soil nutrients, including those supplied by the fertilizer.**

**The major nutrients in fertilizer are nitrogen (N), phosphorus (P) and potassium (K). In some situations, trace elements may also be required. None of these soil nutrients will be used effectively if your soil does not have the proper pH. This can only be determined by a soil test and only corrected by applying the right amount of lime.**

**To be most productive, pastures usually require some fertilization yearly; however, lime probably only needs to be applied every 3-5 years once the soil pH is corrected.**

**Recently, it has been documented that trace minerals can be deficient in horse pastures. Research by Virginia Polytechnic Institute showed that tested horse pastures were deficient in copper, zinc and selenium year round and phosphorus and vitamin A in the winter. Other research has shown that horses can be vitamin A deficient in late winter. Research from the University of Tennessee on spring tall fescue pastures for cattle have also shown low levels of copper and zinc. Selenium was also low in Tennessee tall fescue pastures from a limited number of samples. It has also been shown that some Tennessee pastures are high in sulfur. At these levels, sulfur may be an antagonist to some trace minerals.**

**It would appear from these data that horse pastures in Tennessee may also be deficient in these minerals.**

**In addition to liming and fertilizing according to a current soil test, horse owners can provide a properly balanced trace mineral salt mix to their horses on pasture to aid in**

**offsetting these mineral deficiencies.**

**Some grain mixes (commercial horse feeds) have added levels of copper, zinc, selenium and other minerals. However, not all horses on pastures need to be fed grain.**

**A mineral mix with proper levels of these, and other, essential minerals should be made available to horses on pasture.**

**A loose mineral mix is preferred to a mineral block for horses. You may ask why?**

**Horses are nibblers, not lickers. They have a soft tongue while cattle have a rougher tongue better suited for licking salt blocks. Some horses will learn to lick but may not consume enough salt. Other horses may never learn to lick a salt block. Teeth marks on a salt block indicate that the horse is trying to get salt.**

**Loose trace mineralized salt should be provided along with an appropriate loose mineral mix. Most feed stores will have a typical mineral mix with 2 parts of calcium to 1 part of phosphorus. This is a good calcium-to-phosphorus ratio for the predominate grass pastures commonly found in Tennessee. If there is a high level of legumes (clovers) in a pasture, especially if the owners also feeds alfalfa hay, a mineral mix with 1 part of calcium to 1 part of phosphorus should be use. Owners, if possible, should select a horse mineral developed to meet the specific needs of Tennessee pastures.**

**When extra mineral is available, water is more important. Clean, fresh water should always be available to horses on pasture.**

**Proper minerals for lactating broodmares, broodmares in late pregnancy, sucklings, weanlings and yearlings are very important. It has been shown that feeding high levels of trace minerals above the broodmare's requirement did not influence foal growth. However,**

**nursing foals obtain minerals from their dam's milk.**

**Copper and zinc have been associated with feet and leg problems, known as Developmental Orthopedic Disease (DOD), in young, growing horses. These deficiencies are often observed as enlargements of the fetlock joints, knees and/or hocks. Other problems, such as injuries and genetics, are also associated with DOD.**

**Since horses often perform well into their 20's and may live to be over 30 years old, feeding the correct amount of needed minerals is critical. Owners can make sure that mineral nutrition is not a problem with their horses by feeding a high-quality mineral mix designed for horses grazing Tennessee pastures.**

**###**

**5/05**