

AGR-81  
HORSE PASTURE  
ISSUED: 1-80  
REVISED:

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Pastures for horses should be more than mere exercise lots. High quality pasture can supply enough protein, vitamins, and minerals to meet the nutritional needs of most pleasure horses at relatively low cost. Although pastures furnish substantial amounts of energy, working horses will likely need additional energy supplementation. In addition, pasture will help to maintain healthy animals by furnishing the bulk needed in horse rations, as well as exercise areas, sunshine, and fresh air.

The pasture should be enclosed by a safe, strong fence. Fresh water and shade should also be provided. The pasture should be large enough to encourage normal animal activity and also be free from poisonous plants and obstructions such as holes or rocks which could cause injury.

#### Selecting The Pasture Species

Cool-season perennial grasses and legumes are most commonly used for horse pastures in Kentucky. Select high quality plant species which are adapted to your farm. Yielding ability is important, but with horses one should also be interested in quality; hence, the more nutritious plants usually are preferable, if they are well adapted (1).

Grasses may be grown in pure stands or in mixtures with legumes. Both pure grass and grass-legume mixtures can usually be used to advantage, if in separate fields. Grass with nitrogen fertilization usually provides earlier spring grazing and later fall grazing. Grass-legume mixtures are more productive in summer (2).

Cool-season grasses for horse pasture include orchard grass, Kentucky bluegrass, or fescue (3,4,5). Each grass has both advantages and disadvantages. Kentucky bluegrass has underground stems (rhizomes) which send up new shoots and, if properly managed, forms a dense turf. It also provides excellent quality grazing. Orchard grass has yield potential higher than bluegrass and can also provide high quality pasturage. It is a "bunch grass" and usually does not form a smooth dense turf. Tall fescue has yield potential similar to orchard grass and considerably higher than Kentucky bluegrass. It does not have rhizomes in Kentucky, but it usually forms good turf.

Although thousands of Kentucky horses are pastured on tall fescue, they sometimes do rather poorly on it. This is especially true of mares with nursing foals. Also, reports exist of abortions by mares grazing fescue during the latter stages of pregnancy. This problem has been reported even when mares were receiving adequately balanced grain rations. To avoid this problem, mares should be removed from fescue pastures during the last stages of pregnancy. Fescue-legume pastures are usually more desirable than fescue alone. It is important to keep fescue pastures clipped regularly to insure that young tender pasturage is available.

Any legume that is adapted to the soil and climate conditions of an area can be used in horse pastures. They should almost always be used in a mixture with one of the previously mentioned grasses. Horses do not bloat, so there need be no fear of using white clover, ladino clover, red clover, or alfalfa (6,7). Sometimes an excessive amount of legumes in a pasture can cause slobbering. If the pasture is less than 50 percent legumes, this problem is rare.

### Establishing New Pastures

It is usually quite expensive to establish new horse pastures which have adequate fencing, water and shade. The cost of stand establishment is equal to approximately 1 to 2 tons of production. It is important that everything possible be done to insure success, since a stand failure can about double establishment costs.

Several factors which are of vital importance in establishing a good horse pasture are:

- 1) match plants to soils,
- 2) supply proper fertility,
- 3) prepare an adequate seedbed,
- 4) select high quality seed of an adapted variety,
- 5) inoculate legume seed,
- 6) use proven seeding methods,
- 7) seed at the right time with adequate quantities of seed, and
- 8) control pests.

### Renovating Old Pastures

When the percentage of desirable plants in a pasture declines, it can be renovated with desirable forage plants without plowing. On many Kentucky pastures, desirable cool-season grasses remain while legumes have perished. In this case, legumes can be added through renovation. It is, however, practically impossible to successfully renovate a pasture unless the horses can be moved to another field during the establishment period (2). If you have only one field, it may be possible to divide the field with an electric fence and thus better manage grazing of the pasture.

### Pasture Management

Most pasture species should not be grazed closer than about 2 inches. Managing horse pastures to maintain a proper grazing height and legume balance is difficult. Horses tend to "spot graze" more than cattle. This "spot grazing" leads to a pasture being both overgrazed and undergrazed simultaneously. The extent to which pasture plants can withstand close grazing depends on many factors (type of plants, soil and climatic conditions, season, and fertility). Overgrazing should be avoided since it results in more weeds and reduced vigor and productivity of the desired forage species. Of course, this results in lowered animal performance.

Undergrazing usually leads to loss of legume stands, lowered quality as grass plants advance in maturity, and weediness. This problem can usually be overcome by clipping the old growth, allowing plants to produce new, higher quality forage. If old growth is light, a rotary mower will mulch down clippings. If old growth is heavy, it may be desirable to mow, rake and remove clippings so they do not kill or reduce growth on spots in the field.

Manure piles or droppings also lead to uneven grazing since horses do not graze these spots. Plants grow rapidly around manure piles as a result of the added fertility of the manure. Scattering manure

piles with a chain-harrow or similar tool will result in more uniform fertility and grazing as well as reduced internal parasite problems. This should usually be done after a pasture has been clipped or grazed.

Fertilizer and lime should be applied according to soil tests to insure that proper fertility is maintained. Where legumes make up less than about 25 percent of the pasture, nitrogen fertilizer should be applied if maximum production is to be obtained. Timely applications of nitrogen will increase production of grasses during particular seasons. A top-dressing in late winter or early spring just before growth begins will increase growth so that grazing can begin about two weeks ahead of pastures receiving no nitrogen. Additional applications can be made throughout the season. The best time to apply nitrogen is usually after a grazing period or clipping. An application of nitrogen fertilizer in late summer will stimulate fall growth and extend grazing into the fall and winter. The total amount of nitrogen used should be increased as more yield is needed. Maximum total annual applications to most pastures in Kentucky should not exceed 200 pounds of actual nitrogen per acre. Applications of more than 100 pounds per acre should be split and applied at different seasons as previously indicated.

Weeds can be a problem even in properly managed pastures. Even though many weeds are readily consumed by horses, pastures should be managed to keep the weed population low. Weeds toxic or harmful to horses should be removed or destroyed.

#### Using Cattle in Horse Pastures

On many farms in Kentucky, horses are guests in cattle pastures. Where pastures can be used for both cattle and horses, cattle can be used efficiently to aid in managing the pastures. Clipping can be eliminated, or certainly minimized, by cattle manipulation.

Additional related publications, available from your county extension office.

- (1)AGR-64 Establishing Forage Crops
- (2)AGR-26 Renovating Grass Fields
- (3)AGR-58 Orchard grass
- (4)AGR-59 Tall Fescue
- (5)AGR-60 Kenhy
- (6)AGR-33 Growing Red Clover in Kentucky
- (7)AGR-76 Alfalfa-The Queen of Forage Crops