



**Ohio State University Extension**  
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## **Pasture For Horses**

### **AGF-012-92**

#### **Grass Selection**

Kentucky bluegrass is a shallow rooted cool season perennial grass which has commonly been used as pasture for horses. Bluegrass is primarily productive during late spring-early summer and during the fall. It is less productive than other cool season grasses, but is easily established and managed in pastures.

Orchardgrass is an early, tall growing, high-yielding perennial bunchgrass which makes more summer growth than the other grasses which can be grown in Ohio. Orchardgrass must be heavily grazed (or harvested as hay) during May. It requires grazing management throughout the summer grazing season to optimize its production and maintain quality. Advantages of newer, improved varieties include greater leafiness, finer stems, and generally later maturity than common orchardgrass.

Tall fescue is a vigorous growing, cool season grass which can withstand much traffic and animal tramping. Thus it is recommended for paddocks and areas of surface abuse. This species will retain its leaves at cold temperatures. It can be used to extend the grazing season into early spring and late fall-early winter. Tall fescue should not be the principal summer grass species. Older stands of fescue often are infested with an endophyte (within the plant) fungus. Toxins associated with this fungus can cause lowered reproductive rates, agalactia (lack of milk) and prolonged gestation with mares. Horses seem to be extremely sensitive to toxins produced by the endophyte fungus. Research has shown that pregnant mares should be removed from fescue pastures during the last three months before foaling, even if fungus infected fescues only comprise as little as 5 to 10% of ground cover. See Agronomy Facts AGF-

008, "Fescue Toxicosis," for directions to test older stands for level of fungus infection. Use endophyte-free tall fescue seed whenever establishing new fescue stands for horses.

## Legumes

Include a legume with the grass when making a pasture seeding for these benefits:

1. Nitrogen fixation. When 35% or more of the stand is legume, adequate nitrogen is supplied by the legume to maintain production of the associated grass. This can be an important economic factor in pasture production.
2. Legumes contain approximately twice the protein levels of grass. Thus the protein needs of horses can in some instances be met with the addition of legumes to pastures.
3. Legumes enhance the acceptability, digestibility and palatability of the pasture. This in general improves pasture utilization and enhances animal health.

## Legume Selection

White clover is a shallow rooted perennial which makes little growth during the hot, dry summer period. Because it has a prostrate type growth it is well suited to permanent pastures. It is usually included in most pasture seeding mixes.

Red clover is the most widely grown of the true clovers and frequently is included in pasture mixes for horses where tall fescue or orchardgrass are being seeded. Red clover is more tolerant of imperfectly drained soils, lower soil pH and is easier to establish than many other legumes.

Birdsfoot trefoil is a deep rooted, long-lived legume for Northern Ohio where it is adapted to a wide range of soil conditions. Stands do not persist in the southern part of the state even with use of most recently developed varieties. Where adapted, birdsfoot trefoil stands can be retained for many years with proper management. Seedlings are weak and slow to establish so early stand management is important. Also, birdsfoot trefoil needs a special inoculant culture different from what is used for alfalfa- clover to induce nitrogen fixation by nodules on roots. Generally, only bluegrass should be sown with birdsfoot trefoil in pastures because of its sensitivity to grass competition.

Alfalfa has the highest yield potential and the most feed value of all the perennial pasture forages and is unexcelled in drought tolerance. Alfalfa requires very precise seeding and grazing management, excellent surface drainage, good internal soil drainage, soil phosphorus of at least 60 (Bray P-1), an exchangeable potassium level of 280, and a soil pH of near 7.0. Because of these exacting requirements, alfalfa is seldom included in horse pastures.

## Suggested forages and seeding rates for horse pastures:

-	Forage Species	Seeding Rate pounds/acre
A	(an old standard - easily managed)	
	Kentucky bluegrass and perennial ryegrass and Ladino white clover	2 4 1/2
	Two pounds of timothy may be included in this pasture mixture, but timothy adds little to the total pasture production	
B	(For paddocks - heavy traffic areas)	
	Tall fescue (endophyte free) and Ladino white clover	15 1/2
C	(Cool season pasture)	
	Tall fescue (endophyte Free) and red clover and Ladino white clover	15 8 1/2
D	(Summer pasture-high management requirement)	
	Orchardgrass and red clover or alfalfa	6 8 10
E	(For Northern Ohio only)	
	Birdsfoot trefoil and Kentucky bluegrass and Ladino white clover	6 2-4 1/2

For a more complete discussion of horse pastures and forage needs, see OSU Extension Bull. 762, "*Horse Nutrition*" by Robert C. Kline, Extension Animal Scientist.

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