

Establishing a Pasture

WHEN? A grass or grass and legume pasture may be planted anytime adequate moisture and soil temperature is expected. Generally, spring or late summer is the traditional time. If the field is non irrigated (dryland), the seeding should be done before you expect enough rainfall to promote germination. Or, with the exception of alfalfa, a dormant planting can be made, provided the seeding is done when the soil temperature is too cold in the fall or early winter to allow germination. This seed will germinate in the spring if the temperature and moisture are adequate. This is normally a dryland technique. Irrigated fields are easier to establish since you are controlling the water. Nevertheless, it is important to continue irrigation once you begin.

SEEDBED PREPARATION AND PLANTING

In a perfect world seed should be planted .25 to .5 inches deep, and pressed into a clean firm seedbed. The smaller the seed, the shallower it should be planted. Often perfection is not possible for a host of reasons including a lack of equipment. Up to a point, less than perfect conditions can be compensated for by using extra seed. If the seedbed is too rough, and/or filled with existing vegetation, it would be better to delay planting until an improved seedbed can be made. There are custom contractors who can help if the problem is a lack of equipment. However the seed is planted, it should be in the soil and not on it, even if this means stirring the soil and only getting half of the seed covered.

If you have been advised to add phosphate to the soil it is best added when the seedbed is being prepared. Nitrogen can be added later when the developing grass can use it better than the weeds.

GERMINATION

Seed needs moisture, adequate temperature and oxygen before germination can occur. Seed must remain moist in order to germinate. If seed is irrigated or it rains and then dries out, germination will not occur. The seed must stay moist for up to 3 weeks and if drying takes place the process must start over again. If it is kept too wet (standing water) the seed may not germinate because there is too little oxygen. A few types of seed will germinate but most need O₂. If the soil temperature is low, the time required for germination will be longer. If it is too cold, seed will not germinate at all. Most grass or legume seeding failures are the result of being planted too deep because the small embryonic stems lack the energy needed to reach the surface. One inch is often too deep except for small grains or beans. These are huge seeds compared to grass and most legumes.

THE FIRST MONTH

Despite all your efforts, most of what you will see at first will be weeds. Weed seeds are in the soil and almost any soil disturbance will bring them near the surface. Weeds germinate very fast in comparison to what you have planted and since most of them are annual and go through their life cycle in one season, they become large almost overnight. Mowing is generally necessary when weeds become dense enough to shade the grass or legume seedlings. Sunlight is necessary if the process of photosynthesis is to build a normal healthy plant. When the grass or legume is about 3 inches high an appropriate herbicide can be applied. When the grass is 3-6 inches or more in height, nitrogen can be applied at a rate of 20 – 30 units per acre.

THE FIRST SEASON AND BEYOND

Other than irrigation (if available), weed control, and fertilization, it is wise to avoid any use of the field. The plants must develop a healthy root system and this is best accomplished by not tugging, crushing, or defoliating them in their infancy.

After a full season when the field is grazed, it is best to leave about 6 inches of leaf. Regrowth will be much faster and the root will retain the reserves needed to produce more top growth. Rotating pastures will accomplish this. If there is only one pasture it should be cross fenced into two or more paddocks. If this isn't practical, you probably have too many animals.

Information sheet, courtesy of Southwest Seed, Inc.
13260 C.R. 29, Dolores Colorado