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Pasture Renovation[1]

C. G. Chambliss[2]

Pasture renovation has been defined as the improvement of a pasture by partial or complete destruction of the sod, plus liming, fertilizing, weed control, and seeding, in order to re-establish desirable forage plants. In Florida, pasture renovation usually means complete destruction of the existing plants or sod and replanting with a new or improved perennial grass species. A producer may decide to simply replace an existing pasture grass with a new improved grass because of the higher yield and quality of the new grass, but most renovation is done because the existing pasture has deteriorated to the point that forage production is greatly reduced. Renovation provides opportunities to fill in bull holes, control weeds, incorporate lime if needed, and establish a new improved forage.

Renovation programs are usually started in the spring or fall. Primary cultivation should be done with a moldboard plow or a heavy cutting disk. Turning the soil with a moldboard plow may have an advantage in that it buries a lot of weed seeds deep enough that they cannot germinate and be a problem in the new planting. Secondary tillage can be accomplished with a finishing disk and drag to level and smooth the soil surface.

Several strategies for pasture renovation can be followed:

(1) One strategy that is especially useful in peninsular Florida is to plow and disk during the months of April and May—usually a dry period. Most of the existing plants can be killed through desiccation. Three or four diskings spaced over two months may be necessary to kill all of the old plants. When the summer rains start, the new permanent pasture grass can be planted.

(2) The old sod may be plowed in the fall (November-December) and then planted with the desired species in late winter or early spring. This practice is useful for the establishment of sprigged bermudagrasses or perennial peanut and for early plantings of bahiagrass or rhodesgrass. With this practice there may be some concern for soil loss due to wind erosion if there are prolonged periods of dry weather. Disking could be delayed until close to the planting date in order to reduce wind erosion. Often there is concern about bahiagrass seeds that are in the soil and the possibility that bahiagrass might invade the new planting, which may be especially important when attempting to establish a pure stand of an

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2. C. G. Chambliss, associate professor, Agronomy Department; Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, 32611. The use of trade names in this publication is solely for the purpose of providing specific information. It is not a guarantee or warranty of the products named, and does not signify that they are approved to the exclusion of others of suitable composition.

improved bahiagrass such as Tifton-9 or a hybrid bermudagrass for hay production.

(3) Farmers might choose to plant the area with cultivated row crops or vegetables for one or more seasons, which helps eliminate bahiagrass seeds as well as the old established plants.

(4) A forage producer may choose to plant an annual forage crop in order to accomplish the same purpose. Pearl millet or sorghum-sudan hybrids can be planted in the spring or early summer. In the fall the land could again be disked and planted to a cool-season forage crop such as ryegrass or rye. Two annual crops with accompanying cultivation for seedbed preparation should put the land in fine shape for the establishment of the new pasture the following year.

(5) A producer may choose to start in the fall by plowing and planting the cool-season annual forage and then establish the new permanent pasture grass the next summer. Planting and growing an annual grass is expensive; therefore, a producer should plan to use the forage for stockers, heifer development, or as a supplement for the cow herd.

Some producers may choose to use herbicides in their renovation program. In order to kill the old sod, herbicide should be applied while the plants are green and growing. Roundup® or a similar herbicide may be especially useful where there are spots of common bermudagrass. Common bermudagrass can be especially difficult to control. If all of the vegetative growth is killed, there may still be seed in the soil to reinfest an area. Some producers who have a solid stand of common bermudagrass have simply chosen to fertilize and graze it. Before deciding to use a herbicide in a renovation program, a producer must consider the cost.