

MANAGEMENT NOTES

Cattle Grazing Management on Pine-Wiregrass Range¹

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Highlight

Wiregrass forage growing in developing pine stands may be grazed by cattle if certain precautions are taken to prevent trampling and browsing of the trees. Grazing pressure on pine seedlings may be reduced by providing adequate amounts of native and improved forage during the summer and by wintering cattle off the range. With combinations involving unburned range and young pine, cows averaged 84% calf crops with calves weighing 435 lb at 8 months old. Beneath older trees on burned range, calf crops were 86% with calves weighing 465 lb.

As a result of a 6-year pilot test conducted by the Coastal Plain Experiment Station and the Southeastern Forest Experiment Station at Alapaha, Georgia, the following management guides can be drawn. In the best interest of total resource management, the goal of these management guides is to combine the production of cattle and timber on a basis that will result in utilizing the native forage resource while maintaining optimum growth of timber.

Pine-wiregrass ranges and plantation areas in the southeastern United States may be grazed continuously during the period of pine establishment if certain precautions are taken to protect the young pine. Grazing pressures on areas of young seedlings can be reduced by planting 1 year after burning and by providing a wide variety of forage including a limited amount of improved pasture. The operator should provide ample forage for the cattle, remove animals from the range in the fall before grass becomes dry and unpalatable, and start grazing in the spring when ample forage is available.

Unburned native forage beneath young regenerating pine stands is a source of much useful feed. Given ample range and limited pasture, a cow will consume both native and improved forage in sizable amounts. With the 0.6-acre of improved pasture provided in the test, cows spent about one-

third of their grazing time on the range, whether or not it had previously been burned. Production of native herbage, measured only on the unburned range, was 2,200 lb per acre. On pasture, yield was 9,000 lb per acre. About one-fourth of the range herbage and over 95% of the pasture were utilized.

Burning improves the range forage, and, in areas where prescribed burning is compatible with good timber management, fire can be introduced as soon as trees are 8 to 10 ft tall. Even with supplemental pasture, annual calf production per cow averaged 26 lb greater on burned than on unburned range. Average gain of cows during the spring-summer period was 100 lb on burned range and 72 lb on unburned range.

Reasonably good beef production was obtained from all range-pasture combinations in the pilot test. Cows on unburned range averaged 84% calf crops with calves weighing 435 lb at 8 months old. Production was somewhat greater on burned range—86% calf crops with calves averaging 465 lb. Figure 1 shows cattle typical of beef produced on combinations of improved pasture and pine-wiregrass range.

During the spring and summer, cattle grazed combinations of burned and unburned range, improved pasture, and areas of natural and planted

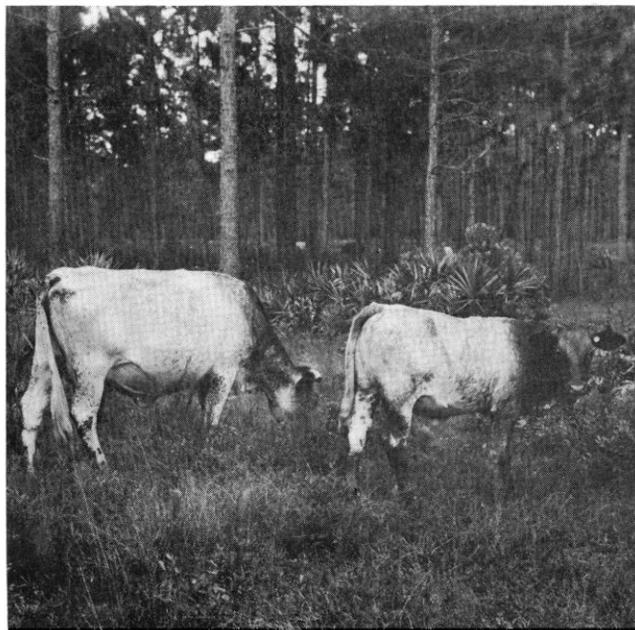


FIG. 1. Cattle typical of beef produced on combinations of improved pasture and pine-wiregrass range.

¹For more details see University of Georgia, College of Agriculture Experiment Stations Research Report 14, "Beef Cattle Management Practices for Burned and Unburned Pine-Wiregrass Ranges of Georgia," by Byron L. Southwell and Ralph H. Hughes, October 1967, 19 p.

pine. During the rest of the year, from about October 1 to April 1, all cows gleaned hayfields or were fed high quality Coastal Bermuda hay. Important forage species in the native range were pineland threeawn (*Aristida stricta* Michx.), Curtiss dropseed (*Sporobolus curtissii* (Vasey) Small ex Scribn.), and creeping bluestem (*Andropogon stolonifer* (Nash) Hitchc.). Trees comprising the forest type were slash pine (*Pinus elliottii* Engelm.) and longleaf pine (*P. palustris* Mill.).

We knew that cattle damage trees in a variety of ways. They may actually eat the foliage or buds of trees, or they may bruise or break the stem branches or new shoots by trampling or rubbing on trees.

In considering gains made by cattle, we took into account that the forage was an additional product recovered from an area devoted chiefly to the production of trees. Seedling pine was planted on "fresh" burns in January and February, and cattle were turned into the plantation areas

in late March. In this situation some trampling losses were inevitable. Losses were rather heavy in isolated areas where cattle concentrated. Most of these trampling losses occurred the year the seedlings were planted. A few trees 2 to 4 ft tall were damaged by rubbing. Damage by browsing was negligible.

Total losses, however, were not serious. Several factors prevented excessive cattle damage and at the same time had a favorable bearing on production and use of native forage in pine plantations. Cattle had access to a wide variety of forage: wiregrass range, cypress-hardwood swamps, swamp margins, old field carpetgrass, and a limited amount of improved pasture. The improved pasture, where cattle spent 60% of their grazing time, tended to draw cattle away from the pine plantings. Overall grazing intensity of the range varied from very light to moderate. In the naturally regenerating pine stands, most trees were more than 1 year old, and damage by cattle was negligible.