Effect of Burning and Fertilization of Wire Grass on Pasture Establishment

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FLORIDA has from 15 to 20 million acres of pasture land of all types under grazing. The largest acreage consists of the great expanses of cutover flatwoods pineland on which the native grasses, legumes, and shrublike plants furnish the grazing. Wire grass, chiefly Aristida stricta Michx., is the predominant grass with carpet grass, Axonopus affinis Chase, ranking second in acreage. Much of the grazing area is sparsely covered with many species of the genera Panicum, Paspalum, Sorghastrum, Sporobolus, and Andropogon. Wild vetches, peas, Indigofera, Lespedeza, Desmodium, Crotalaria, Galactia, and Clitoria are widely distributed over the state and all appear to be well nodulated. Gallberry, Ilex glabra (L.) A. Gray, saw palmetto, Serenoa repens (Bartr.) Small, and runner oaks, Quercus minima (Sarg.) Small, predominate among shrub-like woody plants.

A number of new and improved strains and species of both grasses and legumes are being successfully grown on some of this flatwoods area. Among the grasses, carpet, common and Pensacola bahia (wide and narrow leaf), Pangola, Digitaria decumbens Stent., a perennial type of crab grass, coastal and common bermuda grass, and Panicum repens L., locally known as “torpedo grass”, are being grown. Legumes introduced and now being successfully grown are white Dutch clover, Persian clover, hop clover, sweetclover, bur clover, black Medics, Lespedeza, hairy indigo, Indigofera hirsuta (L.), Alyce clover, and Crotalaria.

Wire grass which predominates on much of the unimproved range land in Florida is not considered a nutritious grass; however, new growth of this grass following burning has a much improved composition and cattle gain rapidly on it if allowed sufficient acreage.

Table 1 shows the relative effect of various treatments on the chemical composition of wire grass 70 days after treatment. The composition of new-growth wire grass following burning as compared to new-growth wire grass from nonburned plots shows the following percentage increases: nitrogen 160, phosphorus 115, potassium 58, calcium 58.