CHEMICAL COMPOSITION AND GRAZING VALUE OF NAPIER GRASS, *Pennisetum purpureum* Schum., GROWN UNDER A GRAZING MANAGEMENT PRACTICE

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NAPIER grass, *Pennisetum purpureum* Schum., is a robust, cane-like (non-saccharine), leafy perennial which grows 7 to 15 feet in height. Thompson (13) reports that Napier grass was introduced into the United States in 1913 and that since 1915 the grass has been distributed in small lots for planting in numerous places in Florida.

Although Napier grass was distributed widely in Florida as early as 1915, until recently it has not reached any great economic value. Factors limiting its economic importance were improper management and the development of a fungous disease known as "eyespot" (*Helminthosporium ocellatum* Faris), the latter being reported first by Leukel and Camp (4). The development of eyespot-resistant strains of Napier grass by Ritchey and Stokes (10) will no doubt stimulate the utilization of Napier grass in Florida and in the southeastern part of the United States.

In tropical countries Napier grass is utilized primarily for soilage, thus the research work has been devoted primarily to the frequency of cutting as related to yield and chemical composition of soilage (3, 8, 9, 15). In Florida research work has been conducted to study the yield and value of Napier grass primarily for silage (2, 6, 12).

Wilsie and Takahashi (14) report successful use of Napier grass by the Princeville Plantation Company's ranch on Kauai as follows: "Here may be found more than 600 acres in pure stands of Napier grass, the paddocks ranging in age from recent plantings to others more than 12 years old. The horses as well as the cattle on the ranch are fed almost entirely on Napier grass and keep in excellent condition. The paddocks are grazed heavily, the cattle being turned in only after the grass has reached a height of six feet or more. After the pasture has been well eaten down, the cattle are put into a paddock which has been resting or recovering."

Results of research conducted by the Florida Experiment Station indicate that Napier grass is a promising grass for grazing, if managed properly.

**EXPERIMENTAL PROCEDURE**

**HEAVILY FERTILIZED NAPIER GRASS**

A 15-acre area of land, primarily Leon, Plummer, and Alachua sandy soil series, was cleared, plowed, and planted to Napier grass in March 1937. Rhizomes

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