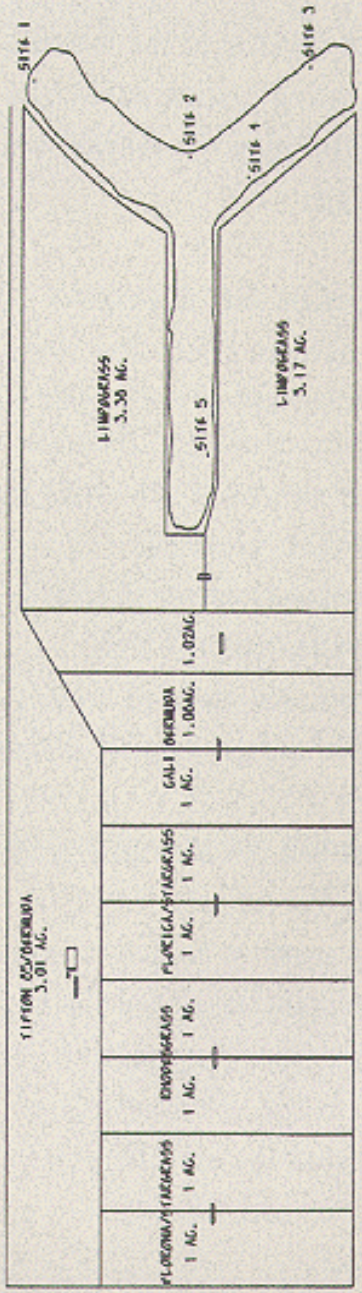

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A DEMONSTRATION OF EFFICIENT NUTRIENT USE THROUGH IMPROVED GRAZING TECHNIQUES

Okeechobee High School Ag Farm
in cooperation with the
Okeechobee Soil and Water
Conservation District

March 11, 1999

PURPOSE

The purpose of this project was to demonstrate how improved grazing techniques can efficiently use nutrients while not impairing water quality. A comparison of an intensive rotational grazing system to a conventional grazing system was also made. The project also serves as teaching tool that provides hands on experience of alternative agriculture practices to students. Six varieties of forage grasses were planted for evaluation in the intensive rotational grazing system and also to be used for plant identification by students.

Benefits of an intensive rotational grazing:

-Efficient use of forage
-Increased carrying capacity per acre
-No High Intensity Areas-grass has time to recover from grazing
-Less land required & lower land cost
-Less property taxes
-Decrease in liver flukes with well water as watering source for livestock
-Readily available water for livestock, less travel time to water.

Disadvantages of an intensive rotational grazing system:
-Higher initial installation cost*
-Higher maintenance cost
-Higher level of management
*Government cost-share assistance may be available to help offset the higher cost.

RESULTS

The carrying capacity of the intensive rotational grazing system was 2.5 to 5 times greater than the conventional grazing system.

The water quality data does not indicate an adverse effect from the higher stocking rate of the intensive rotational grazing system. However, more time is needed to determine the long term effect. Elevated phosphorous levels occurred after fertilizer application and high rainfall events. No elevated levels occurred after normal rainfall events.

Rhodesgrass had the best quality of the grasses, but its persistence in this system needs to be determined. Florona Stargrass developed the best stand and produced the greatest quantity of forage. Weather related factors affected the establishment of the Limpograss and Tifton 85 Bermudagrass.