

INTRODUCTION

In the last decade Pangola Grass (*Digitaria decumbens*), has become one of the most important forage grasses in the Carribean, and in the sub-tropical regions of North and South America. It was introduced into Trinidad in 1953 from three sources - Surinam, Puerto Rico and Costa Rica. (Smith 1959). It was passed by the government in 1957 as a suitable pasture grass. It has since been readily adopted throughout the country.

The grass was found to be adaptable to a wide range of environmental conditions having several important agronomic characteristics.

The grass is easily established using root divisions (Smith 1959), and non rooted cuttings (Romney 1961). Pangola grass readily competes with weeds but Adeniyi (1960) emphasises the dangers of overgrazing. Norton and Myers (1953) found that the pasture can easily be resuscitated using rotary cultivation.

Romney (1961) studied the response of Pangola grass to a range of soils - P.H. 4.5 - 7.8 He obtained 20,000 lbs. dry matter per acre per year at P.H. 7.8 and 24,600 lbs. at P.H. 4.5

S Hosaka and Goodell (1954) report that it grows in Hawaii from sea-level to 50,000' OD and in Jamaica it grows within a rainfall range of 25 - 100".

Burton (1954, 1957) comments favourably on its drought tolerance. Drainage is important as Drven (1959) has shown that up to 50% of the herbage can be spoilt by adhering soil in the wet season.

This grass is therefore well adapted to a wide range of conditions and is therefore well suited to Trinidad which has a considerable range of soil types and climatic zones.

In order that the use of a grass be justified one must have information about its potential yields, its quality, and its productivity in terms of meat, milk, and other animal products.

The highest yield of fresh forage recorded in the literature is 111.1 tons (Adeniyi 1960) in the first year of growth and using 240 lbs. Nitrogen per acre. Vincent-Chandler (1961a) achieved only 70 tons per acre with 1600 lbs. Nitrogen. Without nitrogen Adeniyi and Vincent-Chandler obtained 79 tons and 17 tons respectively.

According to Blue (1955) response to nitrogen is linear only up to 300 lbs. per acre. Schroder and Ruelke (1959) state that the potential yield is much higher than many workers have obtained. They base their work on physiological studies.

Adeniyi (1960) studied the response to cutting interval and found that the

fresh weight yield was higher at an eight week interval (66 tons) than at a four week interval (51 tons). Vincente - Chandler (1961a) found a similar response to increased cutting interval. Vincente - Chandler (1961b) found yields were higher at a lower cutting height (0-3" as opposed to 7-10"). Winchester (1959) found cutting height had no effect upon yield.

Dry matter yields range from 10,000 to 28,000 lbs. per acre. Response to nitrogen cutting height, and cutting interval is the same as for fresh foliage. (Blue 1955, Vincente - Chandler 1961a, 1961b, Oakes 1959).

Dry matter percentage varies considerably Oakes (1960) made a comparison of young, medium, mature and "hay" stages which had dry matter percentages :- 19.6, 21.4, 21.1, and 71.8 respectively. Butterworth (1961a) gives the following results for Trinidad -