

PRODUCTION, DEFOLIATION AND STORAGE OF CASSAVA LEAVES AS DRY SEASON FORAGE FOR SMALL RUMINANTS IN SMALLHOLDER CROP – LIVESTOCK PRODUCTION SYSTEM.

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Abstract

Experiments were conducted in 2005 and 2006 cropping seasons in south west Nigeria to investigate the yield performance of cassava (Cultivar TMS 30572) as influenced by defoliation time and the chemical composition of the leaf obtained when harvested and stored as dry season forage for small ruminants. Five defoliation treatments of 0, 4, 5, 6 and 7 months after planting were arranged in a randomized complete block design with three replicates. Cassava yielded an average of 925 kg DM/ha of leaves with a corresponding crude protein content of 20%. The cassava tuber yield was 11 966 kg/ha. Generally, cassava tuber yield was not influenced ($P > 0.05$) by defoliation but plants defoliated before 6 months after planting had reduced ($P < 0.05$) leaf yield. The fiber fractions, neutral detergent fiber, acid detergent fiber and acid detergent lignin contents as well as the hydrocyanic content of the leaves increased ($P < 0.05$) with increase in defoliation time. Storing cassava leaves beyond 3 months increased ($P < 0.05$) the DM content, while crude protein content declined ($P < 0.05$) with the length of storage. The study showed that with the variety under investigation, defoliation schedules for cassava which are appropriate for quality forage production involve those made from 6 months after planting without significantly decreasing ($P > 0.05$) the crop tuber yield. Storing cassava leaves for 3 months produced leaves of high nutritive value thereby allowing a continuous supply of feed for smallholder small ruminant production during the dry season.

Key words: forage, cassava, defoliation, storage, small ruminant; South west Nigeria