

ABSTRACT

A preliminary study of tropical pasture legumes

A collection of 2 introduced and 33 indigenous Jamaican legumes was established in museum plots at the University of the West Indies, Mona, Jamaica. Species selected as promising for pasture use were examined for (a) enhancement of germination by acid treatment of seed (b) response of growth and protein content to different sources of inoculum and to inorganic nitrogen (c) growth and protein content as affected by liming.

Many species were hard-seeded but gave uniform germination after acid treatment. Nodulation with unspecified native Rhizobia was generally more effective than with cowpea Rhizobia. Plants receiving inorganic nitrogen were taller and sometimes heavier, but contained less protein than nodulated plants after 8 weeks growth. On a soil of neutral pH with adequate Ca, Desmodium and Pueraria responded negatively while Centrosema rubescens and Phaseolus atropurpureus responded positively to less than 6 cwt./acre CaCO_3 . Heavier applications suppressed responses.

On the basis of protein production per plant Centrosema rubescens and Phaseolus lathyroides were the two most promising species.