DETERMINATION OF THE EDIBLE FRACTION OF THREE COMMON TREE LEGUME FODDERS

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Fodder yield data of tree legumes alone are of limited value since the actual consumption by animals will vary depending on their stemmy nature and palatability characters. A knowledge of the edible fractions of tree legumes would be more meaningful than the total fodder yields. This study compared a subjectively predicted edible fraction of tree legumes with those obtained by feeding. Leucaena leucocephala, Gliricidia maculata and Erythrina indica fodders harvested at 1 m from ground level after 12 weeks of regrowth were used. The edible fractions of the three legumes were subjectively considered to be all the leaves, petioles and green plus tender stems. They were then fed ad libitum using a latin square design (3 calves x 3 periods). Actual consumption from the total offered for Erythrina, Gliricidia and Leucaena on a dry matter basis were 59.3% 70.5%and 69.1%, while the subjective estimates were 60.7%, 55.2% and 45.1%, respectively. Calves consumed a significantly higher ($P < .05$) percentage of Gliricidia and Leucaena compared to Erythrina. The predicted values for Gliricidia and Leucaena were significantly lower ($P < .05$) than the actual values while both methods gave similar values for Erythrina. The data indicate the importance of considering the edible yields of tree legumes when evaluating their potential for feeding of ruminants.