

A Note on Chemical Composition and Nutritive Value of *Avicennia officinalis* (cher) Leaves

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Avicennia officinalis (cher) is a large, ever green shrub or tree. Its English name is white mangrove. Its height may vary from 6 to 9 meters and as high as 18 meters is found in "Sundarban". It grows densely near river delta and thrives well there utilizing sea water. Cher forest is found in littoral regions throughout tropics. It is also found on coastal regions of Gujarat, Saurashtra and Kutch. "Alia bet" an island situated where river Narmada meets Arabian sea has plenty of cher. People of coastal region especially Bharruch, Hansot, Bhavnagar and Kutch side are feeding cher to their animals. It is said that it increases the milk yield and fat content (Bambhadai, 1951). It is used as fodder for cattle in Australia (Paranjpye, 1920). Our country has 5700 kilometres of coastal region and Gujarat has 28 per cent of it i.e. 1600 kilometres. So availability of cher leaves is quite high and hence its vital role in cattle feed industries should not be over looked. On reviewing the literature it was seen that composition and digestibility of cher leaves has not been worked out. Hence an attempt has been made to assess its nutritional

value as fodder by feeding to buffalo bulls.

Air dried cher leaves along with twigs were procured in bulk from Jamnagar (Gujarat) area. Digestibility trial was conducted on four Surti buffalo bulls at Animal Nutrition Station, Anand. Buffalo bulls were offered only dried cher leaves along with twigs. After preliminary feeding, digestibility and balance trial was conducted for seven days collection period as per conventional methods. Samples of feed, feces and urine were analysed by A.O.-A.C. (1975) methods. The chemical composition of cher leaves used during the digestibility trial was 10.81% c. protein; 4.24% ether extract; 11.05% c. fibre; 58.72% N.F.E.; 15.18% ash; 0.72% silica; 0.17% phosphorus and 0.77% calcium.

The data on average dry matter consumption indicated that the animals were consuming on an average 5.48 kg of cher leaves which comes to 1.80 kg of dry matter per 100 kg of body weight.

The digestibility data revealed that it has got lower digestibility of all nutrients. The average digestibility coefficients for c. protein, ether extract, c. fibre, N.F.E. and organic matter were 41.39 ± 1.66 , 42.60 ± 2.85 , 52.50 ± 3.30 , 36.78 ± 2.65 and 39.72 ± 2.34 respectively. From the average digestibility coefficients the nutritive value of cher leaves was calculated. It was found

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to have 4.47 and 35.93 kg of D.C.P. and T.D.N. per 100 kg of dry matter respectively

material by cattle feed factories located near coastal region.

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Balance of Nitrogen and Minerals

The balance of nitrogen, phosphorus and calcium are found to be positive, average of which are $+ 5.91 \pm 3.15$, $+ 0.16 \pm 0.95$ and $+ 9.71 \pm 1.74$ respectively. These results suggest that cher leaves have definite use in famine condition and can be used as a filler

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