

consisted of 7.7% camaratuba (Cratylia mollis), 44.6% of marmeleiro (Croton sonderianus) and 47.8% shrubs and herbs. The biomass production of lowered caatinga was represented by 5.8% of camaratuba, 2.2% of mallow (Sida sp), 54.8% of marmeleiro, and 37.0% of shrubs and herbs. The biomass production of the thinned caatinga was represented by 3.6% of mallow 77.1% of marmeleiro and 18.7% of shubs and herbs. The carrying capacity (ha/AU/year) and live weight gains (kg/ha/year) for treatments A, B and C in 1985 were, respectively, 8.6, 6.7 and 5.0 and 28.4; 30.3 and 44.2. The results suggest the following conclusions: 1. The biomass production is not proportional to the voluntary intake by animals, consequently we cannot determine the carrying capacity in relation to the unit area of native range. 2. Camaratuba alone, a forage legume, represented 15.5% and 21.2% in diet of goats for treatment A and B, respectively. 3. The live weight production per hectare obtained in the native, lowered and thinned caatinga represented 38.0%, 31.0% and 36.0% of the expected goats, respectively. 4. The lowered caatinga was technically and economically more viable than the thinned caatinga.

#### 188 GOAT DIET IN A LOWERED CAATINGA

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An experiment was carried out with the objective of evaluating the seasonal differences of diets of goats grazing a lowered caatinga at the Centro Nacional de Pesquisas de Caprinos EMBRAPA, Sobral, Ceara, Brazil. The research extended from the dry season of 1985 to the rainy season of 1986. Six oesophageal fistulated animals were used for a period of three days, at the beginning and in the end of the dry season, and at the beginning of the rainy season. The availability of biomass varied from 3768 Kg/ha in the beginning of dry season to 2348 Kg/ha in the end of the season to 4314 Kg/ha in the rainy period, and it was composed of 17.9% grass, 28.6% forbs, 9.6% green leaves of trees and shrubs and 43.8% litter in the first period; 25.0% grass, 11.0% forbs, 0.8% green leaves of trees and shrubs and 56.0% litter in the second period and 7.9% grass, 50.6% forbs, 10.6% green leaves of trees and shrubs and 56.0% litter in the second period and 7.9% grass, 50.6% forbs, 10.6% green leaves of trees and shrubs, forbs and 30.9% litter. The protein content of the biomass varied from 6.9% to 4.4, 10.6 for the beginning, middle and end of the experiment, respectively. Leaves of trees and shrubs, forbs and grasses composed in the diet of the goats, was respectively, 31.5%, 37.0% and 13.2% in the beginning of the dry period, 42.9% to 38.4% and 14.6% in the middle of the dry season, and 70.6%, 12.7% and 15.2% at the end of the dry period. The protein content of the diet decreased from 15.2 at the first date to

12.2% in the second and increased to 17.6% in the last. The results suggest that green leaves of trees and shrubs and forbs were most important components in the goat diet in the dry season, but in the rainy season goats were browsing mostly on leguminous plant leaves.

KEY WORDS: Seasonal, forbs, shrubs, trees, grass, goat diet.

*Subvenc.*  
189 COMPOSITION OF DIETS SELECTED BY GOATS IN NATIVE GRASSLAND IN THE PIEDEMONT OF MENDOZA

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In general goat production in the Cuyo region (Argentina) has developed under an extensive system, in which animals graze only native or rangeland vegetation. The knowledge of goats' diet in grazing and the composition of available vegetation is of basic importance in grassland management and in the development of efficient animals production systems. This research as the dietary habits and food preference of goats was conducted in the typical piedemont region of the "precordillera" of Mendoza. The 3 hr experimental area was fenced. Six native female goats were used in a continuous grazing system, following the management used by local producers. The animals were taken to the experimental area in the morning and returned to a holding pen in the afternoon where they had free access to water. The vegetation dominated by Pappophorum caespitosum, Diplachne dubia, Aristida ascencionis, Digitaria californica (herbaceous stratum); Trichomania usillo, Lycium tenuispinosum, Bacharis salicifolia, Acacia furcatispina, Cercidium praecox (shrub stratum), was evaluated every two months. Coinciding with vegetation evaluation, samples of the matter selected by goats with esophageal fistula were taken every sixty days. Samples were divided into two parts, one for botanical analysis and the other for chemical analysis. The means and standard deviations of diet components during the first year of sampling were: ash(%)  $11.00 \pm 1.32$ , crude protein (%)  $14.00 \pm 1.35$ , ether extract (%)  $2.10 \pm 0.58$ , crude fiber (%)  $40.65 \pm 1.54$ , nitrogen free extract (%)  $32.40 \pm 3.12$  and energy (cal/g)  $3431.8 \pm 62.60$ . Except for March and July, the goats showed preference for gramineae although during the whole year through, there was not any pronounced dominion of a plant stratum over another.

KEY WORDS: Composition of diets, goats, native grassland, Mendoza.