

RECENT ADVANCES IN FORAGE PRODUCTION FROM SPINELESS NOPAL (*Opuntia* spp.) IN THE BRAZILIAN NORTHEAST

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Introduced as an ornamental plant and to raise cochineal (*Coccus cacti*), at the start of this century, the nopal was disseminated as a forage plant. At the present time, there is a growing area of c. 400,000 hectares, located mainly in the "Agreste" region. The "Sertão" region is less appropriate to it. The research works were started in 50's and were almost stopped in the 70's, being re-initiated after the big drought of 1979-82. The following points have been set up: the dry matter productivity of giant nopal (*O. ficus-indica*) in the Agreste is 11 t/hectares in biennial harvests, while in the Sertão it is 10.5 t/hectare in triennial harvests; the recommended planting distances are 3 m X 1 m X 0.5 m (double lines), which permit mechanization; the types giant and round nopal (also *O. ficus-indica*) have a similar production and have yielded 50% more than sweet nopal (*Nopalea cochenillifera*); manure fertilizing (10 - 20 t/hectare) has been the main factor to increase production; intercropping with annual crops (corn, *Vigna* beans, sorghum, etc.) is very common, for although it decreases production, it is a way of lowering the costs of planting and deweeding the nopal areas; the shading by *Prosopis juliflora* has so far shown a tendency to benefit the cactaceae. It will probably be advantageous in the Sertao, where the environmental conditions are less appropriate to nopal growing, such as high daily temperature (max's mean = 31°C) and absence of low temperature at night (min's mean = 20°C); in cattle feeding, the nopal, although poor in protein and phosphorus, and showing inappropriate balance between calcium and phosphorus, is rich in soluble carbohydrates. In dairy production, it has been as efficient as corn silage. Other points are being emphasized, that is, *in situ* water harvesting can promote substantial increase in nopal production. Another study involves a clone competition with the objectives of indicating more productive and high protein and phosphorus content varieties, resistant to cochineal (*Diaspis echinocacti*), an insect that is destroying the nopal areas of the region.

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