

An unconventional legume, *Prosopis cineraria*

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Abstract

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An unconventional legume, *Prosopis cineraria*

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Dear Sir:

While carrying out a nutrition survey in connection with a field program to assess the prophylactic potential of various dosage schedules of massive oral doses of vitamin A (unpublished data), we gathered certain information that we think may be interesting to the readers of this journal. This survey was carried out in four villages of Khol Block in Mahendragarh district in the southwest region of the state of Haryana, India. The climate of this area is marked by semi desert conditions, with scanty rainfall and meagre agricultural production. The general socioeconomic condition of the people is poor. We were happily surprised to find an almost total absence of severe grades of protein-calorie malnutrition (PCM) in the community. A study of their food habits revealed that they consume a substantial quantity of an unconventional food in the form of *Prosopis cineraria* pods. *P. cineraria* D. (Syn. *P. spicigera* Linn. and *Mimosa cineraria* Linn.) belongs to the family Leguminosae and is locally known as Jant. The tree and the pods resemble, to some extent, the well-known acacia species. It is a prized tree of the desert areas and has been described in detail in the Wealth of India (1). The practice of eating the pods of this tree has been in vogue for a long time and has been documented earlier (2). Locally, the unripe pods are called sangar and are used for making curry and pickle. These are also dried and preserved for later use. The ripe pods are called khoka or jheenh and their pulpy coverings are well relished by the children. A resin occurring naturally on the tree, known as mesquite gum, is also occasionally eaten by people and has been analyzed recently (2, 3). The leaves and pods are routinely fed to the cattle that provide the milk consumed by the people. As this plant supplements the diets of the local people and is the major source of food for their dairy cattle, we thought it worthwhile to study the food value of its pods. Review of the existing literature revealed that no such study had been undertaken in the past.

Ripe and unripe pods at two different times were collected from 10 trees. The standard analytical procedures as described by Association Official Analytical Chemists (AOAC) were used (4). The crude protein was estimated by measuring the total nitrogen content by the Kjeldahl method as described by Fawcett (5), with slight modifications and then multiplying

it by 6.25. The dried, unripe, whole pods were found to contain protein, 15.8; fat, 3.0; and carbohydrate, 50.8 g/100 g, with the caloric value of 293.5 kcal/ 100 g. The pulp and coverings of the ripe pods contained 10.8 g/100 g protein, 2.1 g/100 g fat, and 47.4 g/100 g carbohydrate with a caloric value of 252.1 kcal/100 g. The composition of ripe and unripe pods was essentially similar. In terms of local availability, the method of cooking and cultural acceptability the nearest simile of *P. cineraria* pod is *Vigna catjang* or cowpea, which is locally known as lobia (6). It is interesting to compare the food composition of sangar (*P. cineraria* pod) with that reported (7) for lobia (*V. catjang* pod). In our opinion, the custom of eating *P. cineraria* pods seems to be the major factor in the prevention of PCM in these areas. This is especially applicable to young children who, while playing about in the fields, pick up ripe pods and eat the pulp and outer covering with relish, discarding the seeds. This soft portion is a fairly rich food, providing 10.8 g/100 g protein and 252.1 kcal/100 g. During the course of our field trips we learned that with the erosion of village life by urban trends, local people, especially the younger generation, are abandoning the habit of eating *P. cineraria* pods. This is particularly regrettable in a semi desert area at a time when the global food prospects in general and the local food supplies in particular are alarming. In an era when serious efforts are afoot to develop new sources of food like the algae and the petro synthetic proteins, it is all the more desirable to be looking for all the existing sources of unconventional foods and to promote their wider use. This is clearly an area where nutrition education can play a positive role in improving the nutritional status of underprivileged communities.