

# ***Prosopis* pods as human food, with special reference to Kenya<sup>#</sup>**

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## **Abstract**

Several legume tree and shrub species of the genus *Prosopis* from South and Central America have been distributed around the dry regions of the world over the past 200 years. The first documented introduction of *Prosopis* in Kenya was in 1973, since when it has spread widely, adversely affecting natural habitats, rangelands and cultivated areas. *P. juliflora* is the most common naturalised species in Kenya, but *P. pallida* also occurs. In contrast to their undesirable effects as invasive weeds, many *Prosopis* species are valuable multipurpose resources in their native range, providing timber, firewood, livestock feed, human food, shade, shelter and soil improvement. The pods, which are high in sugars, carbohydrates and protein, have been a historic source of food for human populations in North and South America providing flour and other edible products. However, this indigenous knowledge has not followed the *Prosopis* trees and the fruit are unused or provide only fodder for livestock in most of Africa and Asia. Although *Prosopis* will not easily be eradicated in Kenya, a degree of control may be achieved through intensive utilisation of tree products and by improved management. In 2005, a project was launched in Kenya to develop income-generating activities using *Prosopis*. A workshop in 2006 explored the possibility of producing locally-acceptable food from *Prosopis* flour. Taste tests and feedback on the different recipes indicated that all of the food made with 20% *Prosopis* flour had a pleasant taste. Preliminary analyses of *Prosopis* flour samples from Kenya indicate good nutritional properties, but also the presence of aflatoxins and Ochratoxin A. Further study is required to determine toxin levels in freshly harvested pods, and in pods and flour after various periods of storage, and to develop appropriate harvesting and storage methods to maximise nutritional benefit and minimise risk to human health.

**Keywords:** Aflatoxin, human food, Kenya, Ochratoxin A, *Prosopis*