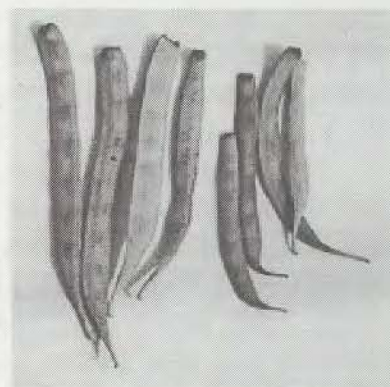


GUAR GUM is good for Tamarind sauce rheology

The scientists of the Department of Food Science and Technology, Guru Nanak Dev University, Amritsar studied the effect of hydrocolloids on the rheology of tamarind sauce because rheological properties are required to design and evaluate food processing equipment such as pumps, heat exchangers and evaporators.

Tamarind sauce was prepared by mixing 5% sugar, 0.5% salt and 0.1% sodium benzoate to the pulp. The effect of three different hydrocolloids, guar gum, [*Cyamopsis tetragonoloba* (Linn.) Taub.] sodium alginate and gum acacia on the flow, behaviour properties, serum loss and flow value of tamarind sauce were studied. The hydrocolloids were added to the sauce at different concentrations (0 to 1.5%) and rheology was studied at different temperatures (20 to 70°C).

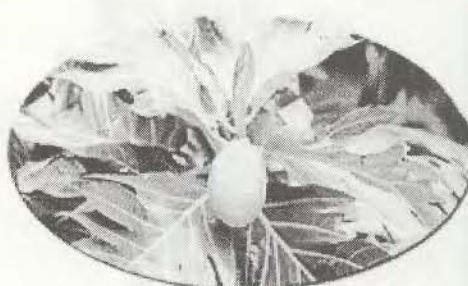
Guar gum concentration most significantly affected the consistency index of the sauce both in linear and square terms. There was 82.18% increase in consistency index of sauce due to addition of guar gum from 0.5 to 1.5% at 20°C which was maximum when compared to the other two gums. Thus the consistency of tamarind sauce can be increased by the addition of hydrocolloids with guar gum, providing maximum consistency, least serum loss and flow value, followed by sodium alginate and gum acacia (Gujral *et al*, *J Food Sci Technol*, 2001, **38**, 314-318).



Cyamopsis tetragonoloba
(Linn.) Taub.

Canned Breadfruit seeds in brine

The fruits and seeds of Breadfruit Tree, *Artocarpus communis* J.R. & G. Forst. syn. *A. altilis* (Park.) Fosberg are eaten after boiling in brine with the shell (aril) and underlying membrane. Curry is also made from seeds and flesh. Since they are highly perishable with a shelf-life of 2 to 3 days processing can extend the availability of the seeds throughout the year. A study was undertaken at Food Science and Technology unit, The University of the West Indies to select an effective peeling method and suitable brine formulation for canning of breadnut seeds to get an acceptable and ready-to-eat product. During the experiment, two methods viz. steam at atmospheric pressure and above atmospheric pressure (8 psi) for 5, 10, 15 and 20 minutes and use of hot (90°C), 1% and 10% aqueous solutions of sodium hydroxide and 5% and 10% diammonium orthophosphate for 5, 10, 15, 20 and 25 minutes were employed to remove the peel from mature (80-90 days old) breadnut. Soaking in 5% sodium hydroxide for 5 minute followed by a high-pressure water wash for 5 minutes resulted in the removal of the arils from the underlying membranes. Peeled seeds canned in 2.5% brine, supplemented with sucrose (1.5%) and calcium chloride (0.2%) were most preferred during sensory evaluation (Matthews *et al*, *J Food Sci Technol*, 2001, **38**, 402-404).



Artocarpus communis J.R. & G.
Forst.



Jam from Apple of Desert

Apple of Desert (*Zizyphus mauritiana* Linn.) is the *Ber* fruit found growing wild or cultivated. Though rich in vitamins and minerals, it is considered poor man's fruit. Shelf-life of this fruit being only 4-6 days it is necessary to trap and preserve its nutritive value in the form of jam, *Ber* candy, and canned *Ber*. Jam is the only product which utilizes maximum amount of fruit than any other processed product. Earlier attempts to prepare jam with the application of pectin were not successful. Therefore, scientists at Department of Horticulture, Dr. Punjabrao Deshmukh Krishi Vidyapeeth, Akola attempted to prepare sole *Ber* fruit jam having good set and acceptability with or without added pectin. In 1kg *Ber* pulp (without peel) of variety 'Umran', 1% pectin, 0.75% acidity and 750g sugar were added and this yielded smooth textured, good jam. For preparing pulp, fresh fully mature fruits at colour break stage were selected and stones were separated using stainless steel knife. Fruit pieces were finely chopped and blended in mixer by adding small quantity of water (Thomas & Kulwal, *Advances Plant Sci*, 2001, **14**, 225-228).



Zizyphus mauritiana Linn.

Fodder

Red Clover silage is better than Alfalfa silage



Trifolium pratense Linn



Medicago sativa Linn.

Based upon ARS dairy scientist Glen A. Broderick studies, USDA, ARS, Linda McGraw says, 'Red Clover Silage Boasts Benefits Over Alfalfa Silage'. It is reported that switching cows from Alfalfa (*Medicago sativa* Linn.) to Red Clover (*Trifolium pratense* Linn.) silage could help reduce excess nitrogen in manure, a benefit to the environment. The reason for this fact is that half of the protein present in alfalfa silage breaks down into non-protein nitrogen (NPN). NPN is used less efficiently than intact protein by the cow during lactation. The unused nitrogen is excreted by the animal. On the other hand, red clover silage has about 60%