**Natural dye from pseudostem of Banana for silk**

Bananas, *Musa × paradisiaca* Linn. are cultivated in many countries. India is also a largest producer of this plantain crop. The stem of banana plant is called pseudostem and is used mainly to obtain a fibre employed in manufacturing paper. Banana fibre is extracted from dried petioles. The stem juice possesses medicinal properties especially for stones in kidney, gall bladder and prostate. Extraction of natural dye from pseudostem and its dyeing behaviour on silk fabric has been reported earlier in the literature. Ammayappan and other have studied fastness properties of the natural dye extracted from pseudostem of banana on silk.

The silk fabric was dyed with and without four different mordants in three different mordanting methods in order to get various shades. The washing fastness and light fastness of the final colour had also been assessed. The result revealed that pseudostem of banana contain 2-3% dye, which gives Vanilla cream colour without mordanting and with mordants (potassium dichromate, tannic acid, ferrous sulphate and aluminium sulphate) gave different colour/tone only in pale and light shade on silk fabric. The maximum exhaustion of this natural dye on silk fabric is at pH 4-5. After mordanting the light fastness improved in post-mordanting method with ferrous sulphate and tannic acid and washing fastness in pre-mordanting method with ferrous sulphate only (Ammayappan et al, Man-made Text India, 2004, 47(6), 218-220).

**Carrot kheer mix**

The scientists at Defence Food Research Laboratory, Siddarthanagar, Mysore developed and formulated *kheer* mix based on dehydrated carrot, skim milk powder, sugar and ingredients and evaluated for shelf stability as well as sensory quality. The mix could be reconstituted quickly as a sweet dish and found to contain (%)

3.2 moisture, 8.06 fat, 17.70 protein, 57.19 total sugars, 10.17 reducing sugar, 2.5 ash, 0.2 acid insoluble ash, 1.11 crude fibre and 23.9 mg% carotenoids. It remained acceptable upto 9 months at 37°C temperature in paper-aluminium foil polypropylene laminate pouches [Manjunath et al, J Food Sci Technol, 2003, 40(3), 310-312].

**Carrot halwa from reconstituted dried carrot shreds**

The scientists at College of Food Technology, Marathwada Agricultural University, Parbhani conducted studies on the chemical characteristics of carrots (*Daucus carota* Linn.) and studied dehydration effects on its food products. Greater leaching losses were observed in reducing sugars and total sugars during pre-treatments and had adverse effect on β-carotene content in all the samples. Reconstitution ratio of dried carrot shreds was higher in pre-treated samples than untreated. Shreds dried in open air had less reconstitution ratio. Sensory evaluation score of carrot *halwa* from reconstituted dried carrot shreds indicated its potential to use as base material for preparation of carrot *halwa* [Machewad et al, J Food Sci Technol, 2003, 40(4), 406-408].
Oats for arteries

When blood cells stick to and cause inflammation of the artery wall, plaques build up. The accumulation called atherosclerosis can eventually block the blood vessel. The research findings revealed that oats are heart-friendly because of their high fibre content. Fibre washes cholesterol from the digestive system that would otherwise be released into the bloodstream. The scientists at the Jean Mayer USDA Human Nutrition Research Center on Aging at Tufts University, Boston, Massachusetts have discovered that oats contain a compound, avenanthramides, which keep blood cells from sticking to artery walls. It significantly suppress adhesive molecules that glue blood cells to artery walls.

The suppression provided by avenanthramides in oats may prevent this narrowing of the passageways through which blood flows. To test the compounds' antiatherosclerotic activity, the scientists purified avenanthramides from oats and exposed them to human arterial wall cells over a 24 hours period. After observing the mixture under incubation, scientists found significant reductions in both the expression of adhesion molecules and the sticking of blood cells to arterial wall cells. Water-soluble fibre in oats is believed to help reduce the amount of LDL cholesterol circulating in blood.

Adding oat products as part of an overall healthy diet and cutting down on high-fat, high-cholesterol foods is important to gaining these benefits. As a grain, oats can be found in foods such as enriched cereals and breads; as rolled oats, in oatmeal; and as oat bran, in muffins or other baked foods. Researchers hope that plant breeders or genetic engineers will create oats with high levels of avenanthramides [Marion Bliss, Agric Res, 2004, 52(6), 6-7].

Papaya-Mango blended leather

The Food Technologists at Department of Home Science, College of Agriculture, Vellayani, Kerala done acceptability study on blended papaya leather.

During study organoleptic qualities of papaya leather ('CO-2' variety) and papaya-mango blended leather (60:40) were evaluated in comparison with plain mango leather. The observation on sensory parameters revealed that papaya-mango blended leather was superior in most of the quality attributes. The leather could be stored up to eight months and there was no evidence of microbial attack [Cherian & Cheriyan, J Food Sci Technol, 2003, 40(3), 293-295].

Spread from cashew kernel baby bits

Scientists of National Research Centre for Cashew, Puttur, Karnataka State prepared sweetened and flavoured spread from cashew kernel baby bits (CKBB). Among the sweetened spreads prepared with different flavours, cardamom spread was the most preferred. Defatting of CKBB did not affect the organoleptic acceptability of the spread. Mixing of CKBB with groundnut kernels in equal proportion did not affect the organoleptic acceptability of spread. Almond spread was preferred over spread from CKBB [Nagaraj, J Food Sci Technol, 2003, 40(3), 337-339].
Antioxidant effects of charcoal-broiled meat consumption

The effects of charcoal-broiled meat consumption on antioxidant defense system of erythrocytes and antioxidant vitamins in plasma was examined by Yousif A. Elhassaneen at Department of Nutrition and Food Science, Faculty of Home Economics, Minufiya University, Shebin El-Kom, Egypt. Phenylalanine hydroxylase (PAH) contents in charcoal-broiled beefburgers (CBB) prepared for study subjects were determined by HPLC. A total of 24 healthy men (20-22 years) were used in the present investigation. All were nonsmokers and had no occupational exposure to PAH. They volunteered to consume two CBB per day (mean weight of each, 70 g) at lunchtime over 28 consecutive days. Blood samples were collected from each subject 7, 14, 21 and 28 days before, during and after the CBB consumption period. The haematological analysis for all subjects indicated that activities of antioxidant enzymes, glutathione peroxidase, superoxide dismutase, and catalase measured in the erythrocytes of all subjects was significantly lower during CBB consumption period compared with those of before CBB consumption period. Levels of thiobarbituric acid reactive substances in plasma were also higher significantly during CBB consumption period. All of the enzyme activities decreased to near baseline levels, before CBB consumption period, by 4 weeks after charcoal-broiled meat consumption ended; in contrast, however, levels of thiobarbituric acid reactive substances still increased. The same behaviour was observed for the antioxidant vitamins measured in plasma including A, C and E. All of these findings suggest that in studies of environmental and occupational exposure to PAH, the effects of dietary exposure should be taken into consideration [Elhassaneen, Nutr Res, 2004, 24(6), 435-446].

Vacuum packed Tandoor-chicken

The scientists at Department of Meat, Fish and Poultry Technology, CFTRI, Mysore evaluated the quality characteristics of vacuum packed tandoor-chicken. During experiment chicken was vacuum packed and stored at 4±1°C and -18°C. The microbiological quality of the product under vacuum reached the unacceptable limit on 15th day at 4±1°C, compared to 6 days without vacuum packing. The aerobic plate counts (APC) increased from an initial level (log cfu/g) of 3.67 to 6.75 by 15th day pack and to 6.18 in control (air) packs by 6th day of storage at 4±1°C. The sensory quality of the product even though reduced significantly during storage at 4±1°C, it was at the acceptable level even on 15th day of storage. The counts of psychrotrophs (log cfu/g) also increased significantly from an initial level of 0.05 to reach a level of 6.18 in control packs by 6th day and 5.69 in vacuum pack by 15th day. The APC (log cfu/g) of the product increased marginally in vacuum pack during the storage period of 40 days at -18°C to reach a level of 4.75 from an initial count of 4.44. The sensory quality of the product even though reduced significantly during storage at -18°C, it was at the acceptable level even on 40th day of storage. The pH, moisture and water holding capacity did not show any specific changes during storage. The shelf life of the product was found to be extended considerably at lower temperature under vacuum.

Effect of admixtures on quality of Rasogolla sweet

The scientists at College of Dairy Technology, Warud, Pusad, Maharashtra studied the effect of various starches as binding material on quality of Rasogolla. During experiment cow milk chainna (Paneer) was admixed with 3% refined starches of wheat, tapioca, rice, maize and water-chestnut (Singhara) and 0.6% baker's yeast and incubated at 35°C for one hour before making of balls. The balls were cooked in 50% sugar syrup (chasni). The results showed that Rasogolla with rice starch were voluminous and had maximum force of disintegration, porosity, sponginess and was most acceptable with uniform surface [Shelke et al, Indian J Dairy Sci, 2003, 56(1), 61-62].