Amaranthus grains as supplementary feed for some carps

The use of certain non-conventional feed ingredients in supplementary feed in fish diet have been found to reduce operational expenditure of aquaculture. Some non-conventional resources used include green gram, brewery waste, corn gluten, native beans, banana flower, groundnut leaf, leucaena leaf, sesame, linseed and copra oil cake, sal seed and winged bean meal.

The scientists at Department of Fisheries, Punjab Agricultural University, Ludhiana evaluated the potential of *Amaranthus hypochondriacus* Linn. grains as supplementary feed and its impact on growth in some carps. During experiment *Amaranthus* grains were used at different levels (20, 35 and 50%) in fish diets under a semi-intensive fish culture system and their impact on the growth of common carps, *Cyprinus carpio* and rohu, *Labeo rohita* was studied. It was observed that growth in terms of body weight was highest in fish fed on diets containing 20% *Amaranthus* grains that replaced groundnut oil cake in supplementary feed. Fish fed on diets containing these grains at different levels showed better growth than the control fed on traditional diet. Rohu showed better growth performance than common carps (Virk & Saxena in *Proceedings of the National Symposium on Fish Health Management and Sustainable Aquaculture*, 2001, 119-124).

Utilization of soymilk and groundnut milk in the preparation of paneer

Soybean and groundnut are two major raw materials used for preparation of imitation milks. Imitation milks may serve as a boon for the countries where the supply of milk is inadequate. In developed countries, imitation milk can save the masses from heart ailments, which are considered to be caused by consumption of saturated fats including milk fat. Keeping in view the reduction in cost and improvement in nutritional quality of paneer (cheese) scientists working at the Department of Food Science and Technology, Punjab Agricultural University, Ludhiana carried out studies to use soymilk and groundnut milk in the preparation of Buffalo milk paneer. Chemical composition of soymilk and groundnut milk was similar to buffalo milk. Incorporation of imitation milks in the preparation of buffalo milk paneer at lower levels did not affect the sensory quality and chemical composition. Soymilk and groundnut milk can be incorporated at 20.0 and 10.0 per cent level in the buffalo milk, respectively without affecting the quality of paneer. However, these two types of milk could be incorporated at higher levels with little sacrifice in sensory quality [Shukla et al, *Beverage Food World*, 2003 (August), 57-58].
Extension of cookies shelf life by using rice bran oil

Rice bran oil (RBO) is obtained from the outer brown layer of rice. It contains 15-20% oil. The oil is considered as one of the highest quality vegetable oil in terms of its cooking quality, shelf life, fatty acid composition, nutritive value, flavour, taste and cooking economy. Scientists at Institute of Food Science and Technology, Faisalabad, Pakistan, carried out studies to evaluate the suitability of RBO in baked products like cookies. Rice bran oil was applied into baked products such as cookies at various levels i.e. 0, 25, 50, 75 and 100% by gradually replacing normal shortening to check its effectiveness in extending the shelf life of product due to its natural antioxidants by using thiobarbituric acid number (TBA number) test with the help of spectrophotometer. Five treatments of RBO and normal shortening (NS) were used to prepare cookies and 45 days storage study was conducted.

The results revealed that by increasing the percentage of rice bran oil, the TBA number decreases and the onset of rancidity is delayed. Moreover, the study suggests that T3 (50% RBO+50%NS) can produce superior quality cookies to prove effectiveness of RBO as bakery shortening [Sharif et al, Int J Agric Biol, 2003, 5(4), 455-457].

Pomegranate fruits in diabetes control

The incidence of diabetes mellitus is found in 6% of the world population, i.e. at least 30 million people throughout the world suffer from diabetes mellitus. Plants used in folk medicine to treat diabetes or as hypoglycaemic agent represent a viable alternative for the control of diabetes mellitus. In Turkish folk medicine, pomegranate (*Punica granatum* Linn.) fruit juice, pericarp and a special tart prepared from the fruit juice called "Nar eksisi" are prescribed to manage blood glucose concentration in diabetic patients. Researchers at Department of Pharmacognosy, Faculty of Pharmacy, Gazi University, Etiler, Ankara, Turkey studied in vivo hypoglycaemic effect of these remedies using normoglycaemic, glucose-hyperglycaemic and alloxan-induced diabetic rats. Their results confirmed that the pericarp of pomegranate fruits possesses a potent antidiabetic activity as prescribed in Turkish folk medicine. However, claims related to the effect of fruit juice and ‘Nar eksisi’ need further attention and study [Aslan et al, J Fac Pharm Gazi, 2003, 20 (1), 9-14].

Anti-diabetic activity of Mango leaves

Traditionally, mango, *Mangifera indica* Linn. kernel and fruits are used for treatment of various ailments. During studies on anti-diabetic activity of its leaves oral administration of aqueous extract of the leaves (1g/kg) failed to alter the blood glucose levels in normoglycemic or STZ induced diabetic rats. However, the extract showed anti-diabetic activity when given 60 min before or concurrently with glucose and this action could be due to reduction in intestinal absorption of glucose. However, possibility of other mechanism can not be excluded [Grover et al, J Ethnopharmacol, 2002, 81 (1), 81-100].