In this issue

Biofortified Crop Products
Would you pay more?

Improving the nutritional value of crops by biofortification is an effective strategy to counter nutritional deficiencies. However, besides the cost of doing research on biofortification, there is a need for agricultural extension to educate farmers to convince them to adopt the newly developed biofortified varieties. If consumers are willing to pay more for biofertified foods, it is so much easier to persuade farmers. But would consumers pay more? What are the factors that influence the willingness to pay more?

Researchers from ICAR-IARI New Delhi examined the awareness of the value of biofortified foods in overcoming nutritional deficiencies among urban and rural consumers. They also recorded perceptions and misconceptions.

Besides nutritional qualities, taste, price, brand etc., as well as household income and other demographic parameters, influence decisions about expenditure. So the data on these too were collected to analyse correlations and to present their results in a General Article in this issue.

As a case study, the researchers used Pusa Mustard-30, a high yielding mustard variety with lower pungency. The variety contains less erucic acid, which, when consumed in high quantities, is toxic for the heart. Interestingly, urban consumers were willing to pay one-third more, and rural consumers one-fourth more, for mustard oil from this variety.

Turn to **page 728** to read more.

India–Eurasia Collision
Lithospheric elastic thickness

Continents collide with each other, and, in a process slower than a snail, one may creep up on the other while the other subducts under the first. The collision may also create mountains where none existed earlier. The continents are also often subjected to magmatic upthrusts. How the continents behave under the pressures of plate tectonics, orogenesis and magmatic upheavals depends on the effective elastic thickness of the local lithosphere.

Earth scientists estimate the elastic thickness of the lithosphere using various local geophysical parameters. But the models of the lithosphere they use vary. The models of the lithosphere have very delicious and gourmet sounding names, such as jelly sandwich model and crème brûlée. But estimates of elastic thickness that they produce differ, especially over continental shelves, and the inconsistencies lead to bitter debates and controversies.

A Review Article on **page 748** in this issue examines models of the lithosphere and the effective elastic thickness as applied to the orogenesis of the Himalayas and suggests the way forward to resolve the issue.

Vegetable Cultivation
In eastern Ladakh

Changthang, the eastern part of Ladakh, is situated more than four kilometres above mean sea level. Though the solar radiation at this height can be intense, the temperatures there go down to less than minus twenty degrees Celsius. The region is generally dry and most of the precipitation is in the form of snow. To top it all, the region also experiences high wind velocity.

To even dream of large scale vegetable cultivation in such a situation might seem foolhardy. But the people there do cultivate potatoes and peas on a small scale in kitchen gardens during summer and collect wild edible plants to supplement their largely meat-based food. Those who can afford to, buy vegetables cultivated elsewhere from the market.

In 2013, a Krishi Vigyan Kendra was established in Changthang. The Krishi Vigyan Kendra at the highest altitude surveyed and assessed farmer needs, and devised methods and developed technologies for protected vegetable cultivation. Training and demonstrations, distribution of improved seeds and seedlings, regular inspections and monitoring…, the work put in by the Krishi Vigyan Kendra started paying off. Today, farmers there produce high value vegetables such as broccoli, Chinese cabbage, Swisschard, etc. as well as other vegetables required to sustain nutritional security.

In a Research Article on **page 737** in this issue, you can read about the exciting developments in agricultural practices and technologies for vegetable production in the cold and arid regions of Ladakh.

Nutritional Composition
Solanum torvum

Solanum torvum is a plant species closely related to the brinjal plant. Though it is not as commonly cultivated, the berries and leaves of *Solanum torvum* growing wild are collected, cooked and eaten in many parts of the world. Ethnobotanical studies have revealed that the plant parts have medicinal values including antibacterial, antifungal and anticancer properties.

In a Research Communication on **page 784** in this issue, researchers from the University of Patanjali and the Patanjali Research Centre present their investigations into the nutritional qualities of the berries of *Solanum torvum*. The berries, they find, are low fat and low energy food, but rich in vitamin C, antioxidants and a variety of nutraceutical compounds.

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