

# millet

'smart food of the 21st century'

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**K**arnataka is dressing them up as “siridanya” or rich grains that should be on every thinking eater’s plate. For Icrisat, the Hyderabad-based international crops research institute for semi-arid tropics, they are “smart foods of the 21st century” which are “good for you – the planet – the farmer”.

Millets are officially classified as coarse cereals or food of the poor. When I was school-going, my mother would frighten me into studying, because the alternative was possible deviancy, a term in jail and daily servings of ‘ragi mudde’ or steamed finger millet balls, which, in her view, was an agony worse than the loss of liberty.

Now, their very coarseness endears them to the city-bred with delicate constitutions and a less squeamish attitude to excess. With lifestyle diseases like diabetes and hypertension upending communicable ones as major causes of disability and death, millets have wormed their way back into urban diets, after they were banished by the Green Revolution.

Karnataka is plugging millets – ragi and jowar, mainly – at this cohort, hoping that gentrification of the cereals and premium pricing would persuade the state’s farmers with less endowed soils to bring more area under them and give the neglected crops at least a modicum of care for better yields.

“Primarily we are developing markets,” said Krishna Byre

Gowda, Karnataka’s young Minister for Agriculture, who went to Rome to urge the United Nations through the Food and Agriculture Organisation (FAO) to declare 2018 as international year of millets.

“We think farmers will grow what you tell them to grow. It does not work like that. Farmers look at markets. It is more important to drive demand; the supply will follow,” he added.

This is a different tack from that of Sikkim, which the Prime Minister declared as India’s first and only wholly organic state in January last year. No chemical fertilisers are sold in the state; so farmers have to use manure and compost. But the resultant lower yields have not been compensated with higher prices as the state failed to provide them the marketing wherewithal. The produce has to compete with non-organic fruits and vegetables from West Bengal. Local consumers are also reluctant to pay premium prices.

Half of 15,500 mall-goers in seven cities said they were eating millets daily or on a weekly basis, in a survey, based on face-to-face interviews, done for Icrisat. It is possible that the interviews were not done randomly, and there was a selection bias towards those who were older, because 42 percent of about 4,000 persons interviewed in Delhi for the survey, cited health complications as a reason for consuming them.

Millets have low glycaemic value, which means they release energy slowly and therefore keep blood sugar levels stable. Besides, they are nutritious. According to the National Institute of Nutrition’s food composition tables, 100 grams of ragi have 364

milligrams of calcium, three times as much as the 121 mg found in buffalo milk. They are also rich in fibre.

Only eight percent of those interviewed for the survey said they liked the taste; so palatability will have to be improved. Millets like bajra do not keep long; so they cannot be blended. Karnataka has engaged hotels, restaurants and chefs to create novel dishes and put millets on their menus.

Since taste is often acquired, catching them young through mid-day school meals could help. The Karnataka government is offering a bonus of Rs 400 per quintal in addition to the minimum support price of Rs 1,700-1,725 per quintal of jowar and Rs 1,900 for ragi. The procured millets are supplied through ration shops. Union Agriculture Secretary Shobhana Pattanayak said efforts are being made to supply them to soldiers. If the armed forces agree, a big market would open up.

### **Calls for a sustained education and awareness campaign**

Recommendation by doctors and trainers was also cited as a reason for consuming millets in the Icrisat survey. Curiously, though 89 percent of the interviewees said they were reasonably or very health conscious, only 31 percent were aware that millets were healthy. This calls for a sustained education and awareness campaign to change the perception.

The consumption of millets has declined in countries that saw the Green Revolution, which gave food security through high-yielding varieties of rice and wheat. These and maize are now the big three cereals that, according to Joanna Kane-Potaka, Director, Strategic Marketing at Icrisat, provide about 50 percent of the world's protein intake to humans.

Rice alone soaks up about 45 percent of the crop research money. More research money would have to be lavished on

millets to raise yields, as they are the last crops standing during droughts; bajra, it is said, can tolerate 10 degrees C more heat than wheat.

They are also good for animals. Millet fodder sells for the same price as millets, says Gowda, because they raise milk yield. Since the dairy industry is thriving, millet producers should hitch on to it. In North Karnataka, Gowda adds, it is a practice for farm



owners to retain the fodder and let tenant cultivators keep the grain for own use or for sale.

Through Icrisat, Karnataka is mapping the genomes of millets of interest to its farmers. Knowing the properties of various genes will help in shortening the time taken to develop new crosses with qualities like better palatability, improved shelf-life and higher yield through marker assisted selection. Next January it is organising an international fair in Bengaluru to promote millets and organics.