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Rice too is protein-rich, says new index

The nutrient values of rice are evaluated in various types in which it is eaten.



The earlier IFCT table evaluated the food in just one form, while the new table evaluates varieties and types of the food.

Hyderabad: In the new Indian Food Composition Table, rice is listed as having protein content of 7.44. In the earlier 1971 table, it was evaluated at 6. Rice is the main diet of South India. This time its evaluation has been done according to the different forms in which it is eaten, like rice flakes, puffed rice, raw brown rice, milled and parboiled rice and raw milled rice and the protein value in each is listed.

Dr P.Uday Kumar, senior scientist at the National Institute of Nutrition says, “The evaluation has not been restricted to only one type of food; the various forms of intake have been analysed and studied. This gives a better and clearer picture of the nutritive value of the food.”

The scientists have also detailed minerals such as aluminum, iron, copper, lead and other trace elements in their table which gives an insight into the amount of micronutrients that are being provided to the body. This data will help nutritionists to recommend changes in the diet. A senior scientist said that the table calculates not just calories but also vitamins, minerals and energy levels that a food is providing. This is a very important aspect of the new IFCT 2017. The earlier IFCT table evaluated the food in just one form, while the new table evaluates varieties and types of the food. Thus, when doctors and nutritionists look at aspects of undernourishment, malnourishment and also over-

nourishment, they will have a precise table and can accordingly suggest changes in diet.

Nutritionist Ms. Madhurima explained, “Earlier, rice was not considered to be a source of protein, but new evaluations are showing an increased number which means that its intake is also giving a portion of protein to the body.”

Neera is actually a probiotic

The study revealed that two yeast isolates had shown efficient probiotic properties.



Neera is the fermented nectar of the toddy palm

Hyderabad: The city-based Indian Institute of Chemical Technology, along with microbiologists from the Osmania University, have found that neera — the fermented nectar of the toddy palm — is a potential pro-biotic that also has therapeutic applications.

Experts collected the samples from different regions of the state and the *saccharomyces cerevisiae* yeast strains, isolated from the nectar, were studied. The study revealed that two yeast isolates had shown efficient probiotic properties. One of these isolates displayed antioxidant and anticancer properties when evaluated for tolerance to simulated gastrointestinal conditions such as temperature, pH, bile and gastric juices.

Probiotics are used for the prevention and treatment of gastro-intestinal infections, including food-borne pathogens such as typhoid causatives associated with infections. Yeast promotes both human and animal health and enhances the bioavailability of minerals.

The experimental study has been published in AMB Express, which compiles research in the area of Applied and Industrial Microbiology. A total of 53 yeast isolates (OBS1-OBS53) were part of the study.

Book lists best foods supplying Vitamin D

Best of Indian food decoded in chart.

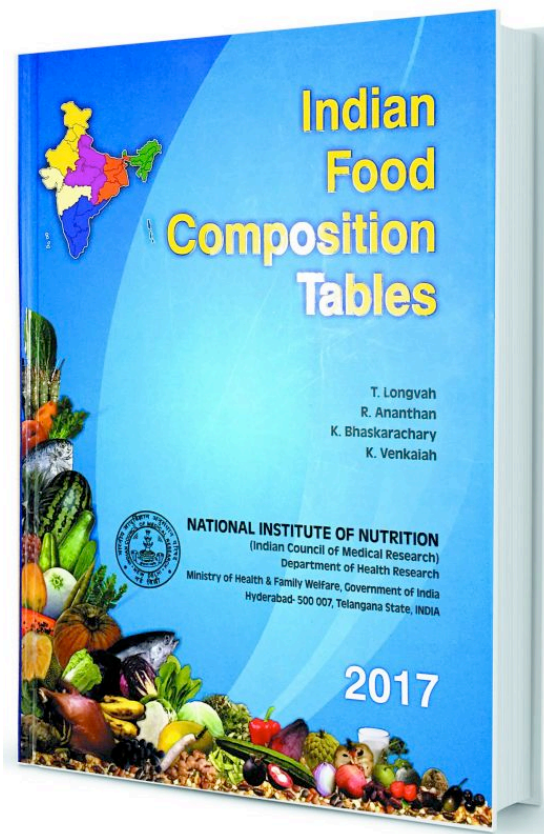


Vitamin D2 content in plant foods has been quantified as it gives an insight into helpful sources.

Hyderabad: Sesame seeds have the highest vitamin D2 quotient of 67.74, nutmeg has 46.67 and maize has 44.92. The three form the highest vitamin score per 100 gm in the nutritive value chart of raw foods found on the Indian Food Composition table (IFCT). The chart has been released by the National Institute of Nutrition, as part of its new diet book.

Vitamin D2 content in pulses, whole grains, dry fruits milk and milk products has been quantified as it gives an insight into the various food sources which provide this particular vitamin. Vitamin D's D-2 component is found in plant foods and the D3 component is produced by a fat-soluble vitamin that helps the body absorb calcium and phosphorus.

“Ninety per cent of people approaching health specialists for checkups show a severe Vitamin D deficiency,” says city-based nutritionist Sunitha Premlatha.



The book on Indian food composition released by NIN

“They are then given medicines which they have to take once a week. With these insights into nutrition from plant food, and non-vegetarian food, we will be able to specifically calculate the Vitamin D food sources to prescribe supplements,” she adds.

Currently, when there is a deficiency of Vitamin D, people are asked to spend at least half-an-hour in sunlight — from 8 a.m. to 8.30 a.m. They are asked to expose maximum skin to this early light so that the entire body can absorb nutrition. But food sources are another valuable source for those unable to spend enough time outdoors.

Nutritionist say the IFCT has become the new yardstick of nutrition analysis. They have asked the NIN to make the data freely available to the public by releasing it online.

Finally, some help

- Vitamin D2 content in plant foods has been quantified as it gives an insight into helpful sources
- With the use of this table, nutritionists will be able to specifically prescribe helpful foods

KAU flags pesticide residue in spices, condiments

The Pesticide Residue Analytical Laboratory, Vellayani, of the Kerala Agricultural University (KAU) has warned of pesticide residue in spices and condiments such as cardamom, dried chilly, chilli powder, ginger powder, garam masala, and fenugreek.

The caution comes in a pesticide residue analysis report of samples of vegetables, fruits, and condiments collected from outlets in different districts. The report says that the analysis detected residues of hazardous materials in curry leaves, green chilli, mint leaves, coriander leaves, and cowpea.

While a sample of Shimla apple had hazardous residues in case of fruits, only a sample of yellow grapes proved unsafe among dry fruits.

The commodities sold in organic shops are no different. The report shows presence of hazardous chemicals in curry leaves, green chilli, and mint leaves sold in organic vegetable outlets.

Even though the levels of chemical residues in vegetables have comedown drastically, spices, condiments and curry powders being contaminated with pesticides is a cause of concern.

What about shrinking paddy fields, ask activists

Activists have questioned supporters of kambala for keeping mum over shrinking paddy fields in Dakshina Kannada and Udupi districts. In the rural sport, buffaloes are made to run on slush tracks created on paddy fields.

Muneer Katipalla, president, State unit of the Democratic Youth Federation of India (DYFI), alleged that some of the owners of kambala buffaloes were acting as real estate brokers for selling paddy fields.

“On the one hand, they lobby for kambala. But on the other, they are brokers for real estate agents making farmers sell their paddy fields,” he alleged, adding that it exposed their dual stand.

‘Shrunk by 22%’

Senior officials in the Agriculture Department told *The Hindu* that paddy fields in the two districts have shrunk by 22% in a decade due to various factors.

If the area in Dakshina Kannada district shrunk from 38,000 hectares (ha) to 28,700 ha, during the last 10 years, the area in Udupi district has reduced from 62,290 ha to 49,805 ha.

In addition, about 8,000 ha of paddy fields in both the districts together have been left uncultivated.

Shashidhar Shetty, a green activist, said that propagators of kambala should realise that paddy fields would get water only if the Yettinahole diversion project or Netravati diversion project was stopped. “Let them first fight to save Netravati and later for kambala,” he said.

Once a fertile stretch presents a dry look now

The Lalgudi-Pullampadi stretch — otherwise a fertile belt dotted with paddy and sugarcane fields irrigated through the Pullampadi vaical — now presents a dry and barren look, with many farmers having skipped the ‘samba’ cultivation this season.

Many farmers have been keeping their fingers crossed in the wake of the utter failure of monsoon. They are not prepared to burn their fingers and have started switching over to fodder cultivation. A huge volume of weeds had grown in their fields and they have started preparing the grounds for the alternate cultivation particularly fodder.

Arockiasamy, one of the farmers of Pullampadi who owns a tractor, says that he has started ploughing the fields for raising the fodder for animals. With the failure of monsoon, there has been a scramble for fodder in this area and hence the decision to raise the Co-5 or other fodder.

He said it was high time that the ground was readied for raising the fodder. “Otherwise any thick growth of weeds will involve a huge expenditure on agricultural labour,” he clarified.

According to sources, the entire stretch between Lalgudi and Pullampadi accounts for about 200 acres all under paddy crop. Farmers would be left with no option but to raise the fodder particularly Co-5 and other grass varieties. Sources told *The Hindu* that there would be a severe scarcity for hay this year as paddy had failed.

About 500 acres was covered under direct sowing of paddy in Vellanur area which had totally withered away due to paucity of irrigation water. Here too, farmers were seen resorting to alternative crop of fodder.

There would be a good demand for fodder and hence, a large number of farmers had started raising the fodder crop now. Moderate showers realised last week had facilitated the farmers to plough the fields.

Sources said that being a risk-free cultivation, farmers had been resorting to raising fodder. “It can be harvested periodically. In case of summer showers, the farmers would be blessed with adequate profit,” the source added.

A ready reckoner in every groundnut farmer’s palm!

Who said mobile technology will not work in the countryside? Here is an application that is all set to don every groundnut farmer’s palm as a ready reckoner on topics ranging from seed selection to fertilizer use, pest and disease management to storage tips and mechanisation to value addition. ‘Mana Verusenaga’ (Our Groundnut), released by the Acharya N.G. Ranga Agricultural University (Angrau), is dubbed a tool that gives a tech edge to groundnut growers of Rayalaseema and north coastal Andhra districts.

Designed by Astraa Agro Innovators, a start-up incubated by the Rural Technology and Business Incubator (RTBI) of IIT Madras, it is available on Google Playstore and can be downloaded on Android OS-based smartphones.

The app shows 14 varieties of groundnut, their selection methodology, seed treatment, spacing of crops, sowing season and the symptoms of deficiency of iron, phosphorous, nitrogen etc. The site deals with ways to keep at bay the red-haired caterpillar and spodoptera caterpillar that wreak the maximum havoc, besides the sucking pests like greenhoppers, thrips and aphids. “Apart from the eight common diseases, their symptoms, spread and means of control, there are sections on eradicating rodents and wild boars from the fields,” Kadiri Mohan, app administrator and an Agricultural Extension Scientist at the Regional Agricultural Research Station (RARS), Tirupati, told *The Hindu*.

Rubbishing pessimistic remarks on power shutdown, weak signal connectivity and poor smartphone penetration in villages, the application has seen over 800 downloads by farmers and field officers alike. “It requires 23MB of space. Once downloaded, it works offline and hence requires neither signal nor data connectivity,” Dr. Mohan added.

‘Useful info’

Farmers are happy to use the app. “Pesticide dealers earlier suggested us a heavy dose of chemicals, but now, we upload the diseased plant’s photo and get custom-made solution,” says Ram Naik, a graduate tribal farmer of Peddamandyam in Chittoor district.

“The app offers useful information on disease prevention, but should focus on remedial aspects too,” feels N. Shekar Rao of Turkapally in Nalgonda (Telangana). Sale Venkatramana Rao of Bobbili (Vizianagaram) is ready to sow groundnut as inter-crop in his mango garden, thanks to the app. Tanuku (West Godavari) based student P. Srinivas downloaded it out of curiosity and felt the ‘navigation’ great.