



Researchers to speed up 'golden rice' yield

Manu Sharma
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Intense efforts are under way for commercial production of genetically-engineered 'golden rice' which can help prevent blindness by boosting vitamin A intake bolstered by a new strain.

Compared with the original golden rice unveiled in 2000, 'golden rice 2' contains up to 23 times more provitamin A, the substance converted in the body into vitamin A. This vitamin is vital for preventing childhood blindness, which affects thousands of children in India each year.

Talking to FE, Mr Jagadish Mittal, director, Monsanto Research Centre, Bangalore said, "Technology has been developed by international institutes on enriching vitamin-A content in rice. The breakthrough was achieved by replacing a gene originally borrowed from daffodils, and which also has a counterpart from maize. Now, our institutes are doing research on using the technology for our locally grown varieties. A lot of tests on safety aspects have to be conducted before commercial cultivation."



Three agricultural institutes - Indian Agriculture Research Institute (IARI), New Delhi, Directorate of Rice Research, Hyderabad, and Tamil Nadu Agricultural University, Coimbatore, have started research in this regard.

Incidentally, research on commercial production of the variety is going on in six countries including Indonesia, India, Philippines, Bangladesh, Vietnam and China.

"The researches being carried out in these countries pertain to upgradation of local varieties using technology," he said.

"Since this is genetically modified variety, food right activists may raise question about the safety aspect of the grain. To avoid any controversy and ensure safety, this variety will undergo food safety test and environment safety test before starting the commercial cultivation in 3-4 years time," he pointed out.

Research on upgradation of rice varieties enhancing the vitamin-A content has been going on at the international arena since 1992-93. Swiss Federal Institute of Technology first started research on this project.

International Rice Research Institute (IRRI), Rockefeller Foundation and Syngenta Foundation later on became associated in this research.

Managing director, Metahelix Life Sciences, KK Narayanan said that the new rice variety was produced by introducing specific gene from maize, which make beta-carotene available in the rice varieties. Due to increase in beta-carotene content, the rice looks yellow in colour and hence called golden rice. The beta-carotene, after consumption, produces vitamin-A in the body.

Bird flu, a boon for Indian egg export

Jaishankar Jayaramiah
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While the avian flu epidemic hits the poultry industry of several Asian countries, India has started benefiting from the problem. India, which is free from the bird flu outbreak so far, is fast emerging as a favourite destination for sourcing poultry products. Hong Kong has already started sourcing poultry products, especially eggs from many other



countries evincing keen interest among others to follow suit.

"So far, India has been exporting eggs only to the Middle East and West Africa. But as the country is free from bird flu, several Asian countries are showing interest in importing poultry products from India," said Mr Valsan, secretary, All India Poultry Products Exporters Association (APPEA). Currently, India exports 3.5 million eggs per day, of which 80% are exported from Namakkal, Tamil Nadu.