

GM Food Newsletter

October 2005
Published by the Food and Public Health Branch



A Gift of Animals

Rice is the staple food for most people in Hong Kong. One evening, the Healthy Mother (Mummy), and her daughter (Yan) who is a biotechnology student, were chatting in their kitchen.

Yan : Mummy, need my help in preparing dinner?

Mummy : Sure, why don't you help me cook rice?

Yan : Certainly, Mum... but... actually, I don't like eating rice all the time, you know. Sometimes I prefer having noodles or pasta. I wonder why so many Chinese people would like to have rice only.

Mummy : My dear, of course I know what you like. But your Dad and Grandpa are both traditional Chinese who are fond of rice. In fact, rice has been cultivated on our homeland since ancient times. Chinese tale tells of rice being a gift of animals.

Yan : Gift of animals?

Mummy : Yes. Long ago, China had been suffered from an especially severe period of floods. When the water had finally drained, people came down from the hills where they had taken refuge. They discovered that all the plants had been destroyed and there was little to eat. One day, the people saw a dog coming across a field, and hanging on the dog's tail were bunches of long, yellow seeds. The people planted these seeds. Rice grew from these seeds and hunger disappeared.

Yan : Interesting! Do you know which country is the main producer of rice worldwide?

Mummy : hm...It's probably China, isn't it?

Yan : Excellent! You are such a clever mum. Rice is cultivated in more than 100 countries around the world. In 2004, the production area for rice worldwide was about 153 million hectares. This was about 1400 times the size of Hong Kong, and its production volume was about 600 million tonnes. This is enough to feed above 50% of the world's population. As you said, China has the greatest production and India comes next.



Mummy :Yan, I remember you once told me that we had genetically modified (GM) soya bean and corn. Is GM rice available on the market? I heard from news reports yesterday that GM rice was found in the Mainland market.

Yan : Oh, my mum is not only clever, but news-conscious, too! Up till now, only two GM rice varieties with herbicide-resistant property have been approved in the United States and one with insect-resistant property has been approved in Iran. Most of the other GM rice varieties are still under development.

Mummy : Is that why biotechnology people like you have to make such an effort to modify our “gift of animals”? Just to make it tolerable to herbicides and insects? Does GM rice have other properties as well?

Yan : This is such a difficult question, mum... I probably wouldn't be able to answer you if I didn't attend the lecture this morning. Some GM rice varieties are developed to aid adaptation to hostile environment and some for nutrition enhancement.

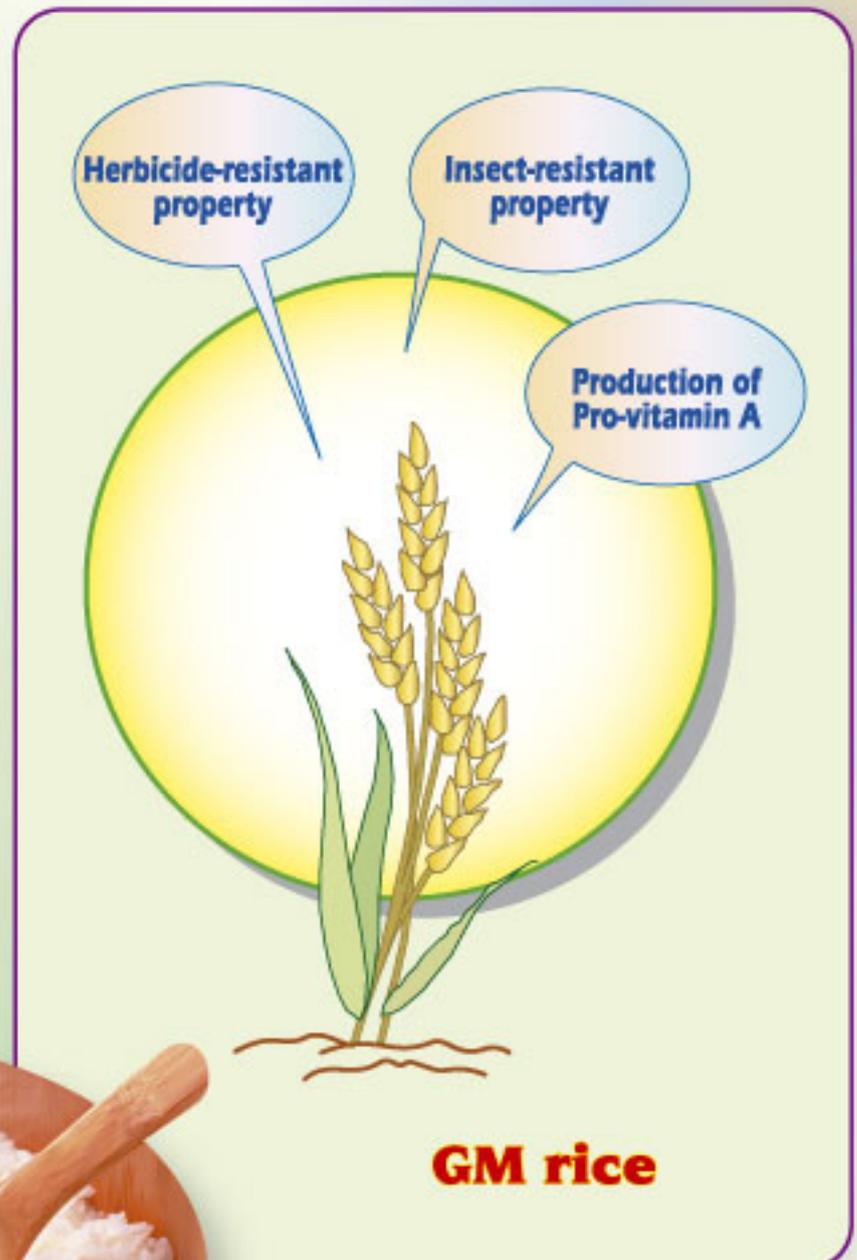
Mummy : Well, as the chef of our family, I am most concerned with what you called “nutrition enhancement”. What exactly does it mean, my dear?

Yan : According to my professor, there are 124 million children worldwide suffering from “vitamin A deficiency”. “Vitamin A deficiency” causes symptoms ranging from night blindness to other more serious visual problems. Scientific evidence showed that through genetic modification, rice could produce pro-vitamin A which will be accumulated in the seed endosperm tissue. This type of GM rice is called “Golden Rice”. It may provide a solution to solve the problem of “vitamin A deficiency” in developing countries.

Mummy : Sure. But the recent reports of illegal sale of unapproved GM rice in the Mainland really worry me.

Yan : Don't worry too much. There is no evidence to suggest that the rice could cause food safety problem. Anyhow, this may be a good opportunity for us to reconsider eating pasta or noodles more often... Ha! Ha!

Mummy : You silly girl! You've forgotten to switch on the rice cooker!



For more information on GM food, please visit our website

www.fehd.gov.hk/safefood/gmf/index1.html