

Calcutta Notebook

DRC

THE END OF THE OLD YEAR saw a convergence of scientists, teachers, students, activists of movements for protection of the environment, and concerned citizens on the Rice Research Station near Chuchura railway station, to voice their concern over information received that research was about to start on genetically modified GM rice. The propaganda claims that by using GM methods iron may be added to the rice, benefiting anemic mothers and other women.

Genetic modification of crops is being claimed as the second green revolution. Just as the ' fertilizer and pesticide multinationals were the patrons and guardians of the first green revolution which hoisted up their sales and returns on capital, the second green revolution is being pushed by agro-chemical giants. The GM seed market is dominated by five companies DuPont, Dow, Syngenta, Bayer and, finally, the one which cornered 85% of the seed market—*Monsanto*.

These companies first tried to push GM soya bean, corn, canola, cotton and later GM fruits and vegetables, for example potatoes and tomatoes, which couple had to be withdrawn from the market after trial runs on rats showed serious damage. Bt is a type of GM in which DNA of the host crop is modified using genetic material from the *Bacillus Thuringiensis* to produce an anti-pest toxin. Monsanto is trying to introduce Bt papaya, Bt brinjal, Bt spinach in India. Bt cotton failed to live up to promises, which is one cause of the spate of suicides among the cotton farmers of western India.

There was widespread allergy among Bt cotton farmers in Madhya Pradesh and Andhra Pradesh. In the latter case, diseases developed in the soil. 2500 sheep died after grazing in Bt-cotton fields. Bt cotton farmers found that pesticide use declined at first, but increased again, and there was no net increase in the yield. In Maharashtra, Monsanto had promised resistance to the pink boll worm, a major pest, but this did not materialize. Rather, insect pests developed resistance to pesticides. Farmers found that they couldn't switch over to other seeds because Monsanto agents dominated the seed market. In the mean-time pollen flow from Bt plants contaminated the natural non-Bt cotton plants.

The attempt to introduce Bt brinjal was stalled after India-wide protests. But there are plans to introduce Bt rice, maize, bajra and soya beans. It is in this context that the proposed research on GM rice takes on certain sinister overtones.

In 1996, 50 studies of GM foods and their effects were carried out in the UK. GM tomatoes were found to cause stomach ulcers in rats. Monsanto's GM corn caused fatal diseases of the kidneys, liver and the blood cells in rats. GM potatoes which released the pest poison lectin caused damage to the brain, liver, testes, and the immune system. Ominous was the fact that normal lectin by mouth did not have these effects, so that it was the GM process which was generating the morbidity potential. The US, Germany and the Philippines reported diseases among chicken, pigs, cattle, and human beings after the cultivation of Bt corn, soya beans and cotton. The addition of L-tryptophan in food in the US caused pneumonia which took a hundred lives.

These experiences prompted the demand that research on GM rice or other foodstuffs should not be undertaken at the Rice Research Station, Chuchura, and, any research on GM crops should be cordoned off by a 200m isolation zone as per international protocol. The

RRSC maintains 1200 varieties of rice and it would be unpardonable if there is contamination by GM material. In this context it may be mentioned that Basmati rice growers all over the country have strongly opposed proposals to cultivate GM Basmati.

After the experiences with the cultivation of Bt cotton and the protests against Bt brinjal, does it appear strange that the Genetic Engineering Approvals Committee, GEAC, is reported to have permitted experimental trial of a GM rice at the Chuchura research station by researchers of the Department of Agriculture, University of Calcutta?

The fact is that the Union government has, in the name of the Agricultural Knowledge Initiative, taken the role of provider of business and assured profits to US companies. In the fields of agriculture, health and family welfare, and biotechnology, the Indian Council of Agricultural Research works according to the dictation of the United States Artificial Insemination Department, USAID. Little wonder, then, that Monsanto has big clout in the chambers of the GEAC. Let us have a look at the committee set up by the GEAC in the matter of Bt cotton. It included the Director, National Institute of Nutrition and a former Chief Executive of ICAR, who are already members of a committee set up by the USAID-funded South Asia bio-security project to draw up rules for determining safety of GM foods (in such a manner as to protect Mahicos, an Indian collaborator and agent of Monsanto, and other companies), a member of the gene modification re-evaluation committee of the biotechnology department, against whom were pending complaints made to the Central Vigilance Commission, alleging illegal help to Mahicos, a project director of ICAR, New Delhi, who is himself in the business of commercial production of Bt brinjal, the Director, Indian Institute of Fisheries Education, who had work done in his campus which was financed by Mahicos.

Not quite unexpectedly this expert committee found nothing harmful in Bt brinjal.

The countries of the European Union have banned GM foods for human beings and livestock. 54% of GM crops are produced in the US. Brazil and Argentina allow GM foods for livestock. Canada, too, has no blanket ban. Now, India and China, two countries whose governments are quite ready to poison their people for a consideration, are joining the GM club.

Not only is the Union government subservient to US capital, the people at the top of government institutions are in the pockets of multinational giants like Monsanto. In the case of GM rice at Chuchura, it seems that the ICAR is involved in selling the country for a mess of pottage. Even the Director of the RRSC has not been taken into confidence regarding the nature of the proposed research. □□□

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