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FARMFRONT

Are GM foods safe enough?

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World over there is an ongoing debate about acceptance or rejection of foods having traces of genetically modified organisms (GMOs) which is otherwise called GM foods.

The advocates of transgenic technology say that there is no credible evidence either to substantiate that GM crops damage the environment or GM food can harm human and animal health. Some even say that as GM crops and foods are safe as their "substantially equivalent conventional counterparts", they need no testing. They go to the extent of decrying the critics, who have logical and scientific arguments, as "obstructionists."

Dr Arpad Pusztai, an eminent nutrition expert and toxicologist of international repute, is one who dismisses such arguments of the blind supporters of transgenic technology by saying that in the absence of safety studies, lack of evidence cannot be interpreted as proof that it is safe.

He further says, "Rather few well-designed studies published till date show potentially worrisome biological effects of GM food, which the regulators have largely ignored."

Incidentally Dr Pustai was in Delhi to address a group of scientists on Saturday. In his presentation he disclosed that a recent review done by Wolfanberger and Phifer published in Science in 2000 concluded that most pertinent questions on environmental safety of GM crops have not yet been asked for, let alone studied.

On the health safety aspect, he said that so far only 19 peer-reviewed papers have been published. Only one human clinical trial was conducted and only a few animal studies done so far. Dr Pusztai alleged that the industry's and regulator's preferred "safety assessments" are based on poorly defined and not legally binding concept of "substantial equivalence."

"In such a situation it is difficult to conclude that GM foods are safe," he told the spell-bound audience.

Referring to the growing concerns about food safety, Dr Pusztai said that the report of the Royal Society of Canada said that "substantial equivalence" is fatally flawed and regulations based on it, exposes Canadians to potential health risks. The British Medical Association has also said there is "insufficient evidence" to take a decision on health safety.

Pointing to the gaps in risk assessments,he suggested that more tests should be carried out on animals and humans, particularly in the alimentary tract. The trials of

the first GM crop, Flavr-Savr tomato have shown 7 out of 40 rats died within two weeks due to necrosis. In humans, grandular stomach erosions can lead to life-threatening haemorrhage, particularly in the aged people and patients on non-steroidal anti-inflammatory agents, he said.

Dr Pusztai referred to the findings of Fares and El-Sayed about Bt potatoes disruption, multinucleation, swelling and increased degradation of ileal surface cells in rats. In a study done by Dr Pusztai himself alongwith Dr Ewen showed that when rats were fed with GM potatoes it induced proliferative growth in the stomach and the intestines and also caused lymphocyte infiltration.

Dr Pusztai finally asserted that more researches should be done to pin-point effects of GM foods before any approval is done. Hope the world would be wise to follow his advice.

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