

NEWS FROM INDIA

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EXTRACT: ...if only 1 in 1,000 of exposed people later gets ill, or has an underlying illness made worse, then over a thousand million Indians would be ill and requiring treatment. This would result in a huge cost to the Indian government and community. It is therefore important to ensure that the safety assessment of GM brinjal is sound and thoroughly covers all the major concerns of toxicology, allergy, and reproductive health. The studies presented by Mahyco are simply inadequate to determine these matters. (item 3)

1. Doctors for Food & Bio-Safety call for a moratorium on GM crops/foods

Press Release, January 14 2009

New Delhi: As the Genetic Engineering Approval Committee (GEAC) sits down today for a 'discussion on Bt Brinjal proposal under large scale trials' in the Ministry of Environment & Forests, eminent medical experts from across the country from a network called "Doctors for Food & Bio-Safety" called for a moratorium on all open air trials of GM crops in India. These experts, after perusing through the first independent analysis of Mahyco's biosafety data of Bt Brinjal by France's CRIIGEN, sent a resolution to the GEAC to this effect.

They pointed out that the French analysis of Mahyco's data adequately addresses and questions the validity of the so called bio-safety data of Bt Brinjal in terms of: validity of biological/ animal experiments carried out by the applicant incl. study design; Adequacy of bio-safety testing protocols used; Validity of statistical analyses carried out including sampling procedures; Glossing over/unscientific basis of overlooking important findings.

The doctors pointed out that the obsolete technology used in Bt Brinjal incorporating antibiotic resistant markers is likely to have disastrous implications for developing countries like India which are struggling with communicable diseases burden. This may jeopardize National Health Programmes for control of Tuberculosis (already struggling with MDR/ XDR tuberculosis), diarrhoeal diseases, sexually transmitted diseases etc.

They further observed that the decreased calorific content (15% lesser) in Bt Brinjal and altered consumption in different studies will mean impact on nutrition which an already malnourished public could avoid.

The changes in bilirubin indicate effect on hepatic functions. Study with lactating cows showed increased milk production indicating hormonal effects. If this is so, what are the implications on pregnancy, foetal health, reproductive functions etc. There is an obvious requirement for longer term studies especially on reproductive health. Absence of these aspects in Mahyco's dossiers is not acceptable, the doctors said.

In Ayurveda and Siddha, herbs are used according to the taste (Rasa), medicinal property of phyto-chemical (Guna), strength (Veerya), the end taste after digestion (Vipaaka Rasa) and synergistic medicinal property (Prabhaava). Any intrusion in the basic component of a drug may cause major change in the constitution of the drug, leading to unknown impacts. The difference in solamargine and solasonine is the clear evidence of loss of synergy and imbalance in the phytomolecules, which may largely affect the therapeutic and nutritive benefit of brinjal. There is no study as part of the impact assessment done to study related aspects, they pointed out.

The doctors endorsed Dr Pushpa Bhargava's comments on the regulators compromising objectivity by basing their approval processes based on data submitted by the applicant itself and emphasized the need for mandatory independent research by mandatory elaborate protocols including for long term research.

Meanwhile, another independent analysis from Institute of Health & Environmental Research, New Zealand (led by Dr Judy Carman) to be submitted to the Supreme Court soon, also concluded that the studies presented by Mahyco cannot be used to show that GM brinjal is safe to eat, particularly when population health issues are taken into account. This analysis points to insufficiency of the type of studies taken up for the safety assessment, that statistical results have not been reported to a suitable standard in addition to sample sizes being insufficient (type II errors).

For more information, contact: Dr G P I Singh at [0] 98-155-42987

2.Scientists oppose Bt Brinjal cultivation

PNS | Bhubaneswar

<http://dailypioneer.com/149799/Scientists-oppose-Bt-Brinjal-cultivation.html>

Scientists, researchers, homeopaths, health professionals and environmentalists in Orissa are raising voice against the introduction of genetically modified (GM) Bt Brinjal crop in the state in view of its scientifically-proved toxic effects on human beings and animals.

Bt Brinjal is soon going to undergo field trials in Orissa prior to its approval for commercial cultivation.

At the recently concluded State Level Homeopathic Conference, eminent homeopaths of Orissa pointed out that genetic modification of plants created new mutations and destroyed the natural gene pool resulting in harmful flora and fauna. Widespread introduction of this technology will result in completely nullifying the whole principle of homeopathy as most of the drugs in homeopathy are produced from food crops and medicinal plants, they echoed.

Our entire Materia Medica would be rendered useless. The whole system of homeopathy will be jeopardised and will lead to chaos amongst homeopaths, they apprehended.

Moreover, eminent scientists of Orissa have also desperately opposed GM food crops for adverse effects noted by them during laboratory tests in the Biju Pattnaik Hall of the OUAT

where a workshop on "Management and Monitoring of Field Trials of Genetically Engineered Crops" was held recently on January 3. They have informed that cattle and goats are suffering and dying in the cotton cultivation districts of Orissa where large scale illegal cultivation of Bt Cotton has taken place. Very senior scientific researchers have warned against the inevitable consequences of widespread GM contamination.

The State Agriculture Secretary has personally cautioned against the introduction of GM crops, even as he was forced to adopt a pro-GM stance in this workshop sponsored by an organization formed to promote GM food and crops in the country. Union Health Minister, Anbumani Ramadoss, has also publicly protested against the introduction of GM crops after going through research findings made available to him.

More recently a French scientific study led by Caen University professor Gilles-Eric S eralini has branded Bt Brinjal "unsafe for human consumption". The tests have proved that mice fed on GM food have suffered sterility, high infant mortality rates, stunted growth, stomach and intestinal lesions, liver and kidney damage, organ damage at the cellular level, internal bleeding amongst others. In India cattle fed on Bt Cotton fodder and oil cakes have suffered from infertility, reduced milk yield, bloody dysentery, excessive salivation, bloated stomachs, and have also died very painful deaths.

Living Farms, an organization of concerned individuals opposed to agrochemical TNCs, genetically modified organisms (GMOs) and chemical pesticides, has strongly opposed the highhanded methods that are being adopted by the officials of the regulatory bodies to suppress the loud voice of dissent emanating from respected Indian scientists all over the country. We earnestly appeal the government to kindly intervene and stop the poisoning of brinjal, the favourite food of the Oriya's in its many preparations and which is consumed daily, Debjeet Sarangi and Jagannath Chatterjee of Living Farms beseeched.

3.A review of Mahyco's GM Brinjal food safety studies

Dr Judy Carman BSc PhD MPH MPHAA

Institute of Health and Environmental Research, Australia, January 2009

Summary [only]

While it appears the Mahyco has conducted a number of studies to show that Bt brinjal is safe to eat, in fact none of the studies are of any real use, for the following main main reasons:

1. The type of studies undertaken are insufficient to be able to determine if GM brinjal is safe to eat. For example, there have been no reproductive studies and the studies that have been done often use animals and/or measurements that are inappropriate or insufficient measures of human health.

2. Of those studies undertaken, the methodology and results are often insufficiently reported to be able to determine what the studies were actually measuring or how various variables were measured. Included in this, the statistical results have not been reported to a suitable standard.

For example, means, standard deviations, and p-values, which would be required for any peer-reviewed scientific journal, are usually omitted.

3. The sample sizes are insufficient to be able to find statistical difference for many measurements even if real clinical differences are occurring between groups. Indeed, much of the research presented by Mahyco could be regarded as being burdened with Type II error. This type of statistical error occurs when sample sizes are so low that the study cannot realistically be expected to find a difference between groups of animals even if clinical differences are occurring.

Consequently, the studies presented by Mahyco cannot be used to show that GM brinjal is safe to eat, particularly when population health issues are taken into account. That is, if this GM brinjal comes into the Indian food supply, then every Indian will be eating it, resulting in 1.15 billion Indians exposed to the GM brinjal. Some of those exposed will be children or the elderly. Some of those exposed will already be ill with cancer, autoimmune problems, heart disease, diabetes, or infectious diseases. Because of the number of people exposed, if GM brinjal is later found to cause illness, it could cause significant economic and social problems for India. For example, if only 1 in 1,000 of exposed people later gets ill, or has an underlying illness made worse, then over a thousand million Indians would be ill and requiring treatment. This would result in a huge cost to the Indian government and community. It is therefore important to ensure that the safety assessment of GM brinjal is sound and thoroughly covers all the major concerns of toxicology, allergy, and reproductive health. The studies presented by Mahyco are simply inadequate to determine these matters.

4. Other news items from India

+ Genetically modified foods a health hazard

<http://www.hindu.com/thehindu/holnus/015200901130940.htm>

+ Bt cotton seed farms suffer heavy losses

<http://www.financialexpress.com/news/Bt-cotton-seed-farms-in-TN-suffer-heavy-losses/410463/>

+ Genetically modified brinjal unsafe

<http://www.hindu.com/2009/01/11/stories/2009011160490900.htm>

+ GM Free India, Kheti Virasat oppose entry of BT brinjal

<http://www.mynews.in/fullstory.aspx?storyid=14642>

+ Campaign against GM crops stepped up

<http://www.expressbuzz.com/edition/story.aspx?Title=Campaign+against+GM+crops+stepped+up&artid=uSztq4P9%7C0Q=&SectionID=lifojHIWUU=&MainSectionID=wlcBMLGbUJI=&SectionName=rSY%7C6QYp3kQ=&SEO=>

+ India: Greenpeace demo against GM Brinjal's commercialisation

http://www.freshplaza.com/news_detail.asp?id=35983

+ Killing the seed?

http://timesofindia.indiatimes.com/Potpourri/Killing_the_seed/articleshow/3938039.cms

+ Doubts raised over Bt. brinjal's safety

<http://www.thehindu.com/2009/01/14/stories/2009011458810200.htm>

+ No need for condoms – GE corn can do the job

<http://www.prisonplanet.com/no-need-for-condoms-%E2%80%93-ge-corn-can-do-the-job.html>

+ Baba Ramdev finds GM food inedible

<http://www.expressbuzz.com/edition/story.aspx?Title=Baba+Ramdev+finds+GM+food+inedible&artid=SjVJkdGBVfo=&SectionID=Qz/kHVp9tEs=&MainSectionID=Qz/kHVp9tEs=&SEO=Patanjali+Yogpeeth&SectionName=UOaHCPTTmuP3XGzZRCAUTQ==>