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Fortnightly Bulletin on Genetic Engineering South Against Genetic Engineering (SAGE)

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MRTPC issues notice to Monsanto

The Monopolies and Restrictive Trade Practices Commission (MRTPC) has asked Monsanto, US seed multinational to respond within four weeks to the Andhra Pradesh government's contention that it was liable to pay compensation to the farmers for selling Bt cottonseeds at exorbitant prices.

In response, Monsanto said that its Indian subsidiary Mahyco—Monsanto Biotech (MMB) was responsible for operations in the country. Opposing Monsanto's contention, the state government had said the US company has been controlling stake in its sister concern and demanded refund of the excessive money paid by

cotton growers on the company's Bt cotton seeds.

In reply Monsanto said the state government had no right to seek compensation from it, as it was not a direct consumer.

But MRTPC chairman Justice OP Dwivedi on Thursday did not accept Monsanto's argument that it was not

responsible for the situation and its name should be deleted as a party to the case.

Navadanya Trust, an NGO headed by Vandana Shiva, has filed an impleadment

application seeking to be a party in the case along with the state government. According to Navdanya, "Monsanto was trying to "bypass Indian laws" and establish a claim to trait values in Bt cotton seeds which was

specifically excluded under the Patents Act, 1970. Since the Act excludes patents on seeds and plants, collection of royalty from years of seed production and trait embodied in the genetic material was illegal under Indian laws."

http://www.financialexpress.com/fe_full_story.php?content_id=148466

Focus- Bt paddy

Big GM seeds buccaneers Versus The People of India

By Arun Shrivastava

India is a centre of origin for rice and the centre for diversity for rice genes, in the same way as Mexico is for corn. It is therefore much more than just a rice country. This makes the Government's cavalier attitude to India's Non-GM status for rice, one of irresponsible criminal negligence. In embarking on high-risk field trials of GM-rice, it exposes our rice farmers to contamination by GM including transgenic contamination of wild species and the rice seed stock. If we Indians lose control over local rice seeds we lose our right to food and nutrition. We lose our sovereignty.

Has the Government exercised due diligence?

In granting permission for field trials, the Government of India has failed to protect the

people's interest and health. The Supreme Court of India [SC] in its interim order [1st May 2006] in matter of a Public Interest Litigation [PIL] number 260 of 2006 had directed that an inter-ministerial "Genetic Engineering Approvals Committee" [GEAC] be formed and all applications for field trials be routed via GEAC. This does not imply that the SC had given a carte blanche to GEAC to approve field trials; rather, the directive was to prevent one department [the Department of Biotechnology] from taking unilateral decisions and bring in some discipline.

However, in the '67th Meeting of the Genetic Engineering Approval Committee' held on 22.05.2006, the GEAC brushed aside all such concerns and in utter defiance of the spirit of the Order it has

rubberstamped an astonishing 91 GM products for multi-location trials [MLTs] 91 approvals in one meeting.

Which forced the Supreme Court to pass another order on 20th September, 2006:

[Whilst it is] not inclined to direct stoppage of field trials. At the same time, [the Supreme Court] deem it appropriate to direct the GEAC to withhold the approvals till further directions are issued by this Court on hearing all concerned. [Record of Proceedings, Item No 9, Writ Petition No 260 of 2006; the Supreme Court of India]

Not only that approvals have been rushed through in anticipation of a possible full spectrum ban on field trial in India, activists have been stone walled from obtaining

information on locations and type of seeds being tested. It is only after petition under Right to Information [RTI Act of 2005] were filed that some information has been revealed by the Department of Biotechnology.

Thus, the big seed companies [in this instance Monsanto, operating through its Indian Joint Venture partners Maharashtra Hybrid Seeds Corporation or Mahyco] have **committed crimes against humanity with full connivance of officials of the Department of Biotechnology and members of GEAC [which means several Ministries are also involved, chiefly, the Minister of Agriculture & the Ministry of Environment & Forest].**

This is a crime against the people of India and against India's farmers because these approvals have been given knowing the fact that in the last two years, 70% of the farmer suicides in the Maharashtra belt are Bt cotton farmers suicides.

"During the latter part of April, the Centre for Sustainable Agriculture (CSA) uncovered deadly toxic reaction in sheep and goats in Warangal in AP

from grazing in Bt cotton fields in Feb/March, post the last cotton harvest of 2005-2006. Local shepherds estimate the total mortality for the area to be around 10,000 dead sheep and goats." [Page 4, Application for interim order, in the SC of India, No 260 of 2006]

We do not care how many acres have been planted. We do know that six varieties of Bt rice are under open field trials. These are: MRP 5305 Bt., MRP5319Bt., MRP 5401 Bt., MRP5445Bt., MRP 5629 Bt., and MRP5631 Bt.

Whilst Bt rice trials have been approved in 10 out of India's 25 states, we suspect that the total area where GE field trails have been slipped in, without knowledge of the poor farmers who rented their lands, could be significant.

This is not a new war.

The United States of America declared a war on Indian rice [and food security] way back in the early 1960s when India's No 1 scientist mole, Dr M.S. Swaminathan, stole the gene bank of rice, evolved over decades by Dr Riccharia, and passed it over to the Americans. How many genetic

varieties have been stolen? No one really knows.

Swaminathan was the main dramatis personae in what is known as "the great[est] gene robbery" in the history of mankind.

India had 120,000 varieties of rice seeds; today, no more than 50 are available. This is United States' war on genetic diversity, ably supported by scientist-criminals like MS Swaminathan. And the worst crime of the Indian Government is to have these criminals head Agriculture Policy of India. At age 75, Swaminathan lives to lord it over many Expert Committees, including crucial ones in the Ministry of Agriculture. The deadly tentacles of this hydra-headed monster extend in many ministries of the Government of India. From early 1960s, Swaminathan has been the front of the Rockefellers, implementing their agenda with full support of the US Government.

Emboldened by a deliberately errant Indian Regulator, which is malfunctioning with intent and deliberation to support a pro GE agenda, and the open support of USAID, the GM seeds producers are furthering

the agenda of destroying India's food sovereignty and food security knowing fully well that GE seeds do not enhance productivity [yield], which is what Indian farmers need.

"For example, the USAID-backed initiative, Agricultural Biotechnology Support Project-II (ABSP-II), is based and directed from Cornell. ABSP partners have included Asgrow, Monsanto, and Pioneer Hi-Bred. Promoting GM is, of course, an official part of USAID's remit - one of its roles being to "integrate GM into local food systems."

The Trojan horse of GE seeds in India

That war has been taken to new heights by Monsanto. Few know that Mahyco is the Trojan horse through which Monsanto is slipping in GM seeds. Monsanto's website says:

- Joint venture with Mahyco 50:50 for marketing of biotech cotton seeds and 74:26 for marketing of seeds. Both these joint ventures are by parent company and not MIL.
- Parent Company is 51 per cent investment in Joint Venture with EID Parry **(Hybrid rice seed business)**.
- R & D centre of Bangalore also belongs to parent

Company. In effect, Mahyco is the front.

As early as 1999, the Research Foundation for Science, Technology and Ecology (RFSTE) challenged the permission given by the Government to M/s Maharashtra Hybrid Seeds Company Limited [Mahyco, Monsanto's JV partners] in the Supreme Court, vide their Writ Petition No. 71 of 1999 for carrying out multi-centric trials (these are limited field trials) at 15 locations in 7 states without framing proper guidelines, rules and systems for evaluating the bio-safety and ecological and environmental impacts of genetically modified organisms used in crops. [Ibid]

Thus, it is on record that right from the earliest MLTs for Bt cotton, "improper and illegal procedures" were followed by the GEAC/DBT and that contamination from these limited field trials (MLTs), were a major source of concern. These observations by RFSTE are part of the record of the Rejoinder Affidavit.

The Indian taxpayer is now paying Monsanto's debt. The people of India will continue to pay Monsanto with their lives and property. **The**

repercussions of the Regulator's releases of GM foods in India will be global.

World's best known scientists have sent their submissions

What is most heartening is that leading scientists from all over the world have joined hands with Indian activists with their expertise and experience. Many have filed exclusive submissions to the Supreme Court.

"Dr. Arpad Pusztai, the world renowned toxicologist and leading expert in protein lectins in a telephone conversation with Petitioner No 1 said that in all these years of scrutinising industry studies, (and most of these have passed through his hands), he has never seen anything quite like this. According to David Schubert, the safety testing data on the Ministry (GEAC) website is "very poorly done and in the absence of REAL DATA it is impossible to make any assessment of the validity of their claims". Dr. Doug Gurian Sherman, Senior Scientist at the Centre For Food Safety concurs. Dr. Robert Mann formerly senior lecturer in biochemistry at the University of Auckland and Advisor to

successive Ministry's of Health in NZ, says, "I regard the 'Bt'-brinjal field-trial proposal as one of the most ill-conceived I have encountered in my three decades of critical appraisal of GM. The risks and hazards, while not exactly known or indeed precisely foreseeable, appear to be so grave that the proposed field-trials should be enjoined pending a thorough assessment such as has yet to be performed." Dr. Mae Wan Ho (of the Independent Science Panel) and Prof. Joe Cummins, Prof. Emeritus of Genetics, University of Western Ontario, Canada, say: "In India, brinjal would be

comparable to potato or tomato in the American diet. GM Egg Plant Contains Bt Toxin Linked to Hundreds of Allergy Cases and Thousands of Sheep Deaths. It would be unthinkable and irresponsible to approve the genetically modified eggplant. Dr. Mae-Wan Ho and Prof. Joe Cummins find neither published studies nor experimental details on safety tests in the application for field releases of the Bt brinjal and raise serious questions. Instead of approving more GM crops, regulatory authorities in India should start a comprehensive enquiry into

the health impacts of Bt cotton and impose a ban on further releases of all GM crops".

So, the buccaneers have pushed GM rice and GM veggies: staple food of Indians. They have stealthily planted GM seeds in plots right across India. It is a well known fact that GM seeds can easily contaminate non-GM seeds through cross pollination. GM contamination could be widespread because there is no way to prevent contamination across India's farming areas.

http://www.thepeoplesvoice.org/cgi-bin/blogs/voices.php/2006/12/07/big_gm_seeds_buccaneers_versus_the_people

Update

GM paddy runs into rough weather in TN

"The government may issue a law banning GM crop trials. We hope the Centre will support us," said Tamil Nadu agriculture minister Veerapandi Arumugam.

Field trials of genetically modified (GM) rice in Tamil Nadu may be nipped in the bud. While the Centre has done virtually nothing to dispel the Frankenstein theories about the anti-GM crop groups, the state is mulling a legislation to ban such trials altogether.

"The government may issue a law banning GM crop trials. We hope the Centre will support us," said Tamil Nadu agriculture minister Veerapandi Arumugam. The minister's reply came in the wake of severe concerns raised by legislators across party lines. While Congress leader, Peter Alphonse, said: "GM crops will wipe out

traditional crops", PMK legislator Velmurugan, said: "GM crops are being dumped in India to harm the farming sector."

The volley of political rallies began soon after a farmer's group uprooted BT paddy in a plot in Ramanathapuram village of Coimbatore last month. Mahyco-Monsanto had

taken on lease the 20-acre field to try a variety of rice that has a larger yield and resists some common paddy diseases. The group under the banner of the Tamil Nadu Farmers' Association put up

notices around the plot, calling it a bio-hazard element.

It alleged the company was doing field trials in the land of Rangaraju, a farmer, without informing him that the crop is genetically engineered.

"Some 37 people have died and 1,500 others have been crippled in the country after consuming GM crops," said Tamil Nadu Green Movement president Jeevanandam.

www.dnaindia.com

Children of Bhopal gas victims suffer from deformity

ICMR studies, although prematurely terminated, did show that children of exposed mothers had delayed physical and mental development and lower values for anthropometric parameters such as height and mid-arm circumference.

Medical research is desperately needed, especially into the possible genetic and reproductive after effects, of the lethal gas leak in Bhopal exactly 22 years ago that killed more than 3,000 people instantly and thousands more in subsequent years.

Despite the neurological, hormonal and mental health problems that the survivors are facing besides the genetic damage to the children born to survivors, these crucial areas have been severely understudied, allege rights activists, who say, 'This has led to unsystematic treatment of gas victims.'

'Lack of research into the possible genetic and reproductive ramifications of gas exposure, and now of exposure to contaminated water, have seriously marred efforts to respond to the

effects of poisonous gases on the next generation in those affected by the gas leak,' said activist Rashida Bi who is a gas victim herself and associated with the International Campaign for Justice in Bhopal (ICJB).

On Dec 2-3 night in 1984, 40 tonnes of lethal Methyl-Iso-Cyanate gas spewed out of the Union Carbide Corporation's pesticide plant here. The tragedy also left thousands maimed for life from inhaling the poisonous gas.

Women who were pregnant during or following the disaster had extremely high rates of spontaneous abortion. A 1985 study by Medico Friends Circle (MFC) found that in addition to spontaneous abortion and stillbirths, pregnant women exhibited diminished foetal movements and menstrual disturbances. Foetuses that

survived the gas disaster suffered from severe malformations. Birth defects continue to occur among families affected by the gas leak and contamination of water at a higher-than-average rate even now.

Union Carbide allegedly constructed the factory knowing that the storage and treatment methods for waste were likely to fail and contaminate ground water. According to local groups monitoring the water quality, contamination from the factory has now spread to 16 wards and affects an estimated 16,000-20,000 people.

A study carried out by Sambhavna Trust Clinic showed that children conceived and born after the disaster to affected parents were significantly different from children of the same age

born to unexposed parents. The children were shorter, thinner, lighter, and had smaller heads, said activist Satinath Sarangi, who runs Sambhavna Clinic that treats the affected in the gas-hit areas.

Also, children of exposed parents showed abnormal growth in their upper bodies that were disproportionately smaller than their lower bodies.

'The problem in the second generation due to gas exposure is one that will affect tens of thousands, and potentially many more in the future, and it needs to be addressed immediately. Yet the government has only very scanty information on this matter and no plans for the health or special assistance needed for them,' said Champa Devi another activist. She is the recipient of the American Public Health Association's Goldman

<http://www.dailyindia.com/show/88479.php/Children-of-Bhopal-gas-victims-suffer-from-deformity>

Environmental Award for her work among gas victims over the years.

The Indian Council of Medical Research (ICMR) initiated 18 studies in the aftermath of the Bhopal disaster. However, despite findings of long-term damage, these studies were all prematurely ended within 10 years just as conclusive evidence of damage was beginning to show on the offspring of survivors.

'Most studies done by ICMR were terminated as early as 1989 and the rest by 1994 without reviewing the collected data and pleas for continuing the studies were ignored. The ICMR's full report on Bhopal too has not been released till date,' said Sarangi.

'Research done in the past is insufficient and key aspects of the disaster and its aftermath have been ignored in research projects. Now, new issues have arisen necessitating

fresh research. This includes exposure to water contamination among those living in the vicinity of the factory site,' Sarangi told IANS.

The Fact Finding Mission on Bhopal found high levels of chemicals in the breast milk of women affected by water contamination. Studies conducted by the Sambhavna Trust Clinic indicated that about half of the people living in the contaminated area were suffering from multiple symptoms.

ICMR studies, although prematurely terminated, did show that children of exposed mothers had delayed physical and mental development and lower values for anthropometric parameters such as height and mid-arm circumference.

Press Release

FoE: UK Government urged to reject 'half baked' GM potato plans

"These GM trials pose a significant contamination threat to future potato crops. We don't need GM potatoes and there is no consumer demand for them"

Friends of the Earth is calling on the Government to reject an application to grow experimental GM potato trials in the UK because of the risk of contamination to the food

chain. A decision on the application, made by biotechnology company BASF, is due to be announced today (Friday 1 December).

BASF has applied to the Department of Environment, Food and Rural Affairs (Defra) to trial GM blight resistant potatoes at two sites in the UK, in Derbyshire and Cambridge. If approved, the

GM potatoes are likely to be planted from April 2007 for a period of five years.

Defra received fourteen public responses to its consultation over the application. None were in favour of the trials going ahead. Those objecting include Derbyshire County Council, and the British Potato Council and McCains who are specifically concerned about the risk of negative consumer perception.

Friends of the Earth GM Campaigner, Clare Oxborrow said:

"These GM trials pose a significant contamination threat to future potato crops. We don't need GM potatoes and there is no consumer demand for them. Even the county council and the food industry have raised concerns about the impacts should the trials go ahead. The Government should promote safe and sustainable agriculture, not this half-baked GM potato plan."

Friends of the Earth objects to the trials because:

- o Any GM potatoes left in the ground after the experiment risk contaminating future food crops;
- o BASF has failed to provide safety data for the GM potato. This is vital to reassure the public if the food chain is contaminated;
- o There is no need for the product - alternative methods exist for controlling potato blight and a GM 'quick fix' is unlikely to provide a long term solution;
- o There is a clear lack of consumer demand and market - consumers have rejected GM foods and food retailers and manufactures have responded by eliminating GM ingredients from their products.

Although BASF plan to destroy the crops at end of the trials to

attempt to prevent them entering the food chain, the experience of GM rice in the USA, where an experimental GM rice line has contaminated worldwide rice supplies, shows that these experiments are not always containable. Rice, like potatoes, has been considered a 'low risk' GM crop for contamination, due to the low levels of cross pollination expected. Yet recent events would indicate that even supposedly 'low risk' crops can be involved in serious GM contamination incidents.

The Government recently consulted the public separately on its proposals for the rules needed to grow GM crops commercially alongside conventional and organic crops. Thousands of people objected to their proposals, which, if agreed, are likely to result in routine and unlabelled GM contamination.

http://www.foe.co.uk/resource/press_releases/uk_government_urged_to_rej_30112006.html

Poll:

U.S. Uneasy About Biotech Food

Americans Lack Knowledge, Faith in FDA's Accuracy, Poll Finds

Ten years after genetically engineered crops were first planted commercially in the United States; Americans remain ill-informed about and uncomfortable with biotech food, according to the fifth annual survey on the topic, released yesterday.

People vastly underestimate how much gene-altered food they are already consuming, lean toward wanting greater regulation of such crops and have less faith than ever that the Food and Drug Administration will provide accurate information, the survey found.

The poll also confirmed that most Americans, particularly women, do not like the idea of consuming meat or milk from cloned animals -- a view that stands in contrast to scientific evidence that cloned food is safe. The FDA recently said it is close to allowing such food on the market.

Michael Fernandez, executive director of the Pew Initiative on Food and Biotechnology, which sponsored the survey, said that overall, Americans are "still generally uncertain" about genetically modified and cloned foods. "How the next generation of biotech products is introduced -- and

consumers' trust in the regulation of GM foods -- will be critical in shaping U.S. attitudes in the long term."

In the five years since Pew began plumbing American views of genetically engineered food, U.S. acreage in such crops has grown substantially. Today, 89 percent of soybeans, 83 percent of cotton and 61 percent of corn is genetically engineered to resist weed-killing chemicals or to help the plants make their own insecticides.

Because most processed foods contain at least small amounts of soy lecithin, corn syrup or related ingredients, almost everyone in the United States has consumed some amount of gene-altered food.

That quiet revolution has been punctuated by occasional high-profile problems, including the 2000 finding of StarLink corn, unapproved for human consumption, in many food products, and the recent revelation that the U.S. long grain rice crop has been contaminated with an experimental variety of gene-altered rice.

In this year's survey, conducted by the Mellman Group, one-quarter of the 1,000 adults polled thought

they had ever eaten gene-altered food, an indication that Americans have "very little in-depth knowledge of the topic," according to a Pew summary.

Support for marketing of genetically modified food has remained flat since 2001 at 27 percent, with opposition dropping from 58 percent in 2001 to 46 percent this year.

The proportion of Americans who say they "don't know" if gene-modified foods are safe has shrunk since 2001, while the "safe" and "unsafe" camps grew by about 5 percent each: 34 percent think they are safe, while 29 percent say they are not.

Of those who claim to have at least a rudimentary sense of how engineered foods are regulated, 41 percent say they would like to see more stringent rules, and 16 percent say there is already too much regulation.

Consuming cloned animals -- addressed in the poll for the first time -- popped up as a hot-button issue. Even among those who said they had no objection to eating genetically engineered foods, 34 percent were comfortable with animal cloning, while 51 percent were not.

Religion played a big role in those opinions. Among those who said they attend religious services only "a few times a year or less," 30 percent were comfortable with animal cloning, and 54 percent were not. Among those who attend weekly religious services, 17

percent were comfortable with cloning, and 70 percent were not.

Asked which sources they trust "a great deal" for information about gene-altered foods, "friends and family" ranked highest, at 37 percent.

Only 29 percent named the FDA, continuing a steady drop from 41 percent in 2001.

The least trustworthy source, garnering 11 percent, was the news media. But remember, you read it here first.

http://www.washingtonpost.com/wp-dyn/content/article/2006/12/06/AR2006120601349_pf.html

Reflections:

Poor farmers struggle for justice. By Fr. Shay Cullen

There are more hungry people in the world than even before, in fact an additional 25 million since 1996 according to the UN Food and Agriculture Organization (FAO). The total number of severely malnourished and near starving people is 850 million. The UN pledged to reduce by half the number of hungry people in the world by the year 2015 but the globalization of trade and climate change has created more poverty and hunger than ever before. In the Philippines surveys show that more people than ever go hungry and say they eat only one full meal a day. Hunger drives the poor to work harder and longer yet they earn less and less and pay more for food.

Malnutrition especially among children leads to disease and

without money for medicine they die quickly. Children as young as five are forced to work to avoid starvation.

According to Philippine government figures there were 880,000 child workers aged 5 - 14 years-old in the country last 2005 but officials claim there are now in 2006 only 670,000. Non-government charities, (there are about 600 of them helping child workers) put the figures much higher. The worst occupations where children are exploited are prostitution, mining and quarrying, domestic labor, making fireworks, farming and deep-sea fishing.

Working children are deprived of schooling and a healthy and natural life.

There is more hunger too because corrupt government officials and political leaders

make business deals with big agricultural corporations and give them the land and permits to farm with exclusive use of land and water resources depriving small and indigenous people of their rights. The vast pineapple and banana plantations of Dole and Del Monte in the Philippines and in United Fruit in Central and South America are examples of multinational corporations in cahoots with the local political and economic elites.

These luxury crops deprive hundreds of thousands of small subsistence farmers from feeding themselves and their neighbors. Corporations want them to buy their processed food products not feed themselves. Maximizing profit is their corporate goal and even in developed nations

most industrialized food products are unhealthy.

Another cause of hunger is the oil and chemical corporations like Shell, for example. They can make small farmers dependent on terminator seeds that are good for one crop only. They don't reproduce themselves. The seeds are dependent on chemical based artificial fertilizers and pesticides made by the same corporation. The small farmers are trapped in debt and can't pay the ever-increasing higher prices. The wealthy agribusiness corporations soon move in and expand their plantations. Most of this land is used for growing luxury crops for export. The poor can't afford the food they produce and sell.

<http://www.manilatimes.net/national/2006/dec/07/yehey/opinion/20061207opi5.html>

Corrupt government officials cause hunger too. The farmers are made bankrupt and many commit suicide. When the local food products are driven from the market place then the price of imported food increases. More hunger is the result. No matter what natural or man made disaster befalls the small scale tenant farmers the absentee landowners still demand their share of the crop which can be as much as 40 percent. If they can't pay they can lose their land rights.

The corporations pay incentives to local government and agricultural officials to promote their products including genetically modified (GM) seed and crops. These artificial foods create further dependence and threaten native strains of crops by

cross-pollination. This is a gigantic threat to the organic farming movement that is making a healthy comeback. Most smallholder farmers want to own their land, to be paid fair trade prices and end to price fixing cartels.

It's not all helpless gloom and doom. There are hundreds of thousands of small farmers and non-government development agencies organizing resistance to the march of the corporate monsters and pursuing organic and small-scale farming. The growth of Fair Trade and a public demand for government supported Trade Justice is the hope for the small farmers and the 850 million, most of them children, who go to bed every night crying for the want of a decent meal.

LoOming threats

Monsanto eyes fortified foods to push India sales

While the corn seed is expected to be ready for commercial use by 2010, its cotton counterpart could take a little more time. Other key second-generation crops for which Monsanto may have plans for India include those pegged on some health benefits in fortified foods, edible oils and plant-made pharmaceuticals.

As part of its ongoing research, the company has begun exploring a biotechnology which will ring in Omega-3 fortified foods. Meanwhile, the company has received regulatory approval to import first generation Roundup Ready cotton seeds, as a follow up to Bollgard.

Simultaneously, Monsanto is working on developing Yieldgard corn, for which the regulatory process is under way. Monsanto scientific affairs director (Louisiana) Harvey Glick said grafting Omega-3 gene in vegetable

seeds (it is now currently found mostly in fish and fish oil) would help increase the content of Omega-3 up to 20% in the seeds. India, with a huge consumption of vegetable edible oil, could be an ideal target region. Some surveys have established that approximately 30% of parents use Omega-3 supplements as a therapy for autistic children. Omega-3 fatty acids are found in abundance in oily fish and are believed to have a significant protective effect against cardiovascular disease.

<http://economictimes.indiatimes.com/articleshow/726371.cms>

Syngenta sets up research unit in Goa

Syngenta, the global agribusiness firm which was born out of the merger between Novartis and Astra Zeneca's agribusiness units in 2000, has set up a new research facility in Goa. The centre, which cost Rs 37.5 crore, is only the third such facility apart from the firm's main centres in North America and Europe.

The centre will provide innovative and cost-efficient chemical synthesis for field and laboratory trials of new chemical entities. Typically, agribusiness companies spend close to 10% of their turnover on R&D, which makes them the third highest spender on R&D after the pharmaceutical and IT industry.

The move to shift work to India is likely to create competition among Syngenta's global R&D network and thereby improve productivity, said

Michael Pragnell, the global CEO of Syngenta. Almost 68% of Syngenta's product portfolio comes from crop protection (insecticides, pesticides, herbicides) and the balance from seeds and professional products.

Mr Pragnell told ET that he had to choose between two key markets in Asia for its R&D centre. Eventually, the decision to choose India was influenced by "the creativity and the innovative ability of Indians that includes scientific skills." Mr Pragnell also added that India was beginning to emerge as a priority market for Syngenta. It figures among the top 15 markets by size.

"India will be a much important market." Besides, the intellectual property protection norms that the country agreed to came through in the nick of time, added Mr Pragnell.

"If India had faltered in that, we might have thought a second time," said he. As many as 70 local scientists have been hired in Goa to work at the centre

<http://economictimes.indiatimes.com/articleshow/660434.cms>

<p>This fortnightly bulletin is brought out by South Against Genetic Engineering (SAGE), a coalition of civil society activists, farmers, scientists, academicians, and consumer groups of four Southern States of India, viz., Andhra Pradesh, Karnataka, Tamil Nadu and Maharashtra. SAGE has been waging a concerted battle against genetic engineering through a series of activities that involve public protests, media actions, seminars, consultations and publication of a series of education materials.</p>
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