

Supreme Court says "no" to more transgenic crops

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Orders GEAC to keep approvals on hold.

The Supreme Court of India (SCI) on September 22, 2006) directed the Genetic Engineering Approval Committee (GEAC) not to give approvals to genetically modified products until further orders. "This has perplexed the biotech community but exhilarated the anti-biotech lobby, which seems to read too much in this two-week restriction," said Prof. C Kameswara Rao, executive secretary, Foundation for Biotechnology Awareness and Education, Bangalore.

The Supreme Court's directive was in consideration of a Public Interest Writ Petition (PIL) filed on May 1, 2006 in the matter of Aruna Rodrigues and Others regarding the Biosafety of Genetically Modified Organisms (GMOs), which are allowed to be released into the environment. The petition sought for issue of directions to stop all field trials for all genetically modified products anywhere and everywhere with immediate effect, besides certain other considerations.

The Supreme Court's interim order stated that "we are not inclined to direct stoppage of all field trials at this stage without (considering) the stand of the respondents. At the same time, we deem it appropriate to direct GEAC to withhold the approvals till further directions are issued on hearing all the concerned". The next hearing on the Writ petition has been fixed for October 13, 2006.

The Supreme Court's order would not apply to field trials of GM products, which were already approved by the GEAC. The

Supreme Court also stated that the Government would also consider associating independent experts in GEAC. "The petitioners may give their suggestions to the learned counsel for the respondents in this regard within a period of one week from September 22."

"The advice of the Court to the Government to 'consider associating independent experts in the field with the GEAC' is not an issue with the GEAC, as they had earlier involved other outside experts. The anti-tech activists too were given an opportunity to present their point of view before the GEAC," said Prof. Kameswara Rao. The next hearing of the Supreme Court is on October 13.

The PIL and the key concerns

The writ petition was filed in public interest by Aruna Rodrigues, an economist and marketing management consultant; Dr Devinder Sharma, a trained agricultural scientist and writer; PV Sateesh, cofounder and general secretary of the Deccan Development Society; and Rajeev Baruah, a management specialist and managing director, Maikaal bioRe.

The petitioners pleaded for a stay against grant of fresh approvals and of all field trials on genetically modified crops, as they were concerned with the absence of proper scientific examination of Biosafety aspects.

Dr Devinder Sharma, one of the petitioners, told BioSpectrum, "We are seeking a moratorium on GM crops as their biosafety aspects and their implications are not clear. The GEAC is just a rubber stamp for the industry. It kept on approving the Bt cotton varieties, while the cotton farmers were committing suicides. The past four GEAC heads should be held accountable for the current cotton crisis. How could they approve new Bt cotton varieties, while the cotton farmers were dying? Now that all claims of the Bt cotton seed suppliers have turned wrong why are they not being put behind bars? This is after all not a collateral damage but loss of human life which is a crime. Hence we have requested the Supreme Court to put clamp on the GEAC till there is clarity on the issue."

"Currently, we are facing a terrible agricultural crisis. While at one end the farmers are committing suicides, on the other, the corporates are pushing the Bt technology. During the cotton crop season, from 2002 to 2005, Monsanto had earned a royalty (technology fee) of Rs 1,400 crore. And in 2006, their earnings are to the tune of Rs 4,000 crore. How can they justify such earnings when the farmers are continuously incurring losses? On its part, GEAC sat on all the crop failure results and kept on pushing newer varieties for approval. Until we are clear about the technology, it should not be pushed especially at the cost of the farmers' lives," added Sharma.

The charges made by Dr Sharma are very strong. But according to the ISAAA spokesperson in India, under the Environment Protection Act there are bodies which have been assigned different functions involved in the GM crop trials. "All the activities and the bodies responsible for them are clearly defined. For example, the Institutional Biosafety Committee (IBSC) looks into whether the project has been properly established, etc; the Review Committee on Genetic Manipulation (RCGM) monitors the safety related aspects of the projects, while the Genetic Engineering Approval Committee (GEAC) looks into the environmental safety aspect and is responsible for the approval of proposals relating to the release of genetically modified crops. Since the past three-four months, all the large scale trials have been approved by the GEAC with the inputs of the RCGM as per the directive of the Supreme Court."

"The fact is that there is a well-appreciated and robust multi-step mechanism for biosecurity evaluation of genetically engineered (GE) crops in the country," informed Prof. Kameswara Rao.

Dr KC Bansal, Principal Scientist, National Research Centre on Plant Biotechnology, IARI, added, "All the crop varieties are released after extensive scientific testing and validation. We have an extremely rigorous biosafety mechanism in the nation, which we follow for every crop that is made available to the farmers."

Another concern that the Petitioners have raised in their writ petition is that the "use of technology of genetic engineering and release of GM organisms into the environment would require application of precautionary principle, which mandated that every possible precaution must be taken to ensure that no harmful effects are caused to human and animal health and environment due to the use of new and unknown technologies and organisms".

Prof. Kameswara Rao believes this is overstretching the import of the Precautionary Principle, which advises only a cautious approach, and was not intended to block deployment of GE products altogether on objections not supported by science. "Precautionary Principle was also not meant to be invoked ad infinitum and ad nauseam," said Rao.

Further, the Petitioners state that GE, if allowed to proceed unchecked, would irrevocably change the molecular structure of the world's food supply and impact the biodiversity through unrecallable, self replicating organisms. The reason for this

according to the petitioners is that "scientists do not understand the mechanisms of GE-induced changes in gene expression in sufficient detail and they do not know what to look for and these things are termed 'unintended effects'. And one of the most insidious 'unintended' effects of GE is Horizontal Gene Transfer (HGT) and this concern makes the technology of GE highly unpredictable and also extremely dangerous and puts in doubt the safety of GE process itself."

This is a highly imaginative and misleading assumption to paint a scary scenario, which does not make any scientific sense, says Prof. Kameswara Rao. "The GEAC is composed of competent experienced agricultural scientists and other experts who know their responsibility and they have been doing their job as per the rule of law. What might have disturbed the anti-agribiotech lobby in India is that the present GEAC is more pro-active and does not dilly-dally, like its predecessor," added Prof. Rao.

The petition also has other charges that GM companies are sabotaging regulatory regimes of third world countries, including bribing of government officials to get clearances; that the Indian farmers and consumers do not have the choice to better farming prospects and livelihood; that open field trials of Bt Okra, Bt Brinjal and Bt Rice are being conducted in various parts of the country on the basis of the safety tests conducted by the companies and without any independent verification of their safety claims about GM seeds.

Several people in the industry argue that the farmers chose what was best for them and discarded thousands of varieties of crops that were in cultivation at the given time. The farmer will continue to exercise a similar choice and if there were no demand for GE varieties, the market forces will push them out. "Further the Indian public sector institutions have developed about 39 GE traits in 23 crops, much more than the private companies," said Rao. Throughout the world, the product developers provide the basic biosecurity data based on existing governmental guidelines. They are verified and supplemented by public institutions and/or accredited private establishments. In India there are no independent private institutions to conduct biosecurity evaluations. The Department of Biotechnology (DBT), Government of India, is now in the process of putting such a mechanism in place. Currently, the independent public sector research institutions of the Indian Council of Agricultural Research (ICAR) conduct biosecurity evaluations.

While everyone will eagerly wait for the Supreme Court's decision, no one in the industry is denying the concerns of biosafety, but they believe that GM technology should not be rooted out. The evaluation should be on the basis of scientific evidence.

Ch. Srinivas Rao with Rolly Dureha