

Dr. Kalyan B. Goswami
Executive Director

Ref. NSAI/2017/123

Date: 11.12.17

✓ To,
The Chairperson,
Genetic Engineering Appraisal Committee (GEAC),
Ministry of Environment, Forests & Climate Change,
Indira Paryavaran Bhawan,
Aliganj Road, Jorbagh,
New Delhi - 110 003

To
The Chairman,
Review Committee on Genetic Manipulation (RCGM),
Block 2, 8 th Floor,
Department of Biotechnology,
CGO Complex, Lodhi Road,
New Delhi -110003

Received
[Signature]
P.A to Dr. S.R. Rao

Dr. K. Veluthambi
Chairman, Field Inspection & Scientific Evaluation Committee
Senior Professor and Head
Department of Plant Biotechnology
School of Biotechnology
Madurai Kamaraj University
Madurai-625 021

[Signature]
PPS to AS (AKM)
(S. JAYASREE)
Principal Private Secretary
Ministry of Agriculture
Govt. of India
(Deptt. of Agri. & Cooper.)
New Delhi

Dear Sir,

Sub: Release and cultivation of unapproved HT cotton on large scale – Contamination of parent lines and hybrid seed material of genuine cotton seed producers – Need for specification of protocols for sampling, testing and identifying such unintended contamination.

Ref: Our letter addressed to Hon'ble Minister of Agriculture, Govt. of India, dated 14.11.2017

The National Seed Association of India (NSAI) submitted their views on this issue through the reference above. In the meantime, based on the meetings, held by the Field Inspection & Scientific Evaluation Committee (FISEC) with several State Governments, the concerned State Government officials have been drawing samples of Bt cotton seeds, testing them and finding some of the seed lots recording positive for HT gene. However, the procedure, that is being adopted, wherein a few seeds from a seed lot are being crushed and ELISA strips are being used to detect the presence of the HT gene is very crude, unscientific and therefore prone to serious errors. Even if there is a single seed with the HT gene out of the 10 or 20 seeds crushed, the sample tests positive only. This is a serious flaw in sampling and testing.

Such a faulty procedure, adopted by the Seed Inspectors, can lead to an erroneous conclusion that the said seed lot is of unapproved HT cotton, even in the case of unintended contamination due to factors beyond a seed company's control like cross pollination, physical admixtures in ginning, processing etc., which will lead to unnecessary harassment to genuine operators. It may be noted that as of now, the seed producers test the seeds for various quality parameters notified by the Dept. of Agriculture, Cooperation & Farmers Welfare, Ministry of Agriculture under the Section 6 of the Seeds Act, 1966. Since, the protocol is not available, no seed company is able to test for unintended presence of unapproved events including HT events. From the previous minutes of the GEAC, it appears there are atleast two events of HT cotton that might be in circulation through grey market operators which could have contaminated the parent lines and even the seed lots of organized sector companies also.

Such situation of erroneous conclusions out of arbitrary sampling and testing is arising out of the fact that GEAC or RCGM or FISEC have not specified and notified procedure for

1. Collecting seed samples
2. Analyzing procedure of the seed sample including the sample size (no. of seeds individually) to be tested
3. Specification of Tolerance levels etc., to differentiate between a grey market operator supplying HT cotton seeds from an organized sector player whose seed lots might have been contaminated.
4. Identification of 'Event of GMO' is essential to ensure approved and unapproved 'GMO Event' from released GMO in environment by Government of India. For this, Government has to take steps to standardize protocol and method of identification and its notification for use by notified seed testing laboratories in carrying out such tests.
5. Empaneling suppliers and vendors of various GMO kits in order to ensure availability of reliable Elisa Kits or Strips for quick tests.

Even the lab procedure that is to be adopted by the Seed Analysts has not been specified.

Since the transgenic plant varieties carrying the transgenic traits have the natural ability to propagate and breed with the non transgenic varieties of the same species, it is essential for GEAC and RCGM to develop the above protocols for detection of unintended presence of transgenic events, even before according approval for conducting trials for any new GM trait not only in cotton but in any other crop. With this unfortunate episode of large scale HT cotton cultivation and the arbitrary procedure followed by the Seed Inspectors, this lapse is now becoming evident. We request you to immediately communicate to all the State Governments such protocols if they were notified by GEAC or RCGM. If they are not developed based on principles of science and notified till now, we request you to

immediately develop such protocols, procedures in consultation with experts including the representatives of NSAI so that appropriate processes and procedures are prescribed, which need to be mandatorily followed by the Seed Inspectors and Seed Analysts to identify the real culprits as well as ensure no harassment to the genuine operators.

As you are perhaps aware, the deliberate attempt to sell seeds of HT cotton, such operators need to maintain more than 95% gene/trait purity, as otherwise when the farmers spray Glyphosate to control the weeds in the crop, the cotton plants without the trait get killed. In the case of unintended contamination, the percentages will be much less ranging anywhere between a fraction of a percent to below 50%, at which levels it will not be practical for the farmer to use the Glyphosate as more than 50% of the plants get killed. Due to this reason, it is very easy to differentiate once the report is generated, with the percentage of contamination rather than merely presence or absence of the trait by crushing together 10-20 seeds, between the unintended contamination of the seed lot produced by a genuine seed company *vis-a-vis* deliberate attempt to produce, sell unapproved HT seeds by grey market operators.

In case seed lots are contaminated, which will be known only after the protocol are developed as requested above, the GEAC and RCGM may also have to decide, who is responsible for the costs to be incurred for testing all the seed lots to ascertain the contamination if any and destroying the seed lots with unintended contamination as provided in the EPA.

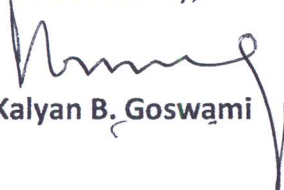
The GEAC and RCGM should develop SOPs and Protocols for field functionaries for each new trait expressed by an event before permission is accorded for field trials so that, in future, the problem is addressed before it grows out of proportion.

We request GEAC, RCGM and FISEC to clarify this urgently so that we can guide our members to claim the costs of testing and cost of destroying the seed lots with unintended contamination.,

In view of the urgency, we request you to act on this request on urgent basis.

Thanking you,

Yours sincerely,



Kalyan B. Goswami

Copies to:-

1. Dr. B Rajender, Joint Secretary (Seeds), Dept. of Agriculture, Cooperation & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India, Krishi Bhavan, New Delhi – 110 001
2. Shri Sumit Mullick, Chief Secretary, Govt. of Maharashtra, Main Building, Mantralaya, Dr. Madam Cama Road, Fort, Mumbai - 400032.



3. Dr. J. N. Singh, Chief Secretary, Govt. of Gujarat, Sachivalaya, Gandhinagar – 382020
4. Shri Basant Pratap Singh, Chief Secretary, Govt. of Madhya Pradesh, Mantralaya, Bhopal - 462003
5. Shri. Shekhar Prasad, IAS, Chief Secretary, Govt. of Telangana, 3rd Floor, Block C, Secretariat, Telangana, 500022
6. Shri. Dinesh Kumar, IAS, Chief Secretary, Govt. of Andhra Pradesh, Building #1, 1st Floor, A.P. Secretariat, Velagapudi, Guntur - 522237
7. Ms Ratna Prabha, IAS, Chief Secretary, Govt. of Karnataka, Secretariat, M.S. Building, Vidana Soudha, Bangalore – 560001
8. Dr. (Smt.) Girija Vaidyanathan, IAS, Chief Secretary, Govt. of Tamil Nadu, Secretariat, Chennai – 600009
9. Chief Secretaries & Chairman, State Level Biotechnology Coordination Committee of all cotton growing states.
- ① 10. Shri AK Sharma, Joint Secretary, Prime Minister's Office, 152, South Block, Raisina Hill, New Delhi-110011
11. Shri Bijay Kumar, Principal Secretary (Agril.), Government of Maharashtra, Agriculture Dept., 5th floor, Annex Bldg., Mantralaya, MUMBAI - 400 032.
12. Shri Sanjay Prasad, Principal Secretary, Department of Agriculture & Cooperation, Block No 5, 1st Floor, New Sachivalay, Gandhinagar 382010
13. Shri P.C. Meena,, Addl.Chief Secretary, Commissioner Agriculture Production & Jail Department, Govt of Madhya Pradesh, Bhopal-462003
14. Dr Rajesh Rajora, Principal Secretary (Agri), Government of Madhya Pradesh, Room No.83, Mantralaya, Ballabh Bhavan, Bhopal - 462003
15. Sri C. Parthasarathi, APC & Secretary, Agriculture, AM & Co-op, Govt. of Telangana, Room No 270, 1st Floor, D Block, Telangana Secretariat, Hyderabad – 500022.
16. Agricultural Production Commissioner (APC), 1st Block, 1st Floor, A.P Secretariat Office, Velagapudi, Guntur - 522237
17. Sri Budithi Rajasekhar, Special Chief Secretary to Government (FAC) (Marketing, 4th Block, Ground Floor, Room No:101, A.P Secretariat Office, Velagapudi, Guntur -522237
18. Sri M. Maheshwar Rao, Secretary (Agriculture), Government of Karnataka, 4th Floor, Gate No 3, M.S.Building, Dr.Ambedkar Road, Bangalore 560001
19. Thiru Gagandeep Singh Bedi, Agricultural Production Commissioner and Principal Secretary to Government, Government of Tamil Nadu, Secretariat, Fort St. George, Chennai-600005
20. Commissioner of Agriculture, Commissionerate of Agriculture, Govt. of Maharashtra, Central Building 3'rd floor, Pune 411 001
21. Shri B.M.Modi, Director of Agriculture, Govt. of Gujarat, Sector - 10 A, CH Road, Krishi Bhavan, Gandhinagar.-382010
22. Shri M.L. Meena, Director of Agriculture, Govt. of Madhya Pradesh, Vindhyaachal Bhawan, Second Floor, Bhopal-462001
23. Dr. M Jagan Mohan, Commissioner of Agriculture, Govt. of Telangana, Fateh Maidan, Abids, Hyderabad, 500001
24. Dr. M. Hari Jawaharlal, Special Commissioner, Directorate of Agriculture, Old Mirchi Yard, besides Rytu Bazar, Chuttuguntla Centre, Guntur - 522004

25. G. Sathish, Commissioner for Agriculture, Department of Agriculture, Sheshadri Road, K.R Circle, Bangalore- 560001
26. Dr. M.Rajendran, Director of Agriculture, Agriculture Directorate, Government of Tamil Nadu, Chepauk, Chennai -600005
27. Dr.(Ms.) B.MeenaKumari, Chairperson, National Biodiversity Authority, 5th Floor, TICEL Bio Park, CSIR, Road, Taramani, Chennai - 600 113
28. Dr. Vilas Bardekar, IFS, Chairman, Maharashtra State Biodiversity Board, Jaivavividhata Bhavan, Civil Lines, Van Vasahat, Forest, S.No.49, Salunke Vihar, Wanwadi, Pune - 411 022.
29. Shri A. K. Srivastav, IFS., Chairman, & PCCF, Gujarat Biodiversity Board, B-Wing, 5th Floor, Aranya Bhawan, Sector -10-A, Gandhinagar - 382010,
30. Shri. Basabt Pratap Singh, IAS, Chairman & Chief Secretary, Madhya Pradesh Biodiversity Board, O/O. The Chief Secretary, Secretariat, Government of Madhya Pradesh, Mantralaya, Vallabh Bhawan, Bhopal - 462011,
31. Sri.A.K.Srivastava, IFS, Chairman, Telangana State Biodiversity Board, 6th Floor, Chandra Vihar Complex, M.J.Road, Nampally, Hyderabad – 500 001
32. Sri.S.B.L.Misra, IFS (Retd.), Chairman, Andhra Pradesh State Biodiversity Board, Flat No. 209,308 and 311, Walnut Block, Raintree Park, Nagarjuna Nagar, Opp. Nagarjuna University, NH-5, Guntur District, Andhra Pradesh – 522510
33. Shri. S. P. Seshadri, Karnataka Biodiversity Board 4th Floor, "Vanavikas" 18th Cross, Malleshwaram, Bangalore - 560003.
34. The Chairman, Tamil Nadu Biodiversity Board, O/o. Hon'ble Minister for Forests, Secretariat, Govt. of Tamil Nadu, Chennai – 600009.