# PRASHANT BHUSHAN

RESI. B-16, SECTOR-14, NOIDA DIST. GAUTAM BUDH NAGAR (U.P.) - 201 301

PH: 0120-2512632, 2512693 MoB: +919811164068

C-67, SECTOR-14, NOIDA DIST. GAUTAM BUDH NAGAR

OFFICE

301, NEW LAWYERS CHAMBER SUPREME COURT OF INDIA (U.P.) - 201 301, FAX: 0120-4512694 NEW DELHI PH: 0120-2512523, 2512695 PH: 011-23070301,23070645.

CHAMBER

E-MAIL: prashantbhush@gmail.com

12.05.2019

To.

Dr. Harsh Vardhan Ministry of Environment & Forest and Climate Change Paryavaran Bhavan Lodhi Road New Delhi-110003

Sub: Illegal sale and cultivation of Bt. Brinjal in Haryana in contravention of the "Indefinite Moratorium" on commercial release of Bt. Brinjal imposed by the Ministry of **Environment & Forest and Climate Change** 

Sir.

- 1. I draw your attention to the above matters with a deep and continuing disguiet at the failure of the regulatory bodies under the Ministry of Environment & Forests in implementing the National Laws of the country on Biosafety and Biodiversity when it comes to Genetically Modified Organisms (GMOs).
- 2. In the fourteen years since the filing of a PIL (Aruna Rodrigues v Union of India) for a moratorium on GMOs in 2005, there has been a disregard for the most basic norms governing the regulation of GMOs in India. Consider that:
  - (i) In 2002, Bt.Cotton was given commercial approval as a de jure regulatory response in order to legalise largescale illegal planting in Gujarat, which the GEAC would not or could not control;
  - (ii) In 2009, Petitioner, Aruna Rodrigues informed the Genetic Engineering Appraisal Committee (GEAC) of largescale illegal planting of Ht.Cotton —also in Gujarat— recorded in the Minutes of the GEAC's 95th Meeting in 2009. In the ensuing ten years, nothing has been done to stop Ht.Cotton. It continues to flourish spreading to other States on commercial scale with tacit regulatory approval; &,
  - (iii) There is a pending application in the above mentioned petition detailing grossillegalities and their consequences with regard to illegal HT Soy and the import of viable GMO seedsof several crops. Further, the import of processed

GMO food and feed for animals flooding India's food chain that isunlabelled shows a complete disregard for the public's Right to Know.

- 3. The latest regulatory failure is evidenced by the fact that Bt. Brinjal is being grown illegally in a farm in Haryana, reportedly since 2017-18 and also other farms, when a "indefinite moratorium" promulgated by the Central Government is in place. I am constrained to say that we are looking at acollective failure of our regulatory bodies and connected institutions, with the final blame falling squarely on the apex regulator, the GEAC in your Ministry, the body solely responsible for all environmental releases of GMOs. The illegal planting of Bt.Brinjal demonstrates the vacuum that exists in the oversight of GMOs in India.
- 4. The fall-out in terms of contamination may well prove uncontainable. But if acted upon swiftly —and I urge you to take direct charge— we may be able to restore the situation, but only if dealt with on a war footing. I must impress upon you that we are confronted with the most dire and unconscionable violation of India's Constitutional safeguards of her Biosecurity and Biosafety with potentially irreversible consequences.
- 5. These matters justify criminal proceedings being initiated against individuals and corporations that have participated in and facilitated the illegal sale and cultivation of Bt. Brinjal.In the event of any contamination the GEAC/others may be in contempt of the Supreme Court's Order of "No contamination" (2008). Any delay on the part of your ministry in taking swift and strict action to stop the spread of Bt. Brinjal may not only be illegal but constitute contempt as well.
- 6. On 23.04,2019, Prof. Rajinder Chaudhary of Kudarti Kheti Abhiyan, Haryana, along with leading civil society organisations and scientists, reported his discovery to the GEAC, of a farmer in Fatehabad, Haryana, growing Bt.Brinjal. Suspicions arose when Prof. Chaudhary was informed that brinjal on this farm was immune to attack by the 'Fruit and Shoot Borer' insect that normally plagues brinjal, in the absence of any application of insecticides for this pest. A sample tested by the 'lateral flow strip' method, tested positive for Bt Cry1Ac, a scan of which was also sent to the GEAC. The report was received by the GEAC on 25.04.2019. An unresponsive GEAC was reminded as late as 7.05.2019 in an email from Prof.Chaudhary to Joint Secretary,Ms. Richa Sharma, that a response was still awaited.
- 7. The report was also sent to the Haryana government, which picked up samples of the suspected Bt.Brinjal crop and sent it to the National Bureau of Plant Genetic Resources (NBPGR) in New Delhi, for testing to establish the transgenic 'Event'. A copy of a report in *The Hindu* dated 05.05.2019 on the same is annexed as **Annexure** 1
- 8. A Times of India report confirmed that tested in the labs of the National Bureau of Plant Genetic Resources, samples from the same farm have<u>tested positive as Bt.Brinjal</u>. I request you to make the full report public and provide a copy of the same

to me. A copy of the report published in *Times of India* dated 11.05.2019 is annexed as **Annexure 2** 

- 9. Simultaneously, at the request of PIL Petitioner Aruna Rodrigues, Prof. Chaudhary sent the remaining sample of brinjal fruit to SGS Pvt Ltd. (Ahmedabad), an accredited lab of GMO testing. The report dated 8.05.2019 confirms definitively, by the PCR method, that the sample is a plant GMO tested to an LOD of 0.01%. A copy of the report of SGS dated 08.05.2019 is annexed as **Annexure 3**
- 10. We now await the full NBPGR test report wherein presumably, details of the Bt.Brinjal EVENT are now known. If not, it is absolutely required that Polymerase Chain Reaction (PCR) testing is swiftly done by the government to confirm the Brinjal event. Please keep me, Prof. Chaudhary, and civil society groups informed.
- 11. In light of the above, it is also relevant for me to briefly recast for you the history of Bt. Brinjal.
  - i. In August 2008, the Bt. Brinjal Biosafety-Dossier having remained unpublished for sixteen months despite a Supreme Court order, was eventually released into the public domain when the Regulators were forced to comply with its full publication (with the raw data), which then revealed its fraudulence when examined and appraised by independent scientists of international stature. Studies said to be done were not done, as many as 36 of 37 environmental studies, leaving aside other risk assessment protocols.
  - ii. Between September 2008 and February 2009, the Bt.Brinjal developers' biosafety dossier was examined and contested by international scientists. On the basis of these appraisals and findings, we challenged the GEAC in the Supreme Court. EC II (Expert Committee) was convened in February 2009 to answer these criticisms, and the conclusions of safety based on the applicants' dossier, as well as concerns expressed from civil society. However, the GEAC accepted the recommendation of EC II., detailed in their report of October 2009, that Bt.Brinjal be approved for commercial cultivation. The GEAC steadfastly maintained that it had sufficient information to evaluate the safety of Bt.Brinjal for both human health and environmental release.
  - iii. In October 2009, however, Mr. Jairam Ramesh, the then Minister for the Ministry of Environment and Forests, following a nation-wide outcry, intervened and instituted a scientific review with public hearings over the next four months. Petitioner requested several international scientists, including those whose findings were already in the Supreme Court, to respond directly to the Minister.

iv. On 9 February 2010, as a result of the review, including public hearings, Jairam Ramesh announced an indefinite moratorium on the release of Bt brinjal. In coming to this decision, the Minister rejected GEAC's advice. After a careful consideration, the Minister concluded that:

> "it is my duty to adopt a cautious, precautionary principlebased approach and impose a moratorium on the release of Bt-brinjal, till such time independent scientific studies establish, to the satisfaction of both the public and professionals, the safety of the product from the point of view of its long-term impact on human health and environment, including the rich genetic wealth existing in brinjal in our country.

> A moratorium implies rejection of this particular case of release for the time being; it does not, in any way, mean conditional acceptance. This should be clearly understood."

- v. This is a public document of Ministry of Environment & Forests. The full Report also includes several of the appraisals by independent scientists, which were sent directly to the Minister, Mr. Jairam Ramesh. The moratorium which followed was also in large part influenced by the fact that India is the world's centre of brinjal diversity with 2500 varieties and wild species, which could certainly be contaminated.
- vi. This is what the 37<sup>th</sup> Parliamentary Standing Committee of 2012 (on GMOs) had to say on Bt.Brinjal and regulation. I quote very briefly. I would urge you to read the full recommendations of just three pages:
  - "----Convinced that these developments are not merely slippages due to oversight or human error but indicative of collusion of a worst kind, they have recommended a thorough probe into the Bt. Brinjal, matter from the beginning up to the imposing of moratorium on its commercialisation by the then Minister of Environment and Forests (I/C) on 9 February, 2010 by a team of independent scientists and environmentalists". (Recommendation Para No. 2.79).
- 12. In light of the aforementioned facts and circumstances, I call upon you to ensure that MoEF takes action to:
  - i. Uproot and destroy planted Bt brinjal in farms and seedlings in nurseries
  - ii. Undertake a scaled-up exercise of testing of seeds and plantings for which a well laid out and coordinated plan is required with members of civil society as part of a joint advisory and monitoring committee

- iii. Ascertain the supply chain from seed developers to intermediaries -- who are involved/ what is the origin of the seed supply? Stiff penalties including criminal prosecution are required.
- 13. Finally, I urge you to take note of the lessons of history of GMO regulation in India, embedded as it is in the most serious conflicts of interest and lack of expertise, where regulation has become non-transparent. For this reason, **self-assessed safety dossiers** by crop developers are kept secret by our Regulators and governing Ministries. Five official reports, including two Parliamentary Standing Committees attest to the prevailing, utterly dismal state of regulation.

May any government treat its citizens with such wilful disregard?

I therefore, must add that under the circumstances, as a critical matter of responsibility and caution, nothing short of a self-imposed moratorium is required immediately, on the environmental release of any GMO, including field trials. Of course, this excludes Bt.Cotton for which a status quo may be maintained, but no new events/or field testing should be permitted for any other GMOs.

I look forward to hearing from you.

Thank you, Yours sincerely,

PRASHANT BHUSHAN

Enclosed: (i) A copy of a report published in *The Hindu* dated 05.05.2019

(ii) A copy of the report published in Times of India dated 11.05.2019

(ii) A copy of the report of SGS dated 08.05.2019

Cc:Sh. Narendra Modi, The PMO Sh.Radha Mohan Singh, Minister of Agriculture MPs of the Lok Sabha and Rajya Sabha

#### **ANNEXURE 1**

# Suspected Bt brinjal crop being evaluated: Haryana govt official

TV Jayan, The Hindu, 05.05.2019

The Haryana government has picked up samples of suspected Bt brinjal crop from a farm belonging to a farmer in Fatehabad district in the State and has sent the same for testing at the National Bureau of Plant Genetic Resources (NBPGR) in New Delhi to establish the transgenic trait, a top State Government official said.

"We expect the result in a week or 10 days. Further action will be decided subsequently," said Arjun Singh Saini, Director-General, Horticulture. The samples were collected by a committee headed by Fatehabad Deputy Commissioner. The Horticultural Department got involved as brinjal is a horticultural crop, he said.

On April 25, activists belonging to the Coalition for a GM-Free India told a press conference here that a Fatehabad farmer has been allegedly growing Bt brinjal crop illegally in his field and preliminary tests carried out by them on the sample collected from the farm tested positive for Cry1Ac protein, produced by a gene found in a soil bacterium and used by biotechnologists to confer protection against pests that attack plants, including brinjal.

Bt brinjal is not approved for commercial cultivation in India, unlike neighbouring Bangladesh as further scientific studies are still required to assess its long-term impact on human health as well as on the environment. The anti-GM activists are worried that the introduction of the transgenic variety may genetically contaminate domesticated as well as wild varieties of brinjal for which India is a centre of diversity.

"The regulatory body Genetic Engineering Appraisal Committee behaves as a promotional body than a regulator and therein lies a major problem. This is not the first time that this is happening. This is the fourth such instance of illegal GM crop entry into India. Bt cotton was approved in India after large-scale illegal cultivation was discovered in Gujarat. The regulators turned a blind eye to illegal herbicide-tolerant cotton cultivation thereafter, while it spread to lakhs of hectares. In late 2017, when illegal GM soya cultivation was discovered in Gujarat and a complaint was lodged with the GEAC, the response was quite slow and dangerously lackadaisical," the activists said.

Any further action will depend on the outcome of the tests being carried out by NBPGR, Saini said. "If the rumours turn out to be true we may have a lot to do. Apart from destroying the suspected crop, we may have to investigate how these seedlings reached the farmer. The entire supply chain may need to be exposed. Who knows farmers in many other parts of the country may also be growing it illegally," he said.

Meanwhile, a senior scientist dealing with biosafety at the Ministry of Environment and Forests in New Delhi, said the Ministry was aware of the issue and waiting for further directions from the Secretary to take up the issue with the State government.

**SOURCE:** https://www.thehindubusinessline.com/economy/agri-business/suspected-bt-brinjal-crop-being-evaluated-haryana-govt-official/article27040585.ece

#### **ANNEXURE 2**

## Tests confirm illegal cultivation of Bt Brinjal in Haryana district

Vishwa Mohan | TNN | Updated: May 11, 2019, 4:22 IST

NEW DELHI: Plant genetic test results of a central government lab have confirmed illegal cultivation of genetically modified (GM) brinjal or Bt Brinjal in Fatehabad district of Haryana making it the first such case in India where a farmer could lay hands on transgenic seeds of any food crop whose cultivation is not allowed in the country.

India currently allows commercial production of only Bt Cotton - a non-food GM crop.

"The lab of the National Bureau of Plant Genetic Resources (NBPGR) shared its report with us on Friday. We had sent two samples to this institution on April 29. The samples have tested positive, confirming cultivation of Bt Brinjal in a farm at Ratia block in Fatehabad district," said a senior Haryana government official.

The official, on request of anonymity, told TOI that the report has now been forwarded to a committee, headed by the state chief secretary, which would take a call on method of weeding out those standing plants in nearly half acre of land and initiate a probe as to how did that particular farmer, Jeevan Saini, procure transgenic variety of seeds or seedlings.

The probe will examine all the angles including a suspicion of it being smuggled from Bangladesh where the cultivation of Bt Brinjal is allowed. Many farm activists fear that the smuggling route could allegedly be used by vested interests to introduce GM food crop in India. Activists are against transgenic crops, apprehending their hazardous impact on human health, environment and overall biodiversity.

Though India's biotech regulator - Genetic Engineering Appraisal Committee (GEAC) - had found this transgenic variety safe and even given its nod for cultivation in October 2009, the then government had placed an indefinite moratorium on its commercial release in February 2010 in the wake of strong protests from farm activists against growing transgenic food crops in India.

It is learnt that the probe will eventually reach all relevant institutions and the Maharashtra Hybrid Seeds Company Pvt Ltd (Mahyco), which developed the Bt Brinjal variety and conducted its trials in India before moratorium on its commercial release.

After the moratorium on release of Bt Brinjal for cultivation in India in 2010, GEAC had recommended depositing of Bt Brinjal seeds at the NBPGR - an institution of the Indian Council of Agricultural Research (ICAR) under agriculture ministry. It was also mentioned that Mahyco will bear the full cost of storage and security till the moratorium is lifted.

"To this effect, a tripartite agreement was drafted between Union environment ministry, Mahyco and NBPGR. However, the agreement did not materialise and not a single seed of Bt Brinjal, developed by Mahyco, was deposited with the NBPGR," said Kuldeep Singh, director of the NBPGR.

#### **ANNEXURE 2**

Singh told TOI that since not a single seed was deposited with the ICAR institution, there was no question of such seeds being leaked out from the bureau. He said his statement was based on "actual facts and records available at NBPGR".

Asked about the company's internal probe, if any, to find out whether its trial materials or samples of Bt Brinjal in India are fully accounted for, the Mahyco spokesperson said, "We have completed the regulatory trials of Bt Brinjal in full compliance with the protocols in 2009, and all the materials used for the trials were accounted for in compliance with the regulatory guidelines."

The issue of illegal cultivation of Bt Brinjal in Haryana was for the first time brought out in open by a group of farm activists of the Coalition for a GM-Free India and experts from other NGOs here last month.

Based on a tip off, they had collected samples from the Fatehabad farm and got a test done in a private lab. Since the samples tested positive for Bt Cry1Ac protein, they demanded immediate action and investigation into the case of illegal cultivation of unauthorised Bt Brinjal in the state.

### **Top Comment**

Every illegal thing is smuggled from Bangladesh. The worse imports are illegal Bangladeshis and Rohingyas, imported by Mamta Banerjee, Congress and Mayawati. Build a Israel type wall around Bangladesh.

See All CommentsAdd comment

One of the experts, Rajinder Chaudhary, a retired professor of the M D University, Rohtak, who was part of the group, said, "The matter should be probed thoroughly. Since the Fatehabad farmer claimed to have procured seedlings from Dabwali in Sirsa district along Haryana-Punjab border, there is strong possibility of it being cultivated in other areas of both these states."

Chaudhary told TOI that it could be a organised attempt by vested interests who might want to introduce cultivation of Bt Brinjal through the backdoor in the absence of a green signal from the government. "It is also a failure of the GEAC for not creating extensive awareness about hazards of Bt Brinjal and why a moratorium had been placed on the same. If civil society groups can get to know about this, why can't they alert government agencies?" he asked.

SOURCE: https://timesofindia.indiatimes.com/india/tests-confirm-illegal-cultivation-of-bt-brinjal-in-haryana-district/articleshow/69276147.cms



Sample Described by Customer as

## **Test Report**

## Sample Not Drawn By SGS India Pvt. Ltd.



Certificate No.: TC-5378

Sample / Report No :

AA19-002674.001

Date

. 08/05/2019

JOE No

AA19-002674

Report Control No

· AAR0000303144

ULR No

TC537819000000790F

: BRINJAL

Client Name

: Aruna Rodrigues

Client Address

Bungalow 69, MHOW CANTT MP

City

: Mhow

Postal Code

: 453441

State

: Madhya Pradesh

Country

· INDIA

Sample Type

: BRINJAL

Received Completed : 2/5/2019 : 6/5/2019

Completed Sample Qty.

: 600 GM

Sample Condition

. UNSEALED & SATISFACTORY

Section Code

: GMO

Discipline

: Biological Testing

Food and Agricultura

: Vegetables & vegetable products

NABLCode

: TC537819000000790F

Test Start/End Date : 02/05/2019 - 06/05/2019

State of Detection	Result	Method
35s Promoter Sequence	Detected	ISO: 21569: 2005 Amd:1-2013
NoS Terminator sequence	Not Detected	ISO: 21569: 2005 Amd:1-2013
Plant Chloro Plast Sequence	Detected	ISO: 21569: 2005 Amd:1-2013
FMV	Not Detected	ISO: 21569: 2005 Amd:1-2013

\*\*\*End of Report\*\*\*

This is a computer generated report hence a signature is not available. An original signed hardcopy can be provided upon request at Purvi.shah@sqs.com

Remark:

Detection Limit 0.01%

State of Conclusion: The sample was analyzed for GMO presence or absence by Real Time qualitative PCR (Polymerase chain reaction) using 35s (promoter), NOS (terminator), and FMV (promoter) sequences as GMO specific primers.

According to the test, plant GMO was detected in the sample for 35s (promoter).

### Page 1 of 1

#### LEGEND

\* Not covered under NABL scope; BLQ - Below limit of quantification; DL - Detection Limit; BDL - Below detection limit; ND - Not Detected; NA - Not Applicable; LOQ - Limit of Quantification; LOD - Limit of Detection.

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Laboratory Services, 201, Sumel-II, Nr. Gurudwara, Thaltej Cross Road , S.G. Highway, Ahmedabad-380054, Phone: +91-79-6160 3100, Fax: 6160 3111

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