

# 356043Soybean

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**Organisation: Gröna Partiet**  
**City: Brännö**  
**Country: Sweden**  
**Type: Non Profit Organisation**  
**Public: Yes**

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## **a. Assessment:** **Others**

No one knows how this will affect the plants, the animals nor the human race.

No one knows how these experiments-of-life will spread around the globe and contaminate pure plants with their might-be-toxic genes.

Most of us knows about the patent-issues involved in this industry which are deeply unethical. Just look at Asia where, mainly Monsanto, "made" hundreds of thousands of farmers committing suicide since these corporations have such offensive legal approach to their customers/victims. To me, they show no sense of good-will or what so ever, whatever they tell us. They're even suing ORGANIC FARMERS who's farms got contaminated with patented GMO-pollen!

There is no lack of food globally, there is just a very unfair share-out. Only in EU we throw away good-to-eat food enough for the billion of starving people on earth. So there is no really need for starting with these blind experiments at all. Hey, you should start looking at the organic farming market instead - and help them! Put all of your subsidies into sustainable framing and development. You all know that pesticides and herbicides destroys and kills the earth, and in the end our selves.

EU's purpose is to help the people in Europa, not harm them!

Come on, act smart before its gone to long in the wrong direction. It will get harder to turn for every day, and more and more embarrassing. Please. For me, for you and for our future generations.

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## **3. Environmental risk assessment**

No one knows for sure!

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## **4. Conclusions and recommendations**

Help organic farmers, it's been sustainable through all history. Pesticides, herbicides and

fertilizers have just shown being toxic, and very soon the phosphorus and other minerals will run out. You all know that, so act like you know it!

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**Organisation: Board for Gene Technology**  
**City: Helsinki**  
**Country: Finland**  
**Type: Regulatory body**  
**Public: Yes**

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**a. Assessment:**

#### **4. Conclusions and recommendations**

The Finnish Board for Gene Technology is delighted to note that the EFSA scientific opinion recommends appropriate management systems for restricting soybean seeds from entering cultivation as well as - within general surveillance - introduction of management systems for active monitoring of feral soybean plants in areas where soybean spillage and plant establishment are likely to occur.

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**Organisation: private**  
**City:**  
**Country: Germany**  
**Type: Others...**  
**Public: Yes**

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**a. Assessment:**

#### **5. Others**

Respected people,

as a German physicist with family I am very angry at the shadow lobbying by GM gang and request a complete rejection of the proposal.

Thank You

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**Organisation: private**  
**City:**

**Country: Germany**

**Type: Others...**

**Public: Yes**

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**a. Assessment:**

**5. Others**

Respected people,

as a German physicist with family I am very angry at the shadow lobbying by GM gang and request a complete rejection of the proposal.

Thank You

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**Organisation: private**

**City:**

**Country: Germany**

**Type: Others...**

**Public: Yes**

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**a. Assessment:**

**5. Others**

Respected people,

as a German physicist with family I am very angry at the shadow lobbying by GM gang and request a complete rejection of the proposal.

Thank You

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**Organisation: none**

**City: Tullins**

**Country: France**

**Type: Individual**

**Public: Yes**

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**a. Assessment:**

**Molecular characterisation**

Possible bt protein

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## **b. Food Safety Assessment:**

### **Toxicology**

To date no tests have been done that prove GMO products to be safe for human consumption. Tests on GMO corn with the dangerous bt protein have shown a statistically significant increase in kidney and liver damage.

Health effects from kidney and liver failure would impact health costs requiring more hospital space, the payment of health care costs, and reduce the availability of transplant donors.

Possibly contains dangerous bt protein.

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### **Allergenicity**

Unknown.

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### **Nutritional assessment**

No nutritional benefit exists for GMO crops over natural crops. The inverse however is true. GMO corn crops contain a harmful bt protein.

The right of people to know what they are consuming cannot be ignored. These products are not labeled, have not been sufficiently tested, what tests have been done prove their negative impact to health.

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### **Others**

From the Monsanto site:

"Monsanto seeks intellectual property protection, including patents and often plant breeders' rights, to cover many of the traits and seed varieties we develop."

Since genetically modified seeds cannot be contained within the area they are grown in if grown outside, then contamination gives the GMO manufacturer rights over unassociated farmers' crops whether intentional or not.

See Monsanto vs. Schmeiser - Canada "Schmeiser said he had no interest in planting genetically modified seed. The seed blew into his fields from a neighbor's crop, he said, and rather than profiting from Monsanto's technology, it actually contaminated and ruined a seed Schmeiser had cultivated for 50 years." - Wired Magazine

In such a way contamination from GMO crops threatens the very existence of the currently very popular Organic market, and the fledgling No GMO market. (Carrefour)

Soy is being used as a foothold for a larger insertion into the European agricultural market.

As of this writing no labels are required for GMO products whether whole or in part. This impedes the public from being able to choose whether or not to consume GMO. If we were allowed to know whether or not a product was GMO all of those products would fail in the market because people want to eat healthy food.

Because of the risks GMO foods present to the human organism I will no longer buy soy drink, soy tofu, soy desert (which I have up until now) or anything made from any of the main GMO crops which are soy, corn, sugar beets, and potatoes.

"Dr. Gilles-Eric Seralini, a French researcher from the University of Caen, was tasked with examining the data and providing a review. While stopping short of declaring GM crops to be toxic, he did emphasize that chronic negative effects were apparent and that there were "statistically significant" indications of kidney and liver damage." - Natural News

Do not give up our right to eat non GMO food. If you let them come into Europe even an inch they will take all of it.

GMO seed forces farmers to buy seeds year after year because they do not reproduce as well. This will ruin European agriculture as a whole by putting farmers first into debt and then out of business entirely.

Even the USA has denied patents on the grounds that they were against the public interest. In the same way allowing GMO crops into Europe is against the public interest for health safety as well as the European agricultural economy.

It is your job to look out for what is right for the European people not for the interests of one multinational company.

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### **3. Environmental risk assessment**

Contamination from cross-pollination from neighboring crops to organic or other non-GMO crops would cause loss of income to the farmer, loss of tax revenues to the state. Insurance claims would increase as well as the likelihood of governments required to pay damages.

The loss of the sovereignty of a country over its food rights means that one multinational corporation, Monsanto, would have reproductive ownership rights to all seed in Europe. This monopoly on soy and other seeds would result in price fixing, rationing or refusal or inability to sell by the company to a county or countries. The GMO company would then be in a position to blackmail governments.

There would be by this time little uncontaminated seed to supply the farmers. People would starve. You say no, it is only soy there are other grains. Well let me tell you now. Soy is just the beginning, the door opener. The opening of the door that will flood the European market with seed that one giant multinational monopoly owns.

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#### **4. Conclusions and recommendations**

Soy is only a foothold product. Contamination cannot be contained and has been used offensively. Allowing the sale of GMO seed in Europe will impoverish farmers, negatively impact the health of the population and enslave the European governments to a multinational corporation. It will cost far more than it is worth.

Do not allow GMO crops into Europe. It is the only way to preserve country specific and European sovereignty over food rights; Preserve the health of the European nations; Avoid costly legal battles to regain rights; and preserve the European agricultural economy.

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#### **5. Others**

The profits from the sale of GMO grain would most likely go to the country of origin, namely the United States. As far as I am aware no country in Europe requires the profits from the sale of grain to remain in the country where it is sold. Consequently, large sums would be transferred regularly from Europe to the United States creating a drain on the European economy.

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#### **6. Labelling proposal**

All GMO products need to be labeled. Whether the product is a GMO product in its entirety or a single ingredient is from a GMO crop the whole product must be labeled GMO. Allowing this poison into Europe is a crime. The bare minimum requirement other than a complete ban on GMO products entering Europe is to label every single one at the cost of the manufacturer.

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**Organisation: Testbiotech**  
**City: München**  
**Country: Germany**  
**Type: Non Profit Organisation**  
**Public: Yes**

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##### **a. Assessment:**

**Comparative analysis (for compositional analysis and agronomic traits and GM phenotype)**

Since these soybeans cannot be regarded as being substantially equivalent, EFSA's guidance requires a comprehensive risk assessment. This risk assessment described by EFSA as an

alternative to its standard comparative risk assessment, has neither been defined by EFSA nor was it explicitly applied in this case.

Besides the changes in composition as confirmed by EFSA, compositional analysis showed several other significant differences as compared to conventional counterparts. But no investigations were conducted to determine changes in plant gene activity or metabolic profile under various defined environmental conditions. No investigation under defined environmental conditions was conducted to determine interactions between the genome and the environment. Functional stability of the transgene under various defined environmental conditions was not shown. Genetic stability was only considered in the context of the hereditary of the gene constructs to following generations.

In agronomic parameters, several significant differences were identified in comparison to the control plants. When analysed by site, statistically significant differences for seedling vigour and plant height were observed in several trials. The differences were not consistent over all field trials. The reason for this might be that these differences only emerge under particular environmental conditions. Several investigations show that genetically engineered plants can exhibit unexpected reactions under stress conditions (see for example: Matthews et al., 2005). Significant differences in agronomic performances should have been investigated in relation to interactions between the genome and the environment under various defined environmental conditions, performing a stress test to investigate its genetic stability. In this case, field trials even were only conducted during one cultivation period.

Matthews D, Jones H, Gans P, Coates St & Smith LMJ (2005) Toxic secondary metabolite production in genetically modified potatoes in response to stress. *Journal of Agricultural and Food Chemistry*, 10.1021/jf050589r.

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## **b. Food Safety Assessment: Toxicology**

Soybean 356043 is one of the first transgenic crop application filed by industry which does not fulfill the criterion of so-called substantial equivalence (see also <http://cera-gmc.org/>). Since these soybeans cannot be regarded as being substantially equivalent, EFSA's guidance requires a comprehensive risk assessment (EFSA 2011). This risk assessment described by EFSA as an alternative to its standard comparative risk assessment, has neither been defined by EFSA nor was it explicitly applied in this case.

The gat gene produces two aminoacids as by-products (acetyl-aspartate and acetyl-glutamate). They are present in soybean 356043 at 230 times the levels found in conventional soybean. Acetyl-aspartate is usually found in the mammalian nervous system and is neurotoxic in high doses.

Further, the gat-gene produces new metabolites (N-acetyl AMPA) that are not present in other glyphosate tolerant soybeans such as the Roundup Ready soybean EFSA (2009). AMPA and N-acetyl-AMPA are both considered to have toxicity similar to that of glyphosate (brand names such as Roundup). In this context, the additive POEA also has to be taken into account because it is even more toxic than glyphosate in the plants. The toxicity of glyphosate is currently under revision by the EU. Several experts are warning against higher toxicity than expected (Antonioni, et al., 2010; Benachour, et al., 2007; Paganelli et al., 2010; PAN AP 2009; Then 2011). These issues were not discussed by EFSA.

Toxicity tests that were conducted with acetyl-aspartate and acetyl-glutamate and soybean 356043 showed numerous significant findings that were dismissed by EFSA. A 90 day feeding study with rats showed significant differences compared to the control group in some blood parameters. A 42 day feeding study with chickens showed higher liver weight in males fed meal from soybean 356043 treated with the target herbicides. Repeated dose studies with purified GAT and HRA proteins showed numerous significant findings.

Despite these findings and uncertainties, no further studies were requested. No investigations were conducted to assess the impact of a permanent ingestion of these plants on the intestinal microbial composition in human and animals. There have been no feeding studies with the plants over the whole lifetime of animals and none including following generations. No endocrinological studies were performed to investigate potential impacts on the reproductive system, despite the fact that soy is producing hormonal active substances that might have been changed unintentionally. No assessment of combinatorial effects with other genetically engineered plants used in food and feed was conducted.

Antoniou, M., Brack, P., Carrasco, A., Fagan, J., Habib, M., Kageyama, P., Leifert, C., Nodari, R. O., Pengue W., 2010, GM Soy: Sustainable? Responsible?, GLS Bank & ARGE gentechnikfrei, [http://www.gmwatch.eu/?option=com\\_content&view=article&id=12479](http://www.gmwatch.eu/?option=com_content&view=article&id=12479)

Benachour, N., Siphatur, H., Moslemi, S., Gasnier, C., Travert, C., Seralini, G. E. (2007) Time- and dose-dependent effects of Roundup on human embryonic and placental cells, *Arch Environ Contam Toxicol* 53:126-33.

Benbrook, C. (2009) Impacts of Genetically Engineered Crops on Pesticide Use: The First Thirteen Years. [www.organic-center.org/reportfiles/13Years20091116.pdf](http://www.organic-center.org/reportfiles/13Years20091116.pdf)

EFSA (2009) Modification of the residue definition of glyphosate in genetically modified maize grain and soybeans, and in products of animal origin on request from the European Commission. *EFSA Journal* 2009; 7(9):2009. [42 pp.]. doi:10.2903/j.efsa.2009.1310. Available online: [www.efsa.europa.eu](http://www.efsa.europa.eu)

Paganelli, A., Gnazzo, V., Acosta, H., López, S. L., Carrasco, A. E. (2010) Glyphosate-based herbicides produce teratogenic effects on vertebrates by impairing retinoic acid signalling. *Chem. Res. Toxicol.*, August 9. [pubs.acs.org/doi/abs/10.1021/tx1001749](http://pubs.acs.org/doi/abs/10.1021/tx1001749)

PAN AP, Pesticide Action Network Asian Pacific (2009) Monograph on Glyphosate, <http://www.panap.net/en/p/post/pesticides-info-database/115>

Then, C., 2011, Vorsicht „Giftmischer“: Gentechnisch veränderte Pflanzen in Futter-und Lebensmitteln, ein Testbiotech-Report, [http://www.testbiotech.de/sites/default/files/Testbiotech\\_Giftmischer\\_April\\_2011.pdf](http://www.testbiotech.de/sites/default/files/Testbiotech_Giftmischer_April_2011.pdf)

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## Others

No investigation was conducted for DNA traces in animal tissue after feeding.

No plan for surveillance as required by European regulation was made available that would allow identification of particular health impacts that might be related to the use of these genetically engineered plants in food and feed.



Monitoring of health effects has to include the risks associated with the spraying of glyphosate formulations and their residues in the plants.

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#### **4. Conclusions and recommendations**

The opinion of EFSA should be rejected.

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