GMO Dangers

Genetically modified foods ……..

Are they safe?

The *American Academy of Environmental Medicine* (AAEM) doesn't think so. The Academy reported that "*Several animal studies indicate serious health risks associated with GM food*", including infertility, immune problems, accelerated aging, faulty insulin regulation, and changes in major organs and the gastrointestinal system. The AAEM asked physicians to advise patients to avoid GM foods.

Before the FDA decided to allow GMOs into food without labeling, **FDA scientists** had repeatedly warned that GM foods can create unpredictable, hard-to-detect side effects, including allergies, toxins, new diseases, and nutritional problems. **They urged long-term safety studies, but were ignored**.

* Since then, findings include:

· **Thousands** of sheep, buffalo, and goats in India **died** after grazing on Bt cotton plants

· Mice eating GM corn for the long term had **fewer, and smaller, babies**

· More than half the babies of mother rats fed GM soy **died within three weeks**, and were smaller

· **Testicle** cells of mice and rats on a GM soy **change** significantly

· By the third generation, most GM soy-fed hamsters **lost the ability to have babies**

· Rodents fed GM corn and soy showed immune system responses and signs of toxicity

· Cooked GM soy contains as much as **7-times** the amount of a **known soy allergen**

· **Soy allergies skyrocketed by 50%** in the UK, soon after GM soy was introduced

· The stomach lining of rats fed GM potatoes showed **excessive cell growth**, a condition that may lead to cancer.

· Studies showed organ lesions, altered liver and pancreas cells, changed enzyme levels, etc.

* Unlike safety evaluations for drugs, there are no human clinical trials of GM foods. The only published human feeding experiment revealed that the genetic material inserted into GM soy transfers into bacteria living inside our intestines and continues to function. This

means that long **after we stop eating GM foods, we may still have their GM proteins produced continuously inside us**. This could mean:

· If the antibiotic gene inserted into most GM crops were to transfer, it could create super diseases, resistant to antibiotics

· If the gene that creates Bt-toxin in GM corn were to transfer, it might turn our intestinal bacteria into living pesticide factories.

* Although no studies have evaluated if antibiotic or Bt-toxin genes transfer, that is one of the key problems. The safety assessments are too superficial to even identify most of the potential dangers from GMOs. See our Health Risks brochure and State of the Science report for more details and citations:

Health Risks: http://www.herbogeminis.com/IMG/pdf/ilt_gmo_health_risks.pdf

State of the Science:
http://www.herbogeminis.com/IMG/pdf/ilt_state_of_the_science.pdf

*Recent health studies provide growing evidence of harm from GMOs:

1) GM Corn Damages Liver and Kidneys

2) "Meat Raised on GM Feed is Different

3) Roundup Could Cause Birth Defects

4) Genetically Modified Soy Linked to Sterility

1) Study Proves Three Monsanto Corn Varieties' Noxiousness to the Organism

Friday ***11 December 2009***

by: Le Monde with AFP
(http://www.lemonde.fr/planete/article/2009/12/11/une-etude-prouve-la-nocivite-pour-l-organisme-de-trois-mais-monsanto_1279552_3244.html#ens_id=1269926) | ***Le Monde***
(http://www.lemonde.fr/planete/article/2009/12/11/une-etude-prouve-la-nocivite-pour-l-organisme-de-trois-mais-monsanto_1279552_3244.html#ens_id=1269926)

GMO cornfields in Canada. A new European study "*clearly reveals ... new side effects linked with GM maize consumption*" affected the liver and kidneys, but also other organs for three Monsanto GMO corn varieties (Photo: DawnOne).

A study published in the *International Journal of Biological Sciences* (http://www.biolsci.org/v05p0706.htm) demonstrates the toxicity of three genetically modified corn varieties from the American seed company ***Monsanto***, the Committee for Independent Research and Information on Genetic Engineering (Criigen, based in Caen), which participated in that study, announced Friday, December 11.

"*For the first time in the world, we've proven that GMO are neither sufficiently healthy nor proper to be commercialized*. [...] *Each time, for all three GMOs, the kidneys and liver, which are the main organs that react to a chemical food poisoning, had problems*", indicated Gilles-Eric Séralini, an expert member of the Commission for Biotechnology Reevaluation, created by the EU in 2008.

Caen and Rouen University researchers, as well as Criigen researchers, based their analyses on the data supplied by Monsanto to health authorities to obtain the green light for commercialization, but they draw different conclusions after new statistical calculations. According to Professor Séralini, the health authorities based themselves on a reading of the conclusions Monsanto has presented and not on conclusions drawn from the totality of the data. The researchers were able to obtain complete documentation following a legal decision.

"*Monsanto's tests, effected over 90 days, are obviously not of sufficient duration to be able to say whether chronic illnesses are caused. That's why we ask for tests over a period of at least two years*", explained one researcher. Consequently, the scientists demand a "*firm prohibition*" on the importation and cultivation of these GMOs.

These three GMOs (**MON810**, **MON863** and **NK603**) "*are approved for human and animal consumption in the EU and especially the United States*", notes Professor Séralini. "*MON810 is the only one of the three grown in certain EU countries* (especially ***Spain***); *the others are imported*", he adds. A meeting of EU ministers over MON810 and NK603 is scheduled Monday.

Translation: Truthout French Language Editor Leslie Thatcher.

COMMERCE COMMISSION

18 November 2009

2) Inghams warned over GM free chicken claims

The poultry producer Inghams Enterprises (NZ) Pty. Limited (Inghams) has received a warning from the Commerce Commission that it risked breaching the Fair Trading Act with claims that its chickens contained no genetically modified ingredients.

The Commission has completed an investigation into allegations that claims made in consumer and trade magazines and on television between January 2008 and June 2009 were false or misleading under the Fair Trading Act.

In the advertising, Inghams stated that its chicken products contained "*No Â … GM ingredients*" and "*have no added hormones, GM ingredients or artificial colours*" when the chickens had been fed soya feed which comprised 13 per cent genetically modified soy. Inghams also stated on its website that "*Inghams GM policy is clear. Our poultry contains no GM content and are not genetically modified*".

The Commission engaged Jack Heinemann, Professor of Genetics and Molecular biology at Canterbury University to research and report on the question of whether animals exposed to feed containing genetically modified material (GM Feed) do in fact contain 'no GM ingredients'.

In his report, a copy of which is available on the Commission's website, Professor Heinemann concluded, "*The cumulative strength of the positive detections reviewed Â … leave me in no reasonable uncertainty that GM plant material can transfer to animals exposed to GM feed in their diets or environment, and that there can be a residual difference in animals or animal-products as a result of exposure to GM feed Â …".*

"*Many consumers wish to avoid food products that contain GM ingredients and this is why food manufacturers like to position themselves as GM free. However consumers ought to be able to rely on the statements made in advertising*", said Commerce Commission Director Fair Trading, Adrian Sparrow.

"*To consumers, perception is everything. Someone buying a chicken that is promoted as containing no GM ingredients, would not expect that the chickens had been fed on 13 per cent GM soya feed*", said Mr Sparrow.

Inghams ceased the advertising once the Commission began its investigation. The Commission has decided to issue a warning in this instance but will continue to monitor Inghams' representations on this subject.

"*The message to all food manufacturers is clear -consumers want to be able to make informed choices. Breaches of the Fair Trading Act undermine consumer confidence in your products, so compliance, through honest representations in labelling and advertising, is actually good for business*", said Mr Sparrow.

Background

The Fair Trading Act. Only the courts can decide if the Fair Trading Act has actually been breached. Breaches of the Fair Trading Act may result in prosecution in court. Companies found guilty of breaching provisions of the Fair Trading Act may be fined up to $200,000 and individuals up to $60,000.

Fair Trading Act Compliance resources are available on the Commerce Commission's website www.comcom.govt.nz under Developing a Fair Trading Compliance Programme (http://www.comcom.govt.nz/fair-trading-compliance-programmes/)

Related Documents

Download 'Report on animals exposed to GM ingredients in animal feed - Professor Jack Heinemann': http://www.herbogeminis.com/IMG/pdf/animals_exposed_to_gm_ingredients.pdf

LATIN AMERICAN
Herald Tribune

Caracas, Thursday October 14,2010

HOME | *Argentina*

3) Herbicide Used in Argentina Could Cause Birth Defects

The herbicide used on genetically modified soy –Argentina's main crop– causes brain, intestinal and heart defects in fetuses, according to the results of a scientific investigation.

BUENOS AIRES – The herbicide used on genetically modified soy –Argentina's main crop– could cause brain, intestinal and heart defects in fetuses, according to the results of a scientific investigation released Monday.

Although the study "*used amphibian embryos*", the results "*are completely comparable to what would happen in the development of a human embryo*", embryology professor **Andres Carrasco**, one of the study's authors, told *Efe*.

"*The noteworthy thing is that there are no studies of embryos on the world level and none where glyphosate is injected into embryos*", said the researcher with the *National Council for Scientific and Technical Research* and director of the *Molecular Embryology Laboratory*.

The doses of herbicide used in the study "*were much lower than the levels used in the fumigations*", and so the situation "*is much more serious*" that the study suggests because "*glyphosate does not degrade*", Carrasco warned.

In Argentina, farmers each year use between 180 and 200 million liters of glyphosate, which was developed by the multinational ***Monsanto*** and sold in the United States under the brand name ***Roundup***.

Carrasco said that the research found that "*pure glyphosate, in doses lower than those used in fumigation, causes defects ...* (and) *could be interfering in some normal embryonic development mechanism having to do with the way in which cells divide and die*".

"*The companies say that drinking a glass of glyphosate is healthier than drinking a glass of milk, but the fact is that they've used us as guinea pigs*", he said.

He gave as an example what occurred in **Ituzaingo**, a district where 5.000 people live on the outskirts of the central Argentine city of Cordoba, where over ***the past eight years about 300 cases of cancer associated with fumigations with pesticides*** have turned up.

"*In communities like Ituzaingo it's already too late, but we have to have a preventive system, to demand that the companies give us security frameworks and, above all, to have very strict regulations for fumigation, which nobody is adhering to out of ignorance or greed*", he said.

The researcher also said that, apart from the research he carried out, "*there has to be a serious study*" on the effects of glyphosate on human beings, adding that "*the state has all the mechanisms for that*".

In the face of the volley of judicial complaints related to the disproportionate use of agrochemicals in the cultivation of GM soy, last February the Health Ministry created a group to investigate the problem in four Argentine provinces.

Argentina is the world's third-largest exporter of soy.

4) Genetically Modified Soy Linked to Sterility, Infant Mortality

"*This study was just routine*", said Russian biologist **Alexey V. Surov**, in what could end up as the understatement of this century. Surov and his colleagues set out to discover if Monsanto's genetically modified (GM) soy, grown on 91% of US soybean fields, leads to problems in growth or reproduction. What he discovered may uproot a multi-billion dollar industry.

After feeding hamsters for two years over three generations, those on the GM diet, and especially the group on the maximum GM soy diet, showed **devastating results**. By the third generation, most GM soy-fed hamsters lost the ability to have babies. They also suffered slower growth, and a high mortality rate among the pups.

And if this isn't shocking enough, some in the third generation even had hair growing inside their mouths—a phenomenon rarely seen, but apparently more prevalent among hamsters eating GM soy.

The study, jointly conducted by Surov's *Institute of Ecology and Evolution* of the *Russian Academy of Sciences* and the *National Association for Gene Security*, is expected to be published in three months (July 2010)—so the technical details will have to wait. But Surov sketched out the basic set up for me in an email.

He used Campbell hamsters, with a fast reproduction rate, divided into 4 groups. All were fed a normal diet, but one was without any soy, another had non-GM soy, a third used GM soy, and a fourth contained higher amounts of GM soy. They used 5 pairs of hamsters per group, each of which produced 7-8 litters, totally 140 animals.

Surov told The Voice of Russia (http://english.ruvr.ru/2010/04/16/6524765.html): "*Originally, everything went smoothly. However, we noticed quite a serious effect when we selected new pairs from their cubs and continued to feed them as before. These pairs' growth rate was slower and reached their sexual maturity slowly*".

He selected new pairs from each group, which generated another 39 litters. There were 52 pups born to the control group and 78 to the non-GM soy group. In the GM soy group, however, only 40 pups were born. And of these, 25% died. This was a fivefold higher death rate than the 5% seen among the controls. Of the hamsters that ate high GM soy content, only a single female hamster gave birth. She had 16 pups; about 20% died.

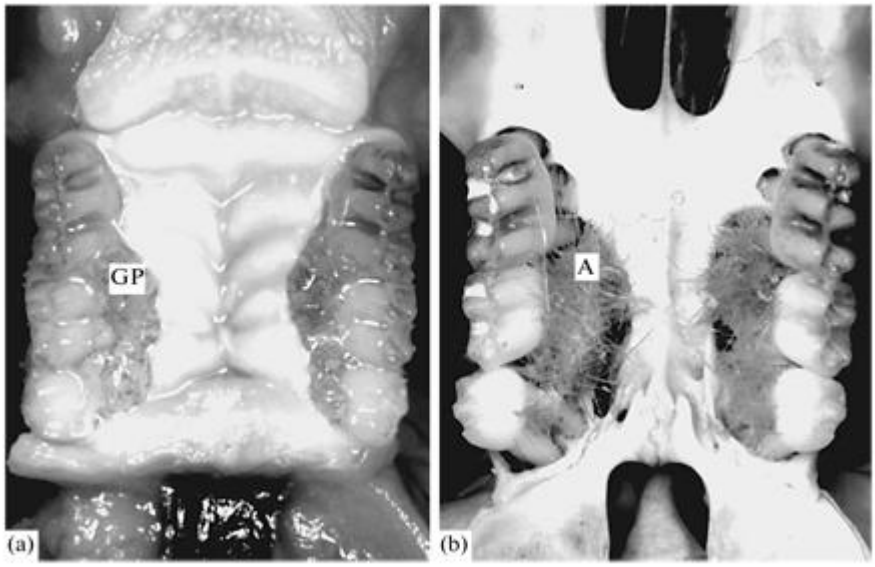
Surov said "*The low numbers in F2 [third generation] showed that many animals were sterile*".

The published paper will also include measurements of organ size for the third generation animals, including testes, spleen, uterus, etc. And if the team can raise sufficient funds, they will also analyze hormone levels in collected blood samples.

Hair Growing in the Mouth

Earlier this year, Surov co-authored a paper in *Doklady Biological Sciences* showing that in rare instances, hair grows inside recessed pouches in the mouths of hamsters.

"*Some of these pouches contained single hairs; others, thick bundles of colorless or pigmented hairs reaching as high as the chewing surface of the teeth. Sometimes, the tooth row was surrounded with a regular brush of hair bundles on both sides. The hairs grew vertically and had sharp ends, often covered with lumps of a mucous*".



"*(a) The external appearance of the oral cavity. Gingival pouches (GP) with thick bundles of hair growing from their mucous lining are clearly seen. (b) Perforated bone tissue of the teeth of an adult Ph. campbelli. Numerous hollows are seen. A, hair*".

From ***A. S. Baranov, O. F. Chernova, N. Yu. Feoktistova, and A. V. Surov***: "*A New Example of Ectopia: Oral Hair in Some Rodent Species*", *Doklady Biological Sciences*, 2010, Vol. 431, pp. 117–120, Original Russian Text © A.S. Baranov, O.F. Chernova, N.Yu. Feoktistova, A.V. Surov, 2010, published in Doklady Akademii Nauk, 2010, Vol. 431, No. 4, pp. 559–562.

At the conclusion of the study, the authors surmise that such an astounding defect may be due to the diet of hamsters raised in the laboratory. They write: "*This pathology may be exacerbated by elements of the food that are absent in natural food, such as genetically modified (GM) ingredients (GM soybean or maize meal) or contaminants (pesticides, mycotoxins, heavy metals, etc.)".* Indeed, the number of hairy mouthed hamsters was much higher among the third generation of GM soy fed animals than anywhere Surov had seen before.

Preliminary, But Ominous

Surov warns against jumping to early conclusions. He said: "*It is quite possible that the GMO does not cause these effects by itself*". Surov wants to make the analysis of the feed components a priority, to discover just what is causing the effect and how.

In addition to the GMOs, it could be contaminants, he said, or higher herbicide residues, such as ***Roundup***. There is in fact much higher levels of Roundup on these beans; they're called "***Roundup Ready***". Bacterial genes are forced into their DNA so that the plants can tolerate Monsanto's Roundup herbicide. Therefore, GM soy always carries the double threat of higher herbicide content, couple with any side effects of genetic engineering.

Years of Reproductive Disorders from GMO-Feed

Surov's hamsters are just the latest animals to suffer from reproductive disorders after consuming GMOs. In 2005, **Irina Ermakova**, also with the *Russian National Academy of Sciences*, reported that more than half the babies from mother rats fed GM soy died (http://www.responsibletechnology.org/) within three weeks. This was also five times higher than the 10% death rate of the non-GMO soy group. The babies in the GM group were also smaller (see photo) and could not reproduce.

In a telling coincidence, after Ermakova's feeding trials, her laboratory started feeding *all* the rats in the facility a commercial rat chow using GM soy. Within two months, the infant mortality facility-wide reached 55%.

When Ermakova fed male rats GM soy, their testicles changed from the normal pink to dark blue!

Italian scientists similarly found changes in mice testes (http://www.herbogeminis.com/IMG/pdf/ejh.pdf), including damaged young sperm cells. Furthermore, the DNA of embryos from parent mice fed GM soy functioned differently.

An Austrian government study published in November 2008 showed that the more GM corn was fed to mice, the fewer the babies they had (http://www.herbogeminis.com/IMG/pdf/biological_effects_in_mice.pdf), and the smaller the babies were.

Central Iowa Farmer Jerry Rosman also had trouble with pigs and cows becoming sterile. Some of his pigs even had false pregnancies or gave birth to bags of water. After months of investigations and testing, he finally traced the problem to GM corn feed. Every time a newspaper, magazine, or TV show reported Jerry's problems, he would receive calls from more farmers complaining of livestock sterility on their farm, linked to GM corn.

Researchers at *Baylor College of Medicine* accidentally discovered that rats raised on corncob bedding "*neither breed nor exhibit reproductive behavior* (http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1240732/)". Tests on the corn material revealed two compounds that stopped the sexual cycle in females "*at concentrations approximately two-hundredfold lower than classical phytoestrogens*". One compound also curtailed male sexual behavior and both substances contributed to the growth of breast and prostate cancer cell cultures. Researchers found that the amount of the substances varied with GM corn varieties (http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1314908/). The crushed corncob used at Baylor was likely shipped from central Iowa, near the farm of Jerry Rosman and others complaining of sterile livestock.

In Haryana, India, a team of investigating veterinarians report that buffalo consuming GM cottonseed suffer from infertility, as well as frequent abortions, premature deliveries, and prolapsed uteruses. Many adult and young buffalo have also died mysteriously.

Denial, Attack and Canceled Follow-up

Scientists who discover adverse findings from GMOs are regularly attacked, ridiculed, denied funding, and even fired. When Ermakova reported the high infant mortality among GM soy fed offspring, for example, she appealed to the scientific community to repeat and verify her preliminary results. She also sought additional funds to analyze preserved organs. Instead, she was attacked and vilified. Samples were stolen from her lab, papers were burnt on her desk, and she said that her boss, under pressure from his boss, told her to stop doing any more GMO research. No one has yet repeated Ermakova's simple, inexpensive studies.

In an attempt to offer her sympathy, one of her colleagues suggested that maybe the GM soy will solve the over population problem!

Surov reports that so far, he has not been under any pressure.

Opting Out of the Massive GMO Feeding Experiment

Without detailed tests, no one can pinpoint exactly what is causing the reproductive travesties in Russian hamsters and rats, Italian and Austrian mice, and livestock in India and America. And we can only speculate about the relationship between the introduction of genetically modified foods in 1996, and the corresponding upsurge in low birth weight babies, infertility, and other problems among the US population. But many scientists, physicians, and concerned citizens don't think that the public should remain the lab animals for the biotech industry's massive uncontrolled experiment.

Alexey Surov says: "***We have no right to use GMOs until we understand the possible adverse effects, not only to ourselves but to future generations as well. We definitely need fully detailed studies to clarify this. Any type of contamination has to be tested before we consume it, and GMO is just one of them***".

"When consumers of the world refuse the GMO agenda of the biotech industry, we will have Jeffrey Smith to thank. No single person has done more to protect us from the dangers of GMOs."

-- Mike Adams,
The Health Ranger
Editor of NaturalNews.com

"I eat a non-GMO diet, and to help others switch to a non-GMO diet starting today, I include my favorite Non-GMO Shopping Guide from IRI as a thank you gift for all orders. iPhone users can download the guide: ShopNoGMO, from the iTunes store."

- Dr. Mercola
www.mercola.com

"IRI has a simple, brilliant plan: Give people accurate information on the risks of genetically modified foods and provide them with Non-GMO Shopping Guides. Once a critical mass of empowered individuals is rejecting GMO brands, GM ingredients will be pushed out of the market. Let's make it work for us before it's too late."

- Frances Moore Lappé
Small Planet Institute

"If the GMO companies are today's "Dark Side," the folks at the Institute for Responsible Technology are the Jedi Knights. Thank you Jeff for taking a leadership role in reclaiming a healthy, non-GMO food supply."

– John Robbins, Author
The Food Revolution
and The New Good Life

"Jeff is in the middle of everything you see and read about Genetically Modified Organisms. This is our highest rated live show to date and Jeff leaves both my dad and I speechless."

–Alex Bogusky
Creative Insurgent
www.alexbogusky.com