

## ***Release***

### **Study shows Roundup link to birth defects**

#### **International scientists confirm health and environmental dangers of Roundup – New report**

The best-selling weedkiller Roundup causes malformations in frog and chicken embryos at doses far lower than those used in agricultural spraying, reports research[1] recently published by Professor Andrés Carrasco, director of the Laboratory of Molecular Embryology, University of Buenos Aires Medical School and lead researcher of the National Council of Scientific and Technical Research (CONICET), Argentina.

Carrasco will present his research to members of the European Parliament, members of the European Commission, and the press at 12 noon on Thursday September 16, 2010 at European Parliament JAN 4Q1 (Jozsef Antall Building 4th floor, enter via "Mail" entrance) Brussels, Belgium. The event is part of the 6th European Conference of GMO-Free Regions, Brussels, September 16–18, 2010.

Roundup is based on the chemical glyphosate. As well as being widely used in agriculture, Roundup is marketed to home gardeners across Europe as environmentally friendly and as safe to use around children and pets.

Carrasco commented in his study that most of the earlier safety data on Roundup were provided by industry and are not independent.

Carrasco was led to research the effects of on frogs and chickens by reports on the effects on herbicides on humans. He said, "The findings in the lab are compatible with malformations observed in humans exposed to glyphosate during pregnancy." He added that his findings have serious implications for people because the experimental animals share similar developmental mechanisms with humans.

The authors concluded that the results raise "concerns about the clinical findings from human offspring in populations exposed to Roundup in agricultural fields."

The use of Roundup has massively increased since 1996 with the rapid expansion of genetically modified Roundup Ready (GM RR) soy in North and South America. GM RR soy is genetically engineered to tolerate Roundup herbicide. The RR gene allows farmers to spray the field liberally with Roundup, killing weeds but allowing the crop to grow on.

In Argentina, GM RR soy covers 19 million hectares. Carrasco said that people living in soy-producing areas of Argentina began reporting problems in 2002, two years after the first big harvests of GM RR soy. He said, "I suspect the toxicity classification of glyphosate is too low ... in some cases this can be a powerful poison."

Carrasco has been persecuted in Argentina for his findings. In August 2010 Amnesty International reported that an organized mob violently attacked community activists, residents, and public officials who gathered to hear a talk by Carrasco in La Leonesa on his research findings on glyphosate. La Leonesa has become a centre for activism against agrochemical spraying. Three people were seriously injured in the attack and the event had to be abandoned. Carrasco and a colleague shut themselves in a car and were surrounded by people making violent threats and beating the car for two hours.

## **New report confirms health and environmental dangers of Roundup**

Carrasco is the co-author of a new report, “GM Soy: Sustainable? Responsible?” also released on September 16 by a coalition of international scientists. The report documents studies on the harmful health and environmental impacts of GM RR soy and Roundup.

The findings challenge claims that GM soy cultivation is sustainable and that the Roundup herbicide it is genetically engineered to tolerate is safe.

The report is being released together with the testimonies of Argentine people whose lives have been affected by the rapid expansion of GM soy in their country.

In Argentina and Paraguay, people living in GM soy producing areas have reported serious health effects from Roundup spraying, including high rates of birth defects as well as infertility, stillbirths, miscarriages, and cancers.

Scientific studies collected in the new report confirm links between exposure to Roundup and premature births, miscarriages, cancer, and damage to DNA and reproductive organ cells.

The new report and summary will be released in English on September 16 but will soon also be available in German, French, Spanish, and Portuguese.

## **Malformations found at levels lower than EU residue limit**

Europe imports around 38 million tons of soy per year, which mostly goes into animal feed. Around 50–65 percent of this is GM or GM-contaminated, with 14–19 million tons GM-free or containing less than 0.9% GMO. Food products from GM-fed animals do not have to carry a GM label.

The maximum glyphosate residue limit allowed in soy in the EU is 20 mg/kg. Carrasco found malformations in embryos injected with 2.03 mg/kg glyphosate, nearly 10 times lower. Soybeans have been found to contain glyphosate residues at levels up to 17mg/kg.

## **Sprayed residents speak**

Carrasco believes his research is less important than the experiences of residents who have reported birth defects and other health problems from glyphosate spraying for years. He said, “Remember that the origin of my work is my contact with the communities victimized by agrochemical use. They are the irrefutable proof of my research.”

One of the residents whose testimonies are released with the new report, “GM Soy: Sustainable? Responsible?” is Viviana Peralta, from San Jorge, Santa Fe, Argentina. Peralta had to rush her newborn baby daughter, Ailen, to hospital after Roundup and other agrochemicals were sprayed on GM soy from planes flying near her home. The baby had turned blue and Peralta herself suffered respiratory problems.

Peralta joined with other residents to launch a lawsuit against soy producers that resulted in a landmark court ruling banning the spraying of Roundup and other agrochemicals within 1500 yards of houses.

Peralta, like Carrasco, has been vilified for speaking out. Soy producers have accused her of being anti-progress and of scaremongering. She said, "It's a lie. We've always lived quietly, but when soy arrived, everything changed. You cannot live with the poison, yet you cannot speak out against soy because they jump on you and accuse you of being the enemy. They care more about money than the health of our children.

"I do not understand chemistry, I did not go to university, but I know what my whole family suffered. They are the living proof that agrochemicals are poisons that affect us. To people who are not familiar with this agricultural model, I say, 'Do not believe the companies. Reject agrochemicals. Do it for the life of your children.'" ENDS

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#### Notes

1. 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. <http://pubs.acs.org/doi/abs/10.1021/tx1001749>