

Monsanto: It Ain't Glyphosate, It's the Additives!

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Famously corrupt and unscrupulous, Monsanto Corporation has now been discovered in covering up the highly toxic effects of the secret additives it combines with glyphosate in Roundup, the world's most-used herbicide. The IARC, an agency of the World Health Organization, released a report in March, 2015 that declared the chemical glyphosate to be "probably carcinogenic to humans" (Group 2A)." They were not provided tests that included the effects of glyphosate combined with specific trade secret additives. Monsanto is desperate to hide the true carcinogen in its Roundup weed-killer.

Glyphosate is the largest component of Monsanto Roundup, the world's largest weed-killer and the toxin mandated in every Monsanto Genetically Manipulated (GMO) planting. But what Monsanto refuses to disclose is what additives it uses, otherwise termed surfactants or adjuvants, ostensibly to give the glyphosate a "turbo" weed-killer effectiveness boost.

Since late 2016 the United States District Court for the Northern District of California has been hearing a case brought by a group of plaintiffs against Monsanto, claiming the firm falsified test results and refused to test the actual commercial mix sold as Roundup, a mix which contains far more deadly chemicals than glyphosate, especially when combined with glyphosate, in order to show its best-selling Roundup to be harmless in recommended doses and non-carcinogenic.

It's the Surfactants!

On June 30, 2017, attorneys from Baum, Hedlund, Aristei & Goldman, lawyers for the plaintiffs, released online court documents provided by Monsanto to the Court in the ongoing California case against Monsanto. Those Monsanto secret documents reveal the criminal company collusion to cover up the truth about its Roundup weed-killer.

Among the damning emails from the Monsanto internal documents is an email exchange marked Confidential, dated November 22, 2003, from **Donna R. Farmer**, PhD., then chief toxicologist at Monsanto responsible for glyphosate products worldwide. Farmer states bluntly,

"The terms glyphosate and Roundup cannot be used interchangeably nor can you use "Roundup" for all glyphosate-based herbicides any more. For example, you cannot say that Roundup is not a carcinogen ... we have not done the necessary testing on the formulation to make that statement." (emphasis added-w.e.)

Another confidential Monsanto email dated December 14, 2010, more than seven years after Donna Farmer's 2003 admission, states that

"With regards to the carcinogenicity of our (Roundup-w.e.) formulations, we don't have such testing on them directly, but we do have such testing on the glyphosate component."

It's a bit like telling someone you held an African Black Mamba, the world's fastest and one of the world's most toxic snakes, and nothing happened to you, so the Black Mamba can be certified as safe for a household pet.

What Monsanto toxicologist Donna Farmer refers to as "the formulation" is the major ingredient, glyphosate, **in combination with various surfactants or adjuvants,** allegedly used to bind the weed-killer Roundup more efficiently to target weeds in the region of spraying of crops such as GMO corn or soybeans. Monsanto calls the component in Roundup called glyphosate the "active ingredient," implying, falsely, that the added chemicals are merely passive or inert and harmless.

No tests done

To date the entire global public debate on glyphosate in the USA, the EU and in the rest of the world has been a very sly "red herring," put out by Monsanto to take attention away from the vastly more toxic cocktail that is sold today as Roundup weed-killer, the world's most widely used weed-killer. Roundup is far more than only glyphosate, as the email from Donna Farmer admits. Monsanto has deliberately turned the public and legal debate to focus only on glyphosate, as if the rest of their toxic cocktail was just some sugar candy. Are their trade secret additives including chemicals such as formaldehyde? We don't know. Do they include known carcinogens such as N-ethyl-NNG? We don't know. Monsanto refuses to tell the public.

The Monsanto secret email exchanges, now public as a result of the California court case, reveal dramatically the collusion of senior US Government officials at the US Environmental Protection Agency (EPA) and Monsanto to conceal the fact that the EPA never was in possession of the other components of Roundup aside from glyphosate.

Those surfactants are mostly classified as "trade secret" by Monsanto and have not even been made known to the US Government agency responsible for guarding the environmental health of the population, the US Environmental Protection Agency (EPA), yet EPA officials have never made a public issue of the fact.

Among the Monsanto confidential emails released by attorneys in the California law suit on June 30, 2017 is one dated March 5, 2013. In it Monsanto admits internally,

"We do not conduct sub-chronic, chronic or teratogenicity studies with our formulations. The long-term exposure has been assessed according to the regulatory requirements in chronic and carcinogenicity studies conducted with the active ingredient glyphosate." (emphasis added-w.e.).

Teratogenic testing is testing to determine if a drug or chemical contains an agent that can disturb the development of the human embryo or fetus. Teratogens can halt the pregnancy or produce a congenital malformation or birth defect.

On its website, Monsanto gives a picture of serious compliance with government safety testing standards. It states,

"Like all pesticides, **glyphosate** is **routinely reviewed by regulatory authorities** to ensure it can be used safely. In the U.S., that's the job of the Environmental Protection Agency (EPA), and like other regulatory authorities around the world, the EPA's process is comprehensive and based on the best available <u>science</u>." (emphasis added-w.e.).

Note that they are careful to say "glyphosate," and not Roundup. As the California EPA and Monsanto email exchanges reveal, Monsanto is being sly here, as they have not managed over 40 years to give detailed information on all the additives or adjuvants contained today or earlier in its Roundup herbicide. Curiously, they state, "Click here to learn more about the EPA's current "registration review" underway for glyphosate.," however as of August 28, 2017 there is no link to any EPA "registration review." Oops, sorry...

In simple English, Monsanto admits its fraud that it only used tests of the possible carcinogenicity of its so-called "active ingredient" glyphosate. Never did they submit tests of the true Roundup cocktail actually used commercially. The entire EU and US EPA "glyphosate debate" is a hoax, a nefarious fraud.

'Two Thousand times more toxic' than glyphosate alone

Independent scientific tests by toxicologists have revealed that it is precisely the added ingredients, the so-called surfactants or Roundup's "formulations," in chemical combination with the far less toxic glyphosate base, that are highly toxic and probable carcinogen.

In a peer-reviewed scientific paper published on February 26, 2016 in the International Journal of Environmental Research and Public Health, a team of toxicologists led by **Gilles-Eric Séralini** of the Institute of Biology, University of Caen in Normandy, France and **András Székács**, Director of the Agro-Environmental Research Institute of Hungary's National Agricultural Research and Innovation Centre, tested the most commonly used glyphosate-based herbicides including Monsanto Roundup. They tested the complete cocktail, including the co-formulants and formulations used in combination with the glyphosate.

What they found should put our hair on end. Instead, it has been swept under the rug by the US Government and the Commission of the EU as well as by a German government eager perhaps to appease the giant <u>German Bayer AG</u>, the prospective new owner of Monsanto.

The Seralini group study demonstrated for the first time that endocrine disruption by Glyphposate-Based Herbicides (GBH) could not only be due to the declared active ingredient, glyphosate, but also to the co-formulants or additives. But it gets much worse than that.

Seralini's group tested the endocrine disruption of co-formulants in six glyphosate-based herbicides (GBH), the most used pesticides worldwide including Roundup.

Their study concluded,

"The endocrine-disrupting effects of all these compounds were measured on

aromatase activity, a key enzyme in the balance of sex hormones, below the toxicity threshold. Aromatase activity was decreased both by the co-formulants alone...and by the formulations, from concentrations 800 times lower than the agricultural dilutions...; while G (glyphosate) exerted an effect only at 1/3 of the agricultural dilution...These results could explain numerous in vivo results with GBHs not seen with G alone; moreover, they challenge the relevance of the acceptable daily intake (ADI) value for GBHs exposures, currently calculated from toxicity tests of the declared active ingredient alone.

Their tests further concluded that the compounded herbicides using glyphosate as base, but including undisclosed "formulations" or surfactants or co-formulants, were vastly more toxic than glyphosate tested alone. They write,

"All co-formulants and formulations were comparably cytotoxic well below the agricultural dilution of 1%."

Depending on the product, the tests revealed that glyphosate, in combination with co-formulants, could be up to 2000 times more toxic to cells than glyphosate alone.

Yet Monsanto has never revealed its trade secret co-formulants, neither to the US Government as it is compelled to by law, nor to the public.

The Seralini study concludes that

"The declared active ingredients of pesticide formulations are not applied in their isolated form in agricultural use. Other substances (co-formulants) are also added, in order to modify the physico-chemical properties or to improve penetration or stability of the declared active ingredients. The identity of the co-formulants, declared as inert, is generally kept confidential. Moreover, they are not used in medium or long term in vivo toxicity tests of pesticides on mammals for the establishment of their acceptable daily intake."

By the criteria used in war crimes tribunals after 1945 Monsanto knew or should have known that its Roundup total formulation products were more toxic that glyphosate alone and that independent, reliable safety studies of Roundup and full disclosure of all of Roundup's additives, the so-called "inert" ingredients was necessary.

Whatever the legal outcome of the California legal case, the plaintiffs and their attorneys at Baum, Hedlund, Aristei & Goldman have done a major service to mankind by releasing the confidential Monsanto documents.

The attorneys have sent copies of all documents so far to the EPA Office of Inspector General, presently investigating whether there was illegal collusion between EPA and Monsanto; the California's Office of Environmental Health Hazard Assessment (OEHHA), which recently listed glyphosate as a substance known to the state of California to cause cancer and is soliciting comments from Baum Hedlund and others to advise about whether glyphosate should be given a safe-harbor; and to the European Parliament members, who recently sent a letter to the judge overseeing the MDL litigation, requesting documents as the EU considers whether it will renew registration of glyphosate for sale in Europe.

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