

AHVMA Position Statement

AHVMA POSITION STATEMENT ON GMOS FOODS AND GLYPHOSATE [WHITE PAPER]

There is little doubt that food quality and safety issues are paramount today to sustain human and animal health and well-being. In that regard, while recent attention has been focused on the safety and need for sustainable agriculture and the methods and oversight applied to raising animals, fish, and plants as a source of organic and other foods, independent study of the safety claims for foods from genetically engineered organisms (GMOs) is generally lacking. The safety claims to date in relation to the ingestion of GMOs foods [also called genetically modified or GM foods] are based solely on industry-funded studies. In contrast, industry-independent studies have linked GMOs and the accompanying herbicide/ weed killer, glyphosate, to kidney damage and disease as well as other health problems. While limited testing on processed human foods has detected significant levels of GMOs, no testing appears to have been performed on commercially prepared pet and livestock foods.

The use of genetically modified (GM) crops has been approved to enter human food and animal feed since 1996, including crops containing several GM genes within just one plant. Use of GM foods is increasing in the food supply and causing alarm among consumers and food safety advocates who worry about their implications on public health and safety. According to the World Health Organization (WHO): GM foods are foods derived from organisms whose genetic material (DNA) has been modified in a way that does not occur naturally, e.g., through the introduction of a gene from a different organism. Currently available GM foods stem mostly from plants, but in the future foods derived from GM microorganisms or GM animals are likely to be introduced on the market. Most existing genetically modified crops have been developed to improve yield through the introduction of resistance to plant diseases or of increased tolerance of herbicides.

Genetically engineered crops are patented inventions developed mainly by six chemical companies—Monsanto,

Dow, BASF, Bayer, Syngenta, and DuPont. Most GM crops were invented so they could be sprayed with more weed-killing herbicides such as glyphosate without harming the genetically engineered plant. As a result, GM crops have led to substantial increases in the use of herbicides and insecticides, often in amounts that have never been tested for safety in humans, animals, or other plants.

Not surprisingly, the top three GM crops grown in the U.S. are corn, soybeans and cotton—two of which (corn and soy) are among the most highly subsidized and are also main ingredients in many mass-market commercially prepared pet and livestock foods. While most sweet corn, the type of corn found in the grocery produce aisle, is non-GMO, nearly all the field corn used to make processed foods such as tortillas, chips, corn syrup, and animal feed are made with genetically modified seeds. The same is true of soybeans.

From 1996—2011, pesticide use on these crops increased by more than 527 million pounds. Most of this resulted from increased use of the herbicide glyphosate, the key ingredient in Monsanto's Roundup®, the best-selling weed killer in the world. According to the U.S. Geological Survey, glyphosate is now commonly found in air and rain throughout the Midwest during spring and summer, and levels are also increasing in many aquatic ecosystems.

Widespread glyphosate use has been found to modify the environment, thereby causing stresses to living microorganisms. Studies focused on poultry microbiota have shown a reduction of beneficial bacteria in the gastrointestinal tract after ingestion of glyphosate; this disturbs the bacterial community of the healthy gut.

With respect to domestic livestock, the uteri of adult pigs fed GM crops were significantly heavier than those of non-GM fed pigs, and had a statistically greater rate and degree of severe stomach inflammation compared to non-GM-fed

pigs. Further, detection of glyphosate residues was found recently in one-day-old malformed Danish piglets. The same group of investigators found glyphosate residues in the urine and different organs of dairy cows as well as in the urine of hares, rabbits and humans. Dairy cows from Germany had significantly lower levels of glyphosate than Danish dairy cows. Further, cows kept in GM-free areas had significantly lower glyphosate concentrations in their urine than cows conventionally housed. Of special concern was the finding that glyphosate was significantly higher in the urine of humans fed conventionally, while chronically ill humans showed even higher glyphosate residues in their urine than the healthy population.

Other animal and epidemiological studies have shown that chemical herbicides like glyphosate are endocrine disruptors of the hypothalamic-pituitary-thyroid axis. Gene expression and metabolomic data derived from the offspring of healthy pregnant rats fed glyphosate showed similar alterations of endocrine function in the offspring of naturally hypothyroid rats. Collectively, these publications emphasize the potentially serious adverse effects of exposures to herbicides like glyphosate on adults as well as on the fetuses and newborns of humans, domestic livestock, companion animal species, and wildlife.

Additionally, global regulations for the use of glyphosate should be re-evaluated. Currently, 62 countries around the world have passed laws requiring labeling of GMO foods, some as far back as 2003; the U.S. is not one of them.

However, certain grocery food chains, like Whole Foods, have pledged that by 2018, all GMO products sold in its U.S. and Canadian stores must be clearly labeled as such. Further, the Target chain added a new food brand, Simply Balanced, which recently phased out use of all GMOs. In April 2014, the Vermont legislature became the first state lawmakers to pass a bill requiring labeling of GMO foods.

One final concern that notes mention: Co-contamination of crops with glyphosate and mycotoxins make the poisonous harmful effects of their ingestion worse, placing into jeopardy the safety of pet foods. Contamination of extruded commercial dry pet food with several types of mycotoxins has become a significant issue. In published research, levels above the defined detection limit were found for three 3 types of mycotoxins in 81-100 % of the 48 tested feeds. Further investigation is clearly needed into the risk derived from chronic exposure of pet animals not only to GMOs and the herbicide glyphosate but also to the low doses of mycotoxins present in commercial pet foods. Consumer awareness of these concerns needs to be raised. The popular slogan “Just say ‘no’ to GMOs” is receiving more public attention.

The following selected references demonstrate safety concerns with GMO products. The existence of independent studies which counter the results of industry-funded studies raises enough concerns that the AHVMA has taken the position that until further independent studies fail to reveal safety concerns, GMO products should not be considered safe. 🌱

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GMO Free USA Glyphosate Studies database: <http://www.gmofreeusa.org/research/glyphosate-studies/>

GMO Science – Studies and research <http://www.gmofreeusa.org/research/gmo-science-research/>

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