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Fallout from Monsanto Round Up verdicts-present and future impact of Glyphosate risks, litigation and coverage issues

I. Glyphosate – History

The ever-expanding litigation of personal injury claims against Monsanto (most recently over 45,000 cases, and still growing, nationwide) represents challenges for insurance claims professionals, risk managers, and counsel in analyzing and evaluating these new claims against distributors in addition to Monsanto and other similar manufacturers. The talk will analyze this complex set of issues in the context of scientific, regulatory, historical and current findings. Additionally, the latest legal theories for liability and damages will be explored. These cases are currently in many areas of the United States in both Federal Court (MDL, "clustered litigation") and certain state courts. Glyphosate litigation has already become the fastest growing mass tort of the current era. In addition, other types of liability exposures will also be explored including: class actions, false advertising claims, property damage, business interruption, food product quality (loss of organic certification) and stigma.

A. Origins – Round Up and Monsanto

Glyphosate is a man-made chemical which was first synthesized in 1950. Originally, it was developed as a degreasing agent. In 1970, it was independently discovered by Monsanto and developed as a weed killing agent. Monsanto ultimately obtained a patent and brought the proprietary mix to market in 1974 under the brand name Round Up.

B. How Glyphosate works

Glyphosate is designed to inhibit photosynthesis in plants. It actually causes plant cells to not be able to regenerate. The product was developed for use in growing areas where "noxious weeds" were to be eliminated without harming desirable plants or crops. Therefore, the weed that the glyphosate is applied to is killed without negative impact to the desirable plants or crops.

C. Dangers/Scope of Impact

Glyphosate, and the best-known version, Round Up, began to be heavily marketed, sold and used both commercially and by private owners in the 1990's with the substantial uptick in GMO crops and the ability to raise "Round Up Ready" or "Round Up Resistant" plants/crops.

1. "Genetically Modified Organism" (GMO) crops

GMO crops were first introduced in the mid-1980's. Usage was relatively flat until 1996 when use in soybean, cotton, corn, alfalfa and sugar crops began to skyrocket. The usage went almost straight up from 1996 to 2014. The GMO crops resistant to glyphosate that were developed ultimately resulted in a fifteen-fold increase in glyphosate just in the agricultural sector.

2. Round Up "mix"

The old expression of "the dose equals the poison" is applicable here. However, it is the proprietary "Round Up Mix" that certain researchers and public advocacy groups allege has a more pronounced negative health effect on humans and the environment generally, than just glyphosate by itself. The trade secrets continue to be protected by Monsanto for the Round Up Mix and this issue has been significant in the litigation thus far.

3. Presence in foods

Round Up is found in varying amounts in foods, even foods that are non-GMO. The most heavily sprayed crops (especially GMO crops) are soy, corn, canola and wheat. Livestock is also exposed because livestock feed often includes GMO crops and additionally, Round Up is used as a pre-harvest drying agent on GMO and non-GMO crops. This allows farmers to accelerate the growth of a crop to "harvest ready" in a much shorter time and allows an entire growing field to be harvested at the same time. The pre-harvest drying is done by spraying the growing crops with a dose of Round Up to allow the chemicals to "dry the crop".

4. Increased environmental impact

Round Up is a herbicide which is actually an antibiotic. Exposure to Round Up is argued to disrupt the microbiome in the gut of humans and animals. The impact on dermal exposure and other exposure avenues is the only source of exposure mechanism alleged in the lawsuits that have gone to verdict thus far. Certain health advocates argue that Round Up exposure leads to overgrowth of bad bacteria which can lead to disease and immune deficiency, endocrine disruption, celiac disease, various cancers, etc. Additional, Round Up is a metal chelator which binds and removes "good" metals/minerals which humans and animals need for digestion and detoxification. In the current litigation, the main cancer being alleged in Non-Hodgkins Lymphoma (NHL).

However, other types of bone, colon, kidney, liver, pancreatic and thyroid cancers have also been alleged, but with much less frequency.

D. Insurance implications

The insurance implications are potentially even much larger than just the many personal injury cancer cases currently making the news. The heavy usage between 1974 and 2014 in the United States of Round Up and similar products is alleged to cause wide-spread movement and runoff to rivers and streams by operation of cloud cover. The United States Geological Survey (USGS) did a sample of rain water across the mid-West and found glyphosate in over 75% of the rainwater samples. Additionally, heavy usage of Round Up has caused the evolution of super weeds requiring not only increased application of herbicide, but also the development of "Super Round Up" type products (combination of glyphosate/Round Up mix and 2,4-D). Also, there is anecdotal evidence of mass deaths in the butterfly, honey bee, bird and bat populations, thereby affecting pollination of plants, etc.

The impact to the environment poses implications to insurance beyond applicator personal injury claims to include exposures at parks, golf courses, highways, public water supplies, etc. While there have not been many claims in the ag-worker population, most claims currently involve local maintenance, groundskeeper claims where applicators are directly exposed and claim to develop cancers. The other area where potential insurance implications could begin to expand is the presence of glyphosate in processed foods.

II. Glyphosate Regulatory Status

A. IARC (what started it all)

In March 2015, the International Agency for Research on Cancer (IARC), an agency under the World Health Organization of the United Nations, released a study stating that glyphosate was "probably" carcinogenic to humans. The study was immediately attacked by critics on both sides, and the full report actually contradicts the statements in the summary of the report, but it was only the summary that made international headlines. It is that one statement ("probably carcinogenic to humans") from the IARC in March of 2015 that the plaintiffs' attorneys and their experts have relied upon to win the lawsuits which have made headlines. However, this report goes on to state that there was limited evidence for both Non-Hodgkins Lymphoma (NHL) and prostate cancer in ag-workers who were the only human subjects studied. The balance of the study was a rat study which was found to be sufficient for further study in animals, but not for humans. Importantly, the IARC study did not determine a specific mechanism for harm, nor a harmful level for exposure. The ag-worker study was a 50,000-person study which found no association for all tumors or malignancies including NHL. While there was some evidence of increased of acute myeloid leukemia (AML), in the highest exposed group, the study went on to state that further study was needed to confirm any findings.

B. FDA, OSHA, EPA

The first study conducted in October of 2018 found that glyphosate residue in food was not concerning for public health. All prior Food and Drug Administration (FDA) tests were only for pesticides. This was the first time a herbicide was studied by the FDA. The FDA's testing limits for grain crops and fruits and vegetables did have established limits and 53% of the foods tested were "non-detect", with the balance of all foods tested all below acceptable safety limits. Occupational Safety and Health Administration (OSHA) did worker exposure sampling in December of 2018. However, thus far OSHA has still NOT established a permissible exposure limit (PEL), an American Conference of Governmental Industrial Hygienists (ACGIH) threshold limit value, or a National Institute for Occupational Safety and Health Recommended Exposure Limit (NIOSH REL). Even California's OSHA department has not established a permissible exposure limit for glyphosate.

The Environmental Protection Agency (EPA) first studied glyphosate in 1993 concluding that the chemical was not carcinogenic. The EPA considered a worst case dietary risk model of an individual eating a lifetime of food derived entirely from glyphosate sprayed foods. This model indicated no adverse health effects. In 2015, the EPA began another review of glyphosate toxicity. In 2017, the draft report of the risk assessment study concluded that glyphosate was likely not carcinogenic. By 2019, the EPA was still determining whether the 2017 conclusion would be in its formal report, which is expected to be completed by the fourth quarter of 2019.

III. Round Up trials (thus far)

While the number of cases continue to explode all over the country, so far there have only been fewer than six cases nationally that have actually gone to verdict. Most of those have been in California, primarily in the multidistrict litigation (MDL).

A. Johnson Case

Johnson was a 46-year-old man diagnosed with NHL. He had mixed and sprayed Round Up as a groundskeeper working in a school district in California. Legal theories included failure to warn and design defect. Johnson was awarded $39.25 million in compensatory damages ($37 million for pain and suffering and $2.24 million economic) plus $250 million punitive damages. On post-trial motion, punitive damages were cut down to the same amount as compensatory total for combined total of $78.5 million. This case is on appeal.

B. Hardeman Case

Hardeman was a homeowner using Round Up to kill weeds and poison oak on a 56-acre property for over 25 years and diagnosed with NHL. Trial was bifurcated; they tried causation first and then liability and damages. Hardeman was awarded $6 million in

compensatory damages and $75 million punitive damages for a $81million total verdict. This case is on appeal.

C. Pilliod Case

State court case in California. Husband and wife both got NHL four years apart from each other. They had thirty plus years of exposure applying Round Up to their own property. The verdict was $27.5 million in compensatory damages and $2 billion in punitive damages. The verdict was knocked down after a post trial motion and is on appeal. Monsanto is now trying to change their IARC findings versus other studies.

D. State Court Actions

Currently, there are approximately 11,000 cases filed in Missouri, approximately 1500 filed in state court in California, and a Federal MDL in California that currently has over 5000 cases. These cases are included in the national total of over 45,000 cases and counting. Virtually every state has plaintiff law firm cooperative marketing to sign up mass tort clients through TV commercials, internet ads, etc.

IV. Anatomy of these claims

Additionally, there are six different states and the Wisconsin federal court handling consumer group public advocacy cases and class actions for false advertising type claims.

A. Damages theories

Generally, the types of damages being sought by the various types of litigation fall into two types: property damage/bodily injury for product exposure "contact harm" and business interruption/property damage/stigma/loss of organic certification.

B. Liability Theories

The theories include traditional products liability, failure to warn, defective product, unreasonable ultrahazardous type legal theories. However, again generally the legal theories break into two main categories: (1) that the product itself was harmful, or (2) that the product GMO foods, Round Up application containers, etc. were designed to work with a known toxin.

V. Agri-practices and potential defenses

Commercial agriculture has known for many years about agricultural business practices for preventing drift/cross contamination.

A. USDA Buffer zones

The USDA has established "buffer zones" and other agri-business practices that are set by USDA regulation. These regulations (for example 7 CFR 202 Section C) deal with issues such as wind breaks, diversion ditches, and other spraying and land management issues to attempt to protect organic growing fields from contamination by neighboring growing operations.

B. Organic farming and transportation/distribution chain issues

The organic farming explosion in popularity by consumers has led to the creation of USDA and other regulatory frameworks to certify a growing field as organic. Typically, it takes five years to obtain certification and the fields need to be recertified annually. If a non-organic neighboring operation causes the organic operation to lose its certification due to not following proper practices to prevent over spray or other contamination, then the organic business operation losses its organic certification and stigma damages are obvious and measurable.

VI. Future of litigation

A. Continued regulatory studies and political pressures

Despite the continued lack of findings supporting the 2015 IARC findings of "probably carcinogenic" by the EPA and every other testing agency that continues to test these issues, public and political pressure is forcing these agencies to continue with additional studies.

B. "Next asbestos"?

On November 29, 2018, AM Best questioned whether glyphosate would be the next asbestos. Asbestos is currently estimated to have a net ultimate loss for US insurers of $100 billion. All other losses combined (not glyphosate) are $46 billion. Glyphosate is the most widely applied weed-killer in the history of chemical, agriculture and home use and AM Best questions whether losses could approach asbestos levels.

VII. Insurance considerations

Insurance coverage issues are similar to what have been experienced with traditional environmental exposures and policy interpretation and coverage issues in the glyphosate area are anticipated to be much the same as in the traditional environmental areas.