WEYERHAEUSER HERBICIDE TREATMENT NOTICE

Metsulfuron, Imazapyr, Aminopyralid, Sulfometuron, Glyhosate,

Don't enter within 48hrs after applying.

Glyhosate =roundup.2,4-d=weed&feed

Triclopy=garlon. 2,4d- exceeded thread holds in more scenarios than any other herbicide at typical applications rates, damage to internal organs is excepted for herbivores animals.

Metsulfuron-methyl is an organic compound classified as a sulfonylurea herbicide, which kills

broadleaf weeds and some annual grasses.[1] It is a systemic compound with foliar and soil activity, that inhibits cell division in shoots and roots. It has residual activity in soils, allowing it to be used infrequently but requiring up to 22 months before planting certain crops (sunflowers, flax, corn, or safflower). It has very low toxicity to mammals, birds, fish, and insects but is a moderate eye irritant.[2]

References

1. ^ Arnold P. Appleby, Franz Müller, Serge Carpy "Weed Control" in Ullmann's Encyclopedia of Industrial Chemistry 2002, Wiley-VCH, Weinheim. doi:10.1002/14356007.a28_165
2. ^ *"Extension Toxicology Network:Pesticide Information Profiles"*.

Imazapyr is a broad-spectrum herbicide that controls terrestrial annual and perennial grasses and broadleaved herbs, woody species, and riparian and emergent aquatic species. It can be used where total vegetation control is desired or in spot applications. Imazapyr is relatively slow acting, does not readily break down in the plant, and is therefore particularly good at killing large woody species.

Imazapyr is effective for creating openings for wildlife use. It can be applied pre-emergent, but is most effective when applied as a post-emergent herbicide. Care should be taken in applying it around non-target species, as it is readily adsorbed through foliage and roots, and therefore, could be injurious by drift, runoff, or leaching from the roots of treated plants.

Movement of imazapyr via root grafts or by exudates (which is a defense mechanism of those plants) may therefore adversely affect the surrounding vegetation. This movement of herbicide may also be compounded when imazapyr is incorrectly overapplied. Movement of soil particles that contains imazapyr can also potentially cause unintended damage to desirable species.

References

Weed Control Methods Handbook, The Nature Conservancy, Tu et al. http://tncweeds.ucdavis.edu

Aminopyralid is a recently introduced herbicide to help control noxious, poisonous and invasive broadleaf weeds to maintain the productivity of our grasslands and rangelands, maintain safe conditions along our rights-of-way and help preserve our natural areas.

Under several brand names, aminopyralid is registered for use in agriculture and industrial vegetation management. Agricultural uses include controlling weeds to improve wheat yields and livestock grazing on rangeland and pastures. In industrial vegetation management, the herbicide controls problem vegetation to improve visibility along roadsides, to reduce the risk of fires along railroad tracks, and to keep electric power flowing by preventing disruptions from vegetation growing beneath power lines. Aminopyralid is also used to control invasive weeds and some brush that threaten our native plant communities and wildlife habitat.

For several good reasons, aminopyralid should be handled and applied only with full attention to safety measures that minimize personal contact. Many formulations contain adjuvants (stabilizers, penetrants, surfactants) that may have significant irritating and toxic effects. A number of premixed formulations contain two or more active ingredients; the companion pesticides may be more toxic than the principal herbicide.

References

U.S. Environmental Protection Agency/Office of Prevention, Pesticides, and Toxic Substances. Reigart, J.R., Roberts, J.R. Recognition and Management of Pesticide Poisonings. 5th ed. 1999. EPA Document No. EPA 735-R-98-003, and available in electronic format at: http://www.epa.gov/pesticides/safety/healthcare

www.ncagr.gov/SPCAP/pesticides/documents/Aminopyralid

Sulfometuron methyl is the active ingredient in Oust®, a broad-spectrum sulfonylurea herbicide recommended for preemergence and postemergence control of annual, biennial, and perennial grasses and broad-leaf weeds. The herbicide is used for general weed control on industrial noncrop sites and for selective weed control on turf grasses on industrial sites. It is also used for selective weed control in forest site preparation and in the release of several types of pines and certain hardwoods (DuPont, 1998).

Preemergence treatments control or suppress weeds through root uptake and postemergence treatments control via root and foliar uptake. Best results are seen when applications are made prior to or during early weed development, before root systems are established. Sulfometuron methyl should be applied during seasons when rainfall occurs because moisture is needed to move the herbicide to the root system. For best postemergence results, sulfometuron methyl should be applied to young, actively growing weeds.

The use rate depends upon weed species, size of weed at application, and soil texture. Rates of application range from 3-5 ounces per acre as a preemergence and early postemergence treatment and 6-8 ounces per acre as a postemergence treatment on actively growing weeds. Sulfometuron methyl is quickly absorbed by foliage and roots and moves rapidly throughout the plant with initial effects ordinarily seen within 2-3 weeks following application and final effects seen after 4-6 weeks after application (Du Pont, 1988). Warm, moist conditions following application accelerate herbicidal activity while cold, dry conditions delay activity. Weeds hardened off by drought stress are less susceptible to sulfometuron methyl.

Animals easily absorb sulfometuron-methyl through the gut and rapidly brake down and eliminate it from the body. Wildlife Effects on mammals: Sulfometuron methyl is practically nontoxic to mammals. Rats eliminate sulfometuron methyl with a half-life ranging from 28 hours at low doses to 40 hours at high doses. The compound does not bioaccumulate (build up) in mammals.

References

Brooks, H.L. (1995). ” Sulfometuron Methyl Pesticide Fact Sheet.” [Online]. Available: www.infoventures.com/e- hlth/pesticide/sulfomet.html.

Parts of this fact sheet were developed by Oregon State University and Intertox, Inc. to assist interested parties in understanding the risks associated with pesticide use in Washington State Department of Transportation’s (WSDOT) Integrated Vegetation Management program. WSDOT updated in 2017 to reflect current products and usage.

Glyphosate is toxic! It is a herbicide after all – the whole point of glyphosate (G for short in this post) is to kill unwanted plants. Like all chemicals, including water and salt,

G is going to be toxic to animals (including humans) at *some* dose. Compared to other herbicides, though, G is a pretty safe option for killing weeds.

One interesting use of G is to dry wheat before harvest. To help reduce levels of toxic fusarium fungus on wheat, it is good to harvest the wheat as early as possible but you can't harvest it until it's dry. So G is used to dry (aka kill) the wheat plants so the grain can be harvested. As long as the G is sprayed after the plants have fully matured, the G won't be moved from the plant into the seeds. Here, G is actually helping farmers prevent a legitimately scary toxin from getting into the food supply.

With G being used not only as a herbicide but also as a drying agent, and not just in our lawns but on our food, should we worry about our safety? In short, no. When used properly, G is quite safe for humans.

The EPA sets maximum safe levels of pesticide residues for crops (called tolerances), based on the latest science. These tolerances are hundreds of times higher than estimated toxic values, and they consider a person's total exposure to pesticides (with a wide margin of error to protect children and others who may be vulnerable).

There are occasionally alarm-inducing papers like Glyphosate induces human breast cancer cells growth via estrogen receptors. This paper, and others like it, tend to use human cells in a petri dish rather than whole animals. I had the misfortune to do some research on cultured human cells myself and let me tell you, those are some tricky buggers to work with.

Even when everything is working perfectly, it's still very hard to tell if the results you are getting will hold true when repeated in a whole animal model. Something that causes a reaction in naked cells may not react the same when applied to your skin or taken in through your digestive system (both of which have evolved to keep you safe from many things).

The USDA tests crops each year to make sure they don't go above the tolerances. Very few pesticides are found above the tolerance levels). If the USDA finds any pesticides above the set tolerance, or finds pesticides on crops where they aren't supposed to be, they report that information to the FDA. The FDA puts the teeth in this whole system. They have the regulatory power to start recalls, levy fines, turn back foods at the ports, and so on.

References

Is glyphosate toxic to humans? by Anastasia Bodnar | posted in: Science | 185
25 OCT 2013
The specific tolerance information for G in the US Code of Federal Regulations, 40 CFR, part 180, subpart C, section 180.364. Some of the tolerances for G were recently increased in the May 1, 2013 Federal Register, Vol. 78, No. 84.

Glyphosate Herbicide History **By: Baum, Hedlund, Aristei & Goldman, PC**

- 1960 – Monsanto formed agricultural division.
- 1970 – Glyphosate discovered by Monsanto chemist, John E. Franz. Franz, a young chemist who had recently been transferred to Monsanto's agricultural division, began to work with another Monsanto scientist, Dr. Phil Hamm. Hamm, then the head of Monsanto's herbicide screening program, was excited about two compounds recently submitted by Monsanto scientists from another wing of the company. Initially studied as water softeners, Hamm thought the compounds might be useful as herbicides. He eventually asked Franz to study the possibility. During his studies, Franz theorized that a beneficial compound might be produced during the plant's metabolic process—a compound that he might then be able to synthesize. The third compound Franz synthesized was called glyphosate, and it would go on to change the world of farming for many years to come.
- 1974 – Monsanto received patent to bring Roundup [glyphosate herbicide] to market.
- 1976 – Monsanto commercialized Roundup in the U.S. and Canada.
- Late 1970's – Most farmers felt they had no alternative to using herbicides. Most herbicides during this time were pre-emergent, which means the herbicide forms a chemical barrier on the surface of a field that killed weeds as they sprouted and came into contact with the barrier. Pre-emergent herbicides needed to be spread consistently across fields and stay active for a long period of time to ensure effectiveness after the spring rainy season. These two issues were environmentally problematic, as pre-emptive herbicides could wash into streams and ground water, wreaking havoc on fish and wildlife. With this as a backdrop, glyphosate herbicide was seen as an "environmentally friendly alternative" to other herbicides and sales of Monsanto Roundup began to boom.
- **1984 – Monsanto pays millions to Vietnam War veterans affected by exposure to Agent Orange. Monsanto developed and supplied the military with the defoliant chemical in the 1960s.**
- 1985 – The Environmental Protection Agency (EPA) classified glyphosate as a Group C chemical. The EPA's determination meant that glyphosate was possibly carcinogenic to humans. This designation was based on early animal studies, which found "…an increase in interstitial cell tumors of the testes of male rats," as well as "pancreatic tumors" in high-dose female rats.
- 1991 – After a heavy handed lobbying campaign by Monsanto, the EPA changes classification of glyphosate to Group E. Six years after finding a possible cancer link, the EPA changed the classification for glyphosate, finding "evidence of non-carcinogenicity for humans." This change in glyphosate's classification happened shortly before Monsanto launched its Roundup Ready GMO seeds, which would become a $6 billion a year product. These genetically modified seeds are resistant to glyphosate herbicide.
- 1991 – Monsanto hired Craven Laboratories to perform Roundup studies. Months later, the owner of Craven Laboratories and three employees were indicted for fraudulent laboratory practices.
- 1996 – New York Attorney General filed a lawsuit against Monsanto for falsely advertising glyphosate herbicide as being "safer than table salt" and "practically non-toxic." The lawsuit ends with an agreement, whereby Monsanto agreed to stop

advertising Roundup as safe. The problem was the agreement was only bound to the state of New York. Elsewhere, Monsanto could continue its misinformation campaign for Roundup.

- 1997 – A Greenpeace report found glyphosate to be one of the most commonly reported causes of pesticide related illness among agricultural workers. (Source: https://www.organicconsumers.org/old_articles/monsanto/roundup.php)
- 2001 – Special Report stated glyphosate may cause cardiovascular, gastrointestinal, nerve and respiratory damage.
- 2011 – Glyphosate herbicide used on a total of 210 million acres of U.S. farmland.
- 2013 – Monsanto asked for and received EPA approval for increased tolerance levels for glyphosate.
- 2015 – Cancer research arm of the World Health Organization classified glyphosate as "probably carcinogenic to humans." The study was based on the viewpoint of 17 experts from 11 countries. Researchers also found "limited evidence" that glyphosate is carcinogenic in humans for non-Hodgkin's lymphoma. In response to the WHO study, a number of countries banned the private and/or commercial sale of glyphosate herbicide, including Roundup.

Related Articles_____

Monsanto Roundup Lawsuit
IARC Study on Glyphosate
Pesticide Action Network (PAN) Report: Alternative Methods in Weed Management to the Use of Glyphosate and Other Herbicides

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