

Aquatic Herbicide Questions & Answers



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The use of aquatic herbicides to control invasive aquatic plants in our lakes is often the best approach due to the cost effectiveness and reliable results. For many people though, the thought of the use of "chemicals" in their lake causes feelings of concern. This concern is understandable given the majority of lake residents are unaware of the stringent process by which herbicides are labeled and approved for use. There is also misunderstanding about the intent of treatments and the expectations when herbicides get applied to a waterbody.

Herbicide Safety

Are aquatic herbicides regulated in Michigan?

All herbicides used in aquatic environments have been tested and registered with the EPA and have been approved for use by the State of Michigan. Michigan is one of the most restrictive states when it comes to aquatic herbicide use. All treatments with aquatic herbicides require a permitting and reporting process that insures that products are used in a manner that has been tested to produce little risk of adverse effects on non-target species or the environment

Are aquatic herbicides safe?

Extensive testing has not identified significant human health risks associated with the proper use of herbicides. Though no testing program can rule out unexpected effects, it is important to recognize that at tested and approved concentrations for aquatic use, these herbicides have been deemed to not have adverse effects on human and aquatic wildlife either by submergence in treated water or by ingestion. Aquatic herbicides have very specific modes of action that target specific processes in aquatic plants that are not present in vertebrates and other life forms. For more information on how aquatic herbicides work and their safety, please visit the following website for short video produced by Purdue University:

<https://ag.purdue.edu/btny/Extension/PublishingImages/AquaticHerbicides.m4v>

Can we swim after a treatment?

Nearly all of the aquatic herbicides in use do not have a swimming restriction on the EPA label. However, The Michigan Department of Great Lakes & Energy (EGLE) requires that a 24 hour swim restriction be implemented with any herbicide treatment within 100 feet of the treatment area. This ensures that swimmers will not be in the water during the treatment and will remain clear of the area for some time following the treatment. Some herbicides bind to suspended sediments and will lose effectiveness if the treatment area is disturbed.

What happens if my dog drinks the treated water?

Toxicity testing has shown that a dog would have to drink several thousands of gallons of treated water in order to observe any noticeable effects. However, it is best to keep your pet out of the water if possible to eliminate disturbing the area and lessening the effectiveness of the treatment.

Can we irrigate our lawn and flowers after a weed treatment?

Several of the herbicides applied to the water do have a turf and ornamental flower irrigation restriction. The restrictions typically are from 3 to 14 days. If you pull water from the lake for irrigation, please read the posted sign carefully to determine your irrigation restrictions for that treatment. If you do not have a posting sign, then you are most likely outside of any current irrigation restriction zone.

Can we eat fish from the lake after a treatment?

There are no fishing restrictions associated with any of our herbicide treatments. The herbicides used do not accumulate in fish tissue or bioaccumulate within the environment.

MICHIGAN LOCATIONS

Alto Location
8865 100th St. SE
Alto, MI 49302-9221

Morrice Location
10785 Bennett Dr.
Morrice, MI 48857-8760

Evart Location
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Evart, MI 49631

Sturgis Location
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INTENT OF TREATMENTS

When the subject of herbicide use is brought up among lake residents, some assume that treatments will eliminate all of the aquatic plants and create a barren wasteland void of biological life.

Will aquatic plant control eliminate all aquatic weeds in our lake?

Nearly all aquatic plant treatments are targeted to control one or two plant species. These "selective" treatments allow managers to remove unwanted species, usually exotics, while leaving much of the native vegetation intact. Selective treatments are achieved by selecting the proper herbicide at the appropriate dosage. Responsible lake managers understand the benefits of maintaining a healthy and diverse native aquatic plant community.

Conversely, there are lake residents that would prefer their lake be more like a swimming pool. These residents are often disappointed after treatments because there is still visible aquatic vegetation.

Can we get rid of all the aquatic plants?

This should never be the goal of aquatic plant management. Aquatic plants provide many benefits to a lake. They stabilize bottom sediments, produce oxygen and provide habitat for fish and other aquatic organisms. A responsible lake manager would never suggest or try to carry out an attempt to remove all vegetation from a lake.

In addition, treatments to lakes in Michigan require a permit which puts stringent regulations on the types of aquatic plants and the locations in which plants can be treated with herbicides within a waterbody.

ALTERNATIVES TO TREATMENTS

There are several alternatives to herbicides for control of aquatic plant species, but several factors have to be considered in order to choose the most effective, cost efficient management approach. The species targeted, its location within the waterbody and any permit restrictions to name a few.

Isn't harvesting a better option for plant control?

The most environmentally responsible control method depends on the goals of the management program and the type(s) of plants to be controlled. In some cases, harvesting is the best option. In other situations harvesting can exacerbate aquatic plant problems. For example, we do not recommend harvesting of Eurasian watermilfoil because harvesting tends to hasten its spread within a lake where it can outcompete and displace native vegetation.

Don't treatments just treat the symptom and not address the cause of the aquatic plant problem?

There is little doubt that nutrient enrichment can lead to an increase in aquatic plant problems. However, this does not mean that all aquatic plant problems are a result of elevated water column nutrient levels. In fact, many lakes that we manage with Eurasian watermilfoil issues have very low water column nutrients. Nutrient control measures would have little or no effect in these lake environments. Nutrient controls rarely, if ever, have shown an ability to reduce rooted aquatic plant growth. The reason being is that nutrients found in bottom sediments are more than adequate to produce healthy plant populations regardless of water column nutrients. Furthermore, if water column nutrients are reduced, the most likely scenario would be a decrease in the planktonic algae populations which would tend to increase water clarity. Increased water clarity would allow more light to reach further into the water thus increasing the growth of rooted aquatic plants. This would be similar to the effect zebra mussels have when they invade a waterbody.

In some situations it is the exotic species itself that is the root of the problem. Take Starry stonewort for instance. In its native lands it is a valued macroalgae and it thought of as an indicator of good water quality. Starry stonewort gets most of its nutrients from the water column and can thrive in lakes that have relatively low nutrient levels. It is now found in many Michigan lakes that are considered to have excellent water quality and low nutrient levels. Regardless of the efforts made to reduce water column nutrients in these lakes, there would be little or no effect on the Starry stonewort populations. It can be the species itself when introduced to a foreign environment that can be the problem.



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