



## *Huron Pines Invasive Species Treatment FAQ*

### **How does Huron Pines manage invasive species?**

Huron Pines uses an early detection and rapid response approach to managing invasive species. If we can detect invasive plants early on they are easier to treat and it's possible to eradicate them. Once they become well established, they often require repeated treatment and long-term monitoring to prevent further spread.

### **What treatment methods does Huron Pines use to contend with invasive species?**

We vary our approach based on the land, the plant species and a number of other circumstances. Our treatment methods include everything from pulling plants out by hand to treating them with herbicides. Huron Pines assesses each property we treat and we continuously strive to use the most effective treatment method with the lowest environmental impact.

### **Why does Huron Pines use chemical herbicides?**

For some invasive plants, the only practical and effective method of treatment is use of a herbicide. For example, phragmites and Japanese knotweed have an extensive root structure that cannot be easily pulled or dug up. When the roots are cut or mowed it promotes new growth.

### **What herbicide does Huron Pines use?**

We use the herbicide Rodeo. The active ingredient is a 53.8% concentration of the chemical glyphosate.

### **What does Rodeo/glyphosate do?**

Rodeo is applied to the leaves or cut stumps of plants and is then absorbed by the plant where it travels through the plant's system down into the roots. Rodeo chemically inhibits an enzyme that is only found in plants and microorganisms that is essential for the formation of specific amino acids. Without these amino acids, the plants cannot survive.

### **Why does Huron Pines use Rodeo/glyphosate?**

Rodeo is approved by the State of Michigan (MDEGLE) for safe use in and around water. This is because its molecules break apart/dissolve in water. It additionally does not stay in the soil as long as some other herbicides do because it is degraded by soil microbes.

### **What is the difference between store bought herbicides and what Huron Pines uses?**



Huron Pines has the ability to purchase our ingredients separately. This means we create a mixture specific to the plant we're working to remove. We add water to dilute the herbicide to the lowest known effective concentration, for example, our herbicide concentration for phragmites is 2%. This means that for each plant species we can properly adjust the concentration of herbicide. A pre-mixed herbicide from the store is going to have a single concentration that cannot be adjusted. Every plant will be getting hit with the same concentration whether it needs that much or not. We also add a surfactant and a dye to our mix to make it safer and more effective to apply. The surfactant helps the mixture stay on the leaves of the plants and assists in the ability of the herbicide to penetrate through the leaf membrane. The dye lets our staff, as well as landowners, clearly see where the herbicide mixture has been applied.

### **How does Huron Pines maintain the safety of people, plants and wildlife?**

Anyone treating invasive species from Huron Pines goes through the Michigan Department of Agriculture and Rural Development (MDARD) certification program to become commercially certified to properly and safely apply herbicides. During the certification process, staff learn when it's safe to treat, how to minimize potential drift by adjusting sprayer pressure, height of spray and type of nozzle being used. We also assess the site to determine the best method to use for the situation, these methods include spraying from a nozzle, swiping plants by hand or injecting herbicide directly into the plant.

MDARD also has specific compliance requirements and they can perform audits at any time to see that Huron Pines is properly following those requirements. We also obtain special permits for each county that we service from the MDEGLE and we submit a map of each property to be treated to the MDEGLE prior to any application. Huron Pines also requires the signed permission of any landowner that would like invasive species removal. Additionally, we track and report many factors, such as the amount of herbicide used, acres covered, temperature, wind speed etc. to the MDEGLE and other state and federal partners as well as to the Midwest Invasive Species Information Network treatment tracker.

### **What personal protective equipment (PPE) does Huron Pines staff wear during treatment?**

Anyone applying herbicide is required to wear non-absorbent shoes, socks, long pants, long sleeves, and gloves. However, our staff also wears two pairs of gloves (a pair of standard medical style gloves under a pair of thicker longer chemical resistant rubber gloves), and often a safety mask, glasses, a tyvek coat. For hand swiping activities, a third outer cloth glove is worn.

### **Is there anything else I should know about herbicides?**



## Huron Pines

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Although Rodeo is approved for safe use in water, it does not mean that its application should be taken lightly. All herbicides should only be applied by trained individuals who have the proper permits. Herbicide use should be taken cautiously and judiciously.