



# BONNER COUNTY NOXIOUS WEEDS

1500 Hwy 2, Suite 101 • Sandpoint, ID 83864 • Phone: (208) 255-5681 ext.6  
<https://www.bonnercountyid.gov/noxious-weeds>

## Weed of the Month

By Chase Youngdahl, *Bonner County Noxious Weeds Manager*

There was a bit of fuss this last summer surrounding the US Army Corps of Engineers' aquatic noxious weed treatments. Their treatments were mostly research based, with Flowering Rush being the target. The two chemistries used in the trials were diquat (Reward®) and endothall (AquaStrike®), and the amount of area treated across six USACE owned locations on the Pend Oreille system totaled 26 acres. This information was laid out in their bulletin that was disseminated to the public. On the same bulletin was notification of a terrestrial vegetation treatment at the Clark Fork Drift Yard, using glyphosate. A fragment of the community saw the word "glyphosate", and lumped that completely separate project in with the submersed treatments which resulted in the spread of misinformation. The Corps did not dump glyphosate into the lake, it was used on about 9,000 linear feet (probably half an acre of total surface area) of exposed debris boom at the drift yard. Yes, I know that there have been civil cases surrounding the user safety of glyphosate, specifically as it relates to cancer. Objectivity does not always prevail in court when you factor in skilled attorneys being paid to paint a certain picture for their client, on top of a sympathetic jury that's eager to lay blame at the feet of a huge corporation—which was my analysis of the Johnson vs. Monsanto case (the 1<sup>st</sup> such major case in the U.S. surrounding glyphosate, and the one that subsequently launched the class action suits that you see on T.V. commercials). Herbicides go through periodic re-registration, which glyphosate did go through a few years ago. 2018 Agricultural Health Study, the largest epidemiologic study on glyphosate-based herbicides (which was supported by the U.S. National Cancer Institute) followed over 50,000 licensed applicators on a voluntary basis over the span of 20 years (1997-2017). The study concluded no associations between glyphosate use and Non-Hodgkin's Lymphoma, and was one component of EPA's re-registration process in the United States. I often hear the counter-argument of chemical corporations funding all of the studies received by EPA, therefore creating a research bias. Regarding the glyphosate re-registration, there were 121 studies submitted to regulators and only 11 of them were sponsored by Monsanto, with the other 110 sponsored by other parties. Whether or not you chose to use glyphosate is a personal decision, but it is still an approved herbicide for non-selective vegetation control, and one that is safe when used in accordance with the label, as backed up by objective science. I don't recommend it for general noxious weed control due to the non-selective nature of the chemistry, where an application results in a void typically filled in by even more weeds. Planting prep is a situation that often calls for glyphosate—it's in a standalone herbicide family



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and is unique in the fact that sensitive plantings can go into treated ground essentially right after use. Each tool has its place in the tool belt of herbicides. This is a somewhat long deviation from my weed of the month presentation, but a topic that I felt would be beneficial to expand upon. Just don't mix up my glyphosate interlude with aquatic noxious weed treatments. :-)

Weed of the Month is Flowering Rush (*Butomus umbellatus*), and is the sole species in the family Butomaceae. It's one of three submersed aquatic noxious weeds that exist in Bonner County, and can be identified by the triangular, fleshy leaves, as well as the thick rhizomes. During the drawdown period, pieces of the rhizomes can be found littered across the lake bottom, and are the primary culprit for contributing to spread. At peak growth in the summer, the leaves poke above the water surface in the shallows. Flowering Rush decreases aquatic biodiversity, interferes with recreational activities and harbors the intermediate host that causes swimmer's itch. It's also a detriment to one of our endangered species; Bull Trout. When Flowering Rush decides to take hold in and near Bull Trout territory, it creates ambush habitat for Northern Pike, a predatory fish that finds Bull Trout quite tasty.

When it comes to control, there's really no silver bullet, hence ongoing trials, including the ones performed by the Corps this last summer. Previous trials have shown that applying imazapyr (Polaris®, Habitat®, others) or imazamox (ClearCast®) on the lake/river bed during the drawdown period can be successful if all the stars line up. Flowering Rush is a somewhat unique aquatic weed, being that it actually starts growing prior to the seasonal flooding. If the treatment can be performed after it has sprouted, and timed within a day or two before a significant rain event, a decent reduction in Flowering Rush density can be achieved (in the areas that are still de-watered). The post application rain is a component not to be taken for granted since most aquatic herbicides quickly photodegrade (break down from UV rays)—the rain carries the herbicide beneath the surface of the soil before the sun can compromise the integrity of the chemistry. For a mechanical method, a reasonable amount of control can be maintained by digging up the rhizomes while keeping them intact, and disposing of them on land. When it comes to vegetative herbicide treatments in the submersed environment, it seems as though contact herbicides are about the only option as of now, especially in flowing systems where fast acting chemistries are necessary for reduced contact time. Most herbicides are systemic, where the modes of action work through the plant's vascular system to kill it. Contact herbicides only kill the parts of the plant that it comes into contact with, by rupturing the cell walls. Diquat and endothall are two of very few chemistries that fall into that category, and anecdotal evidence indicates a solid burndown within the season treated. Time will tell if the trials are successful, and whether sustained control can be achieved—ideally, with minimal impacts to native flora.



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For herbicide control by private property owners below the high water mark, keep in mind that you need to hire a licensed aquatic applicator with a valid pollutant discharge permit for work on the Pend Oreille watershed. This applies to both submersed treatments, as well as the lake bed treatments in the drawdown environment.

We're in a volatile time right now—where tensions run high on nearly every issue, and misinformation flies in from all directions—exacerbated by social media. It's good to consider multiple viewpoints, but be wary of highly emotional responses, and responses that seem embellished. It's not uncommon to encounter content containing cherry picked information to shape a narrative while coming across akin to high pressure sales tactics (think petitions, etc.). Dig beneath the surface, and try to draw accurate information from credible sources to avoid conjecture.

All the best for the holiday season.