

Efficacy of combinations of diquat or triclopyr with fluridone for control of flowering rush

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Flowering rush (*Butomus umbellatus* L.) is an emerging invasive aquatic weed in the northern tier of the United States and southern Canada. Although several management approaches have been tested, submersed treatment with diquat is the only use pattern substantiated with field efficacy data. We tested treatments of fluridone (30 ug L⁻¹) with and without prior treatment with either diquat (0.19 mg L⁻¹) or triclopyr (2 mg L⁻¹), as well as diquat (0.19 mg L⁻¹) or triclopyr (2 mg L⁻¹) alone. Each treatment, and an untreated reference, was replicated in four 380-L tanks at an experimental mesocosm facility. After 8 wk, all treatments were harvested, and pots separated into above- and belowground biomass. The number of ramets and rhizome buds in each pot was also counted. Triclopyr was not effective in reducing above- or belowground biomass, or rhizome bud density. Both diquat and fluridone alone were effective in reducing above- and belowground biomass and rhizome bud density, with no statistical difference between treatments. Pretreatment with diquat did not improve the efficacy of fluridone treatments. Results suggest fluridone may be an option for flowering rush control in sites where an adequate exposure time can be maintained.