Detroit Lakes Flowering Rush Management Study 2011
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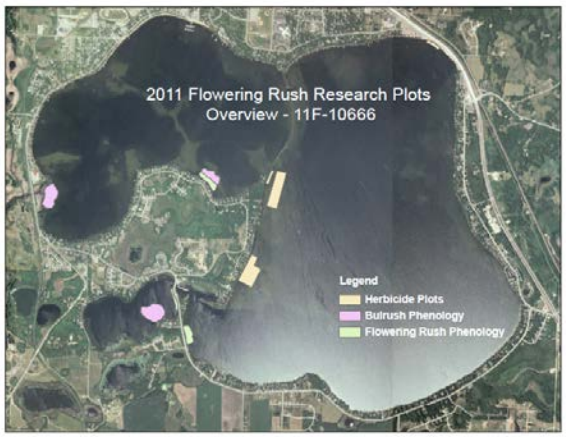
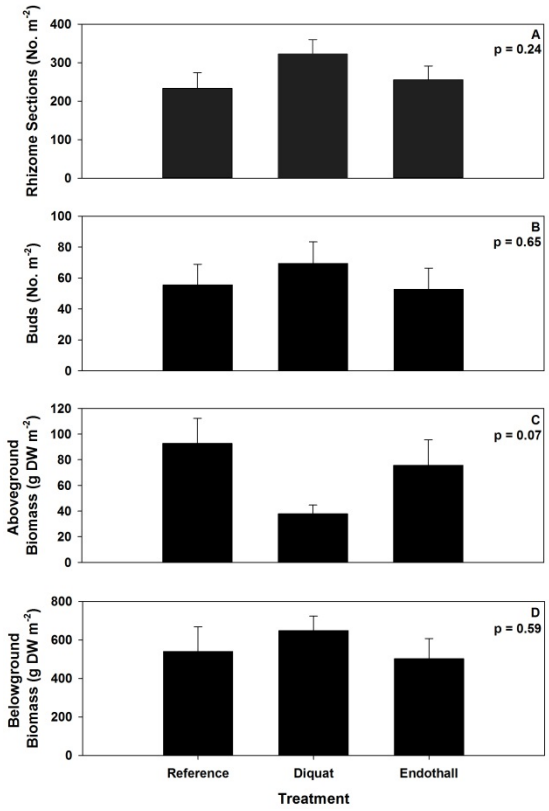
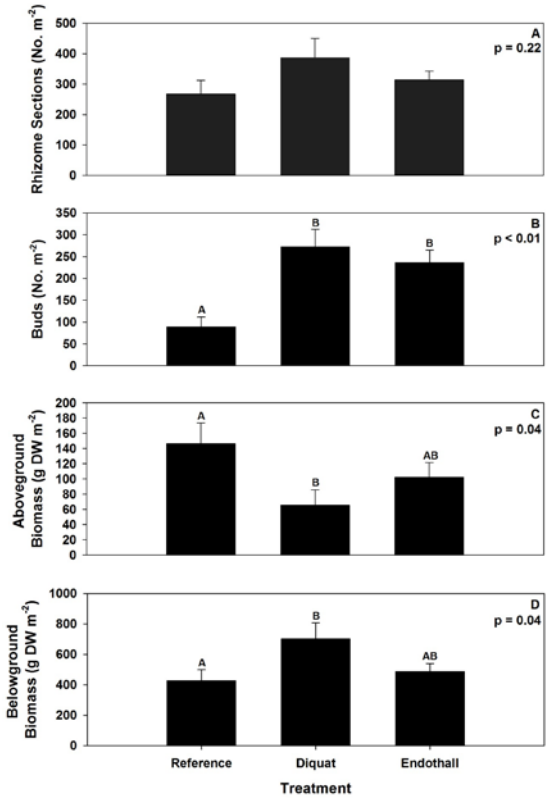
We treated two 10-acre plots with Aquathol-K at 3 ppm, two 1-acre plots with Diquat at 2 gallons per surface acre, and used two phenology plots as a reference.



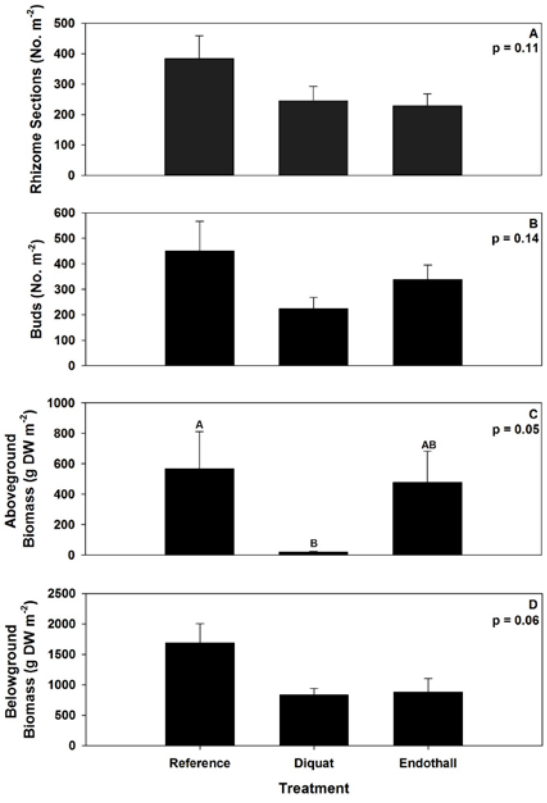
The two diquat plots had a half-life of around 2 hours, and the two endothall plots had half-lives of around 3 to 12 hours. John Skogerboe has the exact numbers for each treatment time. Diquat was treated twice, endothall just once. Biomass was collected through ten cores per plot before treatment, and in July and August. In addition, 25 points were sampled for presence/absence in each plot.

For the analysis, the two reference plots, the two diquat plots, and the two endothall plots were combined by treatment for analysis. Pretreatment data at right demonstrates that the six plots were not statistically different with respect to the density of rhizomes, density of buds, and above or belowground biomass.





Four weeks after the first treatment in June, there was no difference in rhizome density. Treated plots had significantly more buds than untreated plots, which may be related to a compensation response from the treatment. Aboveground biomass in the diquat treatment was significantly less than the reference, but not the endothall treatment. Belowground biomass was greater in the diquat treatment than the reference.



In August, after the second diquat treatment, no difference was observed in rhizome or bud density. Aboveground biomass was significantly less in the diquat plot than the reference, and no difference in belowground biomass between reference and any treatment.

Treating twice with diquat was effective in reducing aboveground biomass, but not sufficient to reduce rhizome biomass or density.

We will further analyze point data and look at 2010 data for the report.

While diquat can control aboveground biomass, the effect long-term is still uncertain.