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Evaluation of sethoxydim for torpedograss control in aquatic and wetland sites

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Invasive grasses constitute one of the most difficult aspects of vegetation management in many aquatic and wetland systems. Current management strategies primarily include the herbicides glyphosate and imazapyr, which are effective, but largely nonselective. Sethoxydim is a selective graminicide that recently received a 24(c) label for invasive grass control in aquatic systems in Florida. Here we report data from four field studies conducted at three locations in South Florida from 2015 to 2017 to evaluate the performance of sethoxydim for torpedograss control. Aerial-, ground-, and airboat-applied studies indicated that sethoxydim controlled torpedograss for varying lengths of time, from approximately 1 to 11 mo depending upon several factors. Sequential sethoxydim applications applied in the late spring just before flooding resulted in greater than 90 and 67% control at 180 and 360 d after treatment (DAT), respectively. However, aerial treatments applied in the fall provided only short-term reductions in torpedograss cover of approximately 70% for 2 mo. Airboat spot treatments applied in the fall resulted in greater than 90% control at 120 DAT but torpedograss recovered the following summer. Treatments of glyphosate + imazapyr generally outperformed sethoxydim across most of the studies. These studies indicate that sethoxydim may be useful for selective torpedograss control. However, it will likely be a more nuanced treatment than glyphosate and imazapyr and retreatment intervals should be further clarified.