Herbicide Information

Field Evaluation of the Herbicide Triclopyr for Managing Eurasian Watermilfoil

Introduction

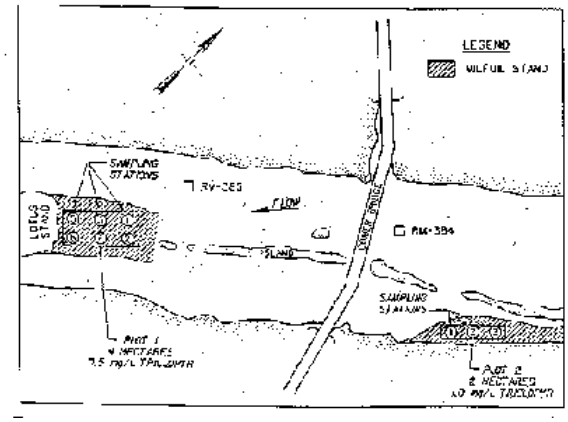
The herbicide triclopyr (3,5,6-trichloro-2-pyridinyloxyacetic acid), formulated as a triethylamine salt (Garlon 3A), has been used for over 15 years to control broadleaf weeds in forestry, industrial, and other noncrop terrestrial sites. Triclopyr is an auxinlike, systemic herbicide with a mode of action and spectrum of weed control similar to that of phenoxy herbicides, such as 2,4-D (2,4-dichlorophenoxy acetic acid). Manufactured by DowElanco, triclopyr is registered for aquatic sites through 1992 under a Federal Experimental Use Permit (EUP). The US Environmental Protection Agency is currently considering the product for full aquatic registration. Previous field evaluations have shown that triclopyr can provide aquatic plant managers with a feasible alternative to 2,4-D for controlling Eurasian watermilfoil, waterhyacinth, alligatorweed, melaleuca, purple loosestrife, and other nuisance vegetation (Getsinger and Westerdahl 1984, Langeland 1986, Green and others 1989, and Wujek 1990).

Results from concentration/exposure time studies conducted at the US Army Engineer Waterways Experiment Station (WES) showed that triclopyr provided excellent control of the submersed species Eurasian watermilfoil (hereafter called milfoil) under laboratory conditions when that plant was exposed to concentrations ranging from 2.5 to 0.25 milligram acid equivalent per litre (mg ae/L) triclopyr for 18 to 72 hours (Netherland and Getsinger 1992). In an effort to verify results from these laboratory studies and to evaluate the species-selective properties of triclopyr, WES researchers have been applying triclopyr under an EUP to milfoil-dominated plant communities in the Pend Oreille River, Washington, and Guntersville Reservoir, Alabama. Cooperators in this work have included the Seattle District, the Washington Department of Ecology, the Tennessee Valley Authority, and DowElanco. Results from these field evaluations will furnish guidance for the use of triclopyr in aquatic systems. This article provides an update on the ongoing tryclopyr field studies.

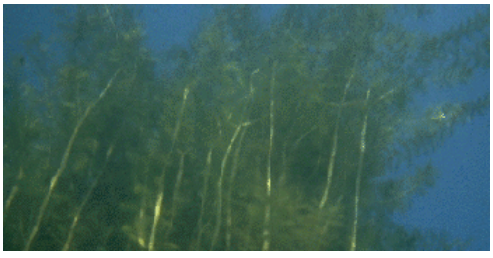
Guntersville Reservoir

Approach

Two plots were selected for triclopyr treatment: plot 1, a 4-hectare (10-acre) area approximately 2 kilometres downstream of Comer Bridge near river mile 385; and plot 2, a 2-hectare (5-acre) area approximately 1 kilometre upriver of Comer Bridge



Water depth in the plots ranged from 0.5 to 1.75 meters. Dense milfoil growth covered about 90 percent of the surface area of plot 1



Herbicide Restrictions

Watermilfoil Field Eval

Herbicide ID Sys

Chemical List

Total List

By Plant Species