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CATTAIL CONTROL WITH GLYPHOSATE FOR BLACKBIRD ROOST MANAGEMENT. Calvin G. Messersmith, Kevin B. Thorsness, Rodney G. Lym, North Dakota State University, and David L. Bergman, USDA-APHIS Denver Wildlife Research Center, North Dakota Field Station, Fargo, ND 58105.

ABSTRACT

Cattail marshes provide excellent habitat for blackbird nesting in spring and roosting in autumn during migration. Blackbirds feed preferentially on sunflower in nearby fields. Annually, 2 to 5% of the sunflower crop in North Dakota is lost to predation, but losses in fields near roosting sites can exceed 90%.

Glyphosate (RODEO®) plus surfactant at 0.5% by volume was applied to cattail in the catkin development stage in two marshes on August 12, 1991. Treatments were applied by helicopter with a microfoil boom delivering 94 L/ha. Evaluations included visible stand reduction on July 7, 1992, and infrared pictures taken on August 8, 1992, which were scanned for cattail colors with Geographic Information Systems (GIS).

Cattail control by glyphosate decreased with rate with 2.2 > 1.7 > 1.1 kg/ha using visible control ratings but did not vary greatly with rate using GIS evaluation. Cattail control by glyphosate at 2.2 kg/ha for visible and GIS evaluations averaged 90 and 95%, respectively. Glyphosate at 1.1 and 1.7 kg/ha provide 85% or greater cattail control using the GIS evaluations, which may be adequate control for blackbird roost management. Cattail control by glyphosate was similar when applied with either Li-700 or X-77 surfactants.

Cattail control ratings were higher for GIS evaluation of infrared pictures than for ground-level visual evaluation. Visual evaluation may have underestimated cattail control with low glyphosate rates because the remaining plants were tall and dense, whereas the area infested from an aerial image was small and not affected appreciably by plant height. (Published with approval of the North Dakota Agricultural Experiment Station).