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Dionn Schaaf

North Dakota State University, Fargo

George M. Linz

USDA/APHIS/WS National Wildlife Research Center, george_m_linz@yahoo.com

William J. Bleier

North Dakota State University, Fargo

H. Jeffrey Homan

USDA/APHIS/WS National Wildlife Research Center

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NSA Contact Information:

National Sunflower Association
4023 State Street
Bismarck, ND 58503-0690

<http://www.sunflowernsa.com/>

(701) 328-5100
fax (701) 328-5101
(888) 718-7033



AVIAN USE OF RIPENING SUNFLOWER FIELDS

DIONN SCHAAF¹, GEORGE M. LINZ², WILLIAM J. BLEIER¹, AND H. JEFFREY HOMAN²

¹Department of Zoology, North Dakota State University, Fargo, ND 58105

²National Wildlife Research Center, Great Plains Field Station, Bismarck, ND 58501

INTRODUCTION

In the United States, more than 90% of cultivated sunflower is raised in the northern Great Plains. Cattail marshes in this area provide nesting and roosting sites for red-winged blackbirds, yellow-headed blackbirds, and common grackles. North Dakota's breeding blackbird population was estimated at more than 2.3 million pairs in 1990. Sunflower has become an important part of blackbirds' diet from July-October. In 1999 and 2000, research was conducted on the use of avicide-treated (DRC-1339, 3-chloro-*p*-toluidine hydrochloride) rice baits for managing blackbird damage in problem areas. DRC-1339 was chosen for this purpose because of its high toxicity to blackbirds and low toxicity to mammals and some species of nontarget birds, especially sparrows, finches, and most raptors.

METHODS

From August-October 2000, 12 fields in Stutsman and Barnes counties in east-central North Dakota were used to investigate the risk of poisoning nontarget birds with the use of DRC-1339. Ten census points were placed in each field. Censusing began within 15 minutes of sunrise. A two minute quiet period was used to allow disturbance to settle between reaching the census point and beginning the count; an eight minute count period followed. All birds were identified as to species, sex, and age if possible. Habitat type, direction and distance from the point were recorded with distance listed to the nearest 5m within 25m. Distances beyond 25m were recorded as 25-50m or over 50m. All birds flying over the plots were also recorded.

RESULTS

Each of the 12 fields was visited 7 times, for a total of 84 field censuses. We observed a total of 82 non-blackbird species, with 49 of these being observed in sunflower fields or foraging in flight over sunflowers (Table 1). Of those 49 species, 30 were seed eaters that might consume rice. Seed eating species included 16 species of sparrows and 3 species of finches; all 19 species are thought to have low susceptibility to DRC-1339. Observations of other members of the blackbird family, which are highly susceptible to DRC-1339, included only 1 bobolink and 2 western meadowlarks recorded in the sunflowers.

We recorded 8 species of waterfowl, totaling 2619 individuals, that flew over the sunflowers or were

seen in wetlands next to sunflowers. None were observed in the sunflowers themselves. This number includes 1382 geese which passed over the fields during migration.

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