

United States  
Department of  
Agriculture

Animal and  
Plant Health  
Inspection  
Service

**Wildlife  
Services**

FY 2004

## Reducing Blackbird Damage to Feedlots and Ripening Sunflower Crops

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### National Wildlife Research Center Scientists Address the Concerns of Sunflower Producers and Feedlot Managers

Wildlife Services' (WS) National Wildlife Research Center (NWRC) is the only Federal research facility devoted exclusively to resolving conflicts between people and wildlife through the development of effective, selective, and acceptable methods, tools, and techniques. NWRC's Bismarck, ND, field station is ideally located to study methods for managing blackbird damage to sunflower crops in the northern Great Plains.

Blackbirds and starlings damage grain crops and eat livestock feed, causing significant economic losses to agricultural producers. NWRC scientists are studying ways to refine current damage abatement methods and develop new methods for reducing damage. In addition, researchers are looking to expand capabilities to target specific problem-causing blackbird populations on both local and regional scales with predictable results.



sunflower fields and establish habitat for wildlife. As expected, the majority of birds using the plots were blackbirds; however, 28 non-blackbird species also were recorded in the sunflower fields. This study will continue in 2005 and 2006 to gather data to support the use of Wildlife Conservation Sunflower Plots as a broad-based dual-purpose wildlife management strategy.

### Applying Science and Expertise to Wildlife Challenges

**Conservation Sunflower Plots**—During the last decade new farm programs have placed more emphasis on wildlife conservation. In 2004, NWRC and North Dakota State University scientists collaborated to evaluate decoy sunflower plots, called Wildlife Conservation Sunflower Plots, planted to reduce blackbird damage to commercial

**Starling Population Management Modeling**—Feedlots and dairies are major gathering sites of European starlings from November through February. Starlings eat valuable livestock feed and also leave fecal matter on livestock, facility superstructures, feeder troughs and feed, and may be a reservoir for transmissible diseases. Wildlife Services personnel manage starling numbers with an avicide but lack a standardized methodology to estimate mortality at feedlots and dairies. NWRC scientists have developed a bioenergetics model to estimate mortality and will test this model for accuracy in the field in winter 2005.

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**Major Research Accomplishments:**

- WS developed a model to estimate the mortality of starling populations managed with an avicide.
- WS is developing a strategy to plant Wildlife Conservation Sunflower Plots to reduce damage to commercial sunflower fields and provide habitat for other animals.
- WS determined the amount of cattail in the Prairie Pothole Region of North Dakota to be estimated at 547,341 acres.
- WS discovered two chemical compounds - one that is currently registered as an insecticide for sunflower and one in development that might discourage blackbirds from feeding on sunflower.

**Blackbird Reproduction**—Removal of birds from the breeding population should lower their breeding densities and presumably reduce the number of new birds added to the population each year. Logically, a smaller blackbird population should result in less crop damage. The population might compensate with increased reproduction but empirical data are not available to test this hypothesis. In 2004, NWRC and North Dakota State University scientists col-

