

ception. Cracked and whole corn coated with a mixture of nicarbazin, corn oil (to act as glue), and milk powder (to mask the taste) had high acceptance by Canada geese, but many non-target birds would also consume this bait. Experiments with captive Canada geese demonstrated that a product called OvoControl-G™ (developed by Innolytics LLC) is a highly palatable bait. OvoControl-G™ is a semi-soft, wheat-based bread bait that contains 2500 ppm nicarbazin and resembles a kernel of corn in shape and color. Canada geese in pens at NWRC consumed enough OvoControl-G™ bait to provide a contraceptive dose of nicarbazin. As a result, OvoControl-G™ was

selected as a suitable bait for field efficacy studies that will be used to support registration of nicarbazin by the Environmental Protection Agency (EPA) as a reproductive control agent for Canada geese.

The Field Efficacy Study—A field study of the effectiveness of nicarbazin in reducing the hatchability of Canada goose eggs was conducted during spring 2004 in Oregon. After a period of acclimation, nicarbazin-treated bait was made available to free-ranging, resident Canada geese for 6 weeks. Nests were located and monitored until hatching or for at least 5 days beyond the expected hatching date to determine hatchability. Sixty-nine nests at treated sites and 46 nests at non-treated sites were monitored to determine the hatching success of Canada goose eggs. Hatchability at sites where nicarbazin-treated bait was consumed by geese was approximately 51% lower than hatchability at sites where non-treated bait was consumed. Data from this study are being submitted to support EPA registration of nicarbazin as a reproductive inhibitor for Canada geese.



Groups Affected by This Problem:

- Airports and patrons
- Municipalities
- Homeowners
- Homeowners' associations and property managers
- Citizens using urban recreational facilities
- Golf courses and patrons
- Farmers
- Livestock producers
- Natural resource managers

Major Cooperators:

- Innolytics, LLC
- Wildlife Services Operations



Selected Publications:

- Stahl, R. S.; VerCauteren, K. C.; Buettgenbach, T. L.; Johnston, J. J. 2003. Determination of 4,4' dinitrocarbanalide (DNC), a component of nicarbazin, in Canada Goose (*Branta canadensis*) eggshells using high-performance liquid chromatography. *Journal of Agriculture and Food Chemistry* 51:1130-1135.
- VerCauteren, K. C.; Lavelle, M. J.; Shively, K. J. 2003. Characteristics of grit in Canada goose gizzards. *Wildlife Society Bulletin* 31: 265-269.
- VerCauteren, K. C.; Marks, D. R. 2003. Movements of urban Canada geese: implications for nicarbazin treatment programs. In: Moser, T. J., et al. eds. *Proceedings of the International Canada Goose Symposium*; 19-21 March 2003; Madison, Wisconsin.