

Questions and Answers: OvoControl®—Oral Contraceptive Baits for Canada Geese and Feral Pigeons

Q. What is OvoControl®?

A. OvoControl is an oral contraceptive bait for use on resident or urban Canada goose and feral pigeon populations that reduces the hatchability of eggs. It was developed by scientists at the U.S. Department of Agriculture's (USDA) Wildlife Services' (WS) National Wildlife Research Center (NWRC) and by Innolytics, LLC.

Q. Why are resident Canada geese and feral pigeons considered a problem?

A. Large populations of resident Canada geese are often considered a nuisance and can be a potential health risk because they foul land and water with their droppings and can collide with and damage aircraft. Recent studies have also found *Escherichia coli*, *Listeria* and *Campylobacter* bacteria—strains associated with human disease—in Canada goose feces.

The feral pigeon is an invasive species responsible for estimated damages totaling more than \$1 billion annually. At least 70 human pathogens—including those that cause diseases such as histoplasmosis and cryptococcosis—are known to reside in feral pigeon populations.

Q. How does OvoControl® work?

A. OvoControl contains nicarbazin. Nicarbazin is a compound traditionally given to broiler chickens to prevent the disease coccidiosis, one of the more common and costly diseases in poultry. Coccidiosis causes droopiness, paleness of the comb, diarrhea, and blood in the droppings and can lead to death of both chicks and adults.

A side effect of nicarbazin is decreased egg production and hatching rates. Nicarbazin affects the hatchability of eggs by changing the pH of the yolk and by weakening the yolk membrane, which allows the albumin and yolk to mix. It also inhibits sperm from fertilizing the egg. Because of this effect, when OvoControl is fed to Canada geese and pigeons

during their breeding season, the nicarbazin effectively reduces the hatching success of eggs. When nicarbazin is withdrawn from the diet, egg production and hatchability return to normal within a few weeks.

Q. What are the health effects associated with OvoControl®?

A. The health effects associated with OvoControl are minimal. In pen studies, body weight, blood gases, hemoglobin, hematocrit, and blood cell morphology were similar among birds in treatment and control groups.

In chickens, studies have shown that treatment with nicarbazin reduces the bird's ability to dissipate heat when environmental temperatures and humidity are both high (over 90 °F and 85 percent humidity). Because Canada geese nest in the spring, when the temperature and humidity conditions are not high enough to cause overheating, this side effect has not been observed. Also, Canada geese and pigeons can modify their behavior (e.g., by sitting in the shade, taking a bath, etc.) to help regulate their body temperature whereas caged chickens are limited in their movements. Overall, it appears that the side effects of nicarbazin in poultry do not apply to geese or pigeons.

Q. Are there any dangers or secondary hazards to humans, other birds, or animals that may eat the bait?

A. OvoControl® can reduce egg hatchability and production in all bird species. Because of this, only licensed wildlife specialists or pest control operators are permitted to buy and use OvoControl. They must follow label instructions to minimize the potential for nontarget wildlife species to feed on bait.

There are no known dangers associated with eating geese or pigeons that have been treated with OvoControl. It has been used extensively in the poultry industry for more than 50 years. Once OvoControl is digested and absorbed by the goose or pigeon, it is no longer biologically available to a secondary species.

Q. How long do the effects of OvoControl® last?

A. When nicarbazin is withdrawn from the diet, egg production and hatchability return to normal within a few weeks.

Q. Can OvoControl® be used with other wildlife species?

A. In addition to Canada geese and pigeons, OvoControl has been registered for use in Muscovy,

Mallard, and domestic ducks.

Q. What are the benefits of OvoControl®?

A. OvoControl is a nonlethal, humane method for managing overabundant resident Canada goose and feral pigeon populations. It is not harmful to geese, pigeons, other birds, waterfowl, or people. The goose product is a bread-like bait similar in shape and size to a large corn kernel. The pigeon bait is smaller and harder. The bait can be stored at room temperature for up to 3 years and can be distributed with broadcast bait feeders or by hand.

Q. What are the limitations of OvoControl®?

A. In order for the bait to be effective, geese must consume at least one ounce of the bait per day for at least 21 days prior to the start of the nesting season. The bait must continue to be consumed once a day throughout the entire goose nesting period, which lasts from 8 to 10 weeks. The use of OvoControl for geese is limited to sites in urban areas such as office parks, recreational parks, golf courses, schools, hospitals, restaurants, airports, and commercial and industrial sites. The use of OvoControl for pigeons is also limited to urban areas and should be applied year-round, depending on the climate.

Q. Who can use OvoControl®?

A. Because OvoControl is regulated by the U.S. Environmental Protection Agency (EPA) and is a restricted-use chemical, only licensed wildlife specialists or pest control operators are permitted to buy and use it. All requirements on the product label must be strictly followed.

Q. What can you expect in terms of population control following the first year of use?

A. OvoControl® has no effect on the current number of adult or juvenile resident geese or pigeons. Under ideal conditions, with all target birds consuming the appropriate dose during the breeding season, no new chicks are hatched. Under actual field use, not all targeted birds may consume the bait. Consequently, some chicks may still be observed, although the numbers would be significantly reduced. Field studies in pigeons have shown a 50–55 percent reduction in flock population within 1 year.

Q. How much does OvoControl® cost, and where can I purchase it?

A. Innolytics, LLC, has received regulatory approval from EPA to market and sell the new contraceptive bait. To find out more about the cost, please go to <http://www.ovocontrol.com/>. OvoControl can be purchased directly from Innolytics, LLC. The company's address and telephone are:

Innolytics, LLC
P.O. Box 975935
Rancho Santa Fe, CA 92067
Telephone: (858) 759–8012

Q. Who supports the use of OvoControl®?

A. OvoControl is a humane, nonlethal alternative to managing overabundant populations of resident Canada geese and feral pigeons. Its use is supported by numerous animal welfare and conservation groups, including: The Humane Society of the United States, People for the Ethical Treatment of Animals (PETA), American Society for the Prevention of Cruelty to Animals (SPCA) and the Peregrine Fund.

In 2005, OvoControl received the Best Bird-Friendly Innovation Proggy Award from PETA and the Outstanding Technology Development Award from the Federal Laboratory Consortium (FLC) Mid-Continent Region. The FLC is a nationwide network of Federal laboratories that provides a forum for developing strategies and opportunities that link Federal laboratory expertise with the private sector. In 2009, the NWRC received the Colorado Governor's Research Impact Award for its part in the development of OvoControl.

Q. What is the NWRC mission?

A. NWRC is the research arm of USDA's WS program, a nonregulatory program that provides Federal leadership in managing conflicts with wildlife. NWRC applies scientific expertise to the development of practical methods to resolve human-wildlife conflicts and maintain the quality of the environments shared with wildlife.

Q. How do I obtain more information on OvoControl® and NWRC?

A. For more information on OvoControl, please go to the WS NWRC Web site at http://www.aphis.usda.gov/wildlife_damage/nwrc/ or the Innolytics, LLC, Web site at <http://www.ovocontrol.com/>.

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