**General Description**

Ovistop® is an avian oral contraceptive formulated by adding nicarbazin (0.08 g for 100 g) to corn kernels, each coated with excipients to protect it from degradation.

Nicarbazin is a drug normally used by the poultry industry to treat a parasitic disease called coccidiosis. As a side effect, nicarbazin reduces or completely inhibits the fertility of eggs, depending on the dose administered. Fertility returns to normal about 10 days after the treatment has been suspended.4,5

Chemically, nicarbazin is a complex of 4,4’-dinitrocarbanilide (DNC) and 2-hydroxy-4,6 dimethyl pyrimidine (HDP). After ingestion, nicarbazin dissociates rapidly into its two components, DNC and HDP. DNC, which is the biologically active part of the complex, must be bound to HDP to be absorbed and to reach a plasma level that affects reproduction. Once dissociated, DNC and HDP are not able to re-combine.6,8

**Dosage and Administration**

Ovistop® is administered to pigeons by spreading the kernels on the ground, early in the morning, during the reproductive period. The recommended dose is 10 g/per pigeon/per day. A consumption of 10g a day for at least 5 days a week totally inhibits eggs hatchability in treated pigeons.

Administration may be carried out manually or by an automatic feeder.

Ovistop® should be distributed in clearly defined areas. Total consumption by pigeons should be monitored, and any leftover should be removed after every distribution.

**Efficacy**

Ovistop® inhibits the fertility of feral pigeons’ eggs. At the recommended dose, treated birds may not lay eggs or may lay eggs that do not hatch.

Several studies1,2,3 found that the treatment of a pigeon colony reduces numbers by 30% every year for up to 4 consecutive years, leading to a decrease of circa 70% of the initial number. Once this population reduction is achieved, the low density in the treated areas remains stable, provided that Ovistop is still employed.

Using Ovistop® in conjunction with other methods of pigeon population control improves the overall efficacy of bird management. These methods include limiting birds’ access to attics, and to buildings’ cavities, and reducing the availability of supplementary food source especially during Ovistop® distribution periods.

**Toxicity and Side Effects**

The acute toxicity (LD50) of nicarbazin is greater than 25,000 and 10,000mg/kg body weight, respectively in mice and rats. No adverse effects, apart from the impact on eggs production and hatchability, have been found in birds.6

The World Health Organization indicates that non-target mammals (including humans) would have to consume prohibitively large amounts of the product to produce any toxic effects. Based on the rat acute oral LD50 toxicology data, an acute single ingestion for a child (15kg or 33lbs) would have to exceed 60 kilograms (132 pounds) of bait and for a dog (10kg or 23lb.) this would exceed 40kg (88lbs) of bait to cause lethal effects in 50% of the population.8

The chemistry of the active ingredient minimizes the risks of any secondary effects on birds of prey. When ingested, nicarbazin rapidly turns into a biologically inactive form, and its residues are excreted from the body shortly after treatment. Any amount ingested through secondary intake is below the established no-effect level.6,8

When Ovistop® is used as described on the label, it is safe and well tolerated by feral pigeons and it does not present risks for other animal species, for the food chain or for the environment.
The recommended method for Ovistop® administration, the formulation of the bait (relatively large, made by corn kernels, suitable for a pigeon but not for the smaller songbirds) and the behavior of pigeons, that tend to consume all the treated bait at bait stations, minimize bait consumption by non-target species.

The reproduction of other bird species might be affected if these animals fed on treated bait on a regular basis, but these effects will be reversible.

Leaching of nicarbazin from the bait is minimized by its formulation and by the administration method. The risk for environmental contamination by pigeon excrement is negligible and well below the limits indicated by the European Medicines Agency. Ecotoxicity data indicate Ovistop® has a very low toxicity to aquatic organisms.

Raptors don’t eat corn kernels, and the probability that a bird of prey is affected by undigested Ovistop® present in a treated pigeon’s alimentary tract is extremely low.

Ovistop® has no effect on mammals, reptiles, and on other animals that might consume the bait.

**Learn More**

For more information, please write to info@ovistop.it

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**References**


