TECH NOTE

Wildlife Services

APHIS

United States Department of Agriculture

Animal and Plant Health Inspection Service

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Compound DRC-1339 Concentrate-Pigeons

(EPA Reg. No. 56228-28)

DRC-1339 is an avicide registered by the Animal and Plant Health Inspection Service's (APHIS) Wildlife Services (WS) program for the control of blackbirds, starlings, pigeons, crows, ravens, magpies, and gulls.' Only certified applicators working for WS, or persons under their direct supervision, can apply this avicide. APHIS/WS has five DRC-1339 products registered with the U.S. Environmental Protection Agency (EPA) to use for bird problems that cannot be resolved by other commercially available products. The Compound DRC-1339 Concentrate-Pigeons (1339-PGN) registration provides a product that can safely be used for the control of common or feral pigeons (rock doves) in or around structures.

Acute Toxicity to Birds and Mammals

DRC-1339 is highly toxic to many birds that are considered pests but is much less toxic to many nonpest species, including raptors and most mammals. Whole-corn baits prepared with 1339-PGN are treated with 0.4 percent DRC-1339; approximately two to five kernels are lethal to a pigeon.

Potential Hazards to Nontarget Species

Numerous studies conducted by WS have shown that 1339-PGN poses little acute hazard to nontarget animals when used according to label directions. Risks to nontarget species are site specific and can be controlled by the choice of bait and bait site and by careful prebaiting and observation. To reduce the potential for chemical aversion to 1339-PGN and to reduce nontarget-animal poisoning, dilution with untreated bait is required. Dilution factors were developed by determining the amount of bait that could be ingested by target birds at a single feeding. Birds that may be at risk of poisoning on rooftops or in and around structures include mourning doves, blackbirds, magpies, flickers, cardinals, and bluejays. The presence of these birds on bait sites during prebaiting-unless they can be excluded by bait selection or placement-may be sufficient reason to cancel or delay bait applications. The acute-poisoning risk to mammals, such as dogs, cats, foxes, raccoons, and skunks, is minimal because the recommended baits are not readily accepted by these species.

There have been no documented secondary poisonings of mammalian scavengers or predators with 1339-PGN and only one reported incident with a crow, even though WS has been monitoring its use for more than 25 years. Dead pigeons should be retrieved, burned, or buried whenever possible if cats and owls may be exposed. A cat or owl could be poisoned if it fed exclusively on birds poisoned with DRC-1339 for more than 100 days; however, the risk is minimal because use and exposure to bird carcasses occurs for just a few weeks.

Toxicity and Stability in the Environment

DRC-1339 is unstable in the environment and degrades rapidly when exposed to sunlight, heat, and ultraviolet radiation. DRC-1339 is also highly soluble in water but does not hydrolyze. Baits treated with 1339-PGN have a short life when exposed to the elements. The baits discolor rapidly in direct

sunlight and degrade when exposed to moisture. The life of exposed baits can vary from a few hours under high humidity and direct sunlight to more than a week under dry, dark conditions. Although rain can leach DRC-1339 from baits, DRC-1339 binds very tightly to soils, has low mobility, degrades rapidly, and will not migrate. DRC-1339 is moderately toxic to fish, and also toxic to some invertebrates, so direct or indirect application to water is prohibited.

Bait Selection

When pigeons become a nuisance in and around structures and cannot be controlled by other means such as exclusion, or when other commercially available products fail, 1339-PGN should be used. The only bait and treatment rate currently allowed for pigeons is whole-kernel corn treated at 0.37 percent with 1339-PGN.

Site Selection

Most pigeon-control operations occur in or around structures in an urban environment. Placing bait in trays or containers on building roofs or directly applying 1339-PGN to structural surfaces greatly reduces hazards to nontarget birds. Bait placed on the ground increases hazards to nontarget species, especially to ground-feeding granivorous species.

Prebaiting

Prebaiting (placing untreated corn at a site) is recommended before treating a site with 1339-PGN unless the site is consistently used by pigeons and they are already used to feeding on whole corn. Prebaiting by WS personnel or others can establish and maintain a bait site while observations of nontarget species are being conducted.

Bait Formulation and Preparation

Baits with 1339-PGN can be prepared in cement mixers, plastic bags, plastic buckets, or on plastic dropcloths. Place the required amount of bait in or on the mixing location, and slowly add the appropriate amount of DRC-1339/water or DRC-1339/oil to the bait while mixing thoroughly. Adding an adhesive or binding agent such as corn syrup, molasses, corn starch, or malt to the formulation, at rates of 1 to 2 oz per 10 lb of total mixture, may enhance chemical retention and reduce the problem of aversion to DRC-1339, which is common with 1339-PGN. Treated baits should be dried at ambient temperature (between 32°F and 90°F) without direct exposure to sunlight and should be stored in a cool, dry, and dark location until used. All treated baits must be used within 7 days of preparation because of the degradation of DRC-1339.

Bait Dilution

The dilution ratio for 1339-PGN-treated baits varies from 1:2 (1 part treated:2 parts untreated) to 1:5 or more. Dilution reduces bait aversion, reduces the incidence of pigeons ingesting multiple lethal doses, allows reduced application rates, and keeps bait sites active by ensuring that not all pigeons are exposed at one time.

Endangered Species Considerations

There is no evidence that the use of 1339-PGN in and around structures will have an impact on any threatened or endangered species; as a precautionary measure though, EPA prohibits some uses in areas where peregrine falcons are present. Before authorized applicators use 1339-PGN, they should follow existing labeling and contact local, State, and Federal wildlife agencies to verify that no threatened or endangered species are present that could be harmed by baiting.

Sources of Information

Additional information on this product can be found in the April 1994 ADC Final Environmental Impact Statement (Appendix P), in Material Safety Data Sheets supplied by the Pocatello Supply Depot, and in the 1995 Handbook on Prevention and Control of Wildlife Damage. Specific information on this product can be obtained through the National Wildlife Research Center (NWRC) (970-266-6000) or through the NWRC web site http://www.aphis.usda.gov/ws/nwrc. For further information about the availability of this product, contact your WS State Director, or the Pocatello Supply Depot.