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# Current Uses of Avitrol® for Bird Management

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**Abstract:** Information is presented concerning the use and registration status of Avitrol Corporation products for pest bird management. These products have 4-aminopyridine as the active ingredient. Data were gathered from current U. S. Environmental Protection Agency (EPA) registration status, state and company files. Various Avitrol products are registered in all 50 states and in Canada.

**Key Words:** blackbirds, cowbirds, crows, grackles, gulls, house sparrows, pigeons, starlings, Avitrol®, 4-aminopyridine

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## INTRODUCTION

Many species of birds become problems. They damage crops; create health problems for man and animals; collide with aircraft; damage cars and equipment, statuary, and other items; create fire hazards; adulterate human and animal food; damage foliage; and their droppings cause odor and unsightly filth. Avitrol products, all of which are Restricted Use Pesticides, provide one of the alternative methods to reduce or control these problems. The active ingredient in Avitrol baits is 4-aminopyridine, a potassium channel blocker, which causes birds that ingest a treated bait to react in a strange manner. This reaction is interpreted by the remainder of the flock as an alarm or distress reaction. With many species, this reaction will cause the flock to leave the site.

## TARGET SPECIES AND PRODUCT REGISTRATION

Avitrol Corporation maintains registrations for the control of the following bird species:

- blackbirds (including red-winged, *Agelaius phoeniceus*; yellow-headed, *Xanthocephalus xanthocephalus*; Brewer's, *Euphagus cyanocephalus*; and rusty, *Euphagus carolinus*)
- cowbirds (including brown-headed, *Molothrus ater*, and others)
- common crow, *Corvus brachyrhynchos*
- grackles (including common *Quiscalus quiscula*, and others)
- gulls (including herring, *Larus argentatus*, and others)
- house sparrow, *Passer domesticus*
- pigeon (aka rock dove), *Columba livia*
- European starling, *Sturnus vulgaris*

## AVITROL USE PATTERNS

In total pounds used annually, Avitrol FC Corn Chops-99 (EPA Reg. #11649-12) remains the number one Avitrol bait. This formulation is used for the control of grackles, red-winged and yellow-headed blackbirds,

cowbirds, and starlings in ripening field and sweet corn, and in ripening sunflower fields. Total annual poundage of this product peaked in the mid-1970s and then declined for a number of years. Usage has remained relatively constant for the last decade (Avitrol Corp. 2002a,b).

The most widely used Avitrol bait remains Avitrol Whole Corn EPA Reg. #11649-7 for the control of pigeons in the area of structures, feeding, nesting, loafing, and roosting sites. This product is registered and used in all 50 states and in Canada. It is primarily used in urban settings and is the staple of pest control companies specializing in bird control. Although the pigeon is a legal target species on the Avitrol Mixed Grains bait, Avitrol Whole Corn is the preferred bait for the pigeon. In general terms, a kernel of whole corn impregnated with 0.5% 4-aminopyridine contains about one LD<sub>50</sub> for an average pigeon—enough to “dose” the bird.

Avitrol Mixed Grains (EPA Reg. #11649-4, for the control of pigeons; house sparrows; red-winged, rusty, Brewer's, and yellow-headed blackbirds; cowbirds; grackles; and starlings), Avitrol Corn Chops (EPA Reg. #11649-6, for the control of house sparrows; red-winged, rusty, Brewer's, and yellow-headed blackbirds; cowbirds; grackles; and starlings), and Avitrol Double Strength Corn Chops (EPA Reg. #11649-5, for the control of red-winged, rusty, Brewer's and yellow-headed blackbirds; cowbirds; grackles; and starlings) complete the list of Avitrol major products. Each of these has approximately the same share of the total Avitrol market. The total annual pounds used for all 3 of these products is less than that for Avitrol Whole Corn (Avitrol Corp. 2002b).

Avitrol Double Strength Corn Chops is the principal Avitrol product used in feedlots and animal feeding situations. The main target species in animal feeding situations is the European starling. Although the various other “blackbird” species are problems in animal feeding situations, the starling is by far the most prevalent and most difficult bird to control. This bait is the primary bait for red-winged, rusty, Brewer's and yellow-headed blackbirds; cowbirds; grackles; and starlings.

Avitrol Mixed Grains and Avitrol Corn Chops are used in the area of structures and in nesting, feeding,

loafing, and roosting sites to control a variety of birds. Avitrol Mixed Grains is used, second to Avitrol Whole Corn, to control pigeons. It and Avitrol Corn Chops are the principal baits used to control house sparrows and are secondary baits for the control of red-winged, rusty, Brewer's, and yellow-headed blackbirds; cowbirds; grackles; and starlings. Avitrol Double Strength Corn Chops is the principal bait for these "blackbird" species.

The 3 remaining Avitrol end-use products are Avitrol Double Strength Whole Corn (EPA Reg. #11649-8 for the control of crows), Avitrol Powder Mix (EPA Reg. #11649-11, which is used to make custom baits for the control of starlings in animal feeding situations), and Avitrol Concentrate (EPA Reg. #11649-10, which is used to make bread baits for the control of gulls). A permit issued by U. S. Fish & Wildlife Service is required to use Avitrol Concentrate.

All Avitrol products qualify as minor use products. However, Avitrol Double Strength Whole Corn, Avitrol Powder Mix, and Avitrol Concentrate each have very small markets (Avitrol Corp. 2002a,b). These 3 baits are effective and are vital for the control of birds in the few peculiar situations for which they are designed. Their sales do not cover the cost of registration, insurance, and manufacture. Avitrol Corporation maintains these registrations to ensure that the end user has as many tools as possible for difficult-to-control bird problems.

### **TRENDS IN AVITROL USAGE**

Use of Avitrol baits at both agricultural and non-agricultural sites has remained relatively constant over the last few years (Avitrol Corp. 2002a). Economic downturns have always impacted Avitrol sales disproportionately when they begin, while a recovery in sales tends to lead an economic recovery. We are seeing the same effect in the current economic cycle. If this assertion is correct (and it has been in recoveries over the last 30 years), the economy is beginning a recovery.

Market areas for Avitrol sales remain relatively constant. Avitrol sales continue to dip and then recover in areas where there is an incident of "perceived" adverse publicity. For example, an urban kill of pigeons, although legal, will cause sales to decline for a short period in that area if it attracts media attention.

While use of Avitrol FC Corn Chops-99 in corn and sunflowers remains constant, Avitrol usage in miscellaneous agricultural situations such as feedlots, grapes, dairies, sprouting crops, and blueberries have wide swings from year to year because of the very unpredictable bird pressure.

No new Avitrol products are currently being developed or planned.

### **ACTIVIST PRESSURE AND LOCAL TRENDS New York**

In 2000, activists in Manhattan mounted a major push to ban Avitrol in New York State. Among their technical experts were a couple of movie stars who acted

as spokespersons for the group. They successfully recruited several well-known groups to push their cause. Through well-organized pressure on state politicians, they maintained "interest" in this matter in Albany. After several years of political infighting, sometimes within parties, compromise legislation was reached in September 2000 that resulted in banning 4-aminopyridine use in municipalities with populations of 1 million or greater. New York City is the only city meeting this criterion. While rumors were circulated that Avitrol had been banned throughout New York State, this is not true. This matter has lain dormant since September 2000.

### **Elsewhere**

Activist pressure has ebbed and flowed in the 30 years that I have been with Avitrol. There is currently no unusual activity in this area, which leads us to our current political climate and Maslow's Hierarchy of Need. Among claims made by the activists were that:

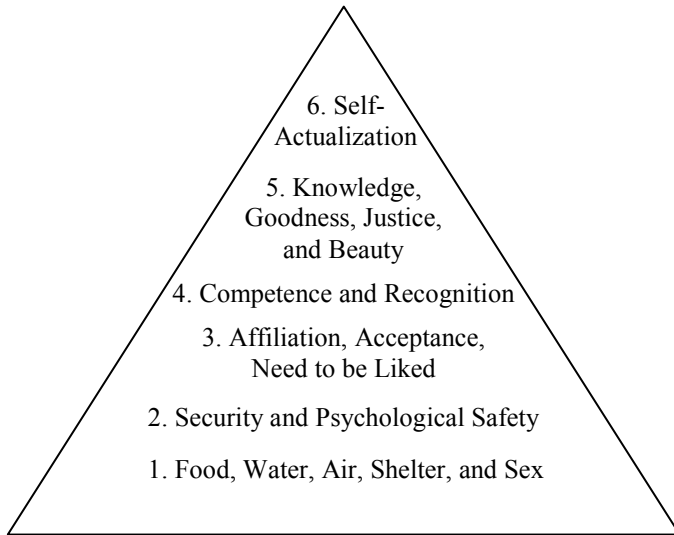
- Avitrol Baits were simply too toxic to be safely used
- There have been numerous human poisonings with Avitrol baits (actually, there have been none)
- A massive kill-off of birds due to Avitrol baits was ongoing. (in actuality, only a very few, usually undocumented, non-target kills could be cited)
- There were numerous endangered species kills due to secondary poisoning caused by Avitrol baits (there is no secondary poisoning caused by Avitrol baits) (Schafer et al. 1974), and
- Avitrol is extremely inhumane (research performed by Dr. Harry C. Rowsell, a renowned animal rights researcher, shows this not to be the case) (Rowsell et al. 1979).

In conclusion, our experience with activist groups has been one of hyperbole, threats, and misleading statements. Recent articles appearing in the news document widespread use of misinformation by animal rights activists, which has exactly been our experience (Anonymous 2002; Hudson 2001, 2002; Johnson 2002).

### **MASLOW'S HIERACHY OF NEED**

Maslow's Hierarchy of Need (Maslow et al. 1987) is roughly as shown in Figure 1. This hierarchy lists man's needs, with the most basic on the bottom, and with higher and more esoteric needs as we approach the top of the pyramid of need.

For years, Avitrol, along with all other pesticides, has been the target of activist and animal control groups. As mentioned above, the level of activity has ebbed and flowed. An interesting observation has been that there is a direct correlation between activist agitation and the perceived state of national security/economy. In times such as have existed since 9/11, we have seen drastically reduced intervention from these groups. The core is still there, but they have difficulty calling their base to arms.



**Figure 1. Maslow's Hierarchy of Need, as adapted from Maslow et al. (1987).**

In these times, a large percentage of people are at Level 1 and Level 2 of Maslow's Hierarchy of Need. They have interest in their own welfare, with little or no interest in anything else.

People, when sanguine about their safety and economic status, will e-mail anti-pesticide / animal control complaints to their congressmen and others. When times are tough, we resort to self-preservation and mind our own business. My prediction is that for the foreseeable future, we will continue to have unsettled times. As disturbing as this is for our country, if Maslow is correct, activists will have difficulty mobilizing their base for some time to come.

#### LITERATURE CITED

- ANONYMOUS. 2002. Scientists side with Klamath farmers. NewsMax.com Wires, February 5, 2002.
- AVITROL CORP. 2002a. Avitrol Corporation Production Reports, 2001 (Confidential). Submitted to U.S. Environmental Protection Agency. Avitrol Corporation, Tulsa, OK.
- AVITROL CORP. 2002b. Avitrol Corporation Annual Sales – 1972-2001 (Confidential). Avitrol Corporation, Tulsa, OK.
- HUDSON, A. 2001. Western lawmakers want biologists fired. The Washington Times, December 19, 2001.
- HUDSON, A. 2002. Biofraud attempt jeopardizes study of threatened grizzlies. The Washington Times, January 7, 2002.
- JOHNSON, J. 2002. 'Animal rights' terrorists brag of criminal 'achievements.' CNSNews.com, January 23, 2002.
- MASLOW, A. H., R. FRAGER, and J. FADIMAN. 1987. Motivation and Personality, 3<sup>rd</sup> Ed. Addison-Wesley Publ. Co., Reading, MA. 293 pp.
- ROWSELL, H. C., J. RITCEY, and F. COX. 1979. Assessment of humaneness of vertebrate pesticides. Pp. 236-249 *in*: Proceedings of the Canadian Association for Laboratory Animal Science. Canadian Association for Laboratory Animal Science, Calgary, Alberta, Canada.
- SHAFFER, E.W., JR., R. B. BRUNTON, and N. F. LOCKYER. 1974. Hazards to animals feeding on blackbirds killed with 4-aminopyridine baits. J. Wildl. Manage. 38(3):424-426.