AMERICAN BIRD CONSERVANCY

Bringing back the birds

28 December 2016

TO: Moana Appleyard, Chemical Review Manager
Risk Management and Implementation Branch 5
Pesticide Re-evaluation Division (7508P)

OPP Docket
Environmental Protection Agency Docket Center (EPA/DC),
28221T
1200 Pennsylvania Ave. NW.,
Washington, DC 20460-0001

RE: EPA-HQ-OPP-2016-0030

Dear Moana Appleyard:

Thank you for the opportunity to review the Registration Review Problem Formulation for 4-aminopyridine. We appreciate EPA's efforts, as this is a chemical that deserves serious examination.

American Bird Conservancy is astonished by the paucity of research and the antiquity of the data on this acutely toxic bird poison. Most of the studies are a half-century old and were provided by the Phillips Petroleum Company. We are very concerned about the risk to non-target species including songbirds as well as predatory and scavenging birds. It is clear from the incident records that this avicide is acutely toxic and presents an imminent hazard to wildlife. We are puzzled by the suggestion that simple label changes based on weather predictions or as-yet-undefined rainwater collection protocols may ameliorate the need for environmental fate and water contamination data. We also note that much of the analysis is based on the incorrect assumption that Avitrol use takes place under careful supervision, when in practice it is loosely applied on rooftops with no on-site monitoring or followup, in accordance with a loophole in the label requirements. In line with the BEAD Chemical Profile, we note that safer and more effective alternatives exist including the use of avian contraceptives and non-chemical options including physical exclusion, trapping, or architectural modifications.

American Bird Conservancy urges EPA to suspend the use of Avitrol unless and until scientific studies show that it can be used in a safe and humane manner. Also, we ask that EPA require the Avitrol Company to submit the full fleet of ecotoxicology studies and environmental fate data; eliminate the current loophole allowing the pest control applicator to leave 4-aminopyridine on rooftops without onsite monitoring or follow-up to retrieve the uneaten bait and dead and dying birds; include ornithology coursework in applicator licensing so that those using Avitrol can identify which birds to safeguard; and include in pest control record-keeping requirements the provision that applicators log the location and time of day at which the 4-aminopyridine is applied and the time at which the remaining bait and dead birds are retrieved.

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Toxicity

As EPA acknowledges, 4-aminopyridine is an acutely toxic avicide and nervous system toxicant. At greatest risk are birds and other terrestrial animals. According to industry reports, although the product is sold as merely a "frightening agent," the vast majority of use is for killing rather than simply frightening the birds. It is perplexing that use of a pesticide as toxic as 4-aminopyridine should be permitted without even basic eco-toxicology or environmental fate data.

Moreover, there are also serious questions about the humaneness of 4-aminopyridine, as its efficacy is based on central nervous system over-stimulation and convulsions. Since it can take 20 minutes to two hours for a treated animal to expire, it represents an unusually cruel way to kill birds, dogs, and other animals.

Risk to non-target species

We are very concerned about the risks to non-targets, especially since pest control applicators have no requirement to stay on-site when 4-aminopyridine is applied at secure rooftop locations. In practice, they apply the bait directly on the roof surface, or sometimes even in plastic baggies to be pecked open by hungry birds. There appears to be little monitoring for rooftop use.

Even when applicators remain present, when using the pesticide in public areas, they are not trained in bird identification and have little incentive to scare away the birds that come to feed. The result is a severe risk to songbirds as well as to the predatory birds and scavengers that feed upon the poisoned animals.

Collecting ecological incident data on 4-aminopyridine deaths is admittedly an awkward undertaking, since as EPA notes on p. 13, "some of the reported incidents may essentially be reports of product efficacy." 4-aminopyridine is formulated to kill vertebrates, and it is highly toxic, so of course there will be deaths. But a careful look at the data reveals reason for concern.

EPA's Ecological Incident Information System (EIIS) database identifies 133 incidents including a dog, raptors and songbirds. The deaths included protected species such as bald eagle, red-tailed hawk, peregrine falcons, and Cooper's hawks. As noted on p. 13, "The individual incident reports for the predatory birds provided necropsy evidence and chemical analyses that strongly indicated that these birds were killed by ingesting poisoned birds." There are 24 additional incidents in the AIMS database including a great-horned owl and red-tailed hawks.

It is likely that the deaths recorded are merely the tip of the iceberg. EPA acknowledges some of the limitations of its incident information – e.g., the exclusion of sub-lethal effects, and the fact that incidents are difficult to spot due to decay, removal by scavengers, movement offsite, or because nobody is looking. Few of the incidents seen are actually reported, even fewer are investigated, and there is no requirement that states—the prime repository for incident information-- pass along any information to EPA. So it is a minor miracle when incident information actually makes it into the hands of EPA officials. And yet there are these 133 cases in the EIIS database and a couple dozen additional ones in AIMS.

Exacerbating the incident reporting problem, EPA's regulations implementing FIFRA 6(a)(2) include unrealistically high threshold numbers of dead animals needed to trigger reporting requirements. For birds, the reporting thresholds are five raptors, 50 songbirds, or 200 of a so-called "flocking" species of bird found in a single location. American Bird Conservancy is urging EPA to fix its ineffectual incident reporting system, not only for birds but for other wildlife and pets, as well. Otherwise any remarks about the lack of incidents are meaningless. For example, when the 4-aminopyridine Problem Formulation states on p. 13 that "no incident reports involving aquatic animals were found," it is worth reviewing the absurd reporting thresholds for aquatic organisms: FIFRA 6(a)(2) regulations specifically state that registrants are off-the-hook to report fish incidents unless "1,000 or more individuals of a schooling species" are affected, a rare occurrence no matter the circumstance.

Water contamination

The registration review problem formulation emphasizes water quality concerns and the vast data gaps concerning 4-aminopyridine's environmental fate and ecological effects in the aquatic environment. American Bird Conservancy agrees that it is indeed remarkable how little is known about 4-aminopyridine. The supporting documentation is antique. As noted above, the bulk of the studies submitted are from the 1960s and 1970s when Phillips Petroleum supported the business. This data is woefully outdated.

EPA raises concerns about the dispersal of 4-aminopyridine or its components via rainwater into the groundwater or surface water. Since there is no data showing how 4-aminopyridine degrades, it remains difficult for EPA's Environmental Fate and Effects division to evaluate the risks. American Bird Conservancy shares EPA's water quality concerns, not only from the bait directly but also via defecating birds and decomposing dead animals.

Where we differ with EPA, however, is in the "out" that EPA offers the Avitrol Company a half-dozen times: there may be no need to carry out the studies if the company is willing to change the label.

On p. 3, the problem formulation states,
"The need for many of the environmental fate and ecological effects studies considered data gaps could be obviated by a label change that would reduce the likelihood of rainfall interacting with 4-aminopyridine which would limit the ensuing exposure to surface water or groundwater."

On page 10, EPA notes that dissipation through leaching and run-off *"could be eliminated if 4-aminopyridine labels restrict applications when precipitation is occurring or expected to occur and restricts water that has been in contact with 4-aminopyridine to come into contact with the ground."*

On p. 16, the document says that the need for eco-toxicity studies *"may be obviated by label changes to reduce the likelihood of rainfall interacting with 4-aminopyridine."*

On p. 17, the label change is suggested twice more.

On p. 18, EPA states, *"If the registrant agrees to label changes that would considerably reduce the potential for the treated bait to be exposed to rain, or for contaminated water to be contained, aquatic exposure to 4-aminopyridine would not be anticipated, and aquatic modeling would not be performed in the risk assessment."*

Our issues with this proposed re-labeling solution are three-fold.

First, it is unclear what EPA envisions. What sort of label change would be acceptable? Most 4-aminopyridine bait is used directly on rooftops with no monitoring and no containment pans. The new label might state something like, "do not use in rain or if rain is anticipated," but how much confidence do any of us have in the Weatherman's predictions?

Second, EPA suggests that there may be a way for the "contaminated water to be contained," but even if such a feeding trough were actually utilized, and did not overflow, what is the pesticide applicator going to do with the contained, contaminated water? In practice, in most cases the refuse water will be chucked over the edge rather than transported miles away to a hazmat facility. The alternative "waterproof" solution perhaps would be tossing the 4-aminopyridine onto the rooftops in plastic bags, which is already practiced. But such baggies are only waterproof and self-contained until the birds pick them apart.

Third, and more broadly, while preventing water contamination is an admirable goal, the water issues are only one piece of the problem. The non-target risk is real, especially for songbirds that eat the Avitrol bait, and raptors that eat the poisoned prey. 4-aminopyridine is highly toxic to all vertebrates.

Label requirements

The problem formulation document is misleading in its descriptions of the 4-aminopyridine application procedures. At issue specifically is the discrepancy between the 2007 RED (Reregistration Eligibility Decision) and the label instructions for elevated sites. The new label for 4-aminopyridine (required as of Sept. 22, 2014) does not follow EPA's own directive in the 2007 Reregistration Eligibility Decision for the protection of non-target species. The label encourages users to bait at elevated sites, where feasible. And yet for those elevated applications, and for any uses that are not "in populated areas," the label omits to include the mitigation clearly identified in Table 14 of the RED, namely *that the authorized handler must stay on the site during the entire application period*.

It is estimated that 80 percent of 4-aminopyridine applications are on rooftops. And yet the Problem Formulation addresses only the remaining 20 percent, use in on-the-ground public locations. For example on p. 14, the document states, *"Product labels indicate that for applications to areas accessible to the public, the authorized handler must not place treated bait if non-target animals are observed feeding on the untreated bait during the pre-treatment period. Additionally, product labels stipulate that the authorized handler must remain on-site until all dead/dying birds and unused bait are retrieved from the site, lessening the risk of secondary poisoning."* There is no mention of rooftop use.

Likewise p. 15 states,
"The product labels stipulate that, in areas open to the public, the authorized handler must not leave the site until all dead/dying birds and unused bait are retrieved from the site, which lessens the likelihood of secondary exposure by predators and scavengers."
Again, this is telling only a small part of the story, since most 4-aminopyridine is used on rooftops where these requirements do not apply.

Moreover, it is not clear to us that those pest control applicators who remain on site are able to identify which bird species represent acceptable kills and which ones are protected. Should Avitrol remain on the market, we would suggest that the label requirements include ornithology coursework for pest control applicators.

Alternatives

On p. 4 of the BEAD Chemical Profile, EPA lists a wide range of alternatives to 4-aminopyridine, including exclusion, frightening, trapping, habitat modification, uses of devices with spikes, and the use of avian contraception. BEAD's statement on the prior page, however, is somewhat misleading: "Bird control by 4-Aminopyridine or other pesticides is needed to minimize the problems in these environments." There is no consensus that conventional pesticide approaches are needed for bird control.

Among the chemical methods listed on p. 4 are methiocarb and Starlicide. It is our understanding that methiocarb is not used in practice, and that DRC 1339 is not used in urban areas due to its label restrictions.

The EPA states that the effectiveness of other avian-control means "varies depending on the user's specific situation." It is our view that this is where pest control can and *should* be heading in this country. Integrated pest management is all about *tailoring the pest-control method to the specific situation* rather than relying on pre-emptive use of broad-spectrum poisons.

More broadly, central to EPA's mission is to replace toxic products with safer and more effective ones. EPA has a solid track record of facilitating the transition to healthier and more environmentally benign products. In both rodent control and bird control there are now promising opportunities to manage pest species without toxic chemicals, particularly with the use of safer and more effective contraceptive technologies. Chronic bird killing through 4-aminopyridine applications does not solve the problem, but provides only the illusion of control.

Recommendations:

American Bird Conservancy recommends that EPA take the following steps:

--Suspend 4-aminopyridine unless and until studies show it can be used in a safe and humane manner.

--Require detailed contemporary studies on environmental fate and ecological effects. Simply adjusting the label language for water contamination will not fix the problem.

--Solicit ASPCA's incident data for 4-aminopyridine from the Animal Poison Control Center, which we understand includes additional canine, avian, and other incidents.

--Revisit the 2007 RED which mandated that the pest control applicator remain on site to pick up the dead and dying birds and to retrieve the uneaten bait. The label currently requires that protocol when the bait is placed in a publicly accessible area, but the provisions do not apply to rooftops where most applications are made. It should be for every application as recommended in the 2007 RED.

--Require pest control applicators to take ornithology coursework to identify the vast range of bird species that may be feeding on 4-aminopyridine.

--Mandate better record-keeping. State enforcement inspectors rarely set foot on urban rooftops. To increase applicator responsibility and the likelihood of compliance, pest controllers' recordkeeping requirements should include logging the time of day the 4-aminopyridine is applied and when the remaining bait is removed.

Thanks very much for considering our comments. We look forward to a continued dialogue as 4-aminopyridine makes its way through the Registration Review process.

Sincerely,

Cynthia Palmer
Director, Pesticides Science and Regulation
American Bird Conservancy