

Got Starlings?
Bird Control Options for Dairies
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The purposes of bird damage control program are to prevent and minimize economic loss and to reduce bird population levels to tolerable levels. Starlings and blackbirds cause problems on dairies because of their roosting, feeding, and nesting activities. Not only do they consume large amounts of feed but they can transmit diseases such as Salmonella and Cryptococcus. A bird control program must be made a farm priority if it is to succeed. Control techniques require careful consideration and persistence in order to be effective.

Laws and Regulations: Federal and state regulations protect most blackbirds and migratory birds. A federal permit is required to take, possess or transport migratory birds for depredation control purposes, but no permit is required to scare or herd these birds. Important exceptions are federally listed threatened or endangered species, bald or golden eagles (50 CFR 21.4). A standing depredation order exists for blackbirds, cowbirds, grackles, crows and magpies. No federal permit is required and control measures including lethal methods may be taken when these species are “found committing or about to commit depredation,” or when they “constitute a health hazard or other nuisance.” Contact your state wildlife agency to determine if state permits are necessary for lethal control of unprotected species such as feral pigeons, English sparrows or starlings. State or federal law does not usually protect these three species, but all uses of pesticides must be registered by appropriate state and/or federal agencies before they can be sold, distributed, or applied.

Controlling Damage: The key to successfully managing pest bird problems is to stop the bird problem before it becomes a major issue. There are three important facets to damage control: (1) start early before birds form a strong attraction to the site, (2) be persistent until the problem is solved, and (3) use a variety of techniques. Control techniques include trapping, bird-proofing, habitat modification, frightening, repellants, shooting, and toxicants.

Live trapping: Trapping and removing starlings can be successful at locations where small static populations are causing damage. Decoy traps plans are available at http://wildlifedamage.unl.edu/handbook/handbook/allPDF/bir_e109.pdf. To be successful the trap should be placed where starlings like to congregate and should be maintained regularly. Use of a few live birds as a decoy in the trap will enable one to catch 100 or more starlings a day, which then can be euthanized. Keep decoy birds as comfortable as possible with roosting perches, shade, fresh water and feed. Their feeding behavior and calls will attract other starlings that are nearby. Larger size traps are usually better when large numbers of birds are present. Non-target species of birds should be released unharmed. Large numbers of birds can be euthanized by herding them into a barrel and using CO₂ gas.

Exclusion and bird-proofing; Where starlings are a problem inside of buildings, close all openings greater than 1" with bird-proof netting, welded wire or plastic strips. Roof vents can be screened in such a manner that frost does not build up and block the vent. If curtains are closed and plastic strips placed over the doors, extra ventilation fans may

be required. Potential perch sites should be modified or protected by changing the angle to prevent roosting. Porcupine wires are also available for preventing roosting on purlins or beams. This is the best long-term solution but one few producers are willing to undertake. Design of new buildings should include consideration of reducing or eliminating bird access and roosting sites.

Habitat Modification: Limit access to feed and water by covering and using exclusion methods where animals eat. Make sure water levels in waterers are low enough so birds cannot perch on the edge to drink. Clean up spilled grain. Reduce areas of open water or even cover waste lagoons with netting if birds are a persistent problem. Often, open water is the main attractant at dairies or feedlots.

Frightening: It is rare when a roosting situation cannot be resolved with frightening techniques. Start when a problem begins to develop. Do not wait until bird numbers are excessive. Dedicate enough staff time to properly conduct the frightening program. Frightening the birds must be the priority. Vary the location, intensity and types of scare devices, notifying the local police and neighbors if necessary. Examples include distress or alarm calls, noise makers, exploders, propane cannons, bright objects, laser beams, eye spot balloons, hawk kites, and mylar tape. Pyrotechnics deliver a loud noise and concussion, along with a visual cue directly into the flock of birds. The pyrotechnics are relatively safe to use but can be a fire hazard if used inappropriately. Persistence and the use of multiple techniques applied for short periods of time just as the birds begin roosting in the building are keys. Cattle seldom are frightened by application of the frightening devices.

Shooting: Shotguns or air rifles can be selectively used for the target species. Shooting helps reinforce bird scaring and harassment efforts. Shooting can be a very effective population control for smaller numbers of birds. Safety and misuse can be a concern. Notify authorities and neighbors if necessary.

Repellants: Sticky products on ledges or beams can be used to discourage roosting. Several products that include the active ingredient methyl anthranilate (a nonlethal human food additive found in grape flavoring) are now being used as coatings on roosting areas or as aerosol sprays in areas that are not too porous. Seldom do I see adequate control with only the use of repellents.

Toxicants: Avitrol, Starlicide Complete, and DRC-1339 are products currently approved for use in some states. Prebaiting in the areas starlings like to congregate is the key to getting good control. This process simply makes an attractive bait available to starlings for several days in order to establish a feeding pattern. Toxicants work best when applied in cold weather with snow cover which limits access to other food sources. Select a site that is protected from the wind and that is in full sun to get the best results. A suitable site may have to be prepared with a tractor and blade to remove snow. For at least 3 days or until good prebait acceptance occurs, the untreated pre-bait is placed in a carefully selected place, safe from consumption by other animals. After acceptance of the pre-bait is established, and **no non-target birds are present**, the toxicant is added. Make sure your prebait is on a feed substance that is very similar in texture, size and makeup

as the formulation of your toxicant. Use of a liquid fat on the prebait and toxicant can increase consumption of the bait and thus increase success. Depending on the toxicant used, treated birds will usually die within 24-36 hours. Toxicants must be applied in such a manner that livestock do not have access to the bait. Dead birds can be disposed of in the trash, manure pit, buried, or incinerated if it complies with local regulations. Make sure the neighbors and appropriate local authorities are notified because many of the birds will die off-site. The use of toxicants is usually regulated by the appropriate State Department of Agriculture. Specific questions regarding labeling, registration status, and pesticide applicator licensing should be directed to such Department.

Avitrol: Avitrol (4-aminopyridine) is a restricted use pesticide used as a frightening agent for starlings, blackbirds, grackles and cowbirds. It is available as a prepared grain bait mixture or as a powder and formulated in such a way that ratios of treated baits to untreated baits are no greater than 1:9. Since only a small portion of the bait is treated, only a few birds will die. The intent of this product is not to kill a large number of birds, but to act as a frightening agent because the affected birds act in an erratic manner, and emit distress calls which frighten other birds from the area. Birds that consume the treated bait will die. Avitrol is readily broken down or metabolized into compounds that are excreted in urine in the target species, therefore, little of the chemical remains in birds killed with Avitrol to present a hazard to humans, pets, or scavengers.

DRC-1339: USDA / Wildlife Services has a new program in some states to utilize a bait treated with the active ingredient (0.1% 3-chloro p-toluidine hydrochloride) or commonly known as Starlicide Technical. The product is lethal to many species of birds such as crows, pigeons, blackbirds and starlings but English sparrows and mammals are generally resistant to the toxic effects. The product will usually kill birds within 12-36 hours and they often die on the roost. The mode of action is irreversible kidney and heart damage. The toxicant is metabolized and excreted from all animals quickly (90% is lost in 2 hours), thus eliminating the potential for secondary poisoning. This toxicant is presented in a technical form, and can be mixed with different baits, at different strengths. The advantage is that the technical formula can be mixed on feed that the birds are accustomed to feeding on thus bait acceptance is improved. It is important to know that this toxicant is registered for use only by USDA-WS personnel trained in the use of bird control or persons under their direct on-site supervision. It is also available only in those situations where the problem cannot be solved with the use of the commercially available product Starlicide Complete. USDA Wildlife Services is a Federal agency that requires reimbursement for program costs. Cost will vary according to mileage, time, materials, and the number of birds present on the farm. It is possible for neighboring farmers to request service at the same time, thus cutting down on mileage and time expenses. This program may need to be repeated in future years because it is not 100% effective. The product degrades rapidly when exposed to sunlight or heat but generally if the bait is being consumed the birds are dying. To reduce any potential hazard, poisoned birds should be burned or buried whenever possible.

Starlicide Complete: Starlicide Complete is a restricted use pesticide. The toxicant is pre-packaged on bait that can only be ordered through a firm with a pesticide dealer's license. The active ingredient is the same as DRC 1339 (0.1% 3-chloro p-toluidine

hydrochloride). This product is registered for the control of starlings and blackbirds around livestock and poultry operations. Fresh product must be used for it to be effective. Poisoned birds will usually die within 24 to 36 hours, often at their roosting site which is potentially not on the farm. Although the dead birds are not dangerous to predators, they should be burned or buried to prevent spread of diseases they may carry.