

For the Birds, Or Not? Managing Bird Problems in Strawberries, December 2011

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Birds are intelligent pests (compared to fungi, weeds and insects, anyway), and they learn. Unless you rely on a complete exclusion method (netting, for example) vary the control methods you use, and combine several methods together. Birds quickly get used to scare techniques, so it helps to change them, and add new methods. Bird problems vary considerably from site to site, due to different crops, and differences in other food or resting/nesting cover nearby. It is important to identify which species of birds are giving you problems, because they vary in their behavior and preferences. It is helpful to handle problems before a strong feeding pattern develops on your crop. It is harder to stop a strong feeding pattern than one that is just starting.

Some birds tend to flock during the growing season. That means damage quickly becomes significant, with so many birds eating. Scare methods usually work better on flocking species than non-flocking ones. Here in New England, flocking species that attack small fruit include cedar waxwings, starlings, grackles, blackbirds, turkeys, Canada geese, and (sometimes) crows.

Other pest species tend to occur in resident pairs or small family groups (mom, dad and the kids). Resident pairs invest a lot in finding and defending a home territory from others of their species. They are very hard to scare away. Robin, catbird, mockingbird and orioles are examples of these. In strawberries, cedar waxwing, turkey, robin, blue jay and crow are our most common pest species, but others occur.

A good approach is to identify the birds causing the problem, and come up with a plan that works for those species.

Bird netting is the most effective tool we have to help with bird damage in small fruit. It is more appropriate for perennial crops like blueberries or grapes than strawberries, but there are some effective types for strawberries. Netting is expensive, but it can last for years. Most netting restricts your ability to move equipment through that field. This is something to think about before making a netting purchase. Most types are designed to be supported by a system of support wires. Recent minor modifications in netting design have made MAJOR improvements in the ease of setting up and taking down netting.

One of the new designs (smartnet) features reinforced edges, so that the sections can slide out when needed, and slide back and be bunched up out of the way, when not in use. Our blueberry and cherry growers with these systems just cover the bunched up net with black plastic, and store it in place most of the year. This tremendously reduces the labor for annual setup and removal. The support system of posts and wires stays up all year. Blueberry netting and support system might cost \$2200-3600/A. That sounds expensive, but if done correctly, it could last 10 or more years. New England research shows bird losses to highbush blueberries can average 41%, equivalent to \$4,000/A or more annually.

In New Hampshire, NRCS offers cost-sharing for bird netting. Other states may have similar programs. If you investigate, you might be able to purchase netting at almost no cost to the farm.

A couple of manufacturers are offering netting that can be laid right over strawberry plants. With care, several workers can pick up the edge (as you would with a large row cover) and pile it out of the way, allowing access for pickers. Then it can be put over the crop again, when picking hours end. Two Connecticut River valley growers report great success with this method this year. It may be especially useful for a relatively small planting that is heavily hit by birds...cedar waxwings for example. One product is smartnet's bird/hail/insect netting, but there are others, too.

Noisemakers: All of our bird species become habituated to noises, so it is important to vary them, and use them in combination with other methods. Flocking species are usually more easily scared off than resident pairs. Juvenile birds (under 1 year old) are usually harder to scare off; they haven't learned to be afraid of the noises yet. Noisemakers include 1) pyrotechnics (screamer, banger shells fired from gun or launcher, firecrackers) 2) banging aluminum pans, 3) automated distress calls, 4) propane cannons, 5) critter getter, and others. There is a very wide variety of choices, and a wide range of prices and features. Before buying a very loud device (propane cannon for example), carefully consider the possible severe annoyance to neighbors. In my state, there have been lawsuits (with media coverage) and vandalism associated with cannons.

Shooting: This option has limitations. Federal, State and local laws can affect your ability to legally shoot birds. Some species are off-limits. Shooting can be very annoying to neighbors, customers, and other people. There are also safety concerns. When it is allowed, the main effect is to deter the survivors from more crop feeding, not reduce bird numbers.

Visual scare devices: As with noisemakers, incorporate variability, and use these in combination with other methods. There are hawk and owl effigies. They can be useful if placed realistically, and moved to different locations regularly. Those that incorporate movement can be more effective than those that do not. Predator silhouettes are sometimes used to scare geese away from lawns or turkeys away from feed silos. Various flashing mirrors or tape, or balloons are available. Often their effective range is short...a few yards. There are raptor-shaped kites that can be suspended from balloons in a realistic manner.

Clearly one of the most effective visual scare methods for crows and ravens is to prominently hang up a dead crow. Here, we usually hang a bird by a wing, so the birds clearly recognize what it is. Of course, shooting a victim for display must be done according to local laws. Customers can be deterred by the sight, or the "farmer Rambo" image.

Taste repellents: There are a limited number of situations where taste repellents can be used. Currently, none are legal for use on strawberries, but that may change. Methyl anthranilate is one choice (artificial grape flavor). A new option is anthraquinone. Its label is gradually being expanded to more crops, and might (?) eventually be registered on fruit.

Habitat modification: Some birds really like to have thick roosting cover next to your crop, or perhaps are attracted first by lots of wild berries. If you can eliminate or reduce them, you can

reduce some bird problems. For example, shadbush, cherries, mulberry and red cedars are very attractive to cedar waxwings. Studies in the Northwest have shown that providing hawk/owl perches or nest boxes in places where they are limited, will increase the number of raptors hunting there. I have a publication on my website that gives dimensions and other details for target species here.

Falconry: A live, day-active raptor is very effective at reducing bird problems. Birds know what hawks/falcons look like, and if they are abundant, many birds move elsewhere. In some states, there are enough falconers that you might consider asking one to exercise his/her birds at your farm. Perhaps you can offer fruit in exchange?

Here are some brief descriptions of the top small fruit offenders in New England:

Cedar waxwing is arguably the most serious bird pest of New England berries. It is a flocking species with a thin whistle for a call. The bird is gray, 7" long, (smaller than a robin) with a yellow tipped tail. It strongly prefers berries to eat.

Robin: gray with red-brown breast, 10 inches long. **Crow:** 17", all black, distinctive call.

Raven: 24" all black, with wedge-shaped tail, croaking call. **Gray catbird:** 8.5" long, all gray. Sometimes the brown vent patch is visible. **Mockingbird:** 10", all gray, but with white patches in wings that show when it flies. **Turkey:** 36" or longer. Black with white & brown markings.

Blue jay: 11", blue, black and white.

More Information:

Much more information than I can cover here is in my recent 20 page publication "Bird Damage Prevention for Northern New England Fruit Growers". If you don't get a copy at the New England Vegetable and Berry Conference, you can download a copy at

<http://extension.unh.edu/Agric/AGPMP/PMPIPm.htm> It includes a long list of suppliers.

Also at UNH Cooperative Extension's website is my shorter publication "Raptors in New Hampshire Orchards. It covers nest boxes to lure certain predator species.

<http://extension.unh.edu/Agric/AGPMP/Pubs/Apft5902.pdf>

In New Hampshire, NRCS currently has a cost-sharing program on bird netting. Contact your county NRCS office for details. I do not know if the other New England states currently have similar programs. Books on identifying birds are widely available to help you.