

Managing Bird Problems in New England Sweet Corn

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Bird problems in sweet corn can be very frustrating. Most problems occur at two growth stages. One is the seedling stage, and the other is the milk stage, just as harvest is imminent. The species that cause problems vary greatly from farm to farm. Most birds that give us problems in sweet corn are flocking species. They tend to be easier to scare off than resident pairs, which establish and defend territories.

Seedling stage problems

In New England, the most common offenders are crows and ravens. They walk down the rows, pull up the plants one after another, and eat the seeds that are attached. These are intelligent birds, capable of learning from their experiences, and remembering feeding opportunities from the past. They are protected by international treaty (Canada/US/Mexico), also federal laws, state laws, and sometimes local laws. Actually, there are two species of crow here (fish crow and common crow), but the visual differences between the two are so subtle, most people cannot distinguish them except by voice. I suspect common crow is the main offender. Ravens are rare in southern New England, and common in Maine and the northern halves of Vermont and New Hampshire.

Taste repellent: In Vermont, New Hampshire and Maine a chemical taste repellent (9,10-anthraquinone or Avipel) is registered to deter birds from pulling up sweet/field corn seedlings. I believe they are all 24c (state and local needs) registrations. New Hampshire's expires in July of 2016; Maine's is good through June 30th, 2017; Vermont's expires in December 2016. The material can be very effective. The registrant is Arkion Life Sciences LLC. The product is available in dry and liquid forms, and is applied to the seed at planting time.

An East Hartford, CT grower reported success in constructing what I'd call barriers. Other CT growers found it worked as well. They lay out a zig-zag pattern of tomato stakes lengthwise through a block of emerging corn and attach fishing line that runs from stake to stake the length of the field. The crows quickly learn that it is an unsafe place to land. When the corn is over 6-8" tall the growers move the stakes and line and move it to the next emerging planting.

Some New Hampshire growers have had success planting into standing stubble. That makes the seedlings less visible for the vulnerable period. Once the plants grow enough to be well rooted, the birds have difficulty pulling them, and damage stops. Auditory or visual scare devices might work, but might be a lot of work to set up. For seedling problems, protection is required for a relatively short time.

Milk stage problems

Many bird species can peck the ears, but the most common seem to be crows, ravens, starlings, and redwinged blackbirds. One large flock can peck into many ears in just a few minutes.

Managing milk stage bird problems can involve various techniques. In general, combining scare techniques yields greater success than relying on just one method. Also, changing methods over time really helps. If the same old method is employed day after day, the birds quickly learn it isn't a threat. Crows and ravens are particularly quick learners with long memories. **Visual scare devices** include air crow, silhouettes, scare eye balloons, and flashing tape. Air crows are relatively new. They consist of a fabric sleeve with head and arms, attached to a blower. Turn the blower on, and the fabric sleeve jumps up and dances until the blower is turned off. The air crow and blower cost about \$200. You'll probably get better visibility by raising it up a bit on a platform, especially if it is in a tall crop like sweet corn. If you don't have electricity at a site, you might consider a portable generator. Coyote silhouettes and owl effigies are examples of visual devices that do not incorporate movement (usually) and therefore often have lower success than something that moves and/or provides sound. An additional problem with silhouettes is that they are not visible from some angles, including above. Scare-eye balloons are often tethered on tall stakes, to make them visible above the crop. By themselves they have limited effectiveness, but combined with other devices (noisemakers for example) they can be effective in sweet corn. One static visual technique that is very effective on crows and ravens is to suspend a dead crow by the leg (with a wing loose & dangling) in the field. The appearance can be distasteful to customers, so might not be appropriate in some spots. Some growers in my state shoot one or two crows during the legal season for them (Aug 15 to Nov 30 in NH this year), and then double bag them in plastic, and store in the freezer until needed.

Auditory scare devices include cannons, screamers, bangers, firecrackers, and electronic distress calls. The ones that can vary the timing and type of noise are generally more effective than those that do not. Propane cannons are still used in some situations, but are VERY ANNOYING to workers, customers and neighbors. They have been the cause of some serious lawsuits. Birds quickly get used to them, but people do not. Screamers and bangers are examples of pyrotechnic devices that are fired either from a launcher or sometimes from a shotgun. Aim them at a group of birds in your crop. Screamers make a loud scream starting when they leave the launcher, lasting two or three seconds. Bangers create a mild report when fired, and then they sail out over the flock and explode 20 to 50 yards away from the launcher. Both are fairly expensive per shot, and often require permits to obtain and use. They are most useful to move out a flock that has landed in your fields.

Taste repellants: A product [Avian Control, by Avian Enterprises LLC, Jupiter, FL] containing methyl anthranilate is registered in several New England states, on a wide variety of crops. Methyl anthranilate is artificial grape flavor. The product can be sprayed or fogged, and some users report better success with fogging. One NH grower used it to prevent pecking on sweet corn ears in both 2014 and 2015. He had some success with it in 2014, and suggested it should be started before pecking begins. It is expensive. He also reported honeybee kill associated with spraying Avian Control and an insecticide at the same time.

Natural repellants: A live, active aerial raptor (hawk for example) is an extremely effective deterrent. In a few New England towns, falconers are available, and might be able to scare off

flocking birds. Various state laws affect if, where and when this can be done. If you are lucky enough to have nesting hawks on your farm, leave them undisturbed and they'll work for free.

Lethal control generally means shooting, but very rarely wildlife authorities give permission to utilize poisons. The main effect of shooting is scaring off the survivors, rather than reducing pest numbers. It is regulated by laws and statutes which differ greatly region to region. Also, many growers would be harmed by the "farmer Rambo" image that shooting might create, if it was viewed by customers or neighbors, especially those who like to post things on social media. Shooting protected species could land a person in serious trouble, so ask before you shoot.

Genetics/variety characteristics can be employed. Sweet corn varieties that have the tips of the ears exposed or poorly covered by husks often suffer more pecking than those that have good tip coverage. Sometimes vegetable specialists and seed companies list this characteristic, when reporting on variety performance. Another characteristic is less frequently reported: the angle between the ear and stalk. Varieties with less upright ears provide handy landing spots (the ears) for birds. Those with lower angles have smaller perching/landing spots.

"Topping" is a practice that is not often used in my state, but may work for you, especially if you have a site where corn is regularly attacked by birds. After the ears have been pollinated, cut off the stalks above the ears and haul them away. It requires a bit of labor, but reduces bird pecking (perhaps because birds feel exposed). It is reported to make picking faster as well.

References/More Help

USDA/APHIS/Wildlife Services has offices throughout New England. In addition to excellent help, they also have the authority to offer some control options that are regulated (lethal controls for example). For Massachusetts, Connecticut or Rhode Island growers, the office is in Amherst, Massachusetts: 413-253-2403. For Vermont and New Hampshire, the office is in Concord NH: 603-223-6832. For Maine it is in Augusta: 207-629-5181.

A publication on UNH Cooperative Extension's website, to be downloaded for free, is [Bird Damage Prevention for Northern New England Fruit Growers](http://extension.unh.edu/Agric/AGPMP/PMPIP.htm)
<http://extension.unh.edu/Agric/AGPMP/PMPIP.htm>

My older publication describing how to attract hawks & owls to nest is also on our website. The title is [Raptors in New Hampshire Orchards](https://extension.unh.edu/resources/files/Resource000014_Rep14.pdf)
https://extension.unh.edu/resources/files/Resource000014_Rep14.pdf

Labels for bird control sprays are sometimes hard to find. A few are on the www.cdms.net website. The most reliable sources for labels are the manufacturers' websites, which is why I listed manufacturers in the article.

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