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Preventing Bird Damage in Sweet Corn

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Bird damage in sweet corn is always a problem; though it is worse in a dry year, it can be damaging in any year. It is better to take action in advance of the problem because once birds get in the habit of feeding on your corn, it will be harder to stop them! Redwing blackbirds and other flocking birds can cause serious crop losses in some fields. Unfortunately there is no easy answer and no guarantee that a particular tactic will work.

Some General Tips on Repelling Birds:

- Birds invade sweet corn fields about three days before picking. Time any control techniques so they are in place BEFORE harvest, and stay until harvest is complete.
- Use multiple tactics that reach more than one sensory mode. For example, combine scare-eye balloons with auditory repellents like shellcrackers or distress calls. This is likely to be more effective than using one tactic alone.
- Move devices frequently. Birds can learn and become habituated to any device that is used for a long time in one place.
- Good insect control will reduce the corn \odot s attraction to birds. Birds that are attracted to ears by the presence of caterpillars will cause damage to non-infested ears in the block as well. They cause a lot more damage than most insects do.
- After harvest, scare devices can be removed from one block and concentrated in the next block. Try to keep the birds foraging in the old block while delaying their move to the one that so ready for harvest. Some growers allow birds to scavenge in the old block before disking it in. A method that some growers say works is to rotary mow or disc the interior blocks of the previously harvested fields. Birds like to feed on the ground because it is easier than clinging to an ear, but they prefer perching nearby for protection and rest. Another is to plant succession blocks at opposite sides of the field, not right next door.

Sweet corn topping.

A technique that has been studied and tested in NYS and CT is to \$\displaytop\$ the corn.

Topping is the removal of the top of the corn plant from just above the silk or top of the ear after pollen shed and pollination. Growers who use this method report the advantages to be:

- 1) two to three days early harvesting compared to untopped
- 2) Improved picking ease
- 3) Reduced bird damage
- 4) Reduced lodging due to wind.

Other benefits may also include better spray coverage. It is important to use equipment that is designed for this purpose to ensure safety; one source for a topper unit is Haigie. A report on trials conducted in NYS during 2004 is available at http://www.umassvegetable.org/soil_crop_pest_mgt /vertebrate_pests/index.html.

Visual Scare Devices.

Eye-spot balloons and reflective mylar ribbons are effective and fairly economical for small to medium sized fields. Many growers are using these silent deterrents and the general feeling is that they are fairly effective, especially when combined with auditory deterrents. Growers report that the following methods make balloons more effective: use at least 8 balloons per acre, place them in the field several daysbefore harvest, and leave the previous block standing without balloons to allow birds to feed in older corn.

Chemical Deterrents.

Rejex-it Migrate is liquid bird repellent made from a blend of food grade ingredients extracted from common sources such as concord grapes, neroli oil, acacia, gardenia blossoms, etc. It is non-phytotoxic and meets the EPA is new reduced risk criteria. It is labeled for use in sweet corn. Migrate is a contact repellent. It must be eaten before the birds get the repellent effect and learn to avoid treated areas. A small amount of sampling will occur after the initial treatment.

Auditory Scare Devices.

Exploders are gas fired cannons placed in the field and fire with automated discharge timings. These can be quite effective. Cannons are available from some agriculture supply sources. Do check with your farm neighbors and the local police to let them know what you are going to do. Cannons are very loud. Shellcrackers are 12 gauge shotgun shells in which the lead shot has been replaced with a bulldog firecracker. When fired from a shotgun, this firecracker travels 75 to 150 yards and explodes in the air with a loud report. Use a single shot, inexpensive 12 gauge shotgun as the loads are very corrosive. Firing a few rounds early and late in the day will unsettle birds. Federal permits are not required. Again, notify local police and neighbors to let them know what you are doing. Check on local town ordinances. This method can be satisfying on a short term basis. The disadvantage is that it requires a person to take time in the field to discharge the shellcrackers.

For a more detailed fact sheet on shellcrackers and other prevention devices, contact USDA Wildlife Service. Here are three sources for shellcrackers:

- -Reed-Joseph International Co. P.O. Box 894 Greenville, MS 38702 (800) 647-5554
- -Margo Supplies Ltd. Site 20, Box 11,RR#6 Calgary, Alberta, Canada T2M 4I5 (403) 652-1932
- -Sutton Ag Ent. 1081 Harkins Rd. Salinas, CA 93901 (866) 482-4240

Distress Calls.

Recordings of distress calls or the calls of predatory birds, which repeat at regular or random intervals and operate on battery or solar power, can be

quite effective. Because flocking birds are very responsive to the signals from others in their flock, a distress call from one bird is a sign to all the others that an area is unsafe. These have become quite sophisticated, with programmable or random call intervals that help to overcome birds • ability to get used to regular sound intervals. Make sure you are using a distress call that matches the bird species you need to scare away. Here are some sources:

- -OESCO, www.oescoinc.com/, 800-634-5557 or 413-369-4335. Box 540, Rte 116, Conway, MA 01341
- --BirdGuard Bird Control Products, 800-331-2973 E-Mail: info@birdguard.com, 100 State Street Suite 312 Erie PA 16507
- -Birdbusters, 300 Calvert Ave, Alexandria, VA 22301, phone (703) 299-8855
- -Bird-X, Inc, 300 Elizatbeth Ave., Chicago, III 60607 (800) 860-0473
- -Gemplers 100 Countryside Dr., PO box 270, Belleville, WI 53508 (800) 382-8473

Shooting birds.

A federal permit is not required to shoot or otherwise control blackbirds, cowbirds, grackles, crows or magpies when they are found committing or are about to commit damage to or �depredation upon � agricultural crops. While hunting can reduce numbers over the long term, it may not be effective against flocks of invading birds. It is not illegal to display dead birds in the field, but it is not clear that this is an effective deterrent. For regulations on geese, consult the US Fish and Wildlife Service.

More wheat varieties resistant to head scab now available

As wheat growers prepare to plant their crop this fall, they are encouraged to choose varieties that are resistant to head scab.

<u>Pierce Paul</u>, an Ohio State University Extension plant pathologist, said that more varieties are available with good head scab resistance and high yield potential.

"In the past, there were very few Ohio-grown winter wheat varieties with decent scab resistance, and some of those varieties yielded poorly or did not grow well under our conditions," said Paul, who also holds an appointment with the Ohio Agricultural Research and Development Center. "Today, we have far more varieties with very good scab resistance in combination with very good yield potential."

Based on results of the 2010 Ohio Wheat Performance Trials, more than 20 percent of the varieties evaluated were considered resistant and more that 38 percent moderately resistant, for a total of 58 percent of the varieties rated at least moderately resistant.

A table of wheat varieties tested this year with percent resistance to head scab can be found at http://bit.ly/9xL5v8 . A copy of the wheat trials is available at http://oardc.osu.edu/wheattrials/default.asp?year=2010.

Head scab, a disease that attacks wheat during the flowering stage under wet, humid conditions, was a severe problem for growers this year. Head scab incidence ranged anywhere from three percent to 60 percent throughout Ohio's wheat crop. In addition, vomitoxin contamination of the grain was a big problem with less than 1 parts per million to 18 parts per million recorded at the grain elevators.

Paul said that choosing head scab-resistant varieties can help in managing the disease in years when environmental conditions may increase the potential for outbreaks.

"No variety is completely resistant or immune to scab, so if conditions are wet and humid during flowering, even varieties considered resistant will develop scab and become contaminated with vomitoxin. However, disease and toxin levels will be lower in resistant varieties than in susceptible varieties," said Paul. "In addition, with a scab resistant variety, growers will likely see greater benefit from the use of fungicides if scab develops."

Paul emphasizes that growers should place scab-resistant varieties high on their list of priorities when preparing for next year's wheat season.

Pumpkin Field Day at Western Ag Research Station & Jim Jasinski, Bob Precheur

f you are an experienced pumpkin grower or a novice, there is always something you can learn at the annual Pumpkin Field Day on September 1 from 6 • 8 PM, held at the Western Ag Research Station in South Charleston. •

This year, Dr. Bob Precheur, Dept. of Horticulture and Crop Science, has a 20 variety pumpkin germplasm evaluation trial at the station and will present information on fruit size, shape, current trends, yield potential, and disease resistance. There are several companies who have entered seed material in the trial to be evaluated. This project is supported by the Ohio Vegetable and Small Fruit Research and Development Program.

Also at the field day Jim Jasinski, OSU Extension IPM Program, will talk to growers about an 11 treatment fungicide demonstration trial designed to control powdery mildew. Products included in the evaluation are conventional materials such as Quintec & Rally (Dow AgroSciences), Procure (Chemtura Corp.), Microthiol Disperss (United Phosphorus, Inc.), Quadris Opti (Syngenta), and Pristine (BASF Ag Products). We will also be testing a new fungicide Ph-D (Arysta Life Science), an experimental compound Luna Sensation (Bayer CropScience), and some OMRI approved products such as Kaligreen (Arysta Life Science), Oxidate (BioSafe Systems), Sonata & Serenade Max (Agraquest Inc.), and Trilogy (Certis USA) to see how they compare against the conventional materials. A brief update will also be given about the insensitivity (resistance) of powdery mildew to many of the common fungicides.

The last topic will be an overview of a pumpkin seed snack food project funded by the Ohio Department of Agriculture Specialty Crops Program. There are five pumpkin varieties in the trial being evaluated for seed quality, taste acceptability, disease resistance, and yield. Varieties producing both hulled and hull-less seeds are being evaluated. This project involves personnel from multiple entities including Extension, the IPM Program, Horticulture and Crop Science, Food Science, Agricultural and Environmental Economics, Innovative Farmers of Ohio, and two growers who have a plot on their farm.

Growers will be moved from site to site via a hay wagon, and will be encouraged to walk around the plots at each stop and ask questions of the specialists. Also at the field day, Dr. Celeste Welty, Department of Entomology, will give a brief update on relevant and current insect management strategies for cucurbits, including systemic insecticide seed treatments.

Cost will be \$5 per person, and pre-registration will begin at 5:30 PM, with the tour starting promptly at 6:00 PM. • Both CCA and PAT credits will be available, and refreshments will be served on the tour. • The research station is located at 7721 South Charleston Pike, South Charleston, 3 miles south of I-70 on SR 41 or 3.5 miles northwest of South Charleston on SR 41 (Clark County, Ohio) Click here for a map with directions. • •

This field day is sponsored by the OSU Extension Vegetable Team, OARDC, and other Industry Partners who support this work. For more details contact Jim Jasinski, jasinski, 4@osu.edu, 937-484-1526 or 937-462-8016.

