

# Robins, starlings, cedar waxwings and grackles

# Wildlife management series for Midwestern farmers

Common names: Robins, starlings, cedar waxwings and grackles.

Commonly impacted crops: Cherries, blueberries, grapes and apples.

Relevant regulatory agency: State Departments of Natural Resources, U.S. Fish and Wildlife Service.

# **Species overview**

## Physical description

- Robins: Very familiar bird with rusty-orange breast.
- Starlings: Very common with shiny black plumage and a yellow bill. Plumage becomes spotted in winter.
- Cedar waxwings: Tan and gray body with crest and a black mask, yellow-tipped tail.
- Grackles: Larger than a robin, has shiny black plumage with iridescent head, long tail and long, black bill.



Cedar waxwings.

#### Habitat and range

- Robins: Open woods, widespread in suburban and rural habitats; most robins migrate south in winter.
- Starlings: Widespread in urban, suburban and rural habitats; many starlings overwinter in the Great Lakes area.
- · Cedar waxwings: Suburban and rural habitats, mixed woodlands: some overwinter in the Great Lakes area.
- Grackles: Common inhabitants of open woodland and marshes as well as in suburbs, parks and agricultural fields; migrate from the Upper Great Lakes States in winter.

Behavior including food habits: All these species eat fruit—wild or farmed—when it is available. Robins generally feed as individuals, waxwings in small flocks up to 10 birds, while grackles and starlings often form large flocks, especially in fall and winter. The time when fruit matures appears to influence









 $\frac{\text{MICHIGAN STATE}}{U N I V E R S I T Y} | \text{Extension}$ MSUE BULLETIN #3425 European starling.

This information was prepared by the North Central Region IPM Center's Agriculture and Wildlife Coexistence Working Group along with Michigan State University Extension. Project contact: James DeDecker, MSU Extension.

Common grackle.







Pecking damage and complete fruit removal in sweet cherry by birds.

the amount of damage that occurs. Fruit that ripens early or is geographically isolated may be damaged more often because it provides a scarce or concentrated source of fruit in the region.

Identification of damage: Fruit damage by birds will appear as multiple peck marks. Starlings and robins could also remove an entire fruit such as a blueberry or cherry. Cedar waxwings may leave characteristic V-shaped marks on blueberries that may remain on the bush. Birds may knock fruit to the ground where it is unharvestable. Damaged fruits that fall to the ground or remain on the tree harbor diseases and insect pests which can threaten the remaining crop.

#### **Management and strategies**

Legal status: Robins and cedar waxwings are protected by the federal Migratory Bird Treaty Act and can be taken only with a federal migratory bird depredation permit. Grackles are also federally protected, however, there is a provision in the Act allowing crows and grackles to be trapped or killed "when found committing or about to commit depredations upon ornamental or shade trees, agricultural crops, livestock or wildlife." Starlings are not protected and can be killed without a permit. All these bird species can be harassed without a permit.

No single management method to prevent damage works all the time or in all settings. Generally, management methods should be combined so that one method enhances the effects of another.

Exclusion: Netting to exclude birds is considered cumbersome and expensive by many growers, but is the most effective means to prevent fruit damage. Netting must be properly installed and maintained. Attach netting to a frame so it does not contact fruit and anchor it to the ground to prevent birds from entering under the net.

Biological control: Some growers have erected nest boxes for kestrels, a small falcon found in the Great Lakes region, to deter birds from visiting the crop area. They nest from April to August which would put them in and around orchards when birds might be damaging fruit. An additional benefit, this method is inexpensive and doesn't require much time investment after the nest box is installed. On the downside, there's no guarantee kestrels will use the box and sometimes starlings will use the boxes.



Kestrels on a pole and on a wire.

Repellents: There is a commercial repellent, Avian Control, for protecting fruit from birds. The active ingredient is methyl anthranilate (MA), a contact irritant that affects all bird species. MA is an immediate irritant that birds do not learn to ignore, so birds do not have to learn to avoid treated areas. It can be applied by fogging or ground spray equipment. Repeated applications might be needed if the crop is vulnerable over several weeks. According to the manufacturer, Avian Control does not penetrate the skin of the fruit, thus avoiding adding an off-flavor. Use all registered chemicals complying with label instructions.

Harassment: Birds can be harassed with various methods such as pyrotechnics (screamers, bangers),

propane cannons, hawk kites, reflective ribbon and scare balloons. Birds generally become habituated if methods are not varied or not moved frequently. Scarecrows have been used for centuries, but usually have limited value in deterring birds unless they are enhanced by adding movement or including additional control measures such as lethal control.

Some producers have found some benefit from using air dancers—20-foot tall inflatable tube displays. They offer a large active presence and don't require a great deal of effort once they are operating. On the other hand, they may cost approximately \$300, require a power source to operate the blower and are less active when they get wet. Harassment methods like air dancers or noise makers can cause tensions with neighbors and may frighten or annoy dogs.

Shooting: Shooting is a time-consuming approach as birds can be persistent, especially when fruit is ripe. Except for starling, grackles and crows, the shooting of all other bird species requires a federal migratory bird depredation permit. It is crucial to accurately identify the offending species before shooting. Growers may find the Cornell Lab of Ornithology (https://www.allaboutbirds.org/guide/) helpful in identifying species.

# Considerations

Many bird species are revered and have significant cultural value in society. Consider the social implications of bird control strategies and always use the least disruptive control method. Good communication between neighbors can also lessen negative social implications of bird management.

Preventative control that prevents habitual behavior is critical for effective bird damage management. Control is much more difficult after feeding patterns have become established. Seldom is there only one bird species eating fruit in an orchard or field. Control methods applicable for one species are likely to carryover to other bird species.

There are other birds, such as crows and gulls, which can damage fruit that have not been discussed here. The pecking damage would appear larger, consistent with their larger size, and those species are likely to cause more fruit to fall to the ground. The methods of reducing damage would be much the same as discussed here.

# Acknowledgments

Avery, M.L. and Duffiney, A.G. Cedar Waxwings. Wildlife Damage Management Technical Series. USDA, APHIS, WS National Wildlife Research Center. Ft. Collins, Colorado. 8 p. 2015.

Brittingham, Margaret C. "Orchard Wildlife Management – Birds". PennState Extension. 2017. <u>https://extension.psu.edu/orchard-wildlife-</u> management-birds.

<u>Pullano, Gary.</u> "Strategies take shape for managing birds in orchards." Fruit Grower News. <u>2005. https://</u> <u>fruitgrowersnews.com/article/strategies-take-shape-</u> <u>for-managing-birds-in-orchards/.</u>

Lindell, Catherine. "Bird management options for fruit growers." Michigan State University Extension. 2016. <u>https://www.canr.msu.edu/news/bird\_</u> <u>management\_options\_for\_fruit\_growers</u>.

Eaton, Alan. "Bird Damage Prevention for Northern New England Fruit Growers." University of New Hampshire Cooperative Extension. 21p. 2016. <u>https://</u> <u>extension.unh.edu/resources/files/resource001797</u> <u>rep2514.pdf</u>.

# **Additional resources**

Visit our Wildlife Management website for additional fact sheets on managing other wildlife and for more resources: <u>bit.ly/wildlife-mge</u>

Kestrel nest box: <u>https://kestrel.peregrinefund.org/</u><u>nest-monitoring</u>

U.S. Fish and Wildlife Service <u>https://www.fws.gov/offices/</u>

Your state's Department of Natural Resources or similar agency.

# Midwest directory of wildlife management agencies

Information from February 2019.

# Illinois

Department of Natural Resources: (618) 435-8138 www.dnr.illinois.gov USDA APHIS Wildlife Services: (217) 241-6700

# Indiana

Department of Natural Resources: (317) 232-4102 www.in.gov/dnr USDA APHIS Wildlife Services: (765) 494-6229

#### lowa

Department of Natural Resources: (515) 725-8200 www.iowadnr.gov USDA APHIS Wildlife Services: (573) 449-3033

## Kansas

Department of Wildlife, Parks and Tourism: (620) 672-5911 <u>www.ksoutdoors.com</u> USDA APHIS Wildlife Services: (785) 537-6855

#### Michigan

Department of Natural Resources: (517) 284-6057 www.michigan.gove/dnr USDA APHIS Wildlife Services: (517) 336-1928

## **Minnesota**

Department of Natural Resources: (651) 296-6157 <u>www.dnr.state.mn.us</u> USDA APHIS Wildlife Services: (651) 224-6027

#### Missouri

Department of Natural Resources: (800) 361-4827 www.dnr.mo.gov USDA APHIS Wildlife Services: (573) 449-3033

## Nebraska

Department of Natural Resources: (402) 471-2363 www.dnr.nebraska.gov USDA APHIS Wildlife Services: (402) 434-2340

#### North Dakota

Game and Fish Department: (701) 328-6300 www.gf.nd.gov USDA APHIS Wildlife Services: (701) 355-3300

## Ohio

Department of Natural Resources: (800) 945-3543 www.ohiodnr.gov USDA APHIS Wildlife Services: (614) 993-3444

# South Dakota

Game Fish and Parks: (605) 223-7660 <u>www.gfp.</u> <u>sd.gov</u> USDA APHIS Wildlife Services: (701) 355-3300

# Wisconsin

Department of Natural Resources: (888) 936-7463 www.dnr.wi.gov USDA APHIS Wildlife Services: (608) 837-2727



United States National Institute Department of of Food and Agriculture Agriculture

This work was supported by the USDA National Institute of Food and Agriculture, Crop Protection Pest <sup>10</sup> Management Program and the North Central IPM Center (2014-70006-22486) and (2017-70006-27175). Any opinions, findings, conclusions or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture.

MSU is an affirmative-action, equal-opportunity employer. Michigan State University Extension programs and materials are open to all without regard to race, color, national origin, gender, gender identity, religion, age, height, weight, disability, political beliefs, sexual orientation, marital status, family status or veteran status. IP-2600 02:2019-BRADFORD-MM/JNL

WCAG 2.0 AA