

Living with Wildlife in BC

EUROPEAN STARLING #6

“Living with Wildlife” is a series of nine wildlife management guides for the agricultural and natural resource sectors, as well as rural land owners. Options for wildlife management, worker safety, and animal deterrents are provided for each species. Many guides suggest completing wildlife conflict management plans. Web links to the guides and other resources are on the back page. Consult the “Conflict Reduction Guide” for wildlife deterrent management options.

European Starling, *Sturnus vulgaris*

Birds that are attracted to BC orchards and vineyards include flickers, robins, and blackbirds but the most numerous and problematic species is the European Starling which was introduced to North America over one hundred years ago, and has become a major agricultural pest.

- European Starlings range from Alaska to northern Mexico with an American population of over 200 million birds.
- Starlings have successfully adapted to rural and urban habitats where they find nest cavities in man-made structures.
- They aggressively compete with native bird species for nest spaces in tree holes and natural cavities and are a factor in the decline of some native bird species.
- Starlings have glossy black plumage that shines with a green-purple iridescence in the spring. In summer, new brown plumage has gold flecks and white spots. Winter birds are brownish-black with fine light spots.
- Sounds include whistles, liquid warbles, trills and imitations of other birds and animals.
- Varied diet of insects, grubs, fruit and grain.
- Forage in small groups on lawns and fields with short vegetation.
- Large flocks forage in fields and farms in late summer through winter.
- Cherries, blueberries and grapes are favoured in addition to wild fruits.
- Starlings vary regionally in their migration patterns. Winter starling populations in southern British Columbia may include starlings that breed further north. Starlings spend fall and winter nights together in large roosts that may number in the hundreds or thousands. They disperse and range widely for daytime foraging in residential and rural areas.



European Starling summer

On the Farm

Best Practices Tips

- ✓ Check farm buildings and residences for holes and cracks where starlings might nest.
- ✓ Seal holes with wood, hardware cloth or metal flashing.
- ✓ November to March is the best time to make repairs to ensure that bats are not trapped inside.
- ✓ Nail wire mesh over vent and duct holes.
- ✓ If starlings nest in trees, clean out the nests and nestlings.
- ✓ Clean up attractants: spilt grain, and spoiled fruit.
- ✓ Put up nest boxes for native birds with oval $\frac{3}{4}$ - 1 $\frac{1}{4}$ inch holes.



Starling winter plumage



Juvenile starling

Starling – a population problem

Nesting

In the spring, starlings form mating pairs and look for nest holes in old trees, buildings and other man-made structures. They prefer nest cavities with 6 cm/2-3 inch openings but will use holes as small as 3.5 cm/1.5 inch. They are well-known for killing or out-competing much larger native birds to take possession of a nest cavity.

A male begins nest construction before mating with greater activity about a week before laying. The cavity is filled with grass, pine needles, or similar materials. From 4-6 blue-white eggs are laid and in two to three weeks young are born. In another three weeks the young starlings are ready to leave the nest.

By May, adults are often seen feeding large grey-brown young on the ground. They will produce two broods a year, so blocking and disrupting starling nesting should be a priority. One nest hole can result in 10 new starlings a year!

It is estimated that from 30-50 % of starlings die of natural causes over the winter. The starling trapping and eradication programs sponsored by agricultural organizations are not able to decrease the population but do lower agricultural crop damage in the summer and fall. Studies in other parts of North America showed that starling numbers returned to normal a few weeks after local populations were exterminated by poison. Starlings are opportunistic and will travel widely to take advantage of foraging opportunities.

Trapping

Cherries, blueberries and grapes are the main fruits that attract the starling—the primary culprit for bird damage. Contact fruit producer groups to learn more about professional starling trapping and eradication programs in your area. The BC Grapegrowers' Starling Trapping Program uses a team of professional trappers who use humane practices to carry out trapping.

Trapping is most successful in feedlots and other cattle operations. Once trapped, the birds are moved to an enclosed box and euthanized using carbon dioxide. The carcasses are distributed to bird rehabilitation centres and the remainder are composted.

Robins and other birds also eat fruit but since they occur in significantly smaller numbers and are protected by *The Wildlife Act*, trapping is not allowed for these species. If native birds are caught in nets or traps it is important to release them.

Bird Predation Management

Bird management, like integrated pest management, is best done with a planned approach to evaluate the damage and decide whether a management technique is worth the cost and is effective.

Noise and visual deterrents

Bird scare devices such as propane cannons, starling distress calls, hawk kites, balloons and reflective tape are used when netting is impractical or expensive. Often visual and noise deterrents are used together to increase the effect. Make sure to check local government noise bylaws that may regulate the use of noise devices in your area consult BC Ministry of Agriculture web site for “Audible Bird Scare Devices in BC” guidelines.



The timing and location of these devices should be varied otherwise they lose their impact. Research indicates that cannons are less effective than either natural predators or recorded Coopers Hawk calls and starlings in distress playbacks. Hawk kites have also been used successfully. But the effectiveness of all scare methods lessens with regular use so the “scare tactics” should be used for peak bird predation months.

Bird of Prey

Natural bird predators, like hawks and owls, can be encouraged to visit or live on your property if a tall tree or perching pole is present. Old crow nests are often reused by nesting hawks.

Netting

Many growers now rely on anti-bird netting as the only way to get complete protection for their crops. If using nets, it is extremely important to use material custom-made to deter starlings. Netting may only be needed in sections of property that have heavy starling damage-- often near trees or overhead wires where starlings perch. Side netting that covers each row results in fewer birds and other non-target wildlife getting trapped inside.

Most netting is guaranteed to last ten years, and often lasts years longer. Compare the cost of crop loss per acre x 10 to decide if netting is affordable. Consult BC Ministry of Agriculture guides to assess the economic costs and benefits of netting:



Side netting

Netting for Bird Control in Blueberries – A Decision-making Guide

Netting for Bird Control in Cherries – A Decision-making Guide

Netting for Bird Control in Grapes – A Decision-making Guide

Netting Best Practices

- purchase bird netting from a reputable supplier who provides the appropriate size and mesh gauge for your crop
- ensure that nets are correctly draped and pegged with no slack points
- nets should be checked every day to make sure there are no openings for birds to get in
- struggling birds caught inside nets can attract birds of prey who may also get entangled.
- European Starlings and House Sparrows may be killed, but most other birds are protected by *The Wildlife Act* and must be released.

Contacts & Resources

“Living with Wildlife in BC” management guide series:

- # 1 Bear
- #2 Cougar
- #3 Coyote & Wolf
- #4 Rodents
- #5 Snakes
- #6 Starlings
- #7 Ungulates
- #8 Conflict Reduction: mitigation options for wildlife safety and control
- Mitigation Decision Matrix: calendar of wildlife occurrences and recommended controls

The wildlife guides are built on the work of government ministries and wildlife and conservation organizations who generously shared information, reviewed and contributed to this series. Authors: © 2013 Margaret Holm and Zoe Kirk. Project Sponsor: Okanagan Similkameen Conservation Alliance (OSCA), contact outreach@osca.org.

The “Living with Wildlife” series is available for downloading and distribution (personal, noncommercial use) on the following websites:

www.osca.org “Living With Wildlife” pages
<http://www.rdos.bc.ca/departments/public-works/wildsafe-bc-bear-aware/>
www.bcwgc.org Health and Safety Section

Resources:

“Suppliers of Bird Control Materials and Equipment for BC Growers”
<http://www.agf.gov.bc.ca/berries/publications/document/suppliers.pdf>

The BC Grapegrowers' Association (BCGA) manages the Okanagan Similkameen Starling Control Program. The web site is a good source of information <http://www.grapegrowers.bc.ca/starling.shtml>. The BCGA also sponsors a Starling Control & Awareness Program with tips on reducing starling nest sites.

Integrated Bird Management – Blueberries www.agf.gov.bc.ca/cropprot/birdipmplan.pdf

Rodent and Bird Control in Farm Buildings <http://www.cps.gov.on.ca/english/be9000/be9451.htm>

Photo Credits: Joel Carter, Laure Neish, Wikimedia Commons.

Funding provided by:



This project was funded in part by the Investment Agriculture Foundation of B.C. through programs it delivers on behalf of Agriculture and Agri-Food Canada and the B.C. Ministry of Agriculture. Agriculture and Agri-Food Canada, the B.C. Ministry of Agriculture and the Investment Agriculture Foundation of BC, are pleased to participate in the production of this publication. We are committed to working with our industry partners to address issues of importance to the agriculture and agri-food industry in British Columbia. Opinions expressed in this publication are those of the authors and not necessarily those of the Investment Agriculture Foundation, the B.C. Ministry of Agriculture or Agriculture and Agri-Food Canada.