Description

Wildlife can disrupt damage and harm agricultural crops and livestock, the land they are raised on and the infrastructure and equipment needed to raise them. Wildlife can also spread undesirable insects, weeds and diseases.

Numerous methods are used to control or reduce the impact wildlife has on agricultural enterprises. These include fencing, netting, scare tactics, repellents, trapping, the use of firearms and poisoning, habitat modification and cultural management.

Nuisance Concerns

The three main disturbances mentioned in the Farm Practices Protection (Right to Farm) Act are odour, noise and dust. Of particular concern to wildlife damage control practices is noise.

Noise

Farmers engage in a variety of activities that generate noise. Most equipment generates some noise. Noise is defined as any sound that is audible but judged to be an unwanted, irregular or erratic disturbance. Wildlife scare devices may create noise as a scare tactic. Noise may be generated continuously or intermittently.

See Nuisance Reference: Noise

Activities and Operations

Fencing

A fence is a constructed barrier intended to prevent the intrusion or escape of undesirable species. Common fence designs to protect crops from wildlife are woven wire fences and electric fences or a combination of the two. Electric fences along pedestrian areas should be posted with warning signs.

Habitat Modification and Management

Habitat that may be especially suited and attractive to wildlife can be modified or eliminated. Similarly, access to the food, water and shelter wildlife requires can be reduced or eliminated. Cultural management techniques such as mowing, cutting down weeds and plant debris, and removing breeding and hiding places are also effective. Land leveling or contouring to reduce water ponding may be effective in reducing the attraction of birds and animals to a field.

See Farm Practice: Farmstead Maintenance
Habitat Management
Netting
Netting is used to prevent birds and animals from entering valued areas. Overhead nets covering the entire production area are normally used in crops that are harvested multiple times such as blueberries. Nets covering individual rows are often used in grapes and sometimes in cherries. Screens or netting should be incorporated in new buildings to keep birds and animals out of farm structures that contain feed or feeding areas. Plastic strips can be used to cover drive-through openings in the barn.

Repellents and Deterrents
Repellents that keep predators away or reduce their numbers include, but are not limited to, the following:
- natural repellents including plants, animals and natural products that are unpleasant to unwanted species of wildlife and
- chemical repellents that repel unwanted species of wildlife.
See Farm Practice: Pesticides

Scare Tactics
Various devices are used to scare wildlife away from crop land, livestock and farm animals. The most common methods are:

Audible devices including, but not limited to:
- propane-fired cannons or exploders;
- broadcasting general sounds designed to unsettle birds;
- broadcasting bird calls such as distress, alarm and predator calls;
- shell launcher (orchard pistol) with various shells (screecher and banger);
- motor cycles or vehicles; and
- people clapping hands, banging pails, blowing air horns etc.

Visual devices including, but not limited to:
- inflated owls and other fake predators;
- kites with likenesses of predatory birds such as owls, hawks, etc.;
- scarecrows;
- Mylar strips or flash tape;
- scare-eye balloons; and
- the presence of people.

To be effective in scaring wildlife, a variety of scare tactics should be used in a manner that prevents the wildlife from becoming used to the scare tactics. Farmers should monitor the wildlife, their habits and the crop damage and develop an integrated wildlife management plan to minimize crop damage and loss.

The following guidelines can help reduce the impact audible devices have on neighbors:
- use audible devices only when required for the protection of specific crops and only when a problem is evident;
- operate noise devices only between dawn and dusk;
- where possible, aim directional audible devices away from neighbors;
- maintain the devices properly to avoid continuing noise when they are shut off; and
- screen pens containing fur bearing animals to reduce attraction of birds.

See Farm Practice: Mobile Equipment
Stationary Equipment
Guidelines for the use of Audible Bird Scare Devices – South Coastal BC Only

Audible bird scare devices are devices that deter birds from damaging or consuming crops by emitting a loud noise which frightens the birds away from the crop area. Audible bird scare devices can be annoying to nearby residents. In response to a growing number of complaints, the British Columbia Farm Industry Review Board (May 1999 and May 2009) and the Ministry (February 2002, February 2004 and April 2008) have reviewed this issue. As a result of these reviews, the Ministry has revised the guidelines for the use of audible bird scare devices. Audible bird scare devices are divided into two main categories.

Category ‘A’ bird scare devices create an impulse sound. Impulse sound is from impacts or explosions. Propane-fueled exploders or cannons are an example of Category ‘A’ devices. Firearms and shell launchers such as orchard pistols are not included.

Category ‘B’ bird scare devices are any other stationary device, not in Category ‘A’, which generate sounds to scare or disturb birds. Examples are devices that broadcast birdcalls or other sounds through loudspeakers. Firearms are not included.

Guidelines applying to both Category A and B devices are as follows:

Farmers are responsible for the strategic management of devices, and must take due measures to minimize noise impact on neighbours. To achieve this, farmers:

- should ensure that a Bird Predation Management Plan is completed before the first use of devices in each growing season and that the plan is kept up to date throughout the season. A Bird Predation Management Plan requires that producers monitor bird populations and activity on their properties, utilize a range of approaches or techniques to prevent bird damage, and undertake strategies to minimize both device use and bird habituation to devices;

- should assign an individual who will be responsible for:
  - being familiar with the Bird Predation Management Plan and the terms it establishes for the use of devices;
  - making regular visits to the sites to ensure that devices are functioning properly and that bird pressure is sufficient to justify propane cannon use;
  - ensuring that devices are not operated outside of the hours permitted within the guidelines, and responding promptly should out-of-hours operation be reported.

- should provide the contact information for that individual to BCBC, and, where their local governments maintain a registry of devices, with their local governments.

With respect to the operation of devices, farms:

- should operate devices only between 6:30 a.m. and 8:00 p.m. local time or dawn to dusk, whichever is of lesser duration;

- should operate as few as possible devices on a given farm site up to a maximum of one device per two hectares of cropland at any one time. If multiple devices are used on a larger field, they should be placed at a distance from each other so that they are not concentrated within the field and so that they do not exceed the permitted density;

- should alternate or relocate devices being used on a farm operation at least every 4 days;

- should point directional devices away from the nearest neighbouring residence or facility and away from nearby roads;

- should maintain devices, including timing mechanisms, to ensure they operate properly and not outside the permitted hours of operation;

- should use devices only when required for the protection of a crop during periods when that crop is vulnerable to bird predation;

- should use devices only as outlined in the Bird Predation Management Plan.
Guidelines applying only to Category A devices are as follows:
Farmers:
• should operate devices with a firing frequency of no more than one firing per 5 minutes for single shot devices and no more than 11 activations or maximum of 33 shots in any hour for a multiple-shot device. Multiple shots from a device are considered as one activation if they occur in less than a 30-second period;
• should maintain a 200 meter separation distance between a device and a neighbouring residence. Where written permission from the owner of a neighbouring residence is obtained, the separation distance can be waived.
• should not operate devices between noon and 3pm.

Guidelines applying only to Category B devices are as follows:
Farmers:
• should maintain a 100 meter separation distance between a device and a neighbouring residence. Where written permission from the owner of a neighbouring residence is obtained, the separation distance can be waived.

Guidelines for shell launchers (orchard pistols):
Farmers:
• should operate shell launchers following guidelines for Category A devices except for the guidelines on number of devices per hectare, firing frequency and mid-day break.
• should not operate “bear bangers” as a bird scare device.

Wildlife Control
Sometimes it may be necessary to remove certain species or specific animals which are causing too much damage to the crops or livestock being farmed. Removal of wildlife must be done in accordance with the Wildlife Act as well as any other relevant provincial and/or federal legislation. Farmers should take all reasonable steps to protect their crops or livestock from wildlife damage before applying for permits to remove or kill problem wildlife that are protected. Please consult the Ministry of Environment for more information about the Wildlife Act. Removal methods include:
• trapping (both live and lethal traps can be used);
• crossbow or bow and arrow;
• firearms to scare away or kill wildlife; and
• poisoning with registered rodenticide baits and/or fumigants (pocket gophers, ground squirrels).

See Farm Practice: Pesticides
Pest Management

Legislation
Information on federal and provincial legislation can be found in Appendices B and C. Acts, regulations and bylaws that regulate or may affect wildlife damage control practices include, but are not limited to, the following:

Federal Legislation
The Fisheries Act protects fish and fish habitat.
The Migratory Birds Convention Act protects migratory birds.
The Pest Control Products Act ensures the safety, merit and value of pest control products.

Provincial Legislation
The Fish Protection Act protects fish and fish habitat by limiting licences in water-short regions and provides directives for residential, commercial and industrial development.
The *Integrated Pest Management Act* regulates all aspects of pesticide sale, transport, storage and use. The *Wildlife Act* regulates hunting and declares and protects endangered species.

**Local Government Legislation**

Local governments can enact applicable firearms bylaws where in place.

**Publications**

Publications that provide further information on wildlife damage control include, but are not limited to, the following (refer to Appendix D for details):

*British Columbia Environmental Farm Plan Reference Guide*
*BC Agricultural Fencing Handbook*
*Integrated Bird Management – Blueberries*
*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*
*Rodent and Bird Control in Farm Buildings*
*Rodent Control on Agricultural Land in British Columbia*
*Suppliers of Bird Control Materials and Equipment*
*Watershed Stewardship: A Guide for Agriculture*