



Animal-Related Problems

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Birds

Symptoms

Large numbers of birds in the orchard; fruit with large, ragged holes (Figure 17.1); bird droppings containing many seeds.

Cause

Birds such as robins, finches, and sparrows, feeding on semi-ripe and ripe fruit.

Control

Bird feeding on semi-ripe and ripe fruit can cause a substantial loss of marketable fruit. Unfortunately, bird control is difficult and it is illegal to shoot songbirds which are protected under the Migratory Bird Act. A combination of methods will provide the best solution to this problem.

One approach to this problem is to grow more plants and absorb the losses in yield.

The use of netting (plastic impregnated paper, nylon, cotton, or polyethylene) has been shown to be both effective and economically feasible in blueberry orchards (Figure 17.2). The netting can be either installed as a tent, or as

a floating cover, not long before the fruit begin to ripen. Floating covers will have to be removed immediately before harvest.

There is some indication that birds feed on fruit, not only for food, but also for water. Consequently, providing a source of water for the birds may partially solve this problem.

Table sugar (sucrose), applied when the fruit are beginning to ripen at a rate of 1 kg/L of water has been used as a repellent. It's thought that either the stickiness of the sugar coating on the fruit, or the indigestibility of the coating (birds can't digest sucrose) is the basis of the repellent action. However, the use of a sugar spray would require that the fruit be washed and the sugary coating could increase potential disease problems.

A variety of bird scare devices are available. These work in a variety of ways.

Visual scare devices include a number of variations on reflective tapes, kites and balloons with large 'eyes' that mimic the eyes of predators such as hawks and owls. The balloon-type devices are suspended on flexible poles (bamboo, poplar, willow, fiberglass), at a density of 5 to 10 per hectare. They are installed as the fruit begin to ripen, and removed immediately following harvest so that the

birds do not become accustomed to them. Individual balloons also are moved every 7-10 days for the same reason. These balloons appear to be effective in apple orchards. Reflective mylar tapes, or flash tapes, are usually silver or red in color, reflect light brightly, and produce a fluttering sound. These tapes vary from 1.25 to 5 cm in width and are used in various lengths tied to fence posts, or whatever is convenient. Three tapes should be used for each row of saskatoons, one above the row, and one on each side of the row.

A variety of electronic devices are available that produce sounds which irritate, distract, or frighten fruit-feeding birds. Some of these devices will be intolerable to both the grower and their neighbours because the sounds created are so loud. Some of these devices create high-frequency sounds that cannot be heard by people. Unfortunately, birds often adapt to these devices and subsequently ignore the noise.

Another method that some growers believe is effective is to attract natural predators such as hawks, owls, magpies and ravens to the orchard. Such birds may be attracted to the orchard by hanging raw meat or a carcass from a tree. One grower apparently has used dogfood as a bait to attract magpies. The use of artificial hawk nests and roosts may entice hawks to nest in the vicinity of the orchard. The presence of natural predators helps to reduce feeding by other birds.

Electric fence technology also has been adapted for bird control. Pairs of electrical wires may be installed above the orchard rows in such a way that pruning and

harvesting operations are not interfered with. When birds land on the wires, they receive a shock and fly away. This shock apparently acts as an effective deterrent.

Suppliers of bird control devices are listed in the Sources section of this manual.

Rodents & Rabbits

Symptoms

Chewing damage to bark near base of stems, main roots, feeder roots; loss of plants for unknown reasons; trails, burrows, runways beneath mulch; ground spongy around plants; 2.5 cm diameter holes in ground around or between plants; damage is especially severe during the winter months when other food sources are scarce

Cause

Rabbits may eat young shoots; rabbits, mice and voles can girdle stems (strip away bark completely around the circumference of the stem). Stems that are completely girdled will die.

Control

A good method of control is to manage weeds, grass and mulch effectively. Organic mulches should be kept 60 cm from the base of the crop plants and should be removed in late-August. Row alleyways should be kept mowed or regularly cultivated depending on the type of groundcover. Mulches, long grass, matted grass and weeds provide rodents with protection from predators such as hawks,

owls, coyotes, cats and dogs.

Rodents can be effectively controlled during the winter by packing the snow in the orchard alleyways with a snowmobile. The packed snow makes it much more difficult for mice in particular to freely move about under the snow.

Fencing with 1 m high chicken wire (4 cm mesh size), and persistent trapping & shooting, will help in controlling rabbits.

Hawks, owls and other raptors (predatory birds) can be attracted by artificial nests and perches placed on poles 7 to 10 m tall; perches or nest platforms must be 60 cm wide. Chickens apparently can be trained to feed on mice by providing them with mice caught in traps and then left to run free in the orchard.

The use of commercially available repellents may be necessary. Such repellents incorporate the fungicide thiram which has a bitter taste. A homemade mixture of 1 part (by weight) thiram (75% wettable powder) with ten parts water-emulsifiable black asphalt can be made. The repellent must be applied to dry stems after leaf fall on a warm day.

A spray of white latex paint to the base of stems may act as a feeding deterrent because of its chalky texture. White latex paint is 44% water and contains the pigments titanium dioxide and zinc oxide, both of which are non-toxic (and used in medicinal preparations).

Bait stations containing a rodenticide (most commonly grain treated with zinc

phosphate) can be distributed, 1 every 20 m², after leaf fall. The bait can be placed under boards, in old tires, in plastic pipe (10 cm diameter, 30 to 45 cm long), or in empty oil cans having a hole large enough for the rodent to enter.

Deer

Symptoms

Feeding on terminal buds and the ends of branches, especially during winter.

Cause

Deer may feed on twigs and larger branches.

Control

It's important to determine if the cost of the damage is less than the cost of protection. The methods of providing protection from deer are not foolproof and may be expensive.

If deer become a serious problem, the only adequate protection is a tall, sturdy fence of woven wire. Woven wire fencing must be at least 2.4 m in height with no crawl spaces underneath.

Some growers have experimented with a simple, baited, electric fencing. The fence consists of single strand polywire or tape strung 0.75 to 1 m above ground level. Every 3 m, a 5 by 15 cm aluminum foil flag is taped or stapled to the polywire; the underside is coated with peanut butter. A standard livestock fence line is used to

energize the fence. The baited aluminum foil flags attract the deer who are then shocked on the nose by the electric wire. This system is said to work well in conditioning deer to avoid the fence.

Dogs left to roam in the orchard may be helpful, provided that they can be kept in the orchard. Odor and taste repellants, including human hair, mothballs, bloodmeal, and the commercial products Hinder, Ropel, Skoot and others, may not be reliable. Some of these, especially strongly-scented soap bars hung every 3 m, have been considered helpful by some growers.

Plate 17. Bird Damage



Figure 17.1: Fruit damaged by bird feeding (Photo by A. Delidais).



Figure 17.2: Highbush blueberry orchard covered with netting for protection against birds (Photo by M. Bantle).

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