What can be done to control Little Cherry Virus?

The spread of Little Cherry Disease can be minimized by following the guidelines below. Look for symptoms at picking time. If you suspect Little Cherry, please contact your nearest BCMAF office.

- 1. If you are propagating cherry, avoid using budwood from trees that have not been tested for freedom from viruses. Select only nursery stock that is certified as virus-free. This does not protect trees from later infection, but it is important to "start clean".
- 2. Remove trees infected with Little Cherry Virus as soon as they are detected. Stumps should be prevented from sprouting, and removed before the following spring. Trees with Little Cherry Virus must be removed under the authority of the B.C. Plant Protection Act.
- 3. Do not grow or import ornamental Japanese flowering cherries, as these trees are often symptomless carriers of the Little Cherry Virus. The *Little Cherry Control Regulation* prohibits the sale or growth of flowering cherries in the Okanagan, Similkameen and Creston valleys.
- 4. Remove wild cherry trees that may have sprouted on your property. These "seedling" cherries usually do not produce useable fruit, and they may be symptomless carriers.
- 5. If planting a new cherry tree, don't place it near to old cherry trees. Old trees are likely to be infected with Little Cherry or other viruses. Fruit symptoms are not always obvious.



6. Control apple mealybug, as this pest is responsible for spreading the disease. Overwintering mealybug populations are reduced by an application of dormant oil in the spring. Diazinon is an insecticide that also helps to control mealybugs and can also be used for cherry fruit fly control up to 10 days before harvest. After fruit has all been picked, diazinon is also effective to control the nymph stages on the leaves. Diazinon is available in a domestic formulation at most garden centers. If your cherry trees are large, consider hiring a commercial pest control company to achieve better spray coverage. Alternatively, prune your trees to a height that would allow proper spray coverage for mealybug and other pests.

Can infected trees be cured?

No, there is no cure for a virus-infected tree. Tree removal is the only option. However, the preventative measures outlined above will help to minimize additional spread of the virus.

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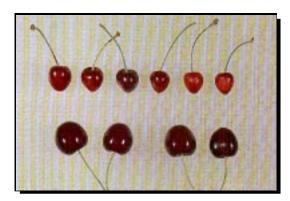


Information for the home gardener

Little Cherry Disease in British Columbia

What is Little Cherry Disease?

Little Cherry Disease is a serious disease of sweet and sour cherry, caused by the Little Cherry Virus. Fruit on infected trees tends to be smaller than normal, poorly coloured, and lacking in flavour and sweetness. All of the fruit may be affected, but more commonly only a proportion of the fruit is small. Premature reddish leaf discoloration occurs on some varieties in late summer or early fall.



How does Little Cherry Disease spread?

Little Cherry Disease is spread by the apple mealybug. This pest lives on many species of fruit and ornamental trees. Other than spreading the virus, low populations do not normally cause any direct damage to cherry trees. Female mealybugs do not fly, but they can migrate short distances by crawling from tree to tree. The major period of mealybug movement occurs during the summer when young nymphs are feeding on the leaves and can be transported by wind.

What do mealybugs look like?

Adults are yellow to orange in colour, about 3 mm long, and covered with a granular, white, waxy material. Eggs

are yellow and found inside masses of white, cottony wax. Nymphs are oval, flattened and yellow with red eyes. Mature nymphs are about 2.8 mm long.

Can the virus spread any other way?

Little Cherry Virus can also be spread by budding or grafting if virus-infected cherry wood is used for propagation.

Does the virus kill the tree?

Little Cherry Virus may cause infected trees to be less vigorous, especially when trees have been infected for several years, however the general health of the tree usually appears normal. Fruit symptoms are the main manifestation of the disease.

Why is Little Cherry Virus considered a serious problem?

Little Cherry Virus causes cherry fruit to be of poor quality, and unfit for the commercial cherry market. The disease is a threat to the continued viability of the cherry industry in the Okanagan and Kootenay Valleys. Little Cherry Virus was responsible for the demise of the cherry industry in the Kootenays earlier this century. The virus spread to virtually all orchards, and infected almost all of the trees within those orchards. Production dropped from 680,000 kg in 1947 to 68,000 kg in 1979, by which time most fruit did not meet packing house standards.

What is the Little Cherry Control Regulation?

The *Little Cherry Control Regulation*, under the authority of the provincial *Plant Protection Act*, allows for removal and destruction of infected cherry trees. It also prohibits the growth or cultivation of flowering cherry trees in the "Little Cherry Control Areas", which include the Okanagan and

Creston Valleys (see map). Flowering cherry species that are prohibited include *Prunus serrulata, Prunus subhirtella, Prunus sieboldii, Prunus yedoensis* and *Prunus incisa.*

The B.C. Ministry of Agriculture conducts an annual survey for Little Cherry Virus in areas with commercial cherry production. Trees with

symptoms of small fruit may be marked or flagged for virus testing. Trees that are confirmed as infected are then marked for removal, and the landowner is notified that

Who is responsible for tree removal?

the trees must be removed.

The landowner is responsible for removal of trees infected with Little Cherry Virus. A reasonable time period is specified to complete removal of the diseased trees. The stumps of infected trees should also be removed, or alternatively prevented from sprouting.

Is there any compensation for tree removal?

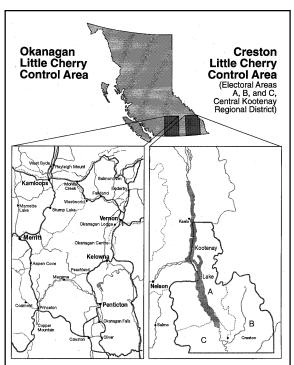
No, there is no compensation provided for tree removal by the provincial government.

What areas are infested with Little Cherry Virus?

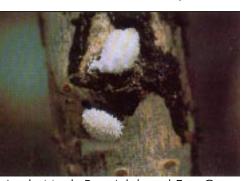
Areas where Little Cherry Virus has been found in recent years include Penticton, Naramata, Summerland, Kelowna, Peachland, Westbank, Oyama, and the Creston Valley.

Can Little Cherry Virus be confused with other disorders?

Yes, there are several disorders that may cause cherry fruit to be smaller than normal. Thus a visual diagnosis is normally backed up with a laboratory test to confirm



the infection. Winter damage may cause weak branches with sparse foliage and small fruit. Zinc deficiency may cause both leaves and fruit to be small and discoloured. A heavy fruit crop will often result in cherries that are smaller than normal. Symptoms are easier to recognize on some varieties than others.



Apple Mealy Bug Adult and Egg Case