

CITRUS LEPROSIS VIRUS C (CiLV-C),

VIRUS – CILEVIRUS

INTRODUCTION

The *Citrus leprosis virus* (CiLV-C) affects mainly orange and mandarin severely impacting production. CiLV-C is a quarantine pest which can cause up to 100% yield loss. Management of this disease has been reported to cause millions of dollars in damage to citrus crops. CiLV is transmitted by the false spider mite in the genus *Brevipalpus*.

DESCRIPTION

The *Citrus leprosis virus* causes symptoms in leaves, branches and fruits of citrus. Foliar lesions begin as light green spots surrounded by a yellow ring (Fig. 1). The lesions are shallow, 5 mm — 12 mm in diameter and are visible on both sides of the leaf.

On branches, symptoms are seen primarily on the young stems of fruiting branches. The first symptoms are yellow/pale green/brown circular spots which vary in size from 0.5 cm to 1.0 cm (Fig. 2). These spots grow to about 1.5 cm and become a darker brown or reddish (Fig. 3). Older lesions may join together leading to girdling of the stem and result in die back.

Fruit lesions only affect the outer rind where they appear as rounded, 0.2 cm – 1.2 cm depressions. On green fruits, the spots have a pale green center and a yellow halo while on older fruits the centers are dark brown (Fig. 4). CiLV induces premature fruit drop.

BIOLOGY

The dispersion of the disease occurs through movement of its mite vector, *Brevipalpus* sp. (Figure 5), within the orchard and is a consequence of their feeding habits. The infected mites can transmit the virus for their entire lifetime. Tip grafting and



Figure 1: Leaf lesions—Initial stage From www.cabi.org/isc/datasheet/13449



Figure 2: Stem lesions—Initial stage . www.cabi.org/isc/datasheet/13449

BIOLOGY cont'd

mechanical transmission are also ways the virus spreads in an orchard. The lesions formed by the CiLV-C in the leaves, twigs and fruits are not systemic.

DAMAGE

There can be severe losses in quality and quantity (up to 100%) of production in infected fields. Fruits with lesions have low commercial value, especially for direct consumption. In severe cases, twigs may die, reducing future fruit production. Moreover, unmanaged orchards serve as a source for the mite and virus to spread to other orchards.

ENTRY PATHWAYS

The main means of movement and dispersal of the virus is via the vector mites of the genus *Brevipalpus*, which are found on most species of *Citrus* and many other plant species. CiLV can spread across long distances on citrus fruits and plants infested with infected *Brevipalpus sp.*

REGULATORY STATUS

The Leprosis of Citrus is a quarantine pest for Dominica. It has been reported only on the American Continent.



Figure 4: Older citrus fruit with CiLV Lesions.
www.cabi.org/isc/datasheet/13449



Figure 5: Adult False spidermite—*Brevipalpus sp.* Photo courtesy, Juliet Goldsmith CAHFSA

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Figure 3: Stem lesions—Older stage. www.cabi.org/isc/datasheet/13449

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