

Apple Curculio (*Anthonomus quadrigibbus*)

March, 2016

Hosts

Pear, saskatoon, hawthorn, apple, quince, cherry, crabapple.

Damage

Most fruit damage occurs in the outer 2-3 rows adjacent to wild hosts such as saskatoon berries. Adult curculios feed on young pear fruit and cause the tissue around the feeding puncture to become very hard. A small pustule is often present and surrounded by a circular depression. Deformation of the fruit increases as it grows, rendering the fruit unmarketable. On cherry, females chew a very small hole in the young fruit near the stem in which they lay an egg. Infested fruit may drop prematurely or be present at harvest, making it unmarketable. Damage to apple appears as raised russeted areas early in the season (Figure 1) or small holes later in the season (Figure 2). Wounds or holes may be close together causing deadened areas and often appear as circular depressed areas around small, dark, corky spots or holes later in the season.

Identification

Larva - Mature larvae are same size as adults, legless, white with a brown head (Figure 5).

Adult - Small (about 5 mm long); reddish-brown weevils with long narrow snout and four small humps on their backs (Figure 4). They are good fliers and will drop and play dead when disturbed.



Figure 1. Raised russeted areas on maturing fruit caused by early season feeding

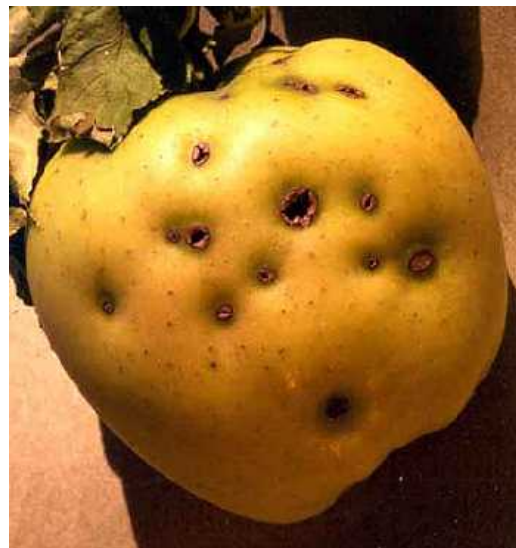


Figure 2. Late season feeding damage



Figure 3. Pear fruit damaged by adult apple curculio feeding



Figure 4. Apple curculio adults

Life History

Apple curculio overwinters as adults that emerge in the spring to feed on buds, fruit spurs and developing fruit. It appears they prefer to lay eggs in cherry and saskatoon as fruit inspections revealed few larvae in apple, crabapple or pear. The subsequent generation of adults appears from late July to early September when they feed on fruit before seeking overwintering sites near the host trees.

Monitoring

Place yellow sticky traps, such as those used for cherry fruit flies, in pear blocks prior to blossom to detect adult curculios. Locate the traps in areas of previous damage. Limb taps during bloom through petal fall will also aid in detecting curculio presence. No economic threshold is available for this occasional pest.

Control

Cultural - Remove alternative food or breeding hosts such as saskatoon from areas near orchards.

Chemical - No registered chemical control; however, contact insecticides applied during early petal-fall of pear will control apple curculio.



Figure 5. Apple curculio larvae (left) and pupae (right)