



CORNELL COOPERATIVE EXTENSION - SUFFOLK COUNTY

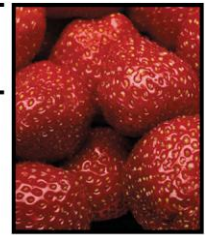
INSECT AND PLANT DISEASE DIAGNOSTIC LABORATORY

EDUCATION CENTER
423 GRIFFING AVENUE
RIVERHEAD, NY 11901
HORT INFO LINE 631.727.4126



Cornell University
Cooperative Extension
of Suffolk County

BAYARD CUTTING ARBORETUM
MONTAUK HWY. PO BOX 463
OAKDALE, NY 11769
HORT INFO LINE 631.581.4223



Pear Psylla



Fig. 1. A pear psylla adult (Used with permission from University of California Statewide IPM Program, J. K. Clark, photographer)



Figure 2. Pear psylla eggs. (Note the tiny eggs in the crease at the end of the arrow) (Used with permission from University of California Statewide IPM Program, J. K. Clark, photographer)



Figure 3. Newly hatched pear psylla nymph (Used with permission from University of California Statewide IPM Program, J. K. Clark, photographer)

Description: The adult pear psylla (*Psylla pyricola*) looks somewhat like a tiny cicada (**Figure 1.**) Early season adults are small, 1/10th inch (2.12 mm) in length, and are a dark reddish-brown color with black bands on the abdomen. The wings are held roof-like over the sides of the body and are nearly translucent. Eggs are yellowish-orange and may be seen with the aid of a hand lens in creases of the bark (**Figure 2.**) Newly hatched nymphs (**Figure 3**) are yellowish, 1/80th inch in length. Late-stage nymphs (**Figure 4**) are hard shelled and wing pads may be seen forming. There may be three or four generations per year.

Adults of summer generations may differ from those of the hibernating generation, being about one-third smaller and having brighter (tan to light brown) coloring and different wing markings.

Injury: Pear psylla attacks all varieties of pears and may occasionally attack quince. It is a sucking insect and feeds on the plant sap. Heavy feeding plus the injection of toxic saliva by pear psylla may cause early defoliation and loss of the fruit crop. The nymphs secrete a sticky substance known as honeydew (**Figure 5**) as they feed. A black sooty mold fungus forms on this honeydew (**Figure 6**) and, besides its unsightly appearance, it may cause damage by interrupting the normal process of photosynthesis. On the fruit a roughening or 'russet' of the skin occurs.

Life History: Adult psyllas overwinter on the trunks under flakes of bark or in crevices. If they are abundant, they may also be found under leaves on the ground. Adults emerge with the onset of warm weather (40^o to 50^o F or above) in the spring, mate, and begin laying eggs when temperatures reach 50^o – 60^o F. Yellowish-orange eggs are deposited in crevices in the bark and near the terminal buds. Most of the eggs will have hatched by the time the flower petals fall. Young nymphs migrate to the axils of leaf petioles and of forming fruit. As these sites become overcrowded, the nymphs move on to the undersides of the leaves.

Five immature (nymphal) stages are passed through before the winged adults appear. There are three to four generations per year in most of New York State. Females of the later generations will deposit most of the eggs along the leaf midribs. One female pear psylla may deposit up to 500 eggs.

Monitoring: Look for adults on the spurs and branches on warm days just prior to bud burst, and on the tender new shoots from green cluster through the remainder of the season until leaf drop. Eggs in the late dormant to bud burst are found singly or in rows on spurs and twigs, or around bud scales. Through the remainder of the growing season look on tender new growth for evidence of eggs

along the leaf midribs, especially undersurfaces. Small nymphs are found from green cluster throughout the season on tender new growth; larger nymphs are found on leaves that are hardening off.



Figure 4. Late stage “hardshell” nymph (Used with permission from University of California Statewide IPM Program, J. K. Clark, photographer)

Management: Remove excess succulent leaf growth (referred to as suckering trees) which supports psylla populations. Natural enemies such as ladybird beetles, lacewings, and syrphid fly larvae are often present but they seldom keep populations low enough to prevent injury.

Apply horticultural oil as adults are emerging but before egg-laying begins (as soon as adults are present and temperatures exceed 50°F). This occurs at green tip in most years, but monitor to determine timing each season.

At white bud, at petal fall, and as needed based on monitoring during the growing season, apply kaolin clay, malathion, permethrin, or pyrethrins.

3/72 Prepared by Carolyn Klass, Senior Extension Associate, Department of Entomology, Cornell University. 4/91 Revised

Photographs obtained from *UC IPM Guidelines: Pear: Pear Psylla*, updated 9/02. For information go to the UC IPM web site <http://www.ipm.ucdavis.edu>

Pesticide recommendations obtained from *2009-2010 Pest Management Around the Home Part II – Pesticide Guidelines*. Copies are available from Cornell Cooperative Extension – Suffolk County.

The Pesticide Management Education Program (PMEP), in cooperation with the New York State Department of Environmental Conservation (NYSDEC),

maintains a web site with a searchable database for pesticide products currently registered in New York State. Individuals who have Internet access can locate currently registered products containing the active ingredients suggested above at <http://pmep.cce.cornell.edu/pims/current> (NYS PIMS).

This publication contains pesticide recommendations. Changes in pesticide regulations occur constantly and human errors are still possible. Some materials mentioned may no longer be available, and some uses may no longer be legal. All pesticides distributed, sold or applied in New York State must be registered with the new York State Department of Environmental conservation (DEC). Questions concerning the legality and/or registration status for pesticide use in New York State should be directed to the appropriate Cornell Cooperative Extension Specialist or your regional DEC office. Read the label before applying any pesticide.

TK 1/2010 #164