

Watch Closely for Tarnished Plant Bug This Year

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Figure 1. Tarnished Plant Bug Adult (Ohio State University)

Last year was one of the first years tarnished plant bug (TPB) was reported to reach threatening levels in the Ontario canola crop, with a few fields actually requiring control measures. If warm weather conditions continue this summer we could see a repeat of last year.

TPB has many hosts (over 300 species!), ranging from strawberries and alfalfa to edible beans and canola. Since many canola fields are near alfalfa fields, be on the lookout especially when the alfalfa crop is being cut as TPB could move off to look for another host crop. Though usually more of a concern for spring canola, both winter and spring canola could be at risk, depending on what stage the crop is in once the TPB enter the field. We typically don't see much activity from TPB in canola until later in June but this year's warmer

temperatures could speed up TPB development, having adults migrate into canola fields a bit earlier than usual.

Tarnished plant bug adults are approximately 5 mm in length, yellowish to reddish brown in colour and have a small triangle shape on their back (Fig. 1). The nymph stage doesn't look the same as the adult but is yellowish-green, wingless and lacks the distinctive triangle shape on its back (Fig. 2).

The adults and later stages of nymphs are the more damaging stages. TPB have piercing-sucking mouthparts that they use to pierce the plant tissue and inject saliva that breaks down some of the plant tissue. If injury directly on the buds occurs during the bud stage, buds can turn white and drop off. If injury takes place during the pod stage, scarring, malformation and dimpling or pitting on pods can occur. They can also drill directly into the seed. Yield losses of up to 40% were reported in Western Canada in 1997.

TPB can move very quickly in the canopy so scouting involves using a sweep net. Take 20 sweeps (180 degree arc = 1 sweep) in 5 areas of the canola field. Border rows are apt to have higher populations so

ensure that you sweep further into the field to get a good idea of the average number of TPB per sweep. No thresholds have been validated for Ontario though other jurisdictions recommend spraying in canola when 2 bugs per sweep can be found after petal fall but prior to pod maturity. If the crop is still only flowering, more TPB are required before control is necessary. Western Canada recommends 5 bugs per sweep as a threshold during later



Figure 2. Tarnished Plant Bug nymph (Bauer, USDA ARS)

bloom before petal drop.

Recommended products are provided in Table 1. Follow label precautions, including being aware of days to harvest intervals. Avoid injury to bees by spraying in the evening or early morning when bee activity is low. Notify beekeepers in your area before spraying so that hives can be protected.

Table 1. Insecticides recommended for control of tarnished plant bug in canola.
(Source: OMAFRA Publication 812, Field Crop Protection Guide 2006 Supplement)

Tarnished Plant Bug	Treatment	per ha (per ac)	
cyhalothrin-lambda	Matador 120	83 mL (34 ml)	Ground and aerial application. Maximum 3 applications/yr, one of which can be made by air. Tank-mixing with clay-based fungicides is not recommended as these fungicides may affect insecticide efficacy. 7 days to harvest interval.
trichlorfon	Dylox 420	1.37 L (55 ml)	Do not apply within 21 days to harvest.