Issue 3 – June 11, 2025 Fruit Crop Report

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Weekly Provincial Overview

Established strawberry fields are at 60-80% bloom. Strawberry transplanting completed for new fields. Strawberry fields that had fruit rot/ Grey Mold (*Botrytis sp.*) in 2024 will have an application of a protective fungicide at bloom. Many strawberry fields have had one application for control of tarnish plant bug (*Lygus sp.*) to prevent seedy end on berries. Saskatoons, Haskap, early season apples and sour cherries have completed flowering and have started forming green fruit. Early season Haskap cultivars are more advanced with some berry colouring starting. There was heavy bloom in most apple orchards and in most tree fruit crops overall. Saskatoon orchards starting to receive second application of protection fungicide at green fruit stage for *Entomosporium* leaf and berry spot disease. Raspberry cane leaf growth slightly hindered in some fields due to the hot temperatures of late May. Summerbearing raspberries have started flowering. See weekly weather maps for GDD, Corn Heat Units, etc.

Commercial Fruit Crops- Timely Topics

Strawberries

Preventing Seedy-End in Strawberries: Tarnish Plant Bug (TPB)

Scouting and Control

Early monitoring of fields is important to minimize damage (Figure 4). Growers often sample by tapping the blossom clusters of strawberry plants into shallow white trays. This works fine for the nymphs (the most injurious stage) (Figures 1, 2 & 3). However, the adults fly quickly when disturbed and are often unseen. Because the adults can fly long distances, an outbreak may occur suddenly. Regular blossom sampling and net sweeping is needed to detect such infestations. Particular attention should be given if a nearby hay field has been cut recently.

Photo courtesy of: NAFRI, Soils and Crops Branch

Figure 1: Fifth instar tarnish plant bug nymph stage.

Alfalfa hay is a preferred host for TPB and once cut, the adults will move out in search of new host plants for feeding and laying eggs.

Scouting Techniques

During the bloom period growers should scout every 2 days or so. Scout 20-50 flower clusters randomly across the field by tapping into a white tray or pan and record the number of nymphs. The larger the strawberry field the more flower clusters should be sampled. Economic threshold to begin chemical controls is 1 nymph in 4 flower clusters.

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Cultural Control Strategies

A University of Massachusetts extension factsheet suggests the following cultural control strategies: a) avoid mowing nearby fields during bloom or early green fruit stage; b) control weeds in and around the strawberry field which can act as alternative hosts; and c) avoid planting strawberries near alfalfa which attracts TPB.



Figure 2: Fifth instar tarnish plant bug nymph stage.



Figure 3: Fifth instar tarnish plant bug nymph stage.



Figure 4: Seedy-end strawberry.

Control of TPB and Protection of Pollinators

Since the most effective time to control and prevent damage to the flower is when strawberries are at bloom stage, it is important to take all precautions to protect the pollinators that are visiting the plants at this time (Table 1). Apply insecticide when honeybees and other pollinators are least active, early in the morning or at dusk. Remember that these pollinators are required for fruit set to occur and increase berry yields. One or two sprays at early and mid-bloom are usually guite effective at controlling the first generation of nymphs.

Table 1. Strawberry	ramish Plan	l Bug Manageme	Il Uldil Trade Name Insecticide Rea Tavicitut		
Trade Name	Insecticide	Bee Toxicity*	Trade Name	Insecticide	Bee Toxicity*
	Group			Group	
Cygon 480AG	1B	Very	Silencer 120EC	3A	Very
Diamante 4	1B	Very	Matador 120EC**	3A	Very
Lagon 480E	1B	Very	Zivate	3A	Very
Up-Cyde 2.5EC	3A	Very	Cormoran	4A,15	Very
Malathion 85E‡	1B	Very	Aceta 70WP	4A	Moderately
Decis 100EC	3A	Very	Assail 70WP	4A	Moderately
Poleci 2.5EC	3A	Very	Rimon 10EC	15	Moderately
Labamba	3A	Very	Beleaf 50SG	29	Moderately
			Bio Titan WP	NC	Unknown

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* Source PMRA Environmental Assessment Division. Refer to label for insecticide toxicity to bees.

**Note: Matador continues to be registered for use on strawberries but will not be sold by the distribution company in western Canada in 2025.

‡This product is not to be sold or applied after the expiry date on the container label.

The above table is general information only. Read pesticide label for usage and rates. Current to June 2025.

References

Province of Manitoba | agriculture - Strawberry Production (gov.mb.ca)

Province of Manitoba | agriculture - Commercial Strawberry Production on the Prairies- Guides and Publications (gov.mb.ca)

Fruit: Strawberry IPM - Tarnished Plant Bug | Center for Agriculture, Food, and the Environment at UMass Amherst

Strawberry Plant Extreme Heat Stress - Potential Early Season Strategy

Extreme high temperatures (>30°C) can cause heat stress on young strawberry plants and established plantings. Lacking a full shade canopy of leaves early in the growing season, may subject strawberry crowns and roots to potentially stressful higher temperatures. Fortunately, for established plantings, the presence of straw mulch will help keep roots and crowns cooler and also reflect sunlight. However, with new plantings surrounded by bare, dark soil, this may increase temperatures even higher (Figure 5).

With most growers using drip-line systems to irrigate, the traditional method of cooling the crop via overhead sprinklers is not available. Greenhouse strawberry studies have shown that cooled drip-line irrigation water can effectively lower root temperatures.

vely lower root temperatures. Figure 5: first year strawberry.

Early in the season most irrigation sources in Manitoba (i.e. well, dugout, river, etc.)

will still be significantly cooler than the ambient air temperature. In a field setting, it is expected that drip-line irrigation systems could also cool down the root zone and help alleviate the high leaf transpiration rate and water stress on the plant. Transpiration is the exhalation of water vapour through the leaf stomata (pores).

Irrigation for root zone crop cooling can be initiated at short intervals on hot, dry days when temperatures reach >30°C and typically when relative humidities are below 30%. In order to maximize root zone cooling, but not oversaturate the root zone with moisture, the objective should be short and repeated irrigation periodically throughout the hottest portion of the day.

Strawberry Establishment Year (Transplanting Year) Herbicide Options

An effective weed control program combines initial identification of the weeds with appropriate cultural and chemical control procedures. New plantings and newly establishment runner growth can be hindered with improper herbicide use and rates, follow label instructions for new plantings if present (Table 2).

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Table 2: Timing of June-bearing Strawberry Herbicides - Establishment Year Options Only

Pre-Plant	Transplant	Late Summer ONLY IF RUNNERS WELL ESTABLISHED	Late Fall When plants are dormant before applying straw mulch
Post-emergent: Glyphosate- effective on perennial weeds with tillage <u>Pre-emergent:</u> Dual II Magnum/ Bonanza/ Treflan/ Rival -Do not apply if using Chateau	<u>Pre-emergent:</u> Chateau- apply immediately after transplanting <u>Post-emergent:</u> Betamix- 2-4 weeks after planting, post-emergent broadleaf weeds, June-bearing strawberry type only, no harvesting, sensitivity of different strawberry cultivars have not been tested. <u>Post-emergent non- selective with hooded</u> <u>sprayer:</u> Aim, Axxe, Serene (horticultural vinegar 20% acetic acid), Beloukha, Biolink- non- selective, use shrouds, between rows, do not drift/spray onto green strawberry material	<u>Pre-emergent control into</u> <u>fall:</u> Devrinol, Dacthal, Sinbar <u>Post-emergent grassy</u> <u>weeds:</u> Poast / Venture L	<u>Pre-emergent control for</u> <u>next spring:</u> Devrinol, Sinbar, Goal, Basket, Chateau, Authority

The above table is general information only. Read herbicide label for usage and rates. Current to June 2025.

High Tunnel Strawberry Trial Update

No update on high tunnel strawberry activities at this time.

For detailed information on building a high tunnel see <u>High Tunnel Design and Set up</u> or watch the following videos at <u>High Tunnel Design and Construction</u> <u>High Tunnel Preparation, Operation & Crop Production</u>

