Cranberry IPM Bulletin

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Please note: The following recommendations are based on field monitoring data from cranberry fields in all regions in British Columbia. Not all recommendations listed in this newsletter are applicable to all fields. Each cranberry field has unique insects and diseases. Field monitoring is strongly recommended before making any pest management decisions.

Plant Development

Cranberry vines are still quite dormant; however some varieties (like Mullica Queen) are starting to green. If the weather warms up plants will break dormancy quickly so, check fields frequently. Monitoring which plant stage each field is in is helpful for treatment of certain diseases, like cotton ball or upright dieback. Chemical applications for these diseases are based on plant stage and not disease symptoms.

Tight bud

Bud swell

Cabbage head

Bud break

Photos by: B. A. Workmaster, J. P. Palta, and T. R. Roper. Terminology for cranberry bud development and growth. Department of Horticulture. University of Wisconsin, Madison

Cotton ball

This fungal disease directly affects yield by making fruit unmarketable. The fruit fills with a cotton like fungus, and once symptoms are detected it is too late to spray. Fungicide applications must be done early in the season at budbreak when the infection occurs.

Early infection

Interveinal browning

White conidia on stem

Fruit infection

Upright Dieback

This fungal disease causes patches of weak vine growth. Infected vines do not lose their leaves but foliage turns copper with dead uprights on the same runner as healthy uprights giving it a salt and pepper appearance. Symptoms do not appear until green berry, however infection occurs at bud elongation stage. Fungicide applications need to be applied at bud elongation in mid April – early May.

Always consult your marketing agency for information on MRLs and pesticide products for various markets before applying pesticides.

Girdler

Girdler damage becomes apparent as cranberry vines come out of dormancy in early spring. Signs of girdler damage include patches of orange dying vines, gnawed vines, and lack of root hairs when inspected closer.

Management for girdler occurs later in the season by applying nematodes in August after peak girdler flight and sanding damaged vines during dormancy.

Girdler feeding on root

Region (all weather data collected from farmwest.com)	Rainfall in mm (Jan 1st – March 15th, 2023)	Rainfall in mm (Jan 1st – March 15th, 2022)
Pitt Meadows	388 mm	518 mm
Richmond	222 mm	277 mm
Delta	231 mm	300 mm
Abbotsford	271 mm	389 mm
Comox	249 mm	275 mm

Precipitation

As always precipitation varies from region to region in British Columbia. The amount of precipitation compared to last year is quite a bit less at this point in the year, with over 100mm less in some regions.

Growing Degree Days

As of March 15th, the GDD are slightly ahead of last year and right on track with the 31-year average. April degree days will be more telling as to when we may see fireworm hatch.

Growing Degree Days Based on YVR (Vancouver Airport)				
	2023	**2022**	**2021**	**31 year average**
January 31st	165.7	130.5	164.5	129.19
February 28th	289.3	255.4	221.9	262.67
March 15th	366.05	352.2	362.6	361.85

Weeds

Applying herbicides when weeds are still small will increase the efficacy. If you are planning on applying pre-emergent herbicides, they should be applied when the vines are still dormant as cranberries are susceptible to burning and damage from these herbicide. Checking plant development is key before applying any herbicide.

Sanding

Sand should be applied to fields when the vines are still dormant. Sanding fields can promote root growth and reduce the pressure of some insect pests such as girdler and tipworm. Sand is the most used material however peat and sawdust can be used if the material is clean from weeds. Using clean material will reduce the management of weeds later in the season.

Sand application

Poor sprinkler coverage resulting in fireworm damage

Sprinklers & Sensor Maintenance

As the cranberries start to break dormancy it is important to ensure sprinklers and sensors are in good working order. Run water through the system to make sure all sprinklers are functioning properly, and water is being applied uniformly. Having irrigation equipment in good condition is key in preventing frost damage to the buds. One night of cold temperatures can cause major frost damage in fields.

The above recommendations are based on the BC Berries Production Guide and/or local IPM monitoring experience. Always consult your marketing agency for information on MRLs for various markets before applying pesticides.

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