Vegetable Crop Updates

A newsletter for commercial potato and vegetable growers prepared by University of Wisconsin-Madison vegetable research and extension specialists

Extension
UNIVERSITY OF WISCONSIN-MADISON

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Calendar of Events:

July 9, 2026 – UW Hancock Agricultural Research Station Field Day, Hancock, WI
July 16, 2026 – UW Langlade County Airport Research Station Field Day, Antigo, WI
December 1-3, 2026 – Midwest Food Products Association Annual Convention & Expo, Processing Crops Conference, Wisconsin Dells, WI
February 9-11, 2027 – WPVGA/UWEX Grower Education Conference, Stevens Point, WI

Vegetable Insect Update – Russell L. Groves, Professor and Associate Department Chairperson, UW-Madison, Department of Entomology, 608-262-3229 (office), (608) 698-2434 (cell), e-mail: rgroves@wisc.edu, Vegetable Entomology Webpage: https://vegento.russell.wisc.edu/

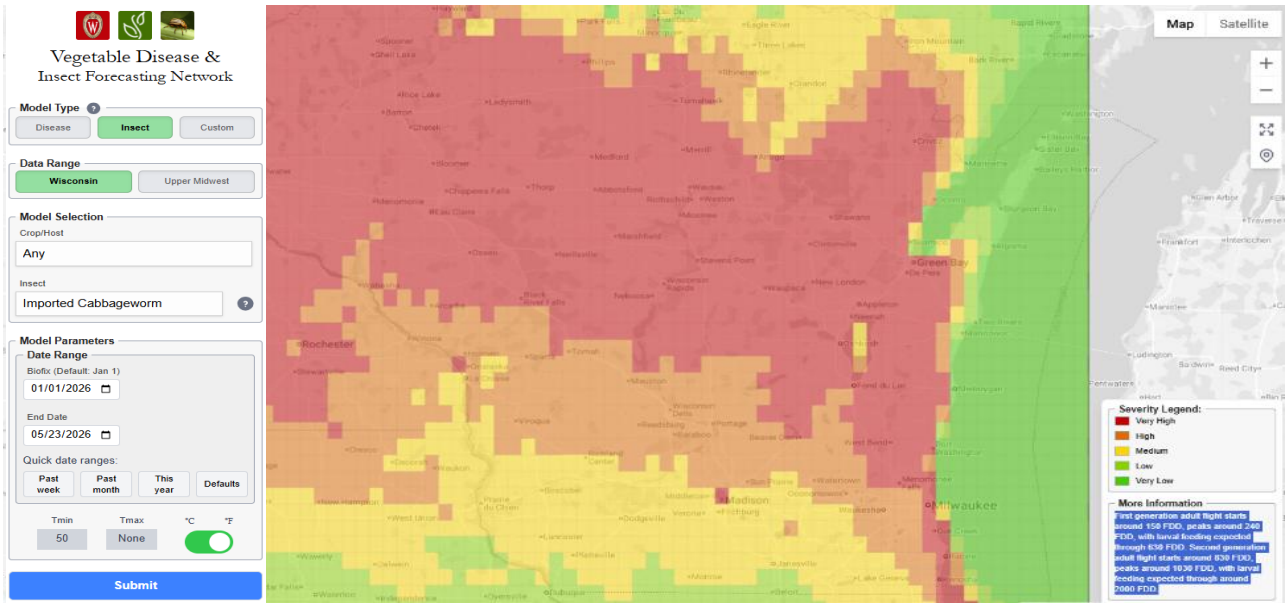
Imported cabbageworm (*Pieris rapae*) **(https://vegento.russell.wisc.edu/pests/cabbage-maggot/)** – (also known as cabbage whites or small whites), cabbage loopers and diamondback moths are the three most significant caterpillar pests of Wisconsin cole crops, with the imported cabbage worm being the most significant.

Imported cabbageworm adults, commonly referred to as the white cabbage butterfly, are white butterflies with black markings on the wing tips. Female butterflies have 2 black dots on each fore wing; males, which are smaller, have 1 dot per wing. Eggs are yellow and conical, laid individually on the leaf surface and occasionally on the stem. An adult butterfly can lay 300 to 400 eggs in her lifetime. Larvae appear as velvety green worms up to 1 inch long with a faint yellow stripe running down the back. The caterpillar is commonly found along the veins of leaves and easily blends into the foliage.

Imported cabbageworm

Imported cabbageworm
Photo: James Lindsey

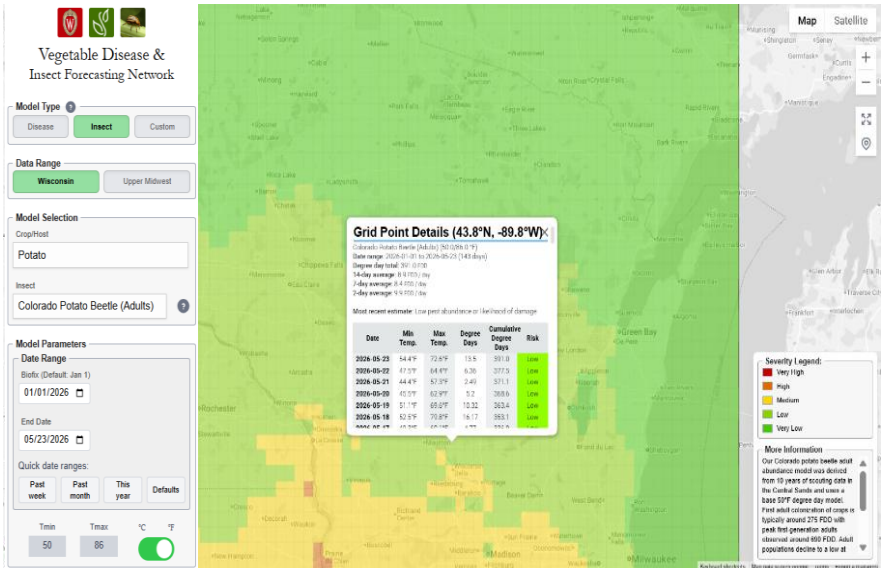
Cabbage white adult female
Photo: 'Sarefo'

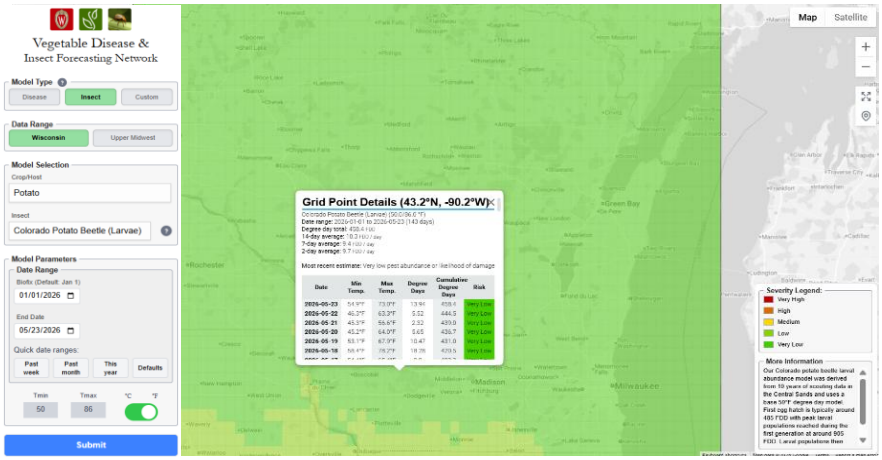


This insect overwinters as pupa on plant debris and usually produces 3-6 generations in a season. Adult butterflies have now emerged in southern Wisconsin and are underway with emergence across much of central Wisconsin. Adults have begun laying single, small, yellow-orange eggs on any plant part that is above ground. The eggs hatch in about 5 days. The larvae develop on cruciferous weeds and cole crops that are early planted. The caterpillar feeds and develops for approximately 11 to 20 days before forming a pupa from which the adult butterfly emerges after 6 to 11 days. Second generation butterflies emerge in late June and early July and larvae develop almost entirely on cultivated cole crops. This generation causes the most damage. Drench, in-furrow and banded applications using cyantraniliprole (Verimark®) can provide 45-60 days of early protection. Broadcast foliar applications at this early stage in the crop targeting Imported cabbageworm, or any caterpillar pest in cole crops, are often unnecessary as population densities have not reached damaging levels by this point in the year.

Colorado potato beetle – (**https://vegento.russell.wisc.edu/pests/colorado-potato-beetle/**)

Commercial potato producers should begin checking for Colorado potato beetle (CPB) adults in outside rows of emerging potatoes beginning this week and into late May. Mentioned last week, early detection of these initial infestations can be especially critical to implement perimeter sprays. Adulticide compounds mentioned last week include the active ingredients indoxacarb (Avaunt® eVo), phosmet (Imidan 70-W) which can be applied to outer rows. If using Avaunt eVo, producers should consider using full rates (6.0 fl oz/ac) together with a tank mix containing piperonyl butoxide (e.g., Exponent® insecticide synergist; PBO) at





a rate of 6.5-8.0 fl oz/ac to enhance the performance of indoxacarb when targeting CPB. Scout field edges adjacent to prior year's potato crops and carefully examine lower leaf surfaces of plants for clusters of bright yellow-orange, waxy eggs. These have the greatest probability for early infestation by adult CPB and greater densities egg masses. The risk for early larvae is only just beginning in southern Wisconsin, and producers in this region should consider initial applications of novaluron (Rimon® 0.83EC) or ledprona (Calantha®).

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Current P-Day (Early Blight) and Disease Severity Value (Late Blight) Accumulations will be posted at our website and available in the weekly newsletters. Thanks to Ben Bradford, UW-Madison Entomology for supporting this effort and providing a summary reference table: https://agweather.cals.wisc.edu/thermal-models/potato. A Potato Physiological Day or P-Day value of ≥300 indicates the threshold for early blight risk in potato and triggers preventative fungicide application. A Disease Severity Value or DSV of ≥18 indicates the threshold for late blight risk and triggers preventative fungicide application in potato. Data from the modeling source: https://agweather.cals.wisc.edu/vdifn are used to generate these risk values in the table below. **I've estimated early, mid-, and late planting dates by region based on communications with stakeholders**. These are intended to help in determining optimum times for preventative fungicide applications to limit early and late blight in Wisconsin.

Location	**Planting Date** *Dates in future are anticipated or not yet listed (To Be Determined or TBD)*		**50% Emergence Date**	**Disease Severity Values (DSVs)** ***through 5/24/26***	**Potato Physiological Days (P-Days)** ***through 5/24/26***
Spring Green	Early	Apr 10	May 7	2	100
	Mid	May 5	May 20	0	29
	Late	May 16	TBD	TBD	TBD
Arlington	Early	Apr 12	May 8	0	92
	Mid	May 6	May 23	0	16
	Late	May 20	TBD	TBD	TBD
Grand Marsh	Early	Apr 13	May 9	0	80
	Mid	May 6	May 22	0	21
	Late	May 21	TBD	TBD	TBD
Hancock	Early	Apr 14	May 11	1	75
	Mid	May 10	TBD	TBD	TBD
	Late	May 23	TBD	TBD	TBD
Plover	Early	Apr 15	May 12	1	72
	Mid	May 10	TBD	TBD	TBD
	Late	May 25	TBD	TBD	TBD

Antigo	Early	May 12	TBD	TBD	TBD
	Mid	May 25	TBD	TBD	TBD
	Late	TBD	TBD	TBD	TBD
Rhinelander	Early	May 15	TBD	TBD	TBD
	Mid	TBD	TBD	TBD	TBD
	Late	TBD	TBD	TBD	TBD

Late blight of potato/tomato. There was some accumulation of Disease Severity Values (DSVs) which indicate risk of late blight development – but no thresholds have been met. Earliest planted potato fields with emergence earlier this month have accumulated 1-2 DSVs (noted above). Further information on potato late blight: https://vegpath.plantpath.wisc.edu/diseases/potato-late-blight/ . An updated list of fungicides for management potato late blight in Wisconsin 2026 is provided here: https://vegpath.plantpath.wisc.edu/resources/late-blight-fungicides/

Early blight of potato. Once we see potato crops at 50% emergence, P-Days will begin to accumulate to aid in anticipating early blight. P-Day values will continue to amass and develop conditions optimum for early blight disease caused by *Alternaria solani*. Fungicides can provide good control of early blight in vegetables when applied early in infection. Multiple applications of fungicide are often necessary to sustain disease management to time of harvest due to the typically high abundance of inoculum and susceptibility of most common cultivars. For Wisconsin-specific fungicide information, refer to the list below, or the Commercial Vegetable Production in Wisconsin (A3422), a guide available through the UW Vegetable Pathology website which is annually updated and linked here: https://vegpath.plantpath.wisc.edu/resources/a3422/. For home garden fungicide recommendations, see Home Vegetable Garden Fungicides (D0062), a fact sheet available through the UW Plant Disease Diagnostic Clinic website or here: https://hort.extension.wisc.edu/articles/home-vegetable-garden-fungicides/. Always follow label directions carefully. For custom values, please explore the UW Vegetable Disease and Insect Forecasting Network tool for P-Days and DSVs across the state (https://agweather.cals.wisc.edu/vdifn).

As crop canopies expand, growers should begin preparing for early foliar disease management programs, particularly for potato early blight. Early blight risk increases with periods of leaf wetness, high humidity, and fluctuating temperatures conducive to *Alternaria solani* development. Inoculum establishment often begins early in the season, particularly in fields with potato debris, stressed plants, or reduced crop rotation intervals. Protectant fungicide programs should be initiated according to crop growth stage (row touch or P-Day 300), weather conditions, irrigation frequency, and field disease history. Maintaining healthy crop vigor through balanced fertility and irrigation management remains important in reducing plant stress and minimizing susceptibility. The table below includes fungicides registered for potato early blight in WI.

Fungicide Options for Potato Early Blight Management in Wisconsin (2026)

Trade Name *(examples not comprehensive)*	Active Ingredient(s)	FRAC Group	Activity Type
Bravo / Echo formulations	chlorothalonil	M5	Protectant
Dithane / Manzate / Penncozeb	mancozeb	M3	Protectant
Elixir	chlorothalonil + mancozeb	M5 + M3	Protectant
Polyram	metiram	M3	Contact protectant
Kocide / Champ / Champion	copper hydroxide	M1	Protectant
Quadris	azoxystrobin	11	Locally systemic
Quadris Opti	azoxystrobin + chlorothalonil	11 + M5	Locally systemic + protectant
Quadris Top	azoxystrobin + difenoconazole	11 + 3	Locally systemic + systemic
AzterKnot	Azoxystrobin + extract of *Reynoutria sachalinensis*	11 + biological	Locally systemic and upregulator of resistance
Aproach	picoxystrobin	11	Locally systemic
Headline	pyraclostrobin	11	Locally systemic
Aftershock / Evito	fluoxastrobin	11	Locally systemic
Gem	trifloxystrobin	11	Locally systemic
Delaro	trifloxystrobin + prothioconazole	11 + 3	Locally systemic + systemic
Tanos	famoxadone + cymoxanil	11 + 27	Locally systemic
Endura	boscalid	7	Systemic
Endura Pro	mefentrifluconazole + boscalid	3 + 7	Systemic
Veltyma	mefentrifluconazole + pyraclostrobin	3 + 11	Systemic + locally systemic
Quash	metconazole	3	Systemic
Top MP	difenoconazole	3	Systemic
Aprovia Top	difenoconazole + benzovindiflupyr	3 + 7	Systemic
Miravis Prime	pydiflumetofen + fludioxonil	7 + 12	Systemic + protectant
Cabrio Plus	pyraclostrobin + metiram	11 + M3	Locally systemic + protectant
Priaxor	pyraclostrobin + fluxapyroxad	11 + 7	Locally systemic + systemic
Velum Prime	fluopyram	7	Systemic
Velum Rise	fluopyram + penflufen	7 + 7	Systemic
Luna Pro	fluopyram + prothioconazole	7 + 3	Systemic
Luna Tranquility	fluopyram + pyrimethanil	7 + 9	Systemic
Vertisan	penthiopyrad	7	Systemic
Reason	fenamidone	11	Locally systemic
Scala	pyrimethanil	9	Locally systemic
Provysol	mefentrifluconazole	3	Systemic
Agri-Tin / Super Tin	triphenyltin hydroxide	30	Contact foliar fungicide
Lifegard	*Bacillus mycoides*	biological	Upregulates resistance in the plant

Always consult current federal and Wisconsin labels prior to application. Fungicide registrations, allowable uses, and restrictions may change during the season. Rotation among FRAC groups and limiting sequential applications of fungicides remain critical to slowing development of fungicide resistance in Alternaria solani.