# 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

**April 19, 2026**

***In This Issue:***



***Calendar of Events:***

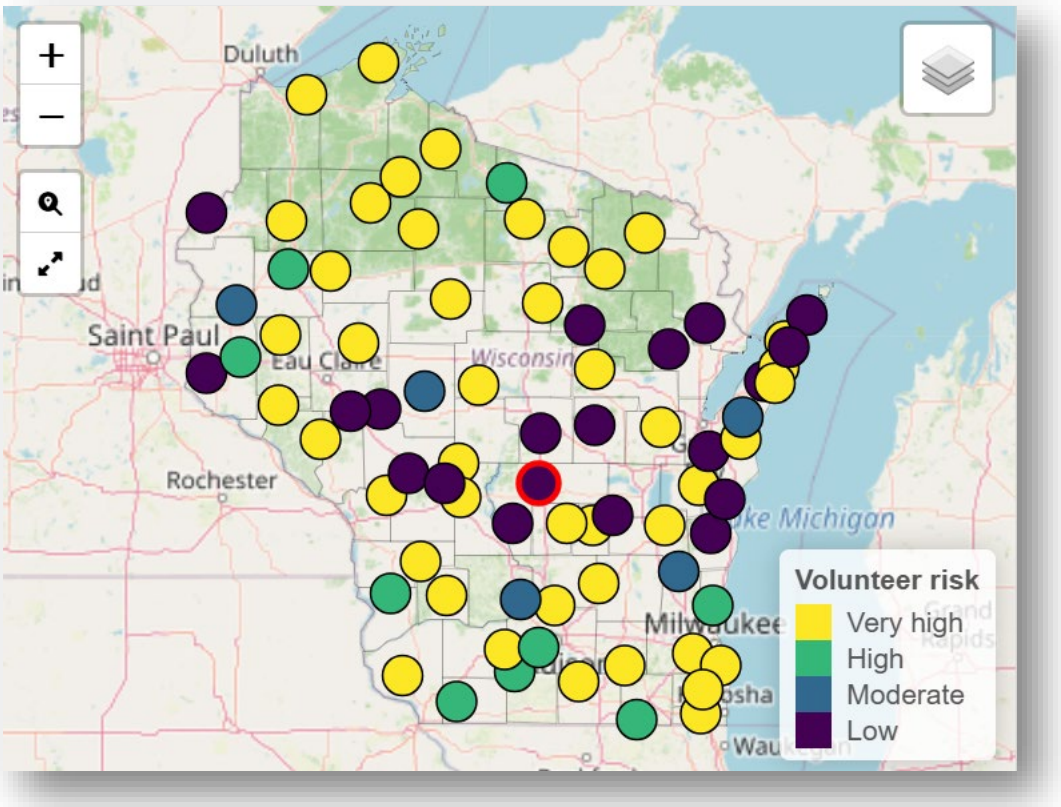
**July 9, 2026 –** UW Hancock Agricultural Research Station Field Day, Hancock, WI
**July 16, 2026** – UW Langlade County Airport Research Station Field Day, Antigo, WI
**December 1-3, 2026** – Midwest Food Products Association Annual Convention & Expo, Processing Crops Conference, Wisconsin Dells, WI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


**Amanda Gevens, Professor & Extension Vegetable Pathologist, UW-Madison, Dept. of Plant Pathology, 608-575-3029, gevens@wisc.edu, Lab Website: https://vegpath.plantpath.wisc.edu/.**


**Potato Cull Pile Disposal Deadline (ATCP 21.15 Wis. Admin. Code)**: Potato cull piles must be disposed of by the state deadline of May 20, 2025. "Cull piles" include waste piles of harvested potatoes, seed cutting slivers and waste, storage remnants, and sweepings. This is required to prevent the potential spread of late blight inoculum from last year's crop of potatoes. Approved disposal methods include feeding potatoes to livestock so they are completely consumed by May 20, spreading on fields and incorporating into the soil, depositing the cull potatoes in a licensed landfill, and other methods which the department would need to approve in writing. Additional details listed in ATCP 21.15 can be found at: https://docs.legis.wisconsin.gov/code/admin_code/atcp/020/21/15

**Potato Volunteers (co-authored by Ben Bradford, UW-Madison, Dept. of Entomology, bbradford@wisc.edu):** Potato volunteers are tubers left in the field after harvest which may survive the winter and grow during the following season. The tubers themselves may harbor pests and diseases, and the plants that grow from these tubers may not receive preventive fungicide applications so will increase the risk of serious diseases including late blight (*Phytophthora infestans*). Pesticides used to kill volunteers need to be labeled for the crop in which the volunteer plants emerge, or for the site at which they emerge. A model was developed at Michigan State University which predicted a higher risk of volunteer survival when soil temperatures did not fall below 27°F (a killing freeze) for more than 120 hours during the winter. This model has been adapted here for use with three soil depths (2, 4, 8 inches), and risk of overwintering potato tubers surviving increases with insufficient killing hours at each depth. We offer this model for Wisconsin based on Wisconet weather stations at the UW-Vegetable Pathology Decision Support Tools page here: https://connect.doit.wisc.edu/potato-volunteer-risk/. Actual soil temperatures may vary from station readings due to presence/absence of snow on fields or other factors. The season resets Oct 1. A state-wide summary of potato volunteer risk is provided below.

**Potato Volunteer Risk Map for WI 2025-2026**




It is critical to manage volunteer/weed potatoes when environmental conditions favor germination of this unintended crop. Further, earlier season management of late blight may need to be considered given the risk of volunteers from fields which may have had late blight in the previous season.

The 2025 growing season was characterized by an absence of confirmed late blight reports in Wisconsin and much of the US. This lack of detection suggests minimal active inoculum and no clear evidence of local overwintering or early-season introduction events for this year. Nationally, the only documented genotype was the dominant US-23 lineage identified in Florida, with no reported indication of new clonal lineages or meaningful shifts in population structure during the season.

For diagnostic and management support in Wisconsin, please consider contacting Dr. Amanda Gevens, gevens@wisc.edu or our Plant Disease Diagnostic Clinic, pddc@wisc.edu.

A bookmarked, searchable digital version of the Commercial Vegetable Production in Wisconsin book (A3422) can be found here: https://vegpath.plantpath.wisc.edu/documents/a3422/

If you would like to add any email addresses to the UW Madison Division of Extension Vegetable Crop Updates Newsletter list serve, please send me a message at gevens@wisc.edu. Archived newsletters can be found here: https://vegpath.plantpath.wisc.edu/newsletter/

**Potato Late Blight Fungicides Registered for WI, 2026.**

In-furrow and seed treatment registrations are omitted. Not a comprehensive list. Most fungicides listed are for use in conventional systems. Where generic fungicide trade names are included, they may be more numerous. Reviewed on March 7, 2026. **Amanda J. Gevens, Extension Plant Pathologist, UW-Madison**
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| Trade Name (rate/A) | Active Ingredient(s) | PHI | REI | FRAC # | Activity of Fungicide | Comments |
|---|---|---|---|---|---|---|
| Agri Tin, Super Tin 4L, Super Tin 80WP (4-6 fl oz) | triphenyltin hydroxide | 7 days | 48 hours | 30 | Protectant; kills spores on contact | Restricted use pesticide. 3 fl oz rate can be used if material is tank-mixed with another fungicide. |
| Alude (1.25 qt in 90 gal water)<br><br>Confine Extra (3-5 qt in 20 gal water/acre)<br><br>K-Phite 7LP (1-3 qt in 10 gal water/acre) | mono and dipotassium salts of phosphorous acid | 0 days | 4 hours | 33 | Upregulates resistance/disease protection in plant | Foliar application. Use higher rate when disease pressure is severe. Do not apply at less than 3 day intervals. Do not apply to plants that are dormant or that are heat or moisture stressed. |
| Ariston (2 pt) | chlorothalonil + cymoxanil | 14 day | 12 hours | M5+27 | Protectant and locally systemic | Additional chlorothalonil may be tank-mixed with this formulation to enhance % active ingredient applied (be sure to include the Ariston component in overall season total). Cymoxanil is Curzate. |
| Elixir (1.2-2.0 lb) | mancozeb+ chlorothalonil | 7 days | 24 hours | M3+ M5 | Protectant | Use higher rate as vines increase in size. |
| Fosphite, Rampart (1-4 qt) | potassium phosphite | 0 days | 4 hours | 33 | Upregulates resistance/disease protection in plant | Foliar post-emergence spray and post harvest spray for control in storage. Apply in at least 20 gal water/acre. |
| Fungi-Phite (Foliar: 2 qt/A Seed trt: 15% vol to vol-2 ton in 1 gal solution)<br><br>Helena Prophyt (4 pt/acre) | potassium phosphite | 0 days | 4 hours | 33 | Upregulates resistance/disease protection in plant | Seed piece spray and foliar post-emergence spray. Tank-mix with another effective fungicide is recommended and use high label rate for late blight control. |
| Badge SC (1-3 pt) | copper hydroxide, copper oxychloride | 0 days | 24 hours | M1 | Protectant | Protectant activity only. Apply at 7 to 10 day interval. |
| Bravo Ultrex (.7 then .9 to 1.36 lb)<br><br>Bravo WeatherStik, Echo 720, Equus 720 SST, Initiate 720, Chlorothalonil 720 SC, Chloronil 720, Praiz (.75 then 1-1.5 pt)<br><br>Bravo Zn, Equus 500 Zn, Initiate Zn (1 1/8 then 1.5 to 2.25 pt) | chlorothalonil | 7 days | 12 hours | M5 | Protectant | 11.25 lb a.i./acre maximum. WI no longer has a special 24(c) registration for long season potatoes. You can no longer extend the max a.i. from 11.25 to 16 lb a.i./acre with Bravo (Syngenta) or Echo (Sipcam Advan) formulations. |

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| Trade Name (rate/A) | Active Ingredient(s) | PHI | REI | FRAC # | Activity of Fungicide | Comments |
|---|---|---|---|---|---|---|
| Echo Zn (1 to 2.125 pt)<br><br>Equus DF (.7 then .9 to 1.36 lb)<br><br>Echo 90DF (5/8 then 7/8 to 1.25 lb) | chlorothalonil | 7 days | 12 hours | M5 | Protectant | 11.25 lb a.i./acre maximum. WI no longer has a special 24(c) registration for long season potatoes. You can no longer extend the max a.i. from 11.25 to 16 lb a.i./acre with Bravo (Syngenta) or Echo (Sipcam Advan) formulations. |
| Cabrio Plus (2.9 lb) | pyraclostrobin + metiram | 3 days | 24 hours | 11+M 3 | Locally systemic and protectant | 17.4 lb/acre maximum per season. Do not apply more than 2 sequential applications. |
| Champ WG (1 to 1.5 lb<br>3 to 4 lb in severe areas)<br><br>Champ Formula 2 Flowable (2/3 to 2 2/3 pt)<br><br>Champ DP Dry Prill (2/3 to 1 lb<br>2 to 2 2/3 lb when disease is severe)<br><br>Kentan DF<br>(1-2.5 lb<br>4 lb when severe)<br><br>Kocide 2000, Kocide 3000 (.73- 3 lb<br>.5-1.75 lb)<br><br>Nu-Cop 3L<br>(2/3 to 2 pt<br>2 to 4 pt if severe)<br><br>Nu-Cop 50DF<br>(1-1.5 lb<br>3-4 lb if severe)<br><br>Previsto (1-3 qt) | copper hydroxide | 0 days | 24 hours | M1 | Protectant | Use high label rates for foliar late blight protection. |
| C-O-C-S WDG (1.5- 4 lb)<br><br>Cuprofix-Ultra 40 Disperss<br>(0.75-3.0 lb) | copper oxychloride, basic copper sulfate | 0 days | 24 hours | M1 | Protectant | Use high label rates for foliar late blight protection. |
| Mastercop<br>(0.5-1.5 pt) | copper sulfate pentahydrate | 0 days | 24 hours | M1 | Protectant | Use high label rates for foliar late blight protection. |

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| Trade Name (rate/A) | Active Ingredient(s) | PHI | REI | FRAC # | Activity of Fungicide | Comments |
|---|---|---|---|---|---|---|
| Cueva (2 gal in 50-100 gal water/acre) | copper octanoate | 0 days | 24 hours | M1 | Protectant | Use high label rates for foliar late blight protection. |
| Curzate 60DF (3.2 oz foliar) | cymoxanil | 14 days | 12 hours | 27 | Locally systemic | Locally-systemic fungicide. Must be tank-mixed with a protectant fungicide. Rainfast within 2 hours. Cymbol. |
| Dithane F45 Rainshield (.4 to 1.6 qt)<br><br>Dithane M45 (.5 to 2 lb)<br><br>Koverall, Roper DF Rainshield, Fortuna 75WDG (1-2.0 lb) | mancozeb | 24 hours | 3 days | M3 | Protectant | Max rate per acre/season is 11.2 lb a.i. Begin use at lower rate and increase as vines increase in size. |
| Evito 480SC, Aftershock (3.8 fl oz) | fluoxastrobin | 7 days | 12 hours | 11 | Locally systemic | Follow label for resistance management. |
| Forum (Foliar and tuber control: 6 oz) | dimethomorph | 4 days | 12 hours | 40 | Systemic | May be tank-mixed with another effective fungicide for enhanced management – but not required by label. Addition of an adjuvant may enhance management. Can be applied after vine kill. |
| Gavel 75DF (1.5 to 2 lb) | zoxamide+ mancozeb | 3 days | 48 hours | 22+M 3 | Protectant | Do not make >6 applications/crop. Contact fungicide. |
| Gem 500SC (3.8 fl oz) | trifloxystrobin | 7 days | 12 hours | 11 | Locally systemic | Follow label for resistance management. |
| Headline (6 to 12 fl oz) | pyraclostrobin | 3 days | 12 hours | 11 | Locally systemic | Follow label for resistance management. |
| ManKocide (1.5 to 2 then 4-5 lb) | mancozeb+ copper hydroxide | 3 days | 24 hours | M3+ M1 | Protectant | Not labeled as a seed trt for potatoes. |
| Omega 500F (5.5 fl oz) | fluazinam | 14 days | 48 hours | 29 | Protectant | REI is 4 days for high exposure activities. |
| Omega Top MP (5.5 fl oz) – individual label for Omega sold in co-pack with Top MP (difenoconazole) | fluazinam | 14 days | 48 hours | 29 | Protectant and locally systemic | Can be applied aerially. REI is 4 days for high exposure activities. |

## Potato Late Blight Fungicides Registered for WI, 2026.

| Trade Name (rate/A) | Active Ingredient(s) | PHI | REI | FRAC # | Activity of Fungicide | Comments |
|---|---|---|---|---|---|---|
| Orondis Ultra (5.5-8.0 fl oz) | oxathiapiprolin + mandipropamid | 14 days | 4 hours | U15 + 40 | Translaminar or systemic within leaf and xylem mobile; rainfast within 30 minutes | Max single application rate is 8.0 fl oz/A. Max annual rate is 32.0 fl oz/A/year. Do not apply >0.125 lb ai/year of oxathiapiprolin. Do not apply >0.522 lb ai/year of mandipropamid. Make no more than 2 sequential applications before rotating to a different mode of action. Do not follow soil applications of oxathiapiprolin with foliar applications of Orondis Ultra. |
| Orondis Opti (1.75-2.50 pt) | oxathiapiprolin + chlorothalonil | 7 days | 12 hours | U15 + M5 | Translaminar or systemic within leaf and xylem mobile; rainfast within 30 minutes | Max single application rate is 2.5 pt/A. Max application annual rate is 10 pt/A/year. Do not apply >0.125 lb ai/A/year of oxathiapiprolin. Do not apply >11.25 lb ai/A/year of chlorothalonil. |
| Oxidate (40 to 120 fl oz to 100 gal water, 30-100 gal/acre | hydrogen dioxide | 0 days | 1 hour | NC | Kills spores on contact and no residual protectant activity after treatment | Foliar spray for late blight. Frequent applications (5-day intervals) can limit sporulation. |
| Penncozeb 80WP, Penncozeb 75DF (.5 to 2 lb)<br><br>Penncozeb 4FL, Manzate flowable (.4 to 1.6 qt)<br><br>Manzate Pro-Stick (1 to 2 lb, seed trt: 1.25 lb/50 gal water) | mancozeb | 3 days | 24 hours | M3 | Protectant | Do not exceed 11.2 lb a.i./acre/year. |
| Phostrol (2.5 to 10 pt) (Post harvest trt: 1 gal/ton in .5 gal water) | mono- and di-basic sodium, potassium, and ammonium phosphites | 0 days | 4 hours | 33 | Upregulates resistance or plant defense | Can be applied as a foliar for late blight, pink rot, and Pythium leak. Can be applied post-harvest for storage disease control. |
| Polyram 80DF (1.5 to 2 lb in 15 gal water/acre minimum) | metiram | 3 days | 24 hours | M3 | Protectant | Metiram is an EBDC, like mancozeb (M3). Total amount of a.i. per year/acre must include all EBDCs. |
| Previcur Flex (.7 to 1.2 pt) | propamocarb hydrochloride | 14 days | 12 hours | F | Systemic antisporulant | Apply in a tank-mix with effective protectant. Can be applied as a broadcast or banded application over the row, post-emergence. |
| Priaxor (4-8 fl oz) | fluxapyroxad+ pyraclostrobin | 7 days | 12 hours | 7+11 | Protectant and locally systemic | Cannot apply more than 3 applications/season. Follow label for resistance management. Xemium and Headline pre-mix. |

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|---|---|---|---|---|---|---|
| Quadris, Satori, Willowood Azoxy 2SC, Aframe, Equation SC (6 to 15.5 fl oz)<br><br>Trevo, Azoxystrar, Azoxyzone (6-20 fl oz) | azoxystrobin | 14 days | 4 hours | 11 | Locally systemic | Alternate away from Group 11 fungicides to manage resistance. |
| Quadris Opti (1.6 pt) | azoxystrobin+ chlorothalonil | 14 days | 12 hours | 11+M5 | Locally systemic and protectant | Alternate away from Group 11 fungicides to manage resistance. |
| Ranman (1.4 to 2.75 fl oz) | cyazofamid | 7 days | 12 hours | 21 | Protectant | Follow label for resistance management. |
| Reason (5.5 to 8.2 fl oz) | fenamidone | 14 days | 12 hours | 11 | Locally systemic | Follow label for resistance management. |
| Revus Top (5.5 to 7 fl oz) | mandipropamid+ difenoconazole | 14 days | 12 hours | 40+3 | Locally systemic and contact | Addition of an adjuvant is recommended. |
| Tanos (8 to 10 oz) | cymoxanil + famoxadone | 14 days | 12 hours | 27+11 | Locally systemic and contact | Must be tank-mixed with an effective protectant fungicide. Good protectant for limiting leaf blight. Excellent curative. |
| Ridomil Gold SL (1 to 2 pt) | mefenoxam | 14 days | 48 hours | 4 | Systemic | Do not apply beyond the at-planting stage. |
| Ridomil Gold Bravo SC (2.5 pt) | mefenoxam+ chlorothalonil | 14 days | 48 hours | 4+M5 | Systemic and protectant | Follow label for resistance management. |
| Ridomil Gold Copper (2 lb) | mefenoxam+ copper hydroxide | 14 days | 48 hours | 4+M1 | Systemic and protectant | Tank-mix with an effective protectant. |
| Ridomil Gold MZ WG (2.5 lb) | mefenoxam+ mancozeb | 3 days | 48 hours | 4+M3 | Systemic and protectant | Follow label for resistance management. |
| Zampro (11-14 fl oz) | ametoctradin+ dimethomorph | 4 days | 12 hours | 45+40 | Systemic and protectant | Do not make more than 2 sequential applications. Follow label for resistance management. Ametoctradin is new a.i.; dimethomorph is Forum (formerly Acrobat). |
| Zing! (32-34 fl oz) | zoxamide+ chlorothalonil | 7 days | 12 hours | 22+M5 | Protectant | Do not make more than 2 sequential applications before alternating with another fungicide of a different mode of action. Do not make >8 applications or apply >1.52 lb of zoxamide and 8.88 lb of chlorothalonil per season per acre. |