



Managing Colonizing Aphids in Ware Potatoes

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Common Aphid Species in Potato Fields

Name	Description		Activity
Potato aphid <i>(Macrosiphum euphorbiae)</i>			<ul style="list-style-type: none"> Active late June - early September Peak abundance mid-July - mid-August
Green peach aphid <i>(Myzus persicae)</i>			<ul style="list-style-type: none"> Active mid-July - early September Peak abundance in early September
Buckthorn aphid <i>(Aphis nasturtii)</i>			<ul style="list-style-type: none"> Active early June - mid-August Peak abundance mid-June - early July

Scouting for colonizing aphids in potato fields

- Colonizing aphids usually build up in numbers late in the season and establish colonies that can kill entire plants. Winged aphids settle in potato fields and rapidly reproduce without mating, producing wingless aphids. Migrating aphids tend to land in southern and western field borders
- Check at least 10 locations/field weekly:**
 - Check 15-25 plants in each of the 10 locations, examining one leaf at the top, middle and bottom of the plant. Aphids tend to prefer to feed on the undersides of leaves
- If 5-10% of all plants checked have aphids present (15-25 plants out of 150-250 total), a colonizing species has established in the field. The presence of several wingless aphids on a plant indicates colonization

To contact an expert in your area, visit extension.msu.edu/experts or call 888-MSUE4MI (888-678-3464)

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Chemical control for colonizing aphids

- Do not apply any Mode of Action (MOA) more than twice consecutively before switching to a new group.
- Do not use any group 4 MOA more than once a season, and if using two groups within group 4, do not use them consecutively.
- Groups 1A, 1B, and 3 are not recommended because of resistance and potential harm to natural enemies.
- If a neonicotinoid was applied at planting, do not use other foliar 4A product. If applied at planting, expect 60-90 days of residual control.
- Using insecticides that are selective to aphids helps to preserve beneficial insects in the field.

Recommended “Modes of Action” after at-planting neonicotinoid application

Mode of Action Group	Sub-group/ chemical name	Trade name	Use and efficacy	Selectively kills aphids*
4C	sulfoxaflor	Transform WG	Apply before the at-planting systemic wears out and when aphid populations are still low. Don't use consecutively after a group 4 application, only after another MOA.	Yes
4D	flupyradifurone	Sivanto 200 SL		Yes
9B	pymetrozine pyrifluquinazon	Fulfill PQZ	Apply before the at-planting systemic wears out and when aphid populations are still low. Paralyzes mouthparts. Aphids remain on plant until they desiccate.	Yes
9D	afidopyropen	Sefina	Apply at first aphid detection, reduces aphid feeding.	Yes
21A	tolfenpyrad	Torac	Control requires contact with aphids, has rapid anti-feeding effect.	No
23	spirotetramat	Movento HL	Apply before the at-planting systemic wears out and when aphid populations are still low.	Yes
28	cyantilaniprole	Exirel	Apply before aphid populations build up, has rapid anti-feeding activity. Works best when combined with adjuvant.	No
29	flonicamid	Beleaf 50 SG	Apply before aphid populations build up. Paralyzes mouthparts. Aphids remain on plant until they are desiccated. Recommended threshold is 5 wingless aphids/100 leaves or one winged aphid/plant.	Yes
Not Classified	Mineral / Paraffin oil or Petroleum distillate	Many products available	Interferes with respiration and metabolism, disrupts feeding. May have phytotoxic effects under high temperatures (>95 F) or if plant is stressed.	Yes

*Insecticides that selectively kill aphids can also sometimes kill other insects with piercing-sucking mouthparts, such as leafhoppers, but check the label if your goal is to control multiple pests at the same time.

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