Zebra Chip Management in the Pacific Northwest

Managing zebra chip (ZC) will require an intensive program if the insect vector, potato psyllid, and causative bacterial pathogen become established in potato growing areas of the Pacific Northwest. Management programs should begin with a neonicotinoid-based foundation program (seed treatment or soil-applied) followed by a foliar program incorporating multiple modes of action (MOA) in rotation.

Zebra Chip Management Program

- Apply CruiserMaxx® Potato insecticide/fungicide seed treatment or apply Platinum® 75 SG insecticide at planting or through chemigation at last hilling for broad spectrum insect control including aphids, Colorado potato beetle, leafhoppers and psyllids.
- Apply Agri-Mek® SC insecticide early in your foliar rotation because it is effective against all potato psyllid life stages — adults, nymphs and eggs. Agri-Mek SC is also effective on Colorado potato beetle.
- Apply Fulfill® insecticide to stop psyllid adults and nymphs from feeding, reducing their ability to transmit the bacterium. Fulfill is also effective on aphids.
- Foliar programs should use 2 consecutive applications (block) with the same MOA. No single product should be used more than twice in the program.

Best Practices

- Always use a high quality penetrating-type adjuvant with both Agri-Mek SC and Fulfill; avoid tank-mixing these with sticker-type adjuvants or with fungicides that have a sticker type component.
- If neonicotinoid products are used either in-furrow or as a seed treatment, ensure any further use in a foliar program follows label recommendations on resistance management and does not exceed the total allowable amount of active ingredient per season allowed on potatoes.
- Use of pyrethroids should be restricted to end-of-season only to avoid causing mite flare-ups.
ZC (ZEBRA CHIP): MANAGEMENT OPTIONS

CruiserMaxx® Potato insecticide/ fungicide seed treatment1, Platinum® 75 SG insecticide1 applied in-furrow or via chemigation prior to crop emergence

Agri-Mek® SC insecticide/ miticide2,5

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Insect growth regulator (IGR) or a lipid biosynthesis inhibitor (LBI)3 (Two applications)

Fulfill® Insecticide4,5

Fulfill® Insecticide4,5

Apply product that doesn’t impact beneficial insects

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Notes

1 When using neonicotinoids in a program follow instructions on the label to prevent insects from acquiring resistance to this class of chemistry.

2 Apply at 1.75–3.5 fl oz/A. Use higher rate for the first application. Begin applications when psyllids are detected in the field or the area using scouting methods recommended by local universities. Use of sticky traps for adult monitoring and leaf counts for nymphs will help ensure judicious use of foliar insecticides. Always add a penetrating adjuvant (such as an NIS at 0.25 percent v/v) with Agri-Mek SC.

3 Rotate with products that have a different mode of action such as a Lipid Biosynthesis inhibitor (LBI) or as a Insect Growth Regulator (IGR)

4 Apply Fulfill at 5.5 fl oz/A. Recommend a crop or seed oil blend adjuvant with Fulfill. The use of an oil blend adjuvant is critical when Fulfill is tank-mixed with products containing or requiring sticker/binder agents. Fulfill is not recommended in tank mixtures with pesticides containing sticker/binder adjuvant such as Bravo Weather Stik® or Dithane Rainshield® fungicides.

5 MRL’s for both Agri-Mek and Fulfill are established for most key export markets. Always follow label directions.