

GERANIUM

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- Bacteria can move easily within the greenhouse. Strict sanitation is critical to prevent spread.
- Isolate production blocks by having enough open space between trays or a physical barrier high enough to stop splashing water between sources.
- Practice track and trace by keeping source tags to ensure geraniums from various sources are kept separate and are easy to identify.
- It is not recommended to use recirculated irrigation water.
- Thoroughly sanitize all equipment and production areas between production cycles.
- Suspected plant material should be isolated and tested
- Refer to 'Sanitation for @Risk Crops' for additional tips to reduce the risk of spreading this pathogen within your production.
- ***Growers are responsible for preventing the spread of *Ralstonia* and *Xanthomonas* in their operations.***

Geranium: At Risk Crop

Ralstonia solanacearum race 3 biovar 2 is a bacterial disease that can be transmitted by propagation tools, personnel, soil and contaminated water. *Ralstonia* race 3 biovar 2 can affect other agricultural crops and therefore is **quarantinable** by the USDA and must be reported.

*Ball has worked diligently with stock plant farms to minimize the risk, BUT growers are **solely responsible** for growing the plants under clean cultural conditions and preventing spread of the disease.*

COMMON PROBLEMS

INSECTS:	DISEASES	OTHER
Aphids Thrips	<i>Botrytis</i> <i>Pythium</i> <i>Thielaviopsis</i> <i>Xanthomonas</i> <i>Ralstonia</i>	pH drop - sudden lower leaf speckling, yellowing and death

More information on Ralstonia:

<https://www.aphis.usda.gov/plant-pests-diseases/ralstonia#:~:text=USDA%20considers%20R.,and%20southern%20wilt%20of%20geranium>

<https://inspection.canada.ca/en/plant-health/invasive-species/plant-diseases/bacterial-wilt-geraniums/fact-sheet>

<https://pmc.ncbi.nlm.nih.gov/articles/PMC9998985/>

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