

GERANIUM

Sanitation is critical for limiting *Ralstonia* (Southern wilt) and other bacterial diseases of geranium such as *Xanthomonas*.

- Bacteria can move easily within the greenhouse. Strict sanitation is critical to prevent spread.
- Isolate production blocks to prevent mechanical spread by personnel or equipment and splashing or dripping water during irrigation.
- Practice track and trace 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 @ 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	<i>Botrytis</i> <i>Pythium</i>	pH drop - sudden lower leaf speckling, yellowing and death
Thrips	<i>Thielaviopsis</i> <i>Xanthomonas</i>	
	<i>Ralstonia</i>	

Information on *Ralstonia*:

https://www.aphis.usda.gov/aphis/ourfocus/planthealth/plant-pest-and-disease-programs/pests-and-diseases/plant-disease/sa_ralstonia/ct_ralstonia

<https://www.inspection.gc.ca/plant-health/plant-pests-invasive-species/plant-diseases/bacterial-wilt-of-geraniums/fact-sheet/eng/1328251127712/1328251256584>

<https://www.ncipmc.org/projects/pest-alerts1/ralstonia-solanacerum/>