Botrytis Resistance Testing Available for Strawberry Growers

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Published May 2025

Botrytis grey mould is a widespread disease affecting strawberries in both field and covered production in Ontario. Botrytis grey mould can be caused by multiple species of Botrytis, with *Botrytis cinerea* being the most dominant species infecting strawberry in eastern North America.

Recently, a new species of *Botrytis, B. fragariae,* was identified on strawberry in the United States. *Botrytis fragariae* is more specific to strawberry, and seems to often cause blossom blight, as opposed to *B. cinerea,* which is detected more often as fruit rot and has over 200 crop hosts. Additionally, *B. fragariae* differs in fungicide susceptibility from *B. cinerea*, and fungicide resistance has been reported in both species, which could affect the level of disease control and management options.

Botrytis cinerea is often resistant to thiophanate-methyl (group 1: Senator, Thief), fenhexamid (group 17: Elevate), boscalid (group 7: Cantus, part of Pristine), and cyprodinil (group 9: part of Switch, part of Inspire Super), while *B. fragariae* is less often resistant to these products (except for thiophanate-methyl), but more often resistant to fludioxonil (group 12: part of Switch and Miravis Prime), and polyoxin D (group 19: Diplomat). No resistance of *B. fragariae* to group 7s has been detected, including isofetamid (Kenja), fluxapyroxad (Sercadis, part of Merivon), penthiopyrad (Fontelis) and fluopyram (Luna products). Group 7s may be good options for either botrytis species.

General resistance management recommendations for botrytis include:

- Using broad spectrum/multisite fungicides when possible
- Use multiple FRAC groups that are active on botrytis in one application when possible
- Rotate fungicides between different active ingredients
- Limit the number of applications of a FRAC group per season
- Know the resistance profile on your farm

Berry Growers of Ontario have received funding through the Ontario Agri-Food Research Initiative, funded by the Sustainable Canadian Agricultural Partnership, for **Management of Botrytis in Ontario Strawberries.** This project will identify the Botrytis species and test for fungicide resistance.

Fungicide resistance profiles can differ between farms; testing for fungicide resistance will help individual growers choose effective fungicides and inform disease management priorities for the industry.

Strawberry samples will be collected and tested for Botrytis species and resistance to multiple fungicides:

Group 7s:

- Boscalid (Cantus, group 7 in Pristine)
- Fluopyram (part of Luna tranquility, group 7 in Luna Sensation)
- Pydiflumetofen (group 7 in Miravis Prime)

Group 9s:

- Cyprodonil (group 9 in Switch and Inspire super)
- Pyrimethanil (Impala, Scala)

Group 11s:

- Trifloxystrobin (Flint Extra, group 11 in Luna Sensation)

Group 17:

- Fenhexamid (Elevate)

Funding for this project is available in 2025 for 10 farms: first come, first serve.

If you are interested in participating in this project and receiving fungicide resistance profiles for your farm please contact Erica Pate, OMAFA, (erica.pate@ontario.ca) or Victoria Buma, BGO, (research@ontarioberries.com) for instructions on collecting and submitting samples.

Participating growers will receive fungicide resistance profiles for their farms and generalised survey results will be shared with the berry industry.

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Botrytis grey mould on strawberry.