

GROWERTALKS

Columns

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How to Fight Off Foliar Diseases of Cyclamen

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As the weather begins the slow slide into the darker and more humid conditions of fall and winter, cyclamen crops require extra attention. Cyclamen benefit from the cooler temperatures after a summer of high temperature stress, but, as the crop canopy fills in, the increase in humidity poses challenges. Specifically, foliar diseases can become more common at this stage of the crop.

Botrytis can gain a foothold during the fall and winter due to the dense plant canopy. Look for gray, fuzzy growth under the canopy. Under high disease pressure, petioles and developing flower stalks can be girdled near the corm. Flower damage shows as darkly pigmented areas or dark spotting on the petals. To help keep Botrytis at bay, remove senesced leaves and flowers, increase airflow and, to the extent possible, keep the relative humidity in check.

Over-fertilization can predispose plants to foliar diseases, as well as crown and root rots. Keep close tabs on soil EC levels and leach if needed to keep EC levels below 1.25 via the saturated paste method. Many cyclamen growers rely on calcium nitrate and potassium nitrate as the backbone of their cyclamen fertilizer program. Consult your supplier for detailed nutritional advice regarding cyclamen production.

Fungicides are often needed to augment even the best cultural practices. Resistance is a significant issue when it comes to Botrytis, so take advantage of the chart in this article that sorts effective fungicides by mode of action.

Product	Mode of Action	Botrytis	Anthracnose
Affirm WDG	19	X	X
Camelot O*	M1		X
Cease	44	X	X
Daconil Ultrex*	M5	X	X
Emblem	12	X	X
Medallion WDG	12	X	X
Mural WDG	7 & 11	X	X
Nordox 75 WG**	M1		X
Orkestra Intrinsic*	7 & 11	X	X
Pageant Intrinsic WG	7 & 11	X	X
Palladium WDG	9 & 12	X	X
Phyton 35*	M1		X
Protect DF**	M3		X
Trigo	3 & 11	X	X
Triathlon BA	44	X	X

* Cyclamen bloom safety unknown

** Residue may be noticeable

Unfortunately, Botrytis isn't the only foliar disease cyclamen growers need to prepare for. Two anthracnose diseases also affect cyclamen. The less serious *Colletotrichum* causes small brown spots on leaves; the more serious *Gleosporium* (Cryptocline) attacks young petioles, with distinctive drying and malformation of the young tissue. *Gleosporium* can also attack older tissue and flower buds, resulting in drying and distortion. The cultural techniques discussed for Botrytis will also be helpful here. In some cases, fungicides that control

Botrytis are also effective against anthracnose diseases. Consult the chart for assistance in sorting through the available options.



Pictured: Impatiens Necrotic Spot Virus on cyclamen.

Viruses can produce distinct foliar symptoms that can be confused with other foliar problems. The thrips-transmitted tospoviruses INSV and TMSV both occur in cyclamen. Watch for ring spots, mosaic patterns, atypical leaf coloration (yellow, bronze or brown) and distortion. Should you discover any of these symptoms during your scouting efforts, discard affected plants immediately and work to control thrips. Your supplier can advise regarding biocontrol options, as well as insecticides that have shown good plant safety on

cyclamen.

Always read and follow the pesticide label. Products other than those mentioned may also be safe and effective. **GT**

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