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Sempervivum: Ringspots and Necrosis

An infection by the impatiens necrotic spot virus (INSV) of sempervivum (Hens and Chicks) resulted in ringspots and necrosis and is highlighted in this article.



Plant Symptoms

A group of 11 graduate students and seven floriculture extension specialists recently participated on an e-GRO tour to North Carolina in order to teach greenhouse diagnostic skills. We visited seven greenhouses and scouted the crops for problems. At one greenhouse, ringspots on a sempervivum crop (Fig. 1&2) were observed. Some plants also had more pronounced ringspots over most of the plant (Fig. 3). Figure 4 has a close up



Figure 1. Chlorotic ringspots on sempervivum caused by INSV.

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of the ringspots. In a few cases a necrotic line pattern had also developed (Fig. 5).

Impatiens necrotic spot virus (INSV) was confirmed with an enzyme-linked immunosorbent assay (ELISA) test by Mike Munster of the NC State University Plant Disease and Insect Clinic (<http://www.cals.ncsu.edu/plantpath/extension/clinic/>).

If you suspect a virus problem, have the plants tested by a diagnostic clinic. You

can also conduct in-house testing with ELISA kits from Agdia (<http://www.agdia.com/>).

Management

Once a plant has INSV, it cannot be cured. So discarding infected plants is the only option. Thus with the primary method of spreading INSV is by Western Flower thrips (*Frankliniella occidentalis*) feeding, it is critical to keep them under control. Luckily for this greenhouse thrips were not observed.

Additional INSV Information

<http://www.ces.ncsu.edu/depts/ent/notes/O&T/production/note120.html>

<http://www.ces.ncsu.edu/depts/ent/notes/O&T/flowers/ort072e/ort072e.htm>

<http://ncsupdicblog.blogspot.com/2012/01/sample-of-week-insv-on-cyclamen.html>

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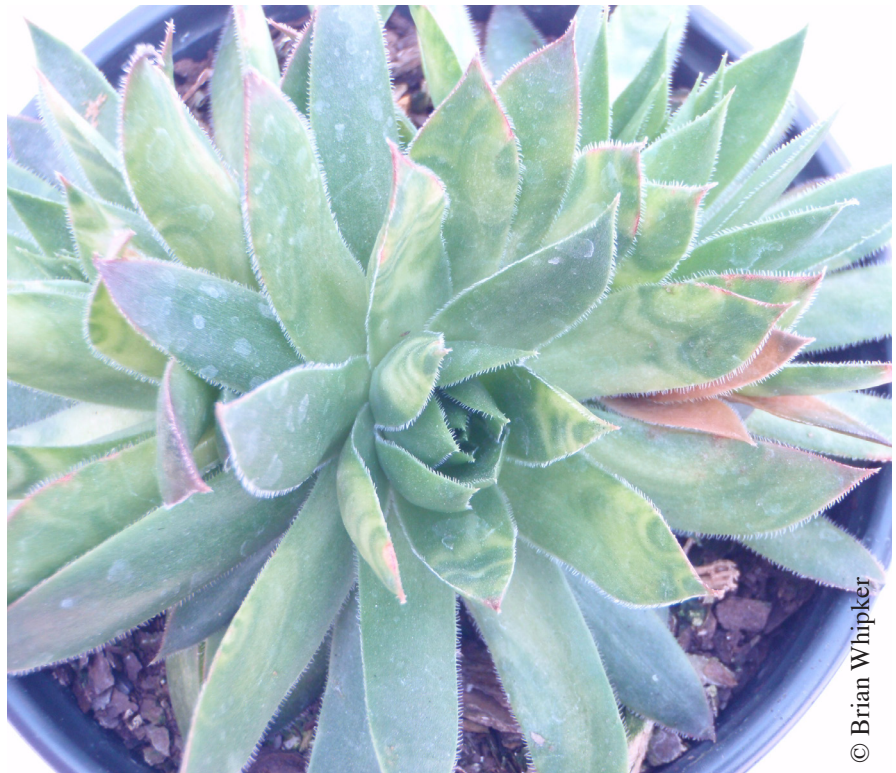
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Figure 2. Ringspots caused by INSV on a red sempervivum cultivar.



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Figure 3. Almost the entire plant exhibited ringspot symptoms caused by INSV.



Figure 4. Close up of ringspots on sempervivum caused by INSV.

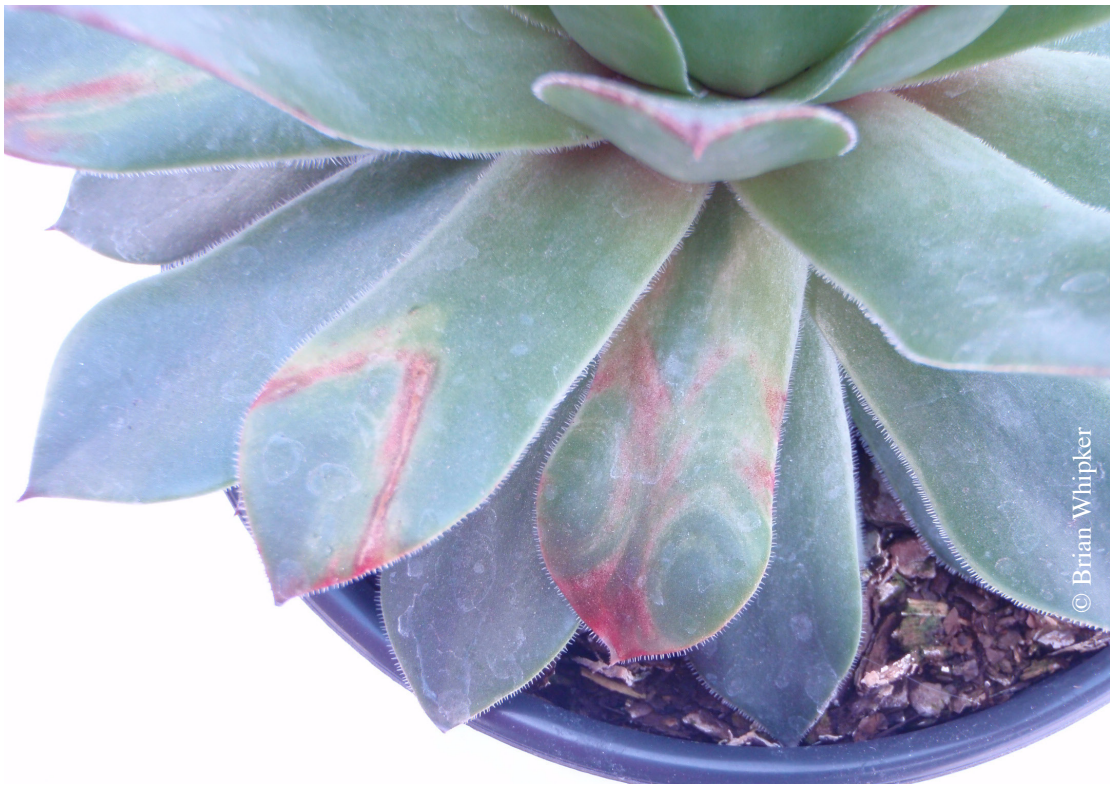


Figure 5. Necrotic lines visible on sempervivum caused by INSV.