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management](#)[Scouting guide](#)[Publications](#)[Calendar of  
events](#)[Industry links](#)[Contacts](#)

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## Tomato/tobacco ringspot virus decline - Tomato ringspot virus, tobacco ringspot virus

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[Home](#) > [Scouting guide](#)> tomato/tobacco ringspot virus decline

These viruses occur sporadically in vinifera grapes and interspecific hybrids. Labrusca grapes are resistant. In the first year of infection, a few leaves may show mottling. The second year, new growth is generally sparse because infected buds are prone to winterkill. Infected vines show shortened internodes with small, distorted leaves and sparse fruit clusters with uneven ripening. The third year, growth is very stunted and limited to basal suckers, and the vine eventually dies. Dead and dying vines are usually present in a roughly circular pattern in the vineyard. The viruses are introduced into vineyards with infected planting stock or by dispersal of seed from infected weeds. The virus is then spread by dagger nematodes feeding on roots of infected plants. The nematodes can retain the virus for long periods.



Mottling on a Riesling leaf.



Ringlike lesion on leaf.

Both viruses infect common weeds such as dandelion, sheep sorrel, common chickweed and red clover. Tomato ringspot virus also infects many fruit crops. These viruses may already be present in land used to establish new vineyards.



Stunted shoots on infected vine.



Clusters from healthy (left) and infected (right) Chardonnay vine.

### Additional information

- Search [MSU Extension News for Agriculture](#) site
- Search [MSU Fruit CAT Alert](#) newsletter for articles. Type in keyword: ringspot virus
- [MSU Diagnostic Services](#)
- Special [grape disease problems and controls](#) (from [Michigan Fruit Management Guide](#)) (Download [Adobe Acrobat Reader](#) to view PDF files)

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