

Garden Update

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### **Tomato Viruses**

As difficult as blights are to manage in tomatoes, viral diseases are far worse. This is because there are no effective products to stop their spread. To make matters even more challenging, virus infection is most often the work of sap sucking insects, such as aphids, thrips, and leafhoppers, that vector diseases. Insecticides to stop these insects provide limited results, often after insect feeding has already enabled virus spread to plants.

Viral diseases have a range of symptoms, each specific to the type of virus—ringspots on leaves and fruit, yellowing curled leaves, purplish leaf veins, and bright yellow irregular leaf blotches. All viruses reduce plant vigor and tomato production.

Some viral diseases, like curly top and tobacco mosaic, primarily affect tomato foliage. With less leaves to photosynthesize, however, reduced yields should be expected. An infection of curly top results in thickened and twisted yellow leaves while tobacco mosaic produces yellow patterned leaves on stunted plants.

Viral diseases that affect foliage and fruit include alfalfa mosaic and tomato spotted wilt. Infection of alfalfa mosaic results in patchy brown lesions and splitting of tomatoes. With tomato spotted wilt, ringspots appear on fruit and the flavor will be off-tasting.

Rogue out tomato plants that are afflicted with viruses. Infected plants are a source of inoculum that can be spread to healthy plants by insect vectors. Choose tomato varieties noted for their resistance to viral problems. For instance, the designation “TMV” after the tomato variety’s name indicates it is resistant to tobacco mosaic virus. Since some virus transmission is from contact with infected plants, be sure to clean up last year’s tomato debris before planting and rotate crops to decrease disease carryover. Reflective mylar or aluminum foil placed beneath plants will repel insects, at least until plants get so large that they shade the reflective benefits of the mylar/aluminum foil.