

Control can be achieved through flooding but this action carries with it the risk of spreading other diseases such as bacterial wilt. Use well drained fields, sanitation, and crop rotation. Avoid following crops, such as beans, celery, lettuce, or other crops that have been infected with this organism. Proper fungicides applied to the seedbed or field may be used. For more information, consult Plant Pathology Fact Sheet No. 22.

Soil rot This disease, caused by *Rhizoctonia solani*, causes fruit rot by penetrating wounds or undamaged epidermis wherever the fruit contact the soil. The lesions are similar to buckeye rot. However, soil rot lesions develop slowly and do not lead to soft rot as in buckeye rot.

To control soil rot, grow the tomato crop on stakes using plastic-covered beds. Apply fungicides when needed and prevent losses in transit by careful grading.

Solar yellows This physiological disorder results in fruits with shoulders that remain bright yellow. It is caused by high fruit temperatures and high light intensity which prevent proper red coloration of the fruit. It can be serious during extended hot and dry periods.

To control this disorder, maintain proper foliage coverage of fruit by good disease management, fertility levels, and irrigation. Where plant foliage coverage is not satisfactory, some success in control has been obtained by spraying clay suspensions on the fruits in the field which then washes off in the packing house. This practice has not been fully researched so it should be tried only on a trial basis.

Southern blight This causal fungus, *Sclerotium rolfsii*, attacks mature plants just below the soil surface completely girdling the stem causing rapid wilting and death. The mycelium grows over the diseased areas and the soil surface forming a mat with tan, mustard-seed-sized sclerotia. Fruit near the ground are often attacked.

Control begins with disposal of infected plants to prevent spread. Use staking culture practices to keep fruit off the ground and employ soil fumigants prior to planting. For more information, see Plant Pathology Fact Sheet No. 4.

Target spot This disease, caused by *Corynespora cassicola*, begins on the leaf as small brown spots which become surrounded by a sunken, dull green area. The center of the spot may become white on older leaves. Fruit rot on the shoulder or sides of fruit begins as small white spots with a border and enlarge up to 1/2 inch. To control target spot use approved fungicides.

Tobacco etch This virus disease is similar to potato Y virus except the plants with etch are more stunted and the virus spread is slower. Laboratory assays are needed for a definite diagnosis.

To control tobacco etch, eradicate weed hosts, such as nightshades and ground cherry. Insecticides and stylet oil applications to reduce the aphid vector might help.

Tobacco mosaic This virus, also called tomato mosaic, causes plant stunting if plants are infected early but usually little stunting is observed in later infections. The leaves are usually mottled and crinkled. The fruit can have symptoms consisting of mottling, rough surfaces, and occasional fruits with openings in the walls.

The virus is highly infectious and readily transmitted by any physical contact with plants. Workers should wash hands in 70 percent alcohol or with strong soap to remove virus particles. This is especially important for workers who use tobacco products. Eliminate volunteer tomato plants and cleanse equipment that comes in contact with infected plants between season.

Tomato yellows Plants infected with this virus have a general chlorotic appearance. Fruit do not show symptoms. The virus is spread by aphids from weed hosts such as nightshade, ground cherry, and *Datura* species.

To control tomato yellows, maintain a careful weed control program and reduce aphid populations with insecticides.

Verticillium wilt This wilt disease is caused by the fungus *Verticillium albo-atrum*. The disease starts with wilting of the lower leaves. Eventually leaves develop yellow areas along the margins and die. The disease does not rapidly kill the plant but results in severely reduced yields. The interior of the stem near the base of the plant will reveal a tan discoloration of the vascular tissue which does not extend up the stem as far as fusarium wilt does. Also the stem cavity does not become hollow as in bacterial wilt.

Control of verticillium wilt can be achieved with resistant varieties. In the seedbed and the field practice sanitation, rotation, and fumigation.

Minor tomato diseases Other diseases which can occasionally appear include black mold *Alternaria fasciculata*, nailhead spot *Alternaria tomato*, anthracnose *Colletotrichum phomoides*, bacterial