

HOME GROUNDS FACT SHEET



Cornell University
Cooperative Extension
Nassau County



Horticulture Program
Eisenhower Park
East Meadow, NY 11554
516 228-0426
Fax 516 228-0426

Grapes: Problems

Integrated Pest Management (IPM)

Considerations

IPM is a common sense approach to pest control and plant care. It employs a number of measures to prevent, control or reduce plant problems. These include using resistant plant varieties, proper plant selection and placement, good aftercare and biological and/or mechanical controls. As a last resort, after all other remedies have been explored, a pesticide* that is least toxic to people and natural predators can be considered. Prior to using any pesticides, plants should always be monitored for the degree of infestation and a sensible control measure considered.

* A pesticide is a substance that kills, or attempts to kill, a particular pest, e.g. **insecticide**, **fungicide**, **herbicide**, etc.

1. FUNGAL DISEASES

Grapevines on L.I. are susceptible to five major fungal diseases: black rot, powdery mildew, downy mildew, phomopsis cane and leaf spot, and Botrytis bunch rot. Black rot and powdery mildew are the most common homegrower problems. Varieties have different susceptibilities.

General Cultural Control:

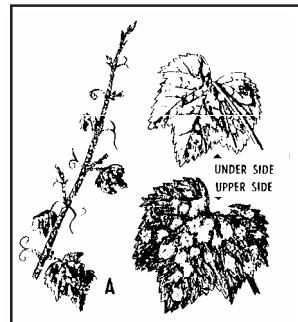
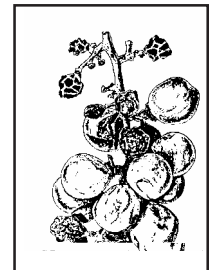
Measures can be taken to minimize the threat from fungal diseases. For example, the grapevine canopy should not be excessively thick, allowing good air flow through the canopy. This reduces relative humidity, which helps immensely with disease control. Use soaker hoses instead of overhead irrigation. A few leaves can be pulled from around clusters (don't strip out all the leaves however) to facilitate air flow around the clusters which helps to minimize fruit rots. Vineyard sanitation plays an important role. Prune out dead and dying wood. If the vineyard had a disease problem the previous year, remove prunings as they often harbor the disease organisms. Fungal diseases are often more difficult to control in wet seasons. Powdery mildew is the exception as it can infect vines and spread in low or high relative humidity.

Specific Controls:

Black Rot

Cultural Control: Practice plant sanitation by removing mummified grapes and infected canes. In early spring, cultivate to bury mummified fruit.

(see note A.)



Downy Mildew

Cultural Control: Remove from the vine and destroy diseased berries or clusters as they appear in the summer.

(see note A.)

Powdery Mildew

Cultural Control: See General Cultural Control.

(see note A.)

Botrytis Bunch Rot

Cultural Control: Good air circulation throughout the canopy is critical in controlling this disease.

Chemical Control: The recommendations for chemical control are quite extensive. They can be found in "New York and Pennsylvania Pest Management Recommendations for Grapes." Contact your local Cooperative Extension office for ordering information.

Phomopsis Cane and Leaf Spot

Cultural Control: Prune out all dead wood and cane stubs before budbreak. (see note A.)

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Trunk Cankers

These are caused by a fungus *Eutypa*. In a cross section of the trunk, the canker appears as a pie-shaped wedge. It causes the vine to weaken and gets progressively worse each year.

There are no chemical controls available. Following good sanitation practices is beneficial. Trunk cankers should be pruned out in May. Leaving large pruning wounds during the winter is not recommended because the fungus is viable and the vines (pruning wands) are highly susceptible during January to April.

2. INSECT PESTS

Grape berry moth:

Larvae destroy developing grapes and silken webbing is often noticeable. Larvae tunnel into developing berries, often webbing together two berries. As a result, there may be crop loss in highly infested areas. Damaged berries are also more susceptible to cluster rots, particularly if the weather is wet. Vines adjacent to wood edges containing wild grape plantings are especially susceptible to damage.

Cultural Control: Destroy nearby wild and abandoned vines. Remove by hand and dispose of infested grapes for small plantings. Do not discard on ground because insects may continue to develop. (see note A.)

Grape cane girdler:

This is a very small black snout beetle that girdles grape shoots by chewing two series of holes a few inches apart around the shoot. The shoot tip breaks, hanging by a thread, and the broken cane is the noticeable feature. The larva is in the portion of the cane that remains on the twig. Although unsightly, they seldom cause serious damage. Damage is rarely severe enough to warrant treatment.

Grape flea beetle:

Adult is a blue-black, steely-colored beetle that feeds on developing buds in spring. Bud damage usually occurs on vines located near wooded or trashy areas. Good plant sanitation is a must. Flea beetles are very difficult to control. Usually, by the time the damage is seen, it is too late to treat. (see note A.)

Grapevine tomato tumid gall:

Irregular masses of succulent galls appear on leaves, petioles and shoots. They are very common, especially in the home garden. The galls, which vary in color from green to shades of red, are divided into compartments in which orange larvae (maggots) may be found. Although the galls are unsightly, they do not interfere with grape production unless they are numerous. Since the damage is unpredictable from year to year, they are difficult to control.

Grape erineum mites:

Produce blistering bumps on the upper leaf surface, and felt-like whitish areas on the lower surface. Hundreds of microscopic white mites will be found in these areas. There is no control available.

Other insect pests include leaf rollers, aphids, rose chafer, curculio, mealybugs, Japanese beetles and gall makers.

NB: Japanese beetle traps are **not** recommended. They can make the damage worse.

note A. Chemical pesticides are available. If you choose to use chemical pesticides, contact your local Cooperative Extension office for specific recommendations.

Information for this Home Grounds Fact Sheet was supplied by Alice Wise, Viticulturist, Cornell Cooperative Extension of Suffolk County.

WHENEVER YOU USE A PESTICIDE,
ALWAYS READ THE LABEL AND FOLLOW
THE MANUFACTURER'S INSTRUCTIONS
AND RECOMMENDATIONS.

"This publication contains pesticide recommendations. Changes in pesticide regulations occur constantly and human errors are still possible. Some materials mentioned may no longer be available, and some uses may no longer be legal. All pesticides distributed, sold or applied in New York State must be registered with the New York State Department of Environmental Conservation (DEC). Questions concerning the legality and/or registration status for pesticide use in New York State should be directed to the appropriate Cornell Cooperative Extension specialist or your regional DEC office (631) 444-0340. Read the label before applying any pesticide. Cornell Cooperative Extension and its employees assume no liability for the effectiveness or results of any chemicals for pesticide usage. No endorsement of products is made or implied."