

Controlling Plant Diseases

Plant diseases are an inevitable part of any garden. Many potential disease organisms live in all garden soil. Given the right conditions for development and susceptible plants, diseases can quickly injure or destroy plants. However, steps can be taken to limit the severity of many plant disease outbreaks.

Select plants adapted to the conditions in your garden. Recognize that many plants require different amounts of light, moisture, and nutrients for best growth. Plants requiring full sun will not thrive in heavy shade. Plants adapted to drier environments will often rot away in saturated soils. Plants that are growing under stress from lack of light, too much or too little moisture, or inadequate nutrition are more susceptible to disease.

Select plants that are resistant to common plant diseases. Many plants, especially vegetables, have been bred for their ability to withstand attack by common plant diseases. When choosing varieties, select those that have a genetic resistance to common diseases.

Provide plants with proper nutrients. Plants that are adequately fertilized tend to withstand attack from disease organisms better than under or over nourished plants. The use of compost will help improve the soil structure and provide plants with needed nutrients.

For diseases to get established, three things are needed: 1) a susceptible plant, 2) the disease organism, and 3) the proper conditions of light, temperature, and humidity for the disease to develop. The following are some precautions you can take to have healthy plants.

- Provide plants with adequate space. Many disease organisms thrive under a condition of high humidity. Proper spacing of plants to allow for air circulation will help reduce the severity of some common garden disease organisms.
- Use good sanitation. Diseased plants and plant parts can spread disease to healthy plants. Removing diseased plants or dead foliage from the garden helps limit the spread of the disease.
- Control weeds and insect pests. Weeds crowd plants and compete with them for nutrients, moisture, and light. Some insects are responsible for spreading plant diseases as they move from plant to plant. Many viral diseases are spread by sucking insects such as aphids.
- Recognize that not every disease needs to be controlled. Some diseases, while unattractive, are not particularly damaging to the plant. Some plant disorders are caused by lack of plant nutrients. A soil test may help determine if pH (the acidity of the soil) and soil nutrients are adequate. Before using any chemical controls, be sure you have correctly identified the problem. Many plant diseases cannot be controlled with chemicals. Misuse of chemical controls can be damaging to the environment and an unnecessary expense!

For more information on nutrient management, pest management, and other Backyard Conservation practices, contact Highlands Soil and Water Conservation District or the Natural Resources Conservation Service. Or call 1-888-LANDCARE (toll free) for a free colorful Backyard Conservation booklet and tip sheets