



# J&L Garden Center

The All Season Gift  
and Garden Center

620 North 500 West Bountiful, Utah 292-0421

[www.JLGardenCenter.com](http://www.JLGardenCenter.com)

## Diagnosing Plant Problems

One of the biggest problems in trying to keep trees and plants alive is trying to diagnose what is actually wrong with them. Many different problems may produce similar symptoms but the corrective solution for each problem may be quite different. Once the problem is known the solution is usually pretty easy to take care of. In order to effectively diagnose tree and shrub problems several questions should be asked and a little investigation should be performed.



### 1. Determine the history of the plant and the surrounding area as best you can.

- How long has the plant been planted?
- Has any trenching or ground work been done near the plant in the last three to six years?
- Has any fill material been added under the dripline of the plant?
- Has a plastic sheet or weed cloth been used under the dripline of the plant?
- What kind, and how much, fertilizer has been used within the last 2 or 3 months?
- How often is the plant being watered? How is the plant being watered? How much water is applied?
- Is the plant near a street or cement patio?

### 2. Check other plants in the immediate vicinity and surrounding areas.

- Is this plant the only one showing this particular symptom?
- Are any other plants showing similar symptoms, or, other abnormal growth patterns?

### 3. Describe the symptoms.

- How are the symptoms distributed?
  - Is the whole plant affected?
  - Are just the leaves affected?
  - Are just the stems affected?
  - Is just a Single Branch affected?
- Are the symptoms randomly scattered or do they have a definite pattern?
- When did the symptoms first appear?
  - Did all the symptoms appear at once?
  - Are the symptoms changing or are more symptoms appearing?



### 4. Types of symptoms.

**A. Wilting plants.** Check the moisture content of the soil around the plant. If a plant is wilting, even though the soil is moist, it is probably affected by one of the **Wilt Diseases** or by **Root Rot**. The wilt diseases usually attack leaves, stems or twigs. Wilt diseases rarely affect roots. A sure sign of the wilt diseases is staining in the vascular tissues within the stems. **Root Rot** is a disease that affects roots. This disease is usually caused by the roots being kept too wet for an extended period of time.

**B. Discolored leaves that are still rigid, not limp.** Environmental damage, chemical salts, chemical burns, and some weed killers can cause this situation.

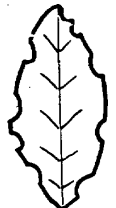
**C. Chewed leaves and stems.** Many insects, rodents, and a few animals eat plant leaves, stems and roots.

**D. Uniform, brown leaf edges or margins.** The uniform brown edges on leaves is usually caused by environmental problems or by stress within the plant. The brown edges can be caused by a continuous shortage of water, especially during hot, windy weather. Brown leaf margins can also be caused by too much fertilizer or a chemical burn.

**E. Random brown or yellow blotches, circles, or leaf edges.** This random pattern is usually caused by insect or disease problems. Many leaf diseases affect plants. The actual color and shape of the discolored leaf area indicate which leaf disease the plant may have.

**F. Missing leaf along with a missing petiole.** If both the leaf and the petiole are either missing or partially gone it is generally caused by insect damage.

**G. Missing leaf but the petiole is still intact.** This situation is usually caused by environmental problems or plant stress. The plant may not have been able to support the leaf, so it dropped it. (lack of water, heat stress, chemical burn).



**I. Leaf distortion or curling.** Leaf distortion can be caused by a growth-regulating herbicide, such as 2-4,D or Trimec. Herbicides can also cause the veins to start growing in a parallel pattern and the leaves can curl in strange formations. Sucking insects, such as aphids and spittle bugs, can cause leaves to curl downward and inward. Viral diseases can cause unusual curling and distortion in leaves.

## 5. Progression of the symptoms.

**A. From Inside to Outside; or from the Bottom to the Top** usually means the slow killing of roots or trunks. Possible causes could be soil compaction, too little or too much water over a long period of time, a root disease, too much soil placed on top of the roots, or unseen insect damage, such as a borer.



**B. From the Outside to Inside; or from the Top to the Bottom** usually means some traumatic environmental occurrence. Possible causes could be roots chopped off, an abrupt change in water, or a major insect infestation.

## 6. After determining the symptoms, examine the plant and surrounding areas closely for a suspected cause.

**A.** Check the soil moisture conditions 4" to 6" deep around the dripline of the plant. Check these conditions three or four days in a row.

**B.** Check for borer holes in the trunk or branches.

**C.** Check for loose or peeling bark.

**D.** Check for sap oozing from the plant.

**E.** Check for small insects on the underside of leaves.

**F.** Check the plant during the early morning or late evening for insects that might hide during the heat of day (snails, slugs, root weevil, etc.)

If you are unable to find a specific cause send a sample to a specialist. If available, take both a healthy sample and a problem sample.

## 7. Possible solutions to a few common problems.

### A. Water - the most common problem.

If the leaves of the plant are wilted, the problem can be caused by either too much or too little water.

To determine if the plant has been 'over-watered' or 'under-watered' perform the following test. Soak the plant thoroughly, don't just water it. (Hanging baskets and container planters need to be submerged in a bucket of water to completely soak them.)

Wait several hours, preferably until the temperature has cooled down in the evening, and check the leaves again. If the leaves are still wilted the problem is 'over-watering'. If the leaves have regained their normal appearance the problem is 'under-watering'.



## B. Insects - there are more than 10,000 species of insects throughout the world.

**Borers** are the most destructive insects and the most difficult to control. By the time the damage is apparent it is often too late to save the tree. The best way to control borers is to keep the plants as healthy as possible. Many borers are attracted to struggling or sick plants. Borers will usually leave healthy trees alone. Water and fertilize plants correctly to keep plants healthy.



Use chemical controls if the plant has a problem or if you know there are specific problems in the area. Some of the most common borers in this area are:

**1. Peach Tree Borers** - treat every 3 to 4 weeks beginning in July; continue through September.

**2. Aspen Borers** - treat every month beginning in May; continue through September.

**3. Birch Borers** - treat every month beginning in May; continue through July.

**4. Pine Borers** - treat every month beginning in May; continue through July.

**Sucking Insects** do not usually kill plants, they are just a nuisance. Aphids (there are more than 200 different kinds of aphids), Spittlebugs, Scale, Spidermites are some of the most common sucking insects.



Spray plants as soon as the pests appear. Repeat as needed during the time of year they are present. You may want to spray to prevent sucking insects if they have been a problem in the past. Two of the most common sprays are:

**1. Dormant Spray.** Spray plants while they are still dormant, either in the early spring or late fall. Mix a plant oil with an insecticide.

**2. Early Season.** Spray plants that are commonly covered with these insects (plum trees, snowball bushes, cherry trees, etc.), as soon as the leaves first appear.

## C. Diseases - are the most difficult problems to diagnose and control.

**1. Rotate crops;** both flowers and vegetables to prevent soil diseases. You cannot usually chemically treat soil diseases.

**2. Try to keep the plant's leaves dry.** Many diseases need water to begin to develop.

**3. Remove dead or dying plants** to prevent the spread of the diseases.

**4. Spray both to prevent and to cure diseases.** Prevention is sometimes easier than curing. Proper timing is extremely important to control plant diseases.

