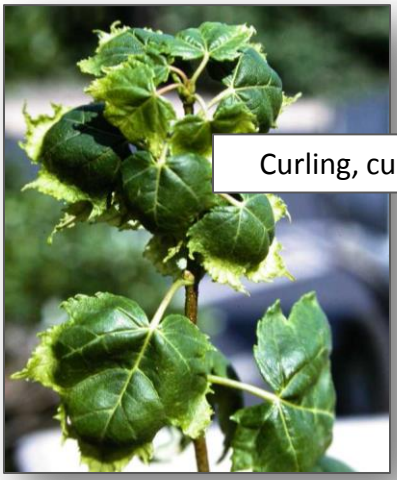
Tree Health Issues: Herbicide Damage

Accurately diagnosing plants with herbicide injury is often difficult since, many times, other causes may be involved and often herbicide damage symptoms may appear very similar to symptoms from other agents or factors. Professionals examine the plant symptoms and background information (including the type of herbicides used, application rates and timing, injury patterns, and the plant species affected) to confirm or discount the possibility of herbicide injury.

Chemical analysis to identify a specific chemical may work if it is still present in the plant tissue or the soil. However, the tests are expensive and you need to know which specific chemical may have been applied.

Symptoms and Diagnosis

Symptoms can include one or more of the following: curling or cupped leaves, stunted growth, discolored leaves, or leaves with dead spots. The same herbicide may cause different symptoms on different plant species.



Curling, cupped leaves

Distorted new growth

Since herbicides do not leave a "calling card" like mites, insects, and diseases (but the damage is similar), it is advised to first rule them out. Other disorders that produce symptoms that can resemble herbicide damage include viruses, adverse weather, salt damage, drought, soil compaction, misapplied fertilizers, root stress, and nutrient deficiencies.

Excluding these as causes requires close examination of the site and attention to patterns. Is the pattern of damaged plants consistent with drifting spray? Is more than just one kind of plant affected (which is a VERY good clue)? Did the symptoms appear within one or two days (in most cases) of the suspected application of an herbicide? Were any lawn weed control products used in the area, including weed and feed products containing an herbicide?

2,4-D herbicide damage to ginkgo foliage

Recovery

Whether a plant recovers from non-target herbicide injury depends on the overall vigor of the affected plant, the amount of herbicide it received, the type of herbicide used, and the growing conditions after contact. Healthy woody plants and many herbaceous plants that receive low doses of a growth regulator herbicide will most likely recover. Plants that show signs of growing out of the problem will likely recover. Plants that appear to lose vigor may not.

The survival of damaged plants can be increased by reducing other stresses. Water during dry periods, fertilize according to a soil test report to increase vigor, and watch for and control any insect or disease problems.

Uniform color and pattern suggests other than insect s or diseases