

Reducing Transplant Shock in Outdoor Plants

What is transplant shock?

Transplant shock is environmental stress (inadequate water and roots, excessive heat, etc.) on the plant after transplanting, which causes wilt, leaf drop, and stunted growth. Some signs of transplant shock are early leaf colouring, yellow leaves, and overall stunted growth.

Why does transplant shock occur?

Many factors contribute to transplant shock. One factor is mishandling (such as dropping) the root ball or plant when moving it. This can easily cause transplant shock because of the sudden force on the roots and stem that isn't felt when it's in the ground.

Another factor is allowing roots to dry out. To avoid this, choose a cloudy day or transplant in the evening when the roots aren't exposed to the sun's rays.

Poor site selection and preparation is another factor. The best spot to transplant is in a site that has similar soil structure.

Lastly, a plant can undergo transplant shock when it's transplanted from an indoor to an outdoor environment. The best time to transplant would be a couple of days without drastic weather changes.

How can transplant shock be reduced?

To reduce transplant shock when planting, first, wet the soil in the hole before the plant goes in, so water is present as soon as needed.

Next, put the plant in and maybe some compost or well-rotted manure to help maintain the moisture. Water the compost or manure a little, and then fill in around the roots. However, don't cover the base of the plant; ensure that the plant is positioned at the same depth as in the nursery or original site.

Next, water the plant and add fertilizer. (Use one that has more potassium because it's good for root growth.) Then, gently step around the soil to help hold it in place.

For the following week or so, the plant will need to get at least one inch of water per week, so if it doesn't rain, you'll have to water it. Some larger trees might require additional water (deep watering) because they were dug out with a tree spade.

One method of deep watering is to take several pipes that are long enough to reach the roots, and put them evenly spaced into the root ball. That way, water can reach the roots fast.

Sean Gott, Class of 2007