



Alabama Outdoor Classroom Program

How to Protect Your Plants from the Cold

We don't often have an extreme winter in Alabama, but it does get cold enough to warrant a bit of extra care for some of our plants. While healthier plants are more resistant to cold injury than weak or sick plants, all can be at risk of injury or death during sudden and prolonged exposure to cold temperatures. This document will help you better understand how to protect your plants from the cold.

How can weather damage plants?

All parts of the plant can be injured by cold – flowers, fruits, leaves, stems, trunks, roots, and buds. Fruits and flowers are the least tolerant of cold injury, followed by leaves and stems. Plants can handle a gradual drop in temperature better than a sudden drop because they have the ability to acclimate.

Wind can also damage plants by drying them out. Desiccation can occur when the ground is frozen, limiting the amount of water the plant's roots can take in while wind causes the plant to lose water above ground.

How to Protect your Plants

Plant Selection

Different plants freeze and die at different temperatures. That is why they are given a hardiness rating. Selecting plants that meet the minimum cold-hardy requirements in your area is key. Alabama is in 7, 8, and 9 USDA Plant Hardiness Zones. If you live in Zone 8a, you should choose plants that are hardy to at least zone 8a but also to Zone 7b to protect them from any sudden cold dips in temperature. *Find your zone here: planthardiness.ars.usda.gov/PHZMWeb/*

Care

A healthy, established plant will always be more cold-tolerant or recover quicker than an unhealthy or new plant. If you fertilize your plants in the fall, don't use a fertilizer high in nitrogen as it results in a flush of new growth susceptible to cold injury. Prune in late winter or early spring, as pruning in late summer or early fall can promote new growth that is susceptible to cold injury.

Preventative Measures

Below are suggestions to help you protect your plants from the cold:

- ☑ **Use Mulch** – Mulch the soil around your plants to protect roots and minimize heat loss. Keep the mulch a couple of inches away from the plant's trunk to allow air circulation and avoid root rot.
- ☑ **Water the Soil** – Moist soil retains more heat than dry soil, so water your plants weekly.
- ☑ **Cover Plants** – If you have multiple days of below-freezing temperatures, you can use frost protection bags, row covering, sheets of dark plastic (not clear plastic), or cardboard boxes to cover your plants. Avoid using blankets that can become heavy if they become wet as their weight can injure your plants. Be sure to extend the cover to the ground and anchor the edges to the ground using large rocks, stakes, bricks, etc. Remember to remove the cover the next morning or when the cold temperatures pass.
- ☑ **Wrap Tree Trunks** – If you have young trees or varieties with thin bark, wrap them with a trunk wrap. The bark can otherwise split due to expansion in warm temperatures and contraction in cooler temperatures.
- ☑ **Move Containers Indoors** – Container plants are more susceptible to cold injury, as their roots are above-ground, so be sure to bring them inside if possible.

Information for this document was gathered from the following sources:

<https://www.gardeningknowhow.com/plant-problems/environmental/protect-plants-in-freeze.htm>

<https://www.gardeningknowhow.com/plant-problems/environmental/protecting-plants-winter.htm>

<http://extension.msstate.edu/publications/protecting-plants-cold-temperatures>

<https://www.ajc.com/weather/how-and-when-cover-plants-during-cold-weather/Sa5tPK8DAZdOLtQzAprS1J/#>