

## Protecting Plants against Winter Injury

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Our outdoor plants provide beauty and joy to our spirits, but Minnesota winters can easily undo our best gardening efforts.

### We must take steps to protect our plants:

1. **Choose plants that are hardy for our climate.** Native plants and plants rated as Zone 1 to 4 hardy should do well in our area. Plants listed as Zone 5 (or higher) will require sheltered growing areas and extra protection in the fall in order to survive. Be careful; some catalogs will incorrectly list plants as being hardy to our area. If in doubt, research several different catalogs and check with knowledgeable local garden centers. Some big box stores sell non-hardy perennials in our area.
2. **Choose plants to match soil and sun conditions.** Some plants, such as lavender or butterfly weed (*Asclepias tuberosa*) require excellent drainage to survive the winter. I believe that some sensitive plants do not survive winter because the crown rots due to excess water/poor drainage.
3. **Yew, arborvitae, and hemlock are most susceptible to winter burn.** Plant these evergreens in sheltered areas protected from sun and wind exposure. Alternatively, create a windbreak of wire and burlap on the exposed sides, or shade during winter months. Some people wrap tender evergreens with burlap; remember to keep a space open at the top for air circulation. Anti-desiccant and anti-transpirant sprays break down rapidly, must be reapplied often, and are generally not very effective. Such sprays are not recommended.
4. **Keep plants healthy.** Fertilize and water adequately throughout the growing season. Stressed plants will have a more difficult time surviving the winter. We don't think of watering our trees during drought periods, but such watering should also be done. The cost of water is minimal and will protect a valuable investment.
5. **Do not prune or fertilize after mid-August,** since tender new growth may sprout and will not have time to harden before winter. Water plants during the growing season, cut back in September so that the plants will harden off a bit, and resume good watering until the ground freezes. Water heavy soil slowly. Adequate watering late in the season will help prevent winter drying of leaves and stems, especially with evergreens.
6. **Young trees that have been transplanted recently, are stressed, or which have thin bark (cherry, crabapple, honey locust, linden, maple, mountain ash, plum) are prone to sun scald and cracks on the south and southwest sides.** Circle the trunks with light color bark wrap in the fall. Remove the wrap in the spring to prevent girdling and homes for insects or disease. Repeat for at least 2 to 5 seasons, until the bark of the young tree toughens up. An alternative is to paint the trunk of the young tree with white primer paint, which reflects sunlight and therefore keeps the trunk cold enough so that the sap doesn't rise.
7. **Protect young trees and shrubs from rodent damage by circling the stems with a cage** of ¼ inch mesh hardware cloth, the bottom edge buried 2-3 inches deep and the top 18-24 inches above the expected snow depth. Apply deer repellent several times during the season, especially after rain or snowfall.
8. **Wait until the ground freezes hard before applying loose mulch to your perennial bed.** Use chopped leaves, pine needles, or weed-free straw. Research your specific varieties of perennials to find out how many inches of mulch to apply. Remove mulch from on top of perennials when the weather warms in the spring. Mulch will keep the ground frozen during unexpected warm spells, and will prevent plants from heaving out of the ground. Keep mulch a few inches away from the trunk or stems of trees and shrubs. Protect hybrid tea roses (zone 5 or 6 hardy) by the Minnesota Tip Method (check the U MN Extension website), a large cage of leaves, or rose cones.
9. **In the early spring, thoroughly wash plants that have been exposed to salt spray.** Water the soil well to leach out salt residue.