



CROW WING COUNTY MASTER GARDENER PROGRAM

Ask the Master Gardener

JANUARY 2017 COLUMN

Dear Master Gardner:

I was told I should buy “zone 3 plants”. What do “zones” mean? I think I have some plants that didn’t say zone 3 on the tag - will they die?

The USDA Plant Hardiness Zone Map is the standard by which gardeners and growers can determine which plants are most likely to thrive at a location. Hardiness zones are based on the average annual extreme minimum temperature during a 30 year period in the past; not the lowest temperature that has ever occurred in the past or might occur in the future. The majority of the State of Minnesota is in Zone 3 and Zone 4, with the lower one-third of Minnesota in Zone 4 and the upper two-thirds in Zone 3. The Brainerd Lakes area is in Zone 3b (-35° to -30° F). Parts of the Minnesota/Canada border are in Zone 2b (-45° to -40°F). The Minnesota/Iowa border has some spots that are in Zone 5a (-20° to -15°F).

Low minimum temperatures are not the only factors that come into play when it comes to a plant’s winter hardiness. Other factors include snow cover, temperature patterns favoring the development of dormancy, moisture conditions, and microclimate effects. Snow acts as an insulator protecting the root system of over-wintering plants. Lack of snow cover can have a detrimental effect on a plant’s survival; whereas, snow cover increases the temperature that the plant experiences and in effect, increases the hardiness zone. If plants experience gradually decreasing temperatures and are allowed to achieve full dormancy, then it has achieved its optimum genetically programmed degree of winter hardiness. In winters like this year that had warm temperatures at the end of November and beginning of December followed by a significant temperature drop, the plants are not metabolically prepared and therefore could be damaged. Another factor that affects a plant’s winter survival is cold dry winds, which can desiccate plants, especially evergreen trees. When plants enter winter under draught conditions it stresses and weakens plants, so lack of moisture can lead to plant mortality. For this reason, it is important to keep plants watered up until the ground freezes. Microclimates can be formed when plants are located in a protected area, protecting them from desiccating winds, which increases their survival rate. On the other hand, highly exposed locations can increase plant stress and decrease survival rate.

Gardeners should keep their zone in mind when selecting plants, but also keep in mind that other factors can affect plant hardiness.

Dear Master Gardener:

I bought an orchid before Thanksgiving and have it in my kitchen. On Thanksgiving I did a lot of cooking and thought the orchid would like the heat since it's a tropical plant, but the buds started shriveling up. Is a kitchen a bad place for an orchid? Also, someone told me I should be watering my orchid with two ice cubes – is this true?

A Thanksgiving Day cooking fest can raise the heat in the room and wither orchids blooming in the kitchen. A quick increase or decrease in temperature causes a discrepancy between the outside and the inside temperatures of the flower bud, which results in the bud yellowing and falling off. This is called bud blasting. Buds are the most sensitive part of an orchid and easily affected by fluctuating temperatures. Most kitchens have the right requirements for a successful orchid habitat: bright light, good humidity, good air circulation, and easy access to watering. However, because temperature fluctuations can damage your orchid, it would be best to move it to another room if, like Thanksgiving, you will be cooking for an extended amount of time.

No, you should not water orchids with ice cubes. In their natural habitat the orchids we grow as houseplants, most commonly Phalaenopsis, grow in tropical jungles and do not get watered with ice cubes. The amount of water delivered to the plant from two ice cubes is inadequate, which creates a low-humidity environment situation that sustains pests, in particular, spider mites. Ice also damages the plant tissue where it is placed. Never use cold or hot water to water your orchids. Orchid cells close when cold, so the roots will not efficiently absorb cold water and hot water damages them. Water your orchids with water that is at room temperature (tepid or lukewarm).

Dear Master Gardener:

Seed catalogues have been arriving at my door, what things should I consider before ordering seeds for my garden?

Seed shopping by mail can certainly liven up a dreary winter's day. Remember the photographs and artwork you see in catalogs are as good as it gets, they are grown under ideal conditions by professionals. In the garden of your mind, the seeds you plant will look just as good. But in reality, your true garden may have poor soil, pests, diseases and possibly shade. Take these issues into consideration and order seeds and plants that are appropriate for your growing conditions.

- Find reliable catalog companies: There are plenty of companies out there and seed quality can vary from one company to the next. In addition, freshness matters. Companies that offer bargain basement prices may be able to do so only because of inferior quality or stale seeds.
- Consider making your first order small: If you are unsure as to a company's reputation, start with a small order, you can always buy more later but don't bet your entire garden's success on an unknown company to supply the seeds.
- Plan ahead. In order to avoid the mistake of biting off more than you can chew, do a little advance planning. First, try to calculate how many plants you can realistically add to a given space.
- Determine your seed sowing and transplant schedule. Consider the length of your growing season and how many successions of crops you are able to grow in a season.
- Consider how much time you have to devote to planting and maintenance. Even if you have unlimited room, there's still work to do in planting the seeds and subsequent care. Gardening should not be a burden or chore. Keep it manageable to fit your schedule and lifestyle.
- Weigh the amount of variety you would like versus the price of the seed packet.

- Realize the number of days to maturity quoted in the catalogue is just an estimate.
- Watch out for seeds treated with synthetic chemical fungicide. When ordering, specify untreated seeds.
- Choose cultivars that have qualities that are important to you such as plant size, habit and tolerance of your soil and light conditions.
- Consider growing one or two varieties each year that you have never grown before.

January Garden Tips

- Make a resolution to faithfully write in a garden journal and record details on planting times, techniques, successes, and challenges. Make a list of your favorite plants and those that need to be replaced.
- Considering a lawn care service? Selecting the right lawn care provider is not just about price. Contact several providers for cost estimates, their staff's training and qualifications. Ask what chemicals they plan to use and why. Get a written service agreement, which includes information about automatic renewals and penalties for discontinuing the service. Check with your friends and relatives for recommendations.
- January is a great time to ponder tree and shrub additions to your landscape for screening, visual interest, shade and windbreaks. Begin with a walk around your property followed by a trip to an arboretum and library.
- Nature provides the best mulch; snow. If the ground is not covered with snow, you can still add protective winter mulch to planting beds. Cover them with evergreen branches for insulation. This helps keep the ground stay cold and helps prevent bulbs and other plants from sprouting during the winter thaws.
- Monitor the landscape for animal damage.
- Shovel snow before reaching for the plant damaging de-icing salts.
- Avoid shaking or brushing frozen snow off trees or shrubs. This can often cause more damage than if the snow was left in place. Make a note in your garden journal to prevent plant damage next season by applying winter protection in November before the snow arrives.
- Make your reservation for the Ready, Set, Grow! Garden Expo being held on Saturday, April 1, 2017 at the Brainerd High School. You can find information and the registration form at the Crow Wing County Master Gardener website.
- Attend free monthly gardening seminars presented by U of M Extension Master Gardeners at the Brainerd Public Library the second Tuesday of each month from 12:00-1:00 p.m.

University of Minnesota Extension Master Gardeners are trained and certified volunteers for the University of Minnesota Extension Service. All information given in this column is based on university research. To ask a question, call the Master Gardener Help Line at 218-454-GROW (4769) and leave a recorded message. A Master Gardener will return your call.

