

Horticulture

Fall Storage of Tender Bulbs, Corms, and Tubers

Tender perennials are not winter hardy in our part of the country, but with a little help, they can survive for many years. Tender perennials are those plants that need to be dug from the soil in the fall and wintered over in a frost free location. You do not have to keep the entire plant, only the bulb, corm, or tuber are stored. New growth occurs from these structures after replanting next spring.

Popular tender perennials considered tender in Nebraska include gladioli, cannas, dahlias, tuberous begonias, and caladiums. Other lesser known tender perennials include the elephant's ear and calla lilies. Survival of tender perennials requires more attention other than simply digging the particular storage organ and putting it in a box in the basement.

Specific storage conditions must be met to successfully store the plants through the winter.

Dig tender perennials just before or soon after a killing frost. If left until after a frost, the foliage will be killed and the storage organ will need to be dug within a few days to prevent rot causing organisms from entering through the damaged stem.

Corm producing plants such as gladioli can be stored successfully. Dig carefully to prevent damaging the corm.

Brush off remaining soil. Allow the corms to cure for several weeks in a dry location with good air circulation. After drying, cut off the foliage and discard the shriveled remains of last year's corm. A new corm is produced each year on top of the old one. Store the corms in an open box or onion bags at temperatures between 40 and 45 degrees Fahrenheit.

Dahlias produce tuberous roots. To store them over the winter, trim back the foliage of the plant to within a few inches after the first light frost. Dig carefully to avoid injury. With some soil attached, pack the roots between two and three inch layers of vermiculite, peat moss, sawdust, or wood shavings. Store at 40 to 45 degrees. Check frequently to remove those that shrivel or rot.

The tubers of tuberous begonias and elephant's ear and the rhizomes of calla lilies should be dug before a hard frost. Cut the tops back and allow six inches of stem to remain. Dry for two to three weeks in a frost-free location, shake off the soil and remove the dried stem. Pack in peat moss, vermiculite, sawdust, or wood shavings and store at 45 to 55 degrees. Caladium tubers should be cured for a week in a warm location and stored in packing material at a temperature around 60 degrees.

See STORAGE on page 11

Growing Hardy Bulbs

Hardy bulbs provide early bloom in flower gardens. Growing them successfully requires a knowledge of life cycle, cultural requirements and use. The term hardy refers to their ability to withstand low winter temperatures and bloom year after year.

A true bulb is defined as a modified, underground stem, usually surrounded by scale like, modified leaves, and containing stored food for the shoots enclosed within. The scales are held together by a hardened stem tissue, known as the basal plate, which is located at the base of the bulb. Tulip, daffodil, and hyacinth are examples of true bulbs. Crocus, thought by many to be a bulb, is actually a corm. This is a mass of fleshy tissue with a bud on the top surface. This tissue disintegrates as the stored food is used to produce roots and shoots; a new corm forms on top of the old one's remains. Bulbs and corms are living structures and require careful handling even while in a dormant state.

In general, hardy bulbs produce foliage and blooms in

spring. They are dormant during the summer months. Low temperatures are required to break dormancy so growth may resume in the fall and early winter.

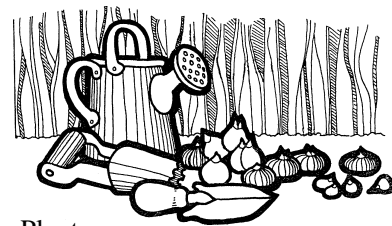
Good quality bulbs produce good blooms. Usually the larger the bulb, the better it will bloom. Bulbs should be firm, heavy, and in good condition. The skin should be smooth, of good color and free from injury. The basal plate must be intact.

Bulbs can be obtained from many sources in the fall. The best time to plant hardy bulbs is late September until late October. Choose a planting site in full sun.

Soil of a medium sandy-loam texture is ideal because it provides good drainage. If soil is a heavy clay, add organic material such as peat moss or compost. Raised beds also provide good drainage. Soil pH should be between 6.0 and 7.0.

Work soil 12 inches deep and incorporate three pounds of a complete fertilizer, such as a 5-10-10 per 100 square feet as you are preparing the soil.

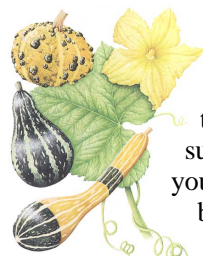
Planting depths will vary.



Plant hyacinths six inches deep; tulips and daffodils six to eight inches deep. Smaller bulbs, like crocus, are planted shallower. Large bulbs should be spaced four to six inches apart; small bulbs one to two inches. For a greater effect, plant in clumps or irregular masses rather than singly. Once planted, water the bulbs well and add one or two inches of mulch.

When bulb foliage has emerged one or two inches, remove excess mulch and pull any weeds. Water is needed especially during bud and foliage growth. If rainfall is insufficient, apply additional water. As bulbs finish blooming, remove faded blooms to eliminate seed set which reduces bulb growth. Maintain foliage for six weeks for good bulb growth and rebloom the following season. Allow foliage to die down naturally. Foliage can be removed when it is yellowed, fall over and comes loose when slightly pulled. (MJM)

Drying Gourds



Immature gourds will not cure correctly, so only harvest mature fruit.

After harvest, wash the fruit

Harvest gourds when the stem dries and begins to turn brown. Be sure to complete your harvest before the first hard frost.

in a mild bleach solution and dry off with a soft cloth. Discard any bruised, diseased or damaged fruit. To dry, place gourds on slatted trays or chicken wire fencing. Make sure they do not touch each other and are located in a warm, dry, well-ventilated location.

Curing can take one to six months, depending on the type of gourd. The outer skin hardens in one or two weeks, while the

internal drying takes at least an additional month. Poke a small hole in the blossom end of the gourd to quicken internal drying. Occasionally turn the fruit, checking for uneven drying or soft spots. When you shake the gourd and hear the seeds rattling, it is cured and ready for a coat of paint or varnish if desired. (MJM)

2000 September/October Garden Calendar

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1 Update garden journal	2
6	4 Power rake or aerify bluegrass	5	6 Over seed Bluegrass	7 Evaluate garden plants	8	9
10	11 Control perennial broadleaf weeds	12	13	14	15	16 Festival of Color, Mead
17	18	19 Divide lily-of-the-valley	20 Save annual flower seeds, like marigolds and zinnias	21	22 Check outdoor houseplants for insects	23
24	25 Bring outdoor houseplants inside before frost	26	27 Dig tender bulbs, tubers and corms before frost	28	29	30 Drain water hoses and store before frost
1	2	3 Pick squash and pumpkins before frost	4 Pick last apple, and pears	5	6	7
8 Average date of first frost	9	10	11 Plant spring flowering bulbs	12 Fertilize tall fescue	13 Fertilize bluegrass	14
15	16 Clean up garden	17	18 Rake and compost leaves	19	20	21
22	23	24 Organize garden supplies and tools	25 Clean up perennial flower beds	26 Make wish list for next year	27 Put up bird feeders	28
29	30	31				

Many of us need reminders. That is the purpose of this calendar. Check the calendar each month and follow the recommendations if they are necessary in your landscape situation. (MJM)

Horticulture information center

NUFACTS
24 hours a day, 7 days a week
1-800-832-5441; or
441-7188 in the Lincoln area



To listen to a NUFACTS information center message, call the number above on a touch-tone phone, then enter a three-digit number listed below. Call 441-7180 to receive a brochure with all the NUFACTS message topics. (MJM)

- NUFACTS
- 113 Pine Needle Drop
- 114 Mulches
- 122 Fall Watering
- 143 What to do with Leaves
- 166 Tender Bulb Care
- 181 Dethatching a Lawn
- 182 Seeding a Lawn
- 184 Aerify Your Lawn
- 194 Fall Lawn Care
- 241 Fruit Storage
- 262 Garden Clean Up
- 266 Composting
- 271 Drying Gourds
- 285 Storing Squash