



**Garden Clean-Up,
Fall Decorating,
&
Seed Saving**

University of Maryland Extension- Garrett County
1916 Maryland Highway, Suite A
Mt. Lake Park, MD 21550

PHONE: [301 334-6960](tel:3013346960) EMAIL: abachtel@umd.edu



Ashley has been with University of Maryland Extension in Garrett County since 2008. She started her career at Extension working as Nutrient Management Advisor, but transitioned to her current position in 2013.

Ashley and her husband Josh, have two young daughters and reside in WV. They raise Holstein beef steers, and live on the farm adjoining her family's dairy farm. They also have two high tunnels which produce seasonal fruits, vegetables, and fresh cut flowers.



Fall Frost Dates

Percent Probability of Temperature 32 Degrees F. Or Lower, On Or Before Given Date *

WESTERN MARYLAND

Station	10% 1 yr. in 10	33% 1 yr. in 3	50% 1 yr. in 2	67% 2 yrs. in 3	90% 9 yrs. in 10
Cumberland	Sep. 26	Oct. 07	Oct. 12	Oct. 17	Oct. 26
Hagerstown	Sep. 28	Oct. 11	Oct. 17	Oct. 23	Nov. 04
Hancock	Sep. 21	Oct. 01	Oct. 06	Oct. 11	Oct. 21
Oakland	Sep. 15	Sep. 22	Sep. 26	Sep. 30	Oct. 07

<http://extension.umd.edu/growit/beyond-basics/fall-frostfreeze-dates-maryland>



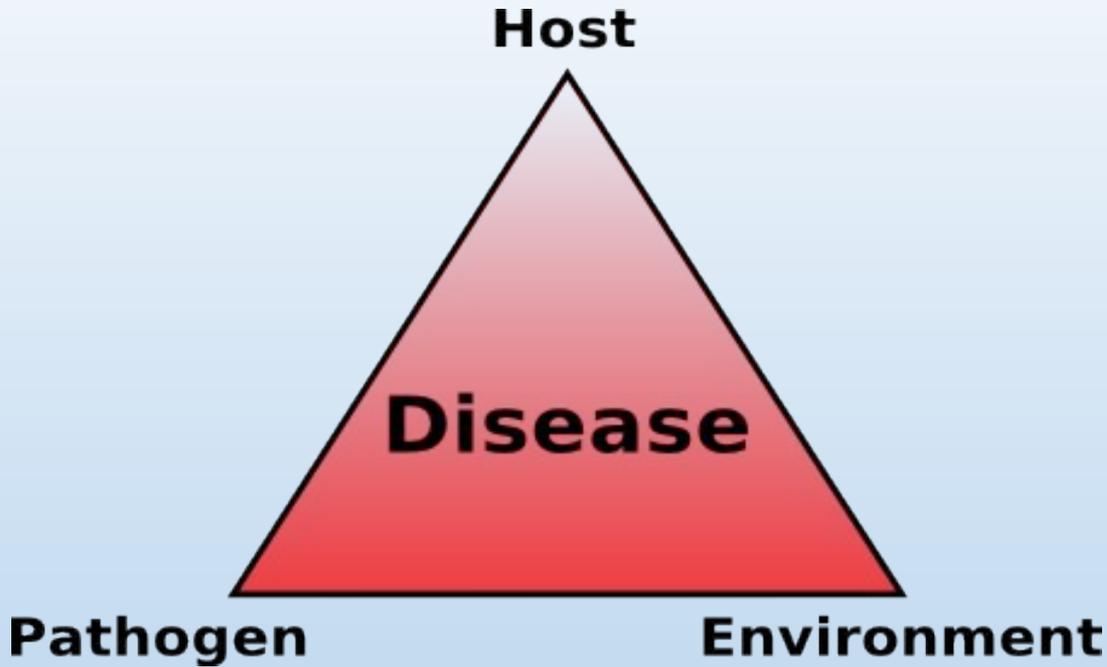


Illustration of the "disease triangle" - Figure credit: Ed Zaborski, University of Illinois



- **Remove** decaying crop litter (disease free plants only) and add to compost.
- **Remove** any diseased plants or plants that had insects. Eliminates overwintering sites for insects and diseases.
- **Remove** all rotten fruit from the ground around trees; insect infestations last through winter.
- **Leave** vegetable roots in place but **remove** diseased tomato, potato, and squash foliage to prevent disease. Do not toss these plants in the compost. Bag and discard.

Cultivate



- Plowing the soil in the Autumn can reduce pest problem in the Spring. It interrupts the life cycle of insects by exposing underground grubs, eggs, pupae to hungry birds and cold temperatures.
- Plow a new garden site. The Winter's freezing and thawing will break up the churned up clods.



Plant Cover Crops – Green Manure



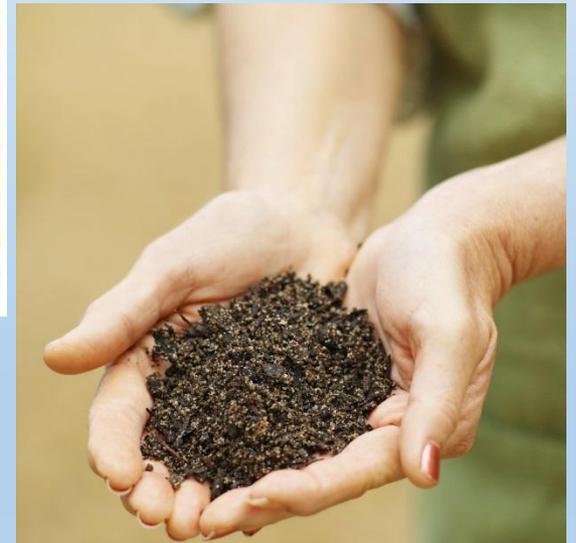
- Improve soil fertility.
- Eliminate erosion.
- Improve soil structure.
- Provide spring compost material.
- Keep nutrients from leaching
- Decrease weeding in next year's garden.



Soil Testing



Figure 1. Sample your soil at least once every three years to determine its pH and nutrient status.



Add lime in the Fall, but Fertilize in the Spring!!

Tend Tools



- Round up tools.
- Clean off the dirt.
- Oil hand tools to prevent rust.
- Drain & store hoses, nozzles, sprinklers before freezing can damage them.
- Disinfect seed starting equipment.
- Store equipment.
- Drain Gas in power equipment and service
- Add fuel stabilizer to fuel cans
- Clean off grass and soil from mowers and tillers before storage.



Seed Saving



Terminology

- **Variety:** a named “type” of a vegetable species, having certain distinguishing characteristics (taste, shape, color, size, length of season, etc.), being adapted to certain climates and soils, being resistant (or not!) to certain pests/diseases...
- **Open Pollinated:** standard, or open pollinated varieties are more or less stabilized in their characteristics. They remain fairly consistent, producing seed that will grow into plants more or less like their parent plants, though less uniform than hybrids.
- **Heirloom:** An open pollinated seed that is at least 50 years old and has a story or been passed from generation to generation.
- **Hybrid:** A hybrid is the result of pollination of one genetically uniform variety with pollen from another specific genetically uniform variety. A seed company chooses parent varieties that will produce first generation offspring (F1 hybrids) with the special characteristics they desire. This hybrid generation is termed the F1 generation, and it has a very uniform set of characteristics. However, when the F1 is allowed to set seed, the resulting F2 generation exhibits a very wide and unpredictable set of characters.

Vegetables That Self-Pollinate

- Beans, Peas, Lettuce & Tomatoes

What is a Biennial?

- ▣ A plant with a life cycle that is completed in two years or seasons, with the second season usually devoted to flowering and fruiting.

TABLE 3. The following plants are biennials and normally will produce seeds in their second season

Beets	Cabbage	Carrots
Cauliflower	Celery	Chard
Chicory ¹	Collards	Endive ¹
Kale	Leeks	Onions
Parsnips	Parsley	Rutabaga

¹Late Cultivars



Seed Storage

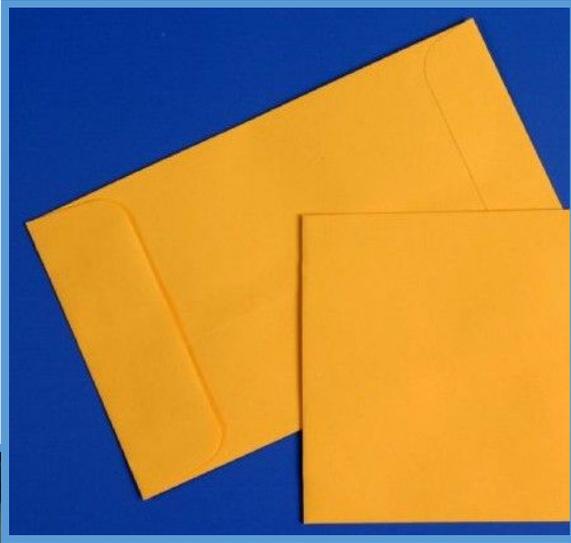
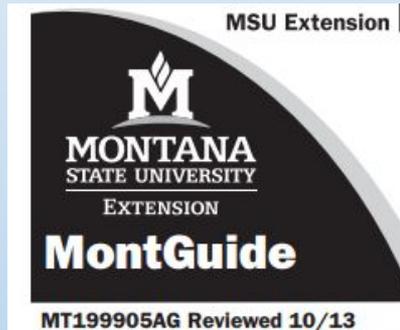


TABLE 4. Average number of years seeds may retain good viability when properly stored

Vegetable	Years
Asparagus	3
Bean	3
Beet	4
Broccoli	5
Brussels sprouts	5
Cabbage	5
Carrot	3
Cauliflower	5
Celery	5
Chinese cabbage	5
Collard	5
Cucumber	5
Eggplant	5
Endive	5
Kale	5
Kohlrabi	5
Leek	1

Vegetable	Years
Lettuce	5
Muskmelon	5
Mustard	4
Onion	1
Parsley	2
Parsnip	1
Pea	3
Pepper	4
Pumpkin	4
Radish	5
Rutabaga	5
Spinach	5
Squash	5
Sweet corn	1
Tomato	4
Turnip	5
Watermelon	5



<https://pleasantvalleyconservancy.org/pdf/seedcollectingspecies.pdf>

Latin name	Common name	Seed collecting dates	
<i>Helianthus grosseserratus</i>	Saw-toothed sunflower	Late September-Early October	WP
<i>Helianthus occidentalis</i>	Naked-stemmed sunflower	Late September	WP
<i>Helianthus pauciflorus</i>	Prairie sunflower	Late September	
<i>Helianthus strumosus</i>	Woodland sunflower	Early September	WP
<i>Heliopsis helianthoides</i>	False sunflower (ox-eye)	Early August	
<i>Heuchera richardsonii</i>	Prairie alum-root	Mid-Late June	WP
<i>Hieracium kalmii</i>	Canada hawkweed	Late August-October	
<i>Hieracium longipilum</i>	Hairy hawkweed	Early August	WP
<i>Hypericum pyramidatum</i>	Great St. John's wort	Late September-October	
<i>Koeleria macrantha</i>	June grass	All August	
<i>Krigia biflora</i>	False dandelion (Cynthia)	Late June-Early July	
<i>Kuhnia eupatorioides</i>	False boneset	All September	
<i>Lactuca canadensis</i>	Wild lettuce	Early September	WP
<i>Lathyrus venosus</i>	Veiny pea	Early August	WP
<i>Lespedeza capitata</i>	Round-headed bush clover	September-Early October	
<i>Liatris aspera</i>	Rough blazing star	Mid September-Early October	
<i>Liatris cylindracea</i>	Dwarf blazing star	Mid September-Early October	
<i>Liatris pycnostachya</i>	Prairie blazing star	Mid September-Early October	
<i>Liatris spicata</i>	Dense gay-feather	Mid October	
<i>Lilium michiganense</i>	Turk's cap lily	All October	WP
<i>Lilium philadelphicum</i>	Wood lily	Mid-Late October	
<i>Linum medium texanum</i>	Small yellow flax	Mid August-Late October	
<i>Lithospermum canescens</i>	Hoary puccoon	Early August	WP
<i>Lithospermum incisum</i>	Fringed puccoon	Late June-Mid July	
<i>Lobelia cardinalis</i>	Cardinal flower	All October	
<i>Lobelia inflata</i>	Indian tobacco	Early November	
<i>Lobelia siphilitica</i>	Great blue lobelia	Mid September-Mid October	

Caring for Perennials

Asparagus -Cut to 2 inch stubs after frost, Add 4 to 6 inches mulch



Rhubarb - Top dress with composted manure



Strawberries - Mulch with straw or organic materials 4" deep after soil freezes



Raspberries/blackberries - In winter, remove floricanes which have borne fruit



Blueberries - Protect with pine bark mulch, rotted sawdust, or compost around the base of the bush



Perennials to cut back

- Don't be in a hurry to rush outside and cut plants back. Unless the plant is diseased or infected, wait until several hard frosts have killed back the tops.
- Leave about two inches above the soil to mark its location.
 - This is especially important for plants that emerge late such as butterfly weed (*Asclepias tuberosa*), rose mallow (*Hibiscus moscheutos*), and balloon flower (*Platycodon grandiflorus*). You will be less likely to dig into them accidentally before they appear in spring if you can see a portion of their stalks. Bypass pruners are preferred because they make a clean cut through the stem of the plant. Hedge clippers work fine, but for a large planting, but try a power hedge trimmer for efficiency.
- In the spring, the plant sends up energy from its roots to produce beautiful foliage and blooms. Allow the roots time to reclaim that energy from the dying plant, keeping it strong for re-emergence in the spring.
- For many perennials, leaving plant tops over winter is fine and may be preferable. Where seasons are short, gardeners have more time for cleanup chores in autumn. There's something very satisfying about making an early start on next year's garden.

Perennials to cut back

- Cut back plants with disease or insect pest problems to reduce the chance of infection the following season.
- Bee balm (*Monarda*) and phlox (*Phlox paniculata*) with powdery mildew are examples.
- Remember to destroy, not compost, diseased stems and leaves.
- It is important to cut back **hostas** and remove all their leaves from the ground as soon as the frost takes them. Dead hosta leaves harbor slug eggs that will hatch and ruin next year's greenery.
- Cut back plants with browning or blackened foliage and bare stalks that don't add anything visually to the winter garden: peonies (*Paeonia*), daylilies (*Hemerocallis*), brunnera (*Brunnera macrophylla*), and speedwell (*Veronica*) for example.
- Late in the season some plants, including yarrow (*Achillea*), Shasta daisy (*Leucanthemum × superbum*), and globe thistle (*Echinops*), grow new basal leaves. Cut off the stalks without disturbing this new growth.

Perennials to leave standing - that add interest to the winter landscape

- During a snowy winter, some plants provide stunning interest in the form of height and structure.
- Not only evergreens and the skeletons of shrubs but also grasses and standing perennial seedpods display beautiful winter artistry.
- Ornamental grasses are most dramatic in the winter landscape with their tall plumes. Consider switch grass (*Panicum*), zebra grass (*Miscanthus sinensis* 'Zebrinus'), and feather reed grass (*Calamagrostis*). Leave them standing until spring then cut them back before the new shoots appear.
- Siberian iris (*Iris sibirica*) and blue false indigo (*Baptisia australis*) have interesting elongated black seedpods that stand out against the snow.
- Allow the seeds of sedum 'Autumn Joy' (*Sedum spectabile* 'Autumn Joy') and Joe Pye weed (*Eutrochium purpureum*) to display their large, round lacy globes all winter long.



Perennials to leave standing

Perennials that provide food for birds.

- Many birds rely on the seed heads of dried perennials for food. It is un-common to see goldfinches in a stand of purple coneflower (*Echinacea purpurea*) enjoying the seed treats.
- The seeds of black-eyed Susan (*Rudbeckia*) and oxeye sunflower (*Heliopsis helianthoides*) are other favorites. In addition, overwintering birds find protection in plant stubs and ground covers.



Perennials to leave standing

Low-growing evergreen or semi-evergreen perennials.

- There is no need to cut back hardy geraniums, heucheras, hellebores, dianthus and moss phlox. Tidy them in the spring as needed.



Perennials needing protection.

Don't cut back marginally hardy perennials like garden mums (*Chrysanthemum* spp.), anise hyssop (*Agastache foeniculum*), red-hot poker (*Kniphofia uvaria*), and Montauk daisy (*Nipponanthemum nipponicum*). They are more likely to survive the cold of winter if you leave their tops to collect leaves and snow for insulation and moisture.

Perennials to leave standing

Perennials that help beneficial insects in winter.

- **Beneficial insects may hide in or near native plants for the winter either as pupae, caterpillars or eggs. The plants provide shelter from their predators such as birds or spiders. Native butterfly, the viceroy, rolls itself in a leaf and drops to the ground where it stays until spring, providing a good reason not to rake plant debris from around your perennials.**



Dividing Perennials

Main reasons for dividing perennials

- 1) Control the size
- 2) Rejuvenate
- 3) Increase their number

-Divide spring and summer blooming perennials in the fall, and fall bloomers in spring. By dividing the plant when it is not flowering, all the plant's energy can go to root and leaf growth.



Division- To separate a clump into individual plants-Used for perennials and some houseplants



Dig up Mother Plant



Clean off root ball



Separate roots to find individual plants and plant



Step 1. Begin by lifting the plants from the ground with a spading fork



Step 2. Remove the soil from the roots and inspect the rhizomes for any signs of rot or borers



Step 3. Discard very old and unhealthy rhizomes. Cut the rhizomes with a knife to an approximate length of a few inches. Allow the freshly cut surface of the rhizome to "suberize". This is the beginning of the healing process and is done by letting the plants stay in the sun for a day or two.



Step 4. Trim the foliage back to about 5 inches and shorten the roots if needed.

<https://extension.umd.edu/hgic/dividing-iris>

Division and Separation

- Division- cutting plants into segments containing a bud and some roots
- Separation used for bulbs, corms, tubers & rhizomes



- **Fall division should take place between early September and mid-to late October. Allow at least four to six weeks before the ground freezes for the plants to become established.**
- **If you divide in the spring, allow enough time for roots to settle in before hot weather. Spring division is ideally done in the early spring as soon as the growing tips of the plant have emerged. Spring divided perennials often bloom a little later than usual.**
- **Never divide perennials on hot, sunny days. Wait until a cloudy day, ideally with several days of light rain in the forecast.**
- **Most perennials should be divided every three to five years. Some perennials such as chrysanthemums and asters may need to be divided every one or two years or they will crowd themselves into non-flowering clumps of leaves and roots.**
 - **Bleeding hearts and peonies may never need to be divided unless you want to increase your stock.**
- **Signs that perennials need dividing are flowers that are smaller than normal, centers of the clumps that are hollow and dead, or when the bottom foliage is sparse and poor. Plants that are growing and blooming well should be left alone unless more plants are wanted.**

Perennials that can be divided in the fall include:

- *Achillea* – Yarrow
- *Aconitum napellus* – Monkshood
- *Alchemilla mollis* – Lady's mantle
- *Asarum europaeum* – European ginger
- *Asarum canadense* – Wild ginger
- *Aster frikartii* – Aster
- *Aubrieta deltoidea* – False rock cress
- *Aurinia saxatilis* – Basket-of-gold
- *Campanula persicifolia* – Bellflower
- *Centaurea montana* – Perennial bachelor's button
- *Heuchera* sp. – Coral bells
- *Hosta* sp. – Hosta
- *Tall Phlox* (*Phlox paniculata*)*
- *Jacob's Ladder* (*Polemonium*)*
- *Lungwort* (*Pulmonaria*)*
- *Siberian Iris* (*Iris siberica*)*

Divide Late Summer or Early Fall

- Asiatic Lily (Lilium)
- Bearded Iris
- Peony (Paeonia) (divide infrequently)



Do Not Divide

- Baby's Breath (Gypsophila)
- False Indigo (Baptisia)
- Balloon Flower
(Platydocon)
- Flax (Linum)

- Lupine (Lupinus)
- Butterfly Weed (Asclepias)
- Monkshood (Aconitum)
- Clematis
- Russian Sage (Perovskia)
- Poppy

Divide Only to Propagate

- Bugbane
(Cimicifuga)
- Tall Sedum (Sedum
"Autumn Joy")
- Garden Peony
(Paeonia)
- Yucca
- Red-Hot Poker
(Kniphofia)

When should you dig summer flowering bulbs?

dahlias, tuberous-rooted begonias, calla, and gladiolus flower



Fall – after the first frost has killed the foliage

Reminders for “Putting the Garden to Bed”

- Remove dead branches from woody perennials (including roses) and fruit trees (no pruning yet).
- Gather scion wood for next spring grafting- store in refrigerator crisper.
- Mow tall grasses around the garden and use them to mulch the ground to prevent erosion.



- Wind, snow and ice can damage arborvitae, juniper, some varieties of hydrangea & yew branches.



Burlap wind screen for deciduous plants

- Prevent breakage by tying heavy twine to the base of the tree and spiral it around and upward to the top and back down in reverse.

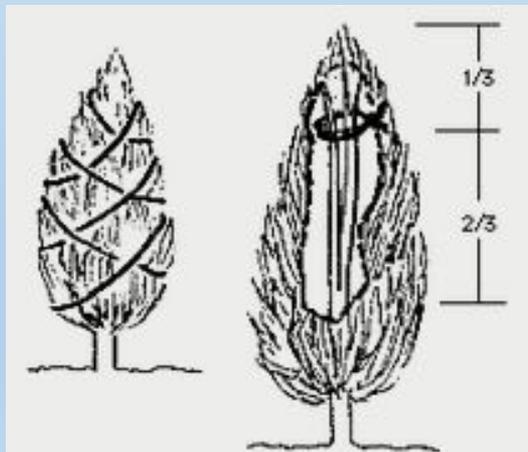


Figure 3. Protecting trees from snow or ice-damage.

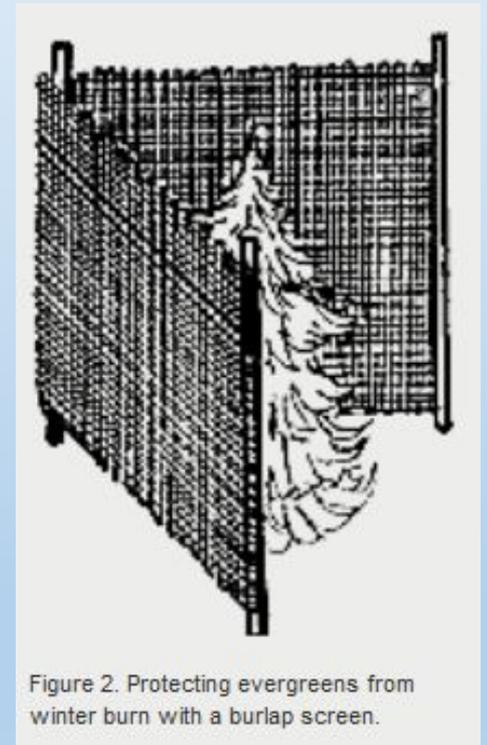
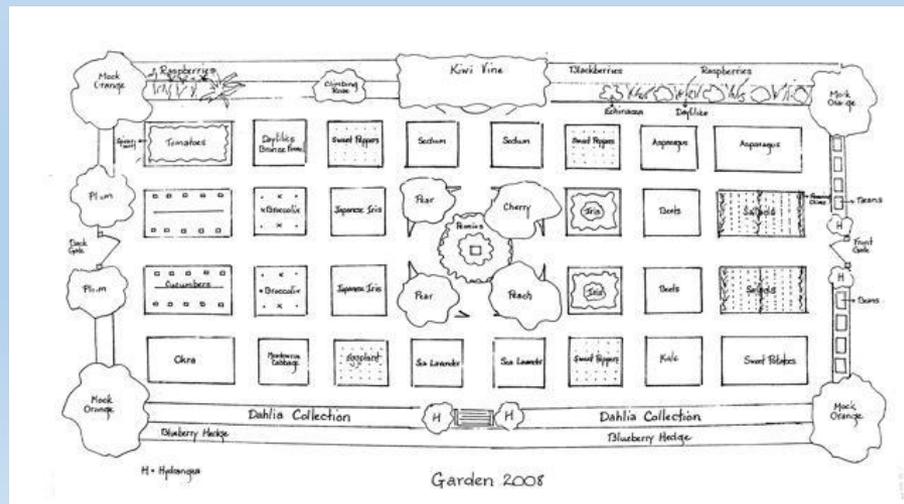


Figure 2. Protecting evergreens from winter burn with a burlap screen.

- **Bring** in houseplants and herbs that have summered outdoors.
- **Build** a simple compost bin
- **Protect** ornamentals such as azaleas and berry bushes from bud-eating deer with deer netting.
- **Sterilize** tomato cages and other reusable supports (1/2 cup bleach to 1 gal. water)
- **Enter notes in your garden journal and begin to plan next year's garden!**



Plant spring bulbs. Including garlic!

Bulb is a term loosely used to include corms, tubers, tuberous roots, and rhizomes as well as true bulbs. They are broadly grouped into spring flowering (January to May) and summer flowering (June to September). Spring bulbs provide early color before most annuals and perennials bloom.



You should avoid planting bulbs in

thin

narrow

rows

Flowering Bulbs	Recommended planting depth from tip to soil surface (inches)	Minimum Spacing (inches)	Bloom Time	Deer-Resistant
Snowdrops - <i>Galanthus</i>	3-4	3	Early spring	X
Windflowers - <i>Anemone</i>	2-3	2-4	Early spring	
Crocus	4	4	Early spring	X
Scilla	4	4	Early spring	X
Tulips- early	6	6	Early spring	
Daffodils	6-7	6-8	Spring	X
Grape Hyacinth	4	3-4	Spring	X
Tulips	5	6-8	Spring	
Fritillaria	3	6-8	Spring	X
Hyacinth	4	6-8	Spring	
Tulips- late	7	6-8	Late spring	
Dutch Iris	4	4-5	Late spring	X
Allium	1-2	6-8	Late spring/summer	X
Giant Allium	2-3	12-18	Late spring/summer	X

LEAVES ARE NOT LITTER

THEY 'RE FOOD AND SHELTER FOR
BUTTERFLIES, BEETLES, BEES, MOTHS, AND MORE.
TELL FRIENDS AND NEIGHBORS TO JUST

#LEAVETHELEAVES



xerces.org

Fall Decorating



Item to Dry for Fall Arrangements

- Wheat
- Sunflowers
- Grapevine (wreaths and garland)
- Hydrangea
- Chinese Lanterns
- Roses
- Strawflowers
- Ornamental Grass Plumes
- Seed Pods
- Teasel
- Pine Cones
- Cattails
- Silver Dollars



Harvesting Pumpkins/Gourds

- Harvest in September or October before heavy frosts hit the planting area. The rinds need to be hard and firm for pumpkins to store well.
- Use a sharp knife or pruning shears to cut them from the vines,
 - Leave 3 to 4 inches of stem attached to each fruit.
- Try to avoid cutting or bruising the fruit.



Storage and Preservation

Store in a dry area that stays between 50 and 55 degrees F. If they ripen well before Halloween you can wash them with a weak bleach solution (1 TBS. mixed in 16 oz. of water), rinse with water, and store them in your basement on a pallet or platform that allows air to circulate around the fruit.'



If you want your pumpkin to have multiple uses, you can first paint a funny face on it for a decoration using non-toxic paints. After the holiday, you can wash and cook it.

Choosing Pumpkins for Cooking

- Choose a small pumpkin that weighs between two and six pounds.
- “Pie pumpkin” or “sweet pumpkin” is a good choice, but the jack-o-lantern variety also works just fine for eating.
- Look for a pumpkin that has one or two inches of stem left. Pumpkins with shorter stems decay more quickly.
- Choose a pumpkin that has a rich orange color with skin that cannot be easily broken or scratched by your fingernail.
- For every pound of whole pumpkin, you can expect to get one cup of pumpkin puree.



Roasting Pumpkin Seeds

Wash the seeds in warm water and spread them out to dry. To roast, spray pan with oil and spread seeds thinly on the pan. You can sprinkle the seeds with salt or any seasoning that appeals to you (such as cheesy popcorn or Cajun seasoning). Bake in a 250 degree oven for 15-20 minutes





Fall is not the end of the gardening year; it is the start of next year's growing season.

Resources

<https://extension.umd.edu/sites/default/files/2021-02/Native%20Plant%20Seed%20Saving%20Resources.pdf>

<https://pleasantvalleyconservancy.org/pdf/seedcollectingspecies.pdf>

<https://extension.umd.edu/sites/default/files/2021-02/Native%20Plant%20Seed%20Saving%20Resources.pdf>

http://extension.oregonstate.edu/deschutes/sites/default/files/Bulbs_care-H22806_0.pdf

<https://www.todayshomeowner.com/help-for-fading-fall-mums/>

<http://news.aces.illinois.edu/content/dividing-perennials-fall>

<https://extension.oregonstate.edu/node/82586>

<https://extension.umd.edu/hgic/flowers/bulbs>

<https://www.extension.umn.edu/garden/yard-garden/flowers/dividing-perennials/>

<http://extension.psu.edu/plants/gardening/news/2016/cutting-down-perennials-in-the-fall>

<http://www.clemson.edu/extension/hgic/plants/pdf/hgic1150.pdf>

<http://www.clemson.edu/extension/hgic/plants/landscape/flowers/hgic1150.html>

<http://web.extension.illinois.edu/ccdms/yg/090831.html>

<http://extension.missouri.edu/explorepdf/agguides/hort/g06610.pdf>



Questions?