

Beautify with Bulbs

Jennifer Friend, WVU Extension Agent — Harrison County

Educational Objectives

- Participants will be able to use general care practices to get the most of their bulb plantings.
- Participants will learn to select ideal sites for planting bulbs in their home gardens and flower beds.
- Participants will be able to appropriately store hardy and tender bulbs and select high-quality bulbs.
- Participants will be able to identify types of bulbs.

Spring brings new blooms of daffodils, crocuses, tulips, hyacinths, and more, making it a favorite time of year for many. You might ask, “How do you grow these beautiful blooms?” It starts with understanding the life cycle of these plants.

Bulb is the broad term applied to plants that develop underground storage organs to ensure their survival. Botanically speaking, bulbs are modified stems that cradle a bud with fleshy leaves. The term is used loosely, as there are several types of bulbs that can be further divided into hardy bulbs that bloom January through May, and tender bulbs that bloom June through September. Most tender bulbs will need to be dug up and stored indoors as they cannot handle the cold West Virginia winter.



Types of Bulbs

- **True Bulb:** A true bulb is made up of modified leaves known as scales, which protect the main growing points in the middle and provide nutrition for the plant. Examples of true bulbs include tulips, daffodils, Asiatic lilies, and onions or allium.
- **Corm:** A corm is a modified stem that helps store food for the plant. Some have a fuzzy or hairy exterior. Examples of corms are crocuses, gladioluses, and freesias.
- **Tuber:** The most recognizable tuber is the potato. A tuber is an underground stem that stores food for the plant but does not serve as the base of the plant. Tubers have multiple “eyes” that serve as the growth point where shoots will emerge. Other examples of tubers include tuberous begonias and cyclamen.

– continued –

- **Tuberous Roots:** Tuberous roots are the only true “root” in the bulb group. This means that they store food in root tissue instead of stem or leaf tissue. Daylilies, dahlias, and sweet potatoes are all examples of plants that have tuberous roots.
- **Rhizome:** Rhizomes are elongated, thick stems that grow horizontally underground, parallel to the soil surface. They have nodes, short internodes, and axillary buds. They develop roots from the bottom of the nodes and the new upright growth develops from the top of the node. The new rhizome starts from the axillary bud.

It is not to be mistaken for a stolon, which grows horizontally but on top of the ground and is referred to as a runner. A stolon initiates from an existing stem. Rhizomatous plants include asparagus, hops, ginger, turmeric, bearded iris, lily of the valley, canna, calla lilies, and mint.

Planting and Bulb Care

Bulbs are easy to care for. For hardy bulbs, planting them at the appropriate depth is key. Tender bulbs are more demanding. Harsh winter temperatures are detrimental to their survival, so they must be dug up in the late fall then planted in the spring for full appreciation and enjoyment.

Selection and Storage

Bulbs are best purchased from reputable dealers. When shopping for bulbs online or out of a catalog, it is important to check the reviews before purchasing. When getting bulbs from someone willing to share or from a store, select bulbs that are plump, firm, and have no blemishes. Avoid any damaged, soft, or moldy bulbs. If you cannot plant them right away, store them in a cool, dry place at 60 to 65 F until planting. Store rhizomes, tubers, and tuberous roots in peat, perlite, or vermiculite to prevent decay.

Prepare tender bulbs for storage by removing the soil and rinsing, unless they will be stored in

a pot. Spread the bulbs in a shaded place to dry and cure for 1 to 3 days. Once they are dry, store at 60 to 65 F in an area that allows air to circulate around the bulbs. Soil removal from begonias, canna, caladium, and dahlias is not necessary. It is enough to just separate them before planting.

Site Selection

When selecting a site for any plant, the most important considerations are light, soil texture, and overall goals for the area. Most bulbs thrive in full sun where they will receive at least 5 to 6 hours of direct sun per day. For bulbs that are left in the ground year-round like crocuses, tulips, or Asiatic lilies, plant them in an area where they will receive 8 to 10 hours of direct sun, ensuring more blooms.

One of the most crucial factors is soil texture and drainage. Most bulbs will not perform well if planted in wet soil. It is a good idea to wait until the soil is fairly dry because tightly packed wet soil may reduce growth.

When planting your bulbs, work the soil 8 to 12 inches deep and mix in organic matter. Set the bulbs upright in the hole and cover. Be sure to follow the guidance on the package to determine the planting depth. As a rule, bulbs should be planted one-half to three-times the bulb’s diameter. As mentioned previously, bearded iris should be planted just below the soil surface with the top of the rhizome node sticking above the soil or mulch.

General Care

Once flowers fade, deadhead the blooms to prevent seed from forming and taking energy away that can be stored in the bulb. If you are planning to leave the bulbs in the ground, wait until the leaves turn yellow and wither to trim. The green leaves continue to photosynthesize and produce food to store in the bulb, helping them survive the winter and have a good start in the spring.



Hardy Bulbs Plant	Planting Time/ Depth	Tender Bulbs Plant	Planting Depth/ Time
Allium	Fall, 6 inches	Tuberous Begonia	After last frost, 2 to 3 inches
Asiatic Lily	Fall/Spring, 6 inches	Canna Lily	After last frost, 4 to 6 inches
Bearded Iris	Fall, bottom half in soil	Calla Lily	After last frost, 3 to 4 inches
Crocus	Fall, 3 inches	Caladium	When soil reaches 60 degrees, 2 to 3 inches
Crocsmia	Spring, 2 to 4 inches	Dahlia	After last frost, 6 inches
Daffodils	Fall, 6 inches	Elephant Ear	After last frost, 4 to 6 inches
Dutch Iris	Fall/Spring, 4 inches		
Fritillaria	Fall, 6 to 8 inches		
Hyacinth	Fall, 6 inches		
Peony	Fall/Spring, 1 inch		
Snowdrops	Fall, 1 to 2 inches		
Tulips	Fall, 2 to 4 inches		

Source: brecks.com

If you plan to move bulbs or separate them, dig once the foliage has faded, then separate and plant the bulbs in the fall. If your bulbs are not blooming as profusely as you would like, consider the environmental factors such as lighting and soil texture. If you have a big clump of daffodils, for example, you may need to separate them to prevent overcrowding and increase bloom number.

Activity:

Lasagna Container

Not up to planting bulbs in the ground? Many bulbs will perform well in containers if space is limited. A method for growing bulbs in containers is the lasagna method. The lasagna method is used primarily with hardy spring bulbs and uses their bloom times to create a container that has blooms throughout the spring season.

When using the lasagna method, follow the planting depth directions on the package, and start with large, late-blooming bulbs at the bottom. A good option is to start with allium. Begin by placing a 1 to 2-inch layer of soil at the bottom of the pot, then place your allium bulbs. Cover that layer with a second 1 to 2-inch layer of soil and continue until you have three to four layers of bulbs. If you are planting in a container, keep the container in a protected area such as a porch all winter.

Recommended Lasagna Container Recipe:

- Use a large container, at least 8 inches in diameter and 6 inches deep.
- 4 to 6 allium bulbs
- 4 to 6 hyacinth bulbs



- 8 to 10 crocus bulbs
- High-quality potting mix

Directions

1. Fill the bottom of the container with at least 1 to 2 inches of potting mix.
2. Place your allium bulbs with about 1 inch between them. Be sure to place the pointed end up.
3. Fill with 1 to 2 more inches of soil, being sure there is soil around the allium bulbs and adequate space above them.
4. Place the hyacinth bulbs, alternating so they are not directly on top of the allium bulbs.
5. Complete step 3 again.
6. Place the crocus corms, alternating so they are not directly on top of the hyacinth bulbs.
7. Complete step 3 again, being sure that there is 1 to 2 inches of soil on top of the crocus corms.
8. Place in a protected area outdoors, such as a porch or patio that is under a roof. Excess moisture may cause the bulbs to rot.

Resources

Faulkner, C. (2016, November 25). Understanding bulbs. ANR Blogs. Retrieved from <https://ucanr.edu/blogs/blogcore/postdetail.cfm?postnum=22668>.

Meyer, M. H. (2018). Planting bulbs, tubers and rhizomes. UMN Extension. Retrieved from <https://extension.umn.edu/how/planting-bulbs-tubers-and-rhizomes#purchasing-bulbs-1410660>.

Sandborn, D. (2022, January 21). Planting bulbs, lasagna style. 4-H Plants, Soils & Gardening. Retrieved from <https://www.canr.msu.edu/news/planting-bulbs-lasagna-style>.

WVU Extension Master Gardener Manual, chapter XIX, pg. 24-27. Herbaceous Plants.2025

2025

WVU is an EEO/Affirmative Action employer — Minority/Female/Disability/Veteran.

In accordance with federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, West Virginia University is prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA.

Reasonable accommodations will be made to provide this content in alternate formats upon request. Contact the WVU Division for Land-Grant Engagement Communications at 304-293-4222. For all other ADA requests, contact Division of Diversity, Equity and Inclusion at ada@mail.wvu.edu or 304-293-5600

