Forcing Bulbs for Winter Enjoyment

Many different types of bulbs can be forced in winter for enjoyment throughout the season. Before proceeding, let’s discuss the word “bulb.” Bulb is used as a common term for a wide array of popular plants, which include daffodils, crocus, hyacinths, and tulips. In botanical terms, there are true bulbs (daffodils and tulips), corms (crocus and gladiolus), rhizomes (canna and iris), tubers (anemone and caladium), and tuberous roots (dahlia and ranunculus).

There are two different types of bulbs to consider for indoor enjoyment, those that require a cold period before blooming (daffodils, crocus, hyacinths, and tulips) and bulbs that do not need a cold treatment (amaryllis and paper white narcissus).

For the bulbs that require cold treatment, you can either purchase pre-cooled bulbs (available at big box stores and garden centers) or you can provide the treatment yourself. Choose a container that will provide at least 2-inches of room below the bulb for root formation, this means the container size can vary depending on the bulbs being forced. A shallower container can be used for crocus but a deeper container must be used for daffodils or tulips. Any well-draining potting mix can be used to fill the container; leave a ½ inch between the top of the soil and the containers’ rim to allow for watering. Bulbs like daffodils, hyacinths, and tulips can be planted in the container as you would in the ground or you can leave the tips exposed.

### Table 1: Bulb Times for Forcing

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Cooling Time (Weeks)</th>
<th>Bloom Time After Cooling (Weeks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amaryllis</td>
<td>Hippeastrum species</td>
<td>0</td>
<td>6 – 8</td>
</tr>
<tr>
<td>Crocus</td>
<td>Crocus species</td>
<td>12 – 14</td>
<td>2 – 3</td>
</tr>
<tr>
<td>Daffodil</td>
<td>Narcissus species</td>
<td>13 – 15</td>
<td>3 – 4</td>
</tr>
<tr>
<td>Hyacinth</td>
<td>Hyacinthus orientalis</td>
<td>10 – 13</td>
<td>2 – 3</td>
</tr>
<tr>
<td>Paper White Narcissus</td>
<td>Narcissus tazetta</td>
<td>0</td>
<td>5 – 6</td>
</tr>
<tr>
<td>Tulip</td>
<td>Tulipa species</td>
<td>14 – 20</td>
<td>2 – 3</td>
</tr>
</tbody>
</table>
bottom layer of tulips, followed by a layer of hyacinths, finished with a top layer of crocus; making sure to place a one-inch layer of soil between each layer. The combinations of color and diversity of form can be endless, so be creative! After your bulbs are potted up you can let nature apply the cooling treatment or place them in an indoor place that keeps a consistent temperature between 35 - 55˚F; refer to table 1 for cooling requirements.

After the cooling treatment the container should be placed in a warm place, 60 - 65˚F, in a south or west facing window. Rotate the container on a weekly basis to prevent stretching of the foliage and water as necessary.

Flower buds should be visible three to four weeks later, at which point the container can be moved to a table or anywhere else where you want to enjoy the blooms. Bulbs that do not require cooling like amaryllis and paper white narcissus, along with pre-cooled bulbs can be planted in late October and every two weeks after if you want to enjoy blooms throughout winter.

For more information, please view the following article or contact your local extension office:


**Propagation: Stem Cuttings**

Taking stem cuttings is one of the most common methods of propagation for many types of plants, including houseplants, annuals, and many woody plants. Most can be taken in summer and fall depending on the species; some shrubs and trees root better when cuttings are taken in winter. Most commonly grown houseplants and shrubs are easy to root but trees are usually more finicky. Some easily rooted tree species include birch, crape myrtle, and elm.

Stem cuttings are classified as herbaceous, softwood, semi-hardwood, and hardwood. These terms refer to the growth stage of the plant during which time the cutting was taken. Herbaceous cuttings are taken from non-woody plants such as coleus, chrysanthemums, and dahlias. Softwood cuttings refers to the soft, new growth of woody plant species before it matures. This type of growth is common in May, June, or July. The partially mature wood of the current season’s growth is referred to as semi-hardwood. These types of cuttings are usually taken from mid-July to fall. Many broadleaf evergreens (camellias, hollies, magnolias, etc.) and conifers (hemlock, juniper, mugo pine, etc.) can be propagated at this stage. Hardwood cuttings are taken from dormant stems in late fall, winter, or early spring. This type of cutting is successfully rooted from deciduous shrubs (forsythia, privet, fig, grape, etc.) and some conifers (fir, spruce, white pine, etc.).
Most plants either root at a node (point on a stem where leaves are attached and buds form), between the buds (internodes), or on both types of tissues. Two types of cuttings can be taken from the previously described growth stages; tip cuttings and stem-section cuttings. Tip cuttings are usually two to six inches long and include the terminal growth bud. Stem-section cuttings do not include a terminal bud and are cut above a node and below a node. The lower two or three leaves should be removed and dipped in rooting hormone (found at big box stores, garden centers, and hardware stores). After application of the rooting hormone, a hole should be made with a pencil or your finger in the potting soil. Firm the potting soil around the cutting after placement in the hole. The cutting should then be covered with a plastic bag or milk carton to insure high humidity. Some plants root very quickly (within a couple weeks) but others might take months. Gently tug on the cutting to determine if roots are present. Taking cuttings requires practice and patience but can lead to many new plants!

For more information, please view the following articles or contact your local extension office:


**Successfully Move Houseplants Indoors and Outdoors**

Most houseplants benefit from being placed outside during summer (Figure 3); fuzzy leafed plants like African violets are the exception because of humidity related disease issues. After a happy summer outdoors, you will need to slowly acclimated the plants to life indoors. Low temperatures in the 50°F range

Figure 2. Tip cuttings and stem-section cuttings. VCE Publication 426-002

Figure 3. Christmas cactus grown outside in the summer; blooming in late November. Photo by Shawn Appling

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signal the start of the transitioning process.

A slow transition should be started from direct sunlight to light shade to full shade. This process will give the plant time to adjust to lower light levels; this process should be started at least a few weeks before the first killing frost. During this time, it is a good idea to check for insect pests on the foliage and in the potting soil. The foliage can be rinsed with water and then sprayed with insecticidal soap to kill insects and spider mites. The insecticidal soap may need to be applied a couple times throughout the winter to keep spider mites under control. The warm, dry conditions inside are the perfect environment for spider mite development and can be very devastating to many plants. Plants should be placed in bright light in either a south or west facing window. Supplemental compact fluorescent or LED lights can be used if the inside conditions are too dark.

After the long, dark winter is over and the last hard frost date has passed, plants can be transitioned back outside. This process is essentially a reverse of the steps described earlier. Plants should be placed in full shade, then to light shade, and finally to full sun. Most foliage plants grow better in light shade conditions. Cacti, citrus, and succulents (Figure 4) prefer full sun and will grow beautifully during the warm, sunny days.

For more information, please view the following articles or contact your local extension office:


**Exciting Plants: Camellias**

Camellias are beautiful, evergreen shrubs that can be used as specimen plants, in shrub borders, or as an effective screen. *Camellia japonica*, *C. oleifera*, *C. hiemalis*, *C. sasanqua*, and their numerous hybrids are commonly grown in gardens. They originate in Asia, mainly China, Japan, and Korea. Camellias...
are long lived plants that can live hundreds of years. Plants around the Japanese imperial palace are believed to be around 500 years old.

Flower color ranges from white (Figure 5), pink, red, and bicolor (Figure 6). Camellias exhibit different flower forms, which are classified as single, semi-double, anemone, peony, rose form double, and formal double. The time of the year that these flower colors and forms are available for enjoyment, varies from October (C. oleifera, C. hiemalis, and C. sasanqua) through to April (C. japonica) depending on the species and cultivar selected. Some cold hardy cultivars to consider include: C. sasanqua x C. oleifera ‘Survivor’, C. japonica ‘Korean Fire’, C. japonica ‘Kumasaka’, C. japonica ‘Maidens of Great Promise’, C. japonica ‘Pink Perfection’, and C. japonica ‘White Empress’. A series of camellia hybrids labeled the “Winter’s” series were bred for cold hardiness (more information can be found in the Manual of Woody Landscape Plants). With proper cultivar selection blooms can be a delight to the eye and a respite to the soul from fall to spring, brightening even the darkest days of winter.

For more information, please view the following articles or contact your local extension office:


Events of Interest

- Private Pesticide Applicator Recertification Course on December 15th: Jeffersonton Community Center, Jeffersonton, VA; For more information, please contact VCE – Culpeper (540) 727-3435
- Pesticide Applicator Certification Preparation Course - Private Applicator, Registered Technician, and Commercial Category 1A (only taught on Madison County date) - December 16th (Manassas, VA) and December 20th and 21st (Madison, VA): For more information, please contact VCE – Prince William County (703) 792-6285, jennifg@vt.edu (Manassas Course Questions); or VCE-Greene (540) 985-8236, susanh56@vt.edu (Madison Course Questions)
• 2017 Extension Master Gardener Training for Culpeper, Greene, Madison, and Orange Counties, starting January 11th: For more information, please contact VCE - Culpeper (540) 727-3435 Ext. 355, ashawn6@vt.edu; or VCE - Greene (434) 985-5236, seweaver@vt.edu
Please Plan to Attend One of the Following Orientations if you are Interested:
Wednesday Nov 30th VCE - Culpeper
Thursday Dec 1st VCE - Madison
Tuesday Dec 13th VCE - Greene
Wednesday Dec 14th VCE – Orange
All orientations begin at 11 am

• Virginia Horticultural Foundation’s Home Gardener Day on January 16th 2017: Founders Inn & Spa, Virginia Beach, VA; For more information, please visit their website http://www.homegardenerday.org/
• Mid-Atlantic Horticultural Short Course on January 16th – 20th 2017: Founders Inn & Spa, Virginia Beach, VA; For more information, please visit their website http://www.mahsc.org/

Recipe of the Season
Old Fashioned Pumpkin Pie
(courtesy of Simply Recipes and Brenda Watkevich)
Ingredients:
• 2 cups pumpkin pie puree – canned or fresh
• 1: 12 oz. can of evaporated milk
• 1 cup of sugar
• ½ teaspoon of salt
• 3 large eggs
• 1 tablespoon pumpkin pie spice
• 1: 8-inch pie crust

Mixing it all Up:
Mix the eggs in a bowl and then add the pumpkin pie spice, salt, and sugar to the eggs. The pumpkin puree can then be added to the egg mixture, stirring them together. The final addition is the can of evaporated milk which should be stirred in before pouring the delicious mixture into the pie crust. Bake at 450°F for 15 minutes and then lower the temperature to 350°F for an additional 45 to 55 minutes. A knife placed in the middle of the pie should come out clean, when the pie is ready to be consumed by your hungry guests.

For more information, please view the following article:
Turkey Basics: Safe Thawing

"The Big Thaw"

Turkeys must be kept at a safe temperature during "the big thaw." While frozen, a turkey is safe indefinitely. However, as soon as it begins to thaw, any bacteria that may have been present before freezing can begin to grow again.

A package of frozen meat or poultry left thawing on the counter more than 2 hours is not at a safe temperature. Even though the center of the package may still be frozen, the outer layer of the food is in the "Danger Zone" between 40 and 140 °F — at a temperature where foodborne bacteria multiply rapidly.

There are three safe ways to thaw food: in the refrigerator, in cold water, and in the microwave oven.

Safe Methods for Thawing

Immediately after grocery store checkout, take the frozen turkey home and store it in the freezer.

Frozen turkeys should not be left on the back porch, in the car trunk, in the basement, or any place else where temperatures cannot be constantly monitored.

Refrigerator Thawing:

When thawing a turkey in the refrigerator:
- Plan ahead: Allow approximately 24 hours for each 4 to 5 pounds in a refrigerator set at 40 °F or below.
- Place the turkey in a container to prevent the juices from dripping on other foods.

Refrigerator Thawing Times

<table>
<thead>
<tr>
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</tr>
</thead>
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</tr>
<tr>
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<td>3 to 4 days</td>
</tr>
<tr>
<td>16 to 20 pounds</td>
<td>5 to 6 days</td>
</tr>
<tr>
<td>20 to 24 pounds</td>
<td>6 to 7 days</td>
</tr>
</tbody>
</table>

Cold Water Thawing

Allow about 30 minutes per pound.

First be sure the turkey is in a leak-proof plastic bag to prevent cross-contamination and to prevent the turkey from absorbing water, resulting in a watery product.

Submerge the wrapped turkey in cold tap water. Change the water every 30 minutes until the turkey is thawed. Cook the turkey immediately after it is thawed.

Cold Water Thawing Times

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</tr>
<tr>
<td>12 to 16 pounds</td>
<td>6 to 8 hours</td>
</tr>
<tr>
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</tr>
<tr>
<td>20 to 24 pounds</td>
<td>10 to 12 hours</td>
</tr>
</tbody>
</table>

A thawed turkey can remain in the refrigerator for 1 or 2 days before cooking. Foods thawed in the refrigerator can be refrozen without cooking but there may be some loss of quality.

Microwave Thawing

Follow the microwave oven manufacturer's instruction when defrosting a turkey. Plan to cook it immediately after thawing because some areas of the food may become warm and begin to cook during microwaving. Holding partially cooked food is not recommended because any bacteria present wouldn't have been destroyed.

A turkey thawed in the microwave must be cooked immediately.
Fix It Safe

CLEAN
- Wash hands and all equipment, counters, cutting boards, dishes and utensils with hot soapy water.
- Make sanitizing solution by mixing 1 tablespoon chlorine bleach to 1 gallon warm (not hot) water.
- Sanitize all kitchen surfaces after cleaning.

SEPARATE
- Keep meat separate from other foods when shopping.
- Use a separate cutting board for meats and vegetables (or use different sides of the same cutting board).
- Always wash hands, cutting boards and all utensils after coming in contact with raw meat, poultry, or fish.

COOK
- Cook meats, poultry, eggs, fish, and shellfish thoroughly.
- Reheat leftovers until steaming hot.
- Bring sauces, soups, and gravies to a boil when reheating.

CHILL
- Refrigerate foods quickly. Do not leave food out more than one hour if the temperature outside is 90°F or hotter.
- Thaw meats on the bottom shelf on a plate in the refrigerator. Never thaw meats on the counter.

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