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G74-188 Amaryllis Culture

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Amaryllis Culture

The hybrid amaryllis (*Hippeastrum*) is a tender bulb easily grown in pots. Amaryllis is prized for its huge showy flowers ranging from scarlet or crimson to white in color, and often striped or mottled.

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The hybrid amaryllis (*Hippeastrum*) is a tender bulb easily grown in pots. Amaryllis can be grown outdoors throughout the year in mild climates, but must be grown indoors in Nebraska except during the warm summer months. Amaryllis is prized for its huge showy flowers ranging from scarlet or crimson to white in color, and often striped or mottled. Most amaryllis are Dutch or African hybrids selected for flower size, color and ease of forcing. The usual flowering season is from February to April. The foliage grows during spring and summer, ripening early in the fall if temperatures are low and the soil is allowed to dry out. The bulb normally remains dormant until late winter (December or January).



(Photo courtesy Florida Agricultural Information Retrieval)

The preferred soil mix for amaryllis is high in organic matter such as two parts of loam soil to one part of perlite to one part of well rotted manure. If manure is not available, another source of organic matter, such as peat, leaf mold, composted bark or wood, or compost, may be used.

Five- to 6-inch pots are suitable, but the best size depends on the size of the bulbs which vary considerably. A space of approximately 2 inches between the bulb and the edge of the pot is desirable. Bulbs are usually received early in the winter. They can be potted at once or stored in nearly dry sand until the end of January when growth normally begins. In potting, place the bulb so that only about half of it is below the soil, with the upper part (pointed end) left exposed. Press the soil firmly around the bulb and water thoroughly. Do not water again until the roots are well developed as overwatering can lead to bulb rots. Only when the roots have become well established will the plants need more frequent watering. The foliage is weakened by being forced too rapidly if temperatures are higher than 50° F to 60° F during the period before flowering.

After the flower bulb has emerged, an application of a balanced fertilizer at intervals of 10 days is helpful. A liquid or dry fertilizer can be applied, and either inorganic or organic types are satisfactory for this plant. Be sure to read the label carefully so that you apply the correct amount of that particular fertilizer. Amaryllis will flower 6 to 8 weeks after growth is initiated.

When the flowers have withered, cut the stem off about two inches above the bulb. The growth is most active

during the next two or three months and should be encouraged by ample water and fertilizer. When all danger of frost has passed, the plant may be plunged, pot and all, into the open ground in full sunlight, or it may be grown indoors in a bright location during the summer. Checks in growth during this period interfere with the proper development of the bulb in preparation for next spring's flowers. Gradually decrease watering late in summer when the leaves begin to turn yellow. Allow the soil to become completely dry when the foliage has died back. While in this dormant state, the bulb should be left in the pot and stored in a cool place, preferably at 40° F to 45° F. Turn the pot on its side and do not water during the dormant period.

Reflowering

Since it requires 6 to 8 weeks from the beginning of growth to the production of flowers in amaryllis, you can have an extended flowering period by selecting the time for growth initiation. Begin by starting growth in the first bulbs in January and continue through the latter part of March. Before applying water to the soil in the pot to start the growth, check the pot to see whether repotting is needed. Repotting is required if the bulb has increased so much in size that it is crowding the edge of the pot, or if offshoots have developed. After the bulb is removed from its pot, use a pointed stick to pick out as much of the soil as can be removed without damaging the roots. The bulb with some soil still adhering to its roots is set in a well-drained pot slightly larger than the old root bulb. Offsets or small bulbs should be taken off and potted in 3-inch pots. They will flower in two or three years. When the new leaves and flower spikes begin to show, the temperature may be increased to 75° F. During bloom, cooler conditions will prolong the flowering period.

Propagation

Amaryllis can be propagated by seed, offsets or cuttage. Since seeds do not always produce plants similar to their parents, most named hybrids and selected strains are propagated by cuttage.

Figure 1. Amaryllis bulbs showing mother bulb and offset (left), typical bulb (center), and vertical section showing bracts and basal plate (right).



Seed pods of amaryllis develop rapidly and are mature within 4 to 5 weeks after the flower has been pollinated. Pods should be picked as soon as they turn yellow and begin to break open. Seeds should be removed from the pod, allowed to dry for a few days and planted immediately. The seed bed should be partially shaded, and the media used for seed germination should be well drained. Following germination, increase the light until the plants are receiving full sunlight.

The bulbs may be cut vertically into as many as 60 pieces. Care should be taken that each piece has a portion of the stem tissue or basal plate of the bulb attached to the scales (*Figure 1*). The best time for cuttage is from August to November. The wedges should be dusted with ferbam or thiram to retard diseases and planted immediately in a mixture of peat and sand. Bulbs purchased from garden stores or florists usually flower at Christmas time. These bulbs have been specially treated by the grower to allow for this early flowering. After this initial flowering at Christmas time, the amaryllis will bloom later in the following years. Generally, the earliest flowering occurs in February. However, you should be able to flower them for the Easter season by initiating growth at the proper time.

Diseases

Amaryllis is subject to only a few diseases, but their occurrence can seriously limit production by commercial growers and home gardeners.

Strict sanitation and the discarding of diseased bulbs are basic to the successful culture of amaryllis. If necessary, fungicides can be used to augment sanitary measures. Commercial growers should familiarize themselves with the common disease (*Table I*) and be prepared to act promptly if serious disease problems arise.

Table I. Diseases of amaryllis			
Disease	Symptoms	Conditions favoring disease	Control
Red Blotch or Leaf Scorch: <i>Stagonospora curtisii</i>	As a result of cankers on one side, leaves and flower stalks grow at an angle to the main axis. Young cankers are bright red, but as they elongate the center becomes soft, sunken and brown; dark brown discolored spots develop on flower-stalks and bulb scales; diseased flower. Any bruise to the flower stalk will produce reddening, however, and may not be disease related.	Red blotch is favored by warm, humid conditions.	Discard diseased bulbs; keep air in greenhouse as dry as possible and at a temperature of about 65° F; soak bulbs for 2 hours in formaldehyde solution (1 pint to 12 gal water) provide ample light and keep temperature as low as possible in forcing houses. Amaryllis zineb, ferbam or captan starting with the small leaf stage and stopping at bloom time.
Mosaic: Cucumber Mosaic Virus	Light-green to yellow mottling on leaves; progressive reduction in size of plants, flowers and bulbs each year.		Destroy all infected plants. This disease is transmitted by insects. Practice proper insect control.
Blight: <i>Botrytis cinerea</i>	Blighting of leaves and flowers. Gray mycelia followed by blackening.	Occurs on outdoor plants after they have been chilled.	Remove infected leaves; spray with benomyl.
Bulb Rots: <i>Betroths cinerea</i> ; <i>Rhizopus stolonifer</i> ; <i>Sclerotium rolfsii</i>	Rotting of bulbs and roots.	Planting bruised bulbs and keeping the soil too wet promote bulb and root rot.	Discard diseased and bruised bulbs including the soil immediately surrounding these tissues; treat soil with steam or suitable chemical.

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