



## SELL CUT FLOWERS FROM PERENNIAL SUMMER-FLOWERING BULBS

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Commercial producers of field-grown flower cut flowers generally have a wide selection of crops to sell in April, May and June. Many species of annual and especially perennial cut flowers bloom during these three months. Many flower crops are sensitive to day length. Crops that bloom during long days such as larkspur, yarrow, peonies and gypsophila cannot be made to bloom after the summer equinox on June 21st. Other crops such as snapdragons may be day length neutral but they are adversely affected by the very warm days and nights of mid-summer. It is much more challenging for Virginia cut flower growers to have a diverse selection of flower crops for marketing from July to September when day length is getting shorter and day temperatures are getting hotter. Quite a few growers offer the same inventory of sunflowers, zinnias, celosia and gladiolas during the middle of the summer because everything else has come and gone. A group of plants that may offer new opportunities for sales of cut flowers during mid-summer are summer-flowering bulbs. Many of these summer-flowering bulbs are tropical plants that have only become available in the United States during the last few years.

The first question that growers should ask about any tropical plant recommended for field planting is, "Will this species be winter hardy in Virginia?" Many of the bulb species described in this article are not very winter hardy. Most of them are hardy in zones 7-10. The real secret to successful production of these tropical bulbs is to plant them deep and mulch them heavily in the fall. All of the zone 7-10 bulb species described in this article are hardy in zone 6 and even in zone 5 if they go through the winter under a 12-inch layer of leaves or a 6-inch layer of shredded bark. The mulch will have to be raked back in the spring so new shoots can emerge. These tropical summer-flowering bulbs cannot be planted in the fall or in the early spring. Plant them in May and June after frost when the soil has warmed. The following paragraphs describe the cultural requirements and recommended varieties for some of the most promising summer-flowering bulb species for commercial cut flower sales. All of these species prefer full sun and well-drained soil. All flowering bulbs grow taller and stronger if they are grown in soils that have high levels of organic matter.



Alstroemeria 'Sweet Laura'

Alstroemeria, also known as Peruvian Lily, is a member of the Amaryllidaceae family, native to South America. Although it is commonly grown as a greenhouse florist crop, alstroemeria also thrives outside for field production in zones 7-10. These bulbs can withstand winter temperatures in zone 5 if the bulbs are deeply planted and heavily mulched.

Rhizomes should be planted 18 inches apart or 1 per square foot and four inches deep in May or June. The plants will not bloom until the following year. A very good variety is Sweet Laura. Each plant produces several 28-30 inch stems bearing bright yellow, fragrant flowers from June until frost. These bulbs are reasonable in cost.

Amarcrinum is a cross between *Amaryllis belladonna* and *Crinum moorei*. All members of the Amaryllis family are less susceptible to feeding damage by deer and rodents than other bulb plants. They are relatively pest-proof. Plant one bulb per square foot with the neck of the bulb just above the soil, for beautiful pink, flowers atop 2' to 2 1/2' stems in September of each year. These flowers are very fragrant and long lasting. Mulch them with 12 inches of leaves in October for winter protection. Amarcrinum bulbs are expensive but they grow vigorously and may be dug and divided.



Crinum (Amaryllidaceae) is a large group of majestic true Southern lilies, some growing 8 feet tall. Large Crinum bulbs of certain cultivars may weigh 50 pounds. Like daylilies, Crinum are easily hybridized so many different sizes and colors are now available. As a member of the amaryllis family, crinum has long-lasting, fragrant flowers and is resistant to pest damage. As with other tropical bulbs it should be planted in May or June and heavily mulched for winter protection. Plant one bulb per square foot with the neck of the bulb

just above the soil. 'Bradley' is one of many beautiful varieties that bloom from July to September. Crinum bulbs are expensive but they grow vigorously and may be dug and divided.



Crocoshmia, commonly known as Montbretia, is a member of the Iridaceae family from South Africa. Coveted by florists, these brightly colored flowers bloom along the length of tall, arching spikes, which emerge from handsome clumps of sword like foliage.

Crocoshmia are pest resistant members of the Iris family. As with many summer-flowering bulbs, crocoshmias often wait until the second year after planting to bloom from August and September. Plant corms 2 inches deep and 4 inches apart or 5-10 corms per square foot.

Crocoshmia colors range from bright canary yellows through the oranges to intense red. 'Lucifer' is a brilliant red variety that is hardy to zone 5 and has stems up to 3 feet tall. The cut stems have a long vase life. Crocoshmia bulbs are very affordable.

Hymenocallis, also known as Peruvian Daffodils or Ismene, is another elegant, pest proof, fragrant member of the Amaryllidaceae family from Peru. The flowers have a long cup with projecting stamens above leafless stems, 12 to 24 inches in height. Primary colors are white and yellow. Hymenocallis blooms from mid-June - July. Advance, Sulphur Queen and Zwanenburg are three excellent varieties. Hymenocallis bulbs should be planted in June, just under ground level with their



necks just above the surface at a spacing of 8 inches apart. This species is one of the more tender bulbs but it will survive zone 7 winter temperatures if a heavy mulch, like 12 inches of leaves, is applied over it in October of each year and removed the following Spring. Bulb cost is moderate.

*Ixia*, also known as Corn Flower or Wand Flower, is an excellent cut flower, in the family Iridaceae from South Africa. Six-petaled flowers appear in July on wiry stems 8" - 16" tall. *Ixia* is available in white, red, pink, yellow and several bi-colors. *Ixia* is hardy in zones 6-7, if protected with mulch. The small corms should be planted 3 inches deep

with a spacing between the bulbs of 2-3 inches or 10 -15 per square foot. Plant in May or June when the soil is warm. *Ixia* corms are not expensive.



*Ornithogalum*, also known as Star-of-Bethlehem, is a long-lasting cut flower in the family Liliaceae from South Africa. All of the varieties produce umbels of white flowers on top of stems 18 inches to 40 inches in height from June to October. The most winter hardy variety is *Ornithogalum Saundersiae* which can survive zone 6-7 winters under heavy mulch. This variety produces tennis ball size florets with greenish/black centers on stems 3' to 4' in height. Plant these bulbs 4 inches deep and 5 inches apart or 4 per square foot in May or June. *Ornithogalum* bulbs are moderately priced.

*Nerine*, also known as Guernsey lily, is another pest proof member of the Amaryllidaceae family from South Africa. *Nerine* blooms as a cluster of pink, crimson, orange-red or white flowers on leafless stems 18 -24 inches tall. *Nerine* is an excellent cut flower but is winter hardy in zone 7 only if it receives extra winter mulch. The principal variety available from bulb companies is *Nerine Bowdenii* sold as 'Pink Triumph' and 'Stefani'. Bulbs of both of these dark pink cultivars should be planted eight inches apart or 4 per square foot, with the neck just above the soil. *Nerine* blooms from September until frost in October.

*Polianthes tuberosa*, commonly known as tuberose, is a member of the Agavaceae family from Mexico. This tuberous perennial produces a spike of funnel-shaped, single white flowers with six spreading petals. Stems are normally 18-24 inches in height. Both the Single Mexican and the double form called The Pearl are extremely fragrant. The Single Mexican variety is a better cut flower than the double form. Tuberose can be over-wintered in Zone 7 only if extra winter mulch is applied in mid-October. Tuberose needs to be dug up and divided at least every three years or the clump will decline. Bulbs should be planted 6 inches apart or 4 per square foot. When tuberose is over-wintered under mulch it blooms in July and August.



Zantedeschia, also known as Calla Lily, is a member of the Araceae family from South Africa. The leaves of zantedeschia are evenly green and spear-shaped. The flowers are funnel-shaped. Available colors include white, pink, yellow, green, burgundy, orange, red and bi-colors. Most varieties of Calla are only hardy to zone 8 with mulch but a number of new varieties are quite winter hardy to zone 6. Some good hardy varieties for perennial cut flower sales are aethiopica (white), aethiopica 'Green Goddess' and aethiopica 'Pink Mist'. Each of these produce multiple stems 2'-3' in height. Calla Lily bulbs are moderately expensive. Rhizomes should be planted 4 inches deep and 16 inches apart or 1 per square foot. They will bloom from July to October.

The bulbs described in this article may be purchased from over 100 different bulb companies located in the United States. An internet search will certainly produce a good number of sources. Commercial growers should seek sources that have both reasonable commercial prices and excellent quality bulbs.

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