

**2012**

# **[ How to Grow Flowers ]**

**Department Of Floriculture Kashmir**

## 1. Coreopsis Flowers

Coreopsis is a member of the sunflower family that looks like a daisy. Sometimes called "Tickseed" or "Calliopsis", this attractive plant has yellow, gold, red, maroon, or a combination of these colors, on sturdy stalks that grow from 1 1/2' to 4' tall. While most Coreopsis are perennials, there are a few annual varieties. It is native to prairies and plains. Coreopsis makes excellent cut flowers. Coreopsis are grown from seed. They can be directly seeded into your flower garden in early spring. Sow Coreopsis seeds early in the season, covering lightly with coarse or sandy soil. Keep the soil moist until they germinate, about one of two weeks. Final spacing for the plants is about 12" apart. Plants will bloom approximately 60 days after planting. Mix in plenty of compost prior to the first planting. During dry periods, it will survive with little water. But, it's absolutely okay to pamper it with an occasional drink of water. Coreopsis does not need a rich soil. But, it will benefit from a dose of fertilizer once or twice a season.

## 2. Alyssum Flowers

*Annual, Cruciferae* Alyssum plants are a tender and delicate annual. They are small and easy to grow. Alyssum are usually used as a border plant and also look really good growing in the nooks and crannies of a rock garden. They are good candidates for container gardens, too Alyssum are small plants, growing six to nine inches tall. They have a profusion of flowers, with white being the most popular. They also are available in pink, violet, purple and lavender. Alyssum are grown from seed. Alyssum seeds can be directly seeded into your flower garden or seeded indoors for transplanting later. If planting outdoors, sow Alyssum seeds after the soil has begun to warm in the spring. Alyssum do not like frost, so if started indoors, transplant them outdoors after the last frost date. Space plants eight to ten inches apart. Sow seeds early in the season and cover lightly with soil. Water thoroughly once. Alyssum will begin to produce a continuous profusion of sweet smelling flowers by mid-summer. Alyssum like full to partial sun. They will do well in average soils and tolerate dry soil conditions. Water them during dry periods, once or twice per week. Soil should drain well. Add a general purpose fertilizer once a month. Once your Alyssum are established, they will grow well until the first frost. Alyssum are tender annuals and highly susceptible to frost.

### 3. **Gypsophilia - Baby's Breath** *Gypsophila elegans*

Baby's Breath are a tender and delicate annual. Baby's Breath are very easy to grow, and quick to bloom. A popular flower to accent bouquets, corsages and flower vases, Baby's Breath is a popular flower in the home garden too. Plants grow 1 1/2 to 2 feet, bearing a profusion of white or pink flowers. The stems separate into many branches, giving it a light appearance, perfect for accenting. They are most often included in those dozen roses you give or receive, and are a must for bridal bouquets. Baby's Breath are grown from tiny seeds. They can be directly seeded into your flower garden or started indoors for a jump start on the year. Sow Baby's Breath seeds after the soil has begun to warm in the spring. Baby's Breath do not like frost, so if started indoors, transplant them outdoors after the last frost date. Space plants eight inches apart. Baby's Breath like full to partial sun. They prefer rich, light soils, and are not fond of clay. They also do not like dry conditions. Their rapid growth demands that they are watered during dry periods. Add a general purpose fertilizer before planting if the soil is poor. *OncyourBaby'sBreath* germinates in 10 to 15 days, they will grow rapidly. For a continuous bloom, plant them in succession every two to three weeks.

*Gypsophilia Annuals* Baby's Breath are the delicate, white flowers that are commonly used as accents in corsages, bridal bouquets, wedding flowers, amidst a dozen roses, and in many other flower arrangements. In the garden, *Gypsophilia* are a tender and delicate annual. They are also easy to grow, and quick to bloom. Plants grow 1 1/2 to 2 feet, bearing a profusion of white or pink flowers. Baby's Breath are grown from seeds. Direct seed them into your flower garden, after the soil has begun to warm in the spring. They can also be started indoors in seed trays 2-4 weeks before the last frost in your area. Baby's Breath do not like frost, so if started indoors, transplant them outdoors after the last frost date. Grow Baby's Breath in full sun. They grow best in rich, light soil. Space plants eight inches apart. *Gypsophila* needs moist soil to thrive. Water regularly, especially during dry periods. Add a general purpose fertilizer before planting, if the soil is poor. Apply additional fertilizers once a month throughout the growing period.

### 4. **Bachelor Buttons**

*Centaurea cyanus* Bachelor Buttons are also called Cornflower. But, did you know, they are known by yet another name? They are also called the "Boutonniere" flower. That's because the small, one inch flowers are perfect for button holes on suits. Years ago, they were the rage for boutonnières. The flowers are most commonly a bright blue. But you can find white, pink, lavender, red, maroon, and rose. Bachelor Buttons grow on sparse, thin stems to a height of 1 to 3 feet. In addition to boutonnières, they are also good in fresh flower arrangements or dried. They are frequent members of bouquets. Bachelor

Buttons are grown from seed. They can be directly seeded into your flower garden or seeded indoors for transplanting later. If planting outdoors, sow Bachelor Button seeds early in the spring. For transplants sow them indoors about four weeks before the last frost. Bachelor Buttons can be sowed in the fall, especially in warmer areas. Fall plantings should be protected from extreme cold. The books will tell you that Bachelor Button plants like full sun. But this gardener can tell you from experience that they grow well on the north side of the house. They will do well in average soils and tolerate dry soil conditions. Soil should drain well. Add a general purpose fertilizer once a month. Once your Bachelor Buttons are established, they will produce a burst of flowers, then slowdown their production. Flowers will continue at a slow, regular pace even after frost. While they are annuals, Bachelor Buttons are somewhat hardy. They can get blights and mildew in wet weather. If insect or disease problems occur, treat early with organic or chemical insect repellents and fungicide. These fast growing plants will germinate in about 10-15 days. The first blooms will appear about 45-50 days after they sprout. Final spacing of plants should be about 18" apart. They will tolerate some crowding.

## **5. Balsam**

Balsam is a quick growing summer annual flower, with gardenia-like blooms. Continuous blooms grow on top of a bushy plant with glossy leaves. You will get blooms in about 60-70 days. Balsam is a member of the Impatiens family. Colors include shades of white, pink, rose, and red. Balsam are native to Asia, North America, and South Africa. There are annual and perennial varieties. Balsam are often grown in containers on balconies and terraces. Use large pots to provide plenty of space for them. Balsam also is a good bedding or edging plant. Balsam are grown from seed. They can be directly seeded into your flower garden, or seeded indoors in trays or flats for transplanting later. Sow indoor starts about 6 weeks before the last frost. Sow seeds early in the season, and cover with 1/8" of soil. Water thoroughly. Balsam will begin to produce a continuous profusion of flowers by early to mid-summer, and all the way to frost. Balsam likes full to partial sun. Shade from afternoon sun, especially in hot regions. They prefer a rich, well drained soil. Space plants 12-18 inches apart. Water them during dry periods, once or twice per week. Don't allow the roots to remain wet. Add a general purpose fertilizer regularly for optimum growth. Once established, Balsam will grow well and bloom continuously well into fall. Annual varieties are susceptible to frost. If insect or disease problems occur, treat early with organic or chemical insect repellents and fungicide.

## 6. Begonia

Now here's one of America's favorite flowers. With lots of variety, Begonias are popular in flowerbeds, for hanging baskets, as container plants, and for indoor houseplants. That's one versatile plant! Begonias are prized equally for their flower as well as their showy leaves. When they are not in bloom, which is infrequent once established, their attractive, waxy green or chocolate colored leaves show themselves off wherever you have placed them. Growing Begonias is easy. They make a good indoor houseplants as they tolerate shade well. There are three types of Begonias: Tuberous, Semperflorens, and the uncommon Perennials. The Semperflorens are by far the most common. They include Fibrous Begonias, Wax Begonias and Everblooming Begonias. Depending upon type, you can find red, white, pink, or yellow varieties. All flowers have a bright yellow eye(center). All varieties will grow compact, dense foliage, and grow about 6-9 inches tall.. Begonias are propagated from seed or cuttings. Seeds are very fine, dust-like, and take two to three weeks to germinate. Many people will buy seedlings rather than try to start these tiny seeds. Cuttings are much easier if you want to propagate a few plants and already have one. Tuberous varieties are commonly propagated by separating and replanting the tuberous roots. Begonias thrive in a range of sunlight from full sun to shade. They like rich, loose and fertile soil which drains well. Water thoroughly, then allow the soil to dry before the next watering. Begonias like attention. Remove dead flowers, leaves, and stems. Trim off long stems to help retain it's compact shape. A little care will pay you back with lush foliage and more blooms. Add a general purpose fertilizer once a month. For houseplants and container plants, give them a dose of liquid fertilizer once a month instead dry fertilizer. Your Begonias can be brought indoors before frost. Remember, they will die in a light frost, so if one threatens your area, don't wait! Re-pot the plants if they appear crowded. Use rich potting soil. Help them in their transition indoors. When first brought inside, keep them near a sunny window, gradually, reducing the sunlight. This will help them to adjust indoors. Significant leaf drop is common at this point. But, in a week or two, they will be well acclimated to lower light levels and dry conditions in your home. They will brighten up your home all winter!

## 7. Coleus Houseplant

Coleus are very popular plants for container gardening and hanging baskets for outdoors or as indoor houseplants. They also look great planted directly in the garden in groups or as borders. What attracts most of us to Coleus is not it's flower, but the colorful leaves. These tender annuals can be grown from seed or cuttings. They like sunshine, but tolerate shade very well, making them a great indoor houseplant. They also need and rich, soft soil that drains well. Coleus is grown from seed or cuttings. When growing from seed, spread thinly and cover lightly with soil. Then water lightly. They will germinate and grow rapidly if the soil temperature is kept at 70 degrees or

higher. Taking cuttings is also easy. If you like a neighbor or a friend's Coleus plant, ask them if you can take a cutting or two. Place the cuttings in soft, rich soil. Keep the soil moist but not wet at all times. Covering them with glass or plastic will raise the humidity and help them to root. Coleus thrives in full sunshine. They will tolerate partial shade and to some degree full shade. However, leaf drop is common if they do not get enough sunlight, and especially if they are moved from an area of full sun to shade without an adjustment period. Coleus likes loose and rich soil which drains well. Use plenty of peat moss and other loose medium whether growing in containers or directly in the garden. Add a general fertilizer regularly. If growing indoors, use a liquid fertilizer every one to two weeks. If planting in your flowerbed, space plants one foot apart. Coleus prefers well drained soil. The soil not be allowed to dry out. While many plants will wilt and recover, these delicate plants, will wilt and quickly die. Make sure that any containers you use has holes in the bottom for drainage. Coleus is very susceptible to frost. If you are planning to bring them indoors, do so well before the first frost. In the spring, make sure to leave them indoors until all danger of frost is past.

**DESCRIPTION:** These delicate plants have colored leaves or beautiful flowers. These plants are natives of Indonesia and Africa. Coleus plants that have ornamental leaves are descended from *C. Blumei*, which has nettle-like, bronze-colored leaves. The colors of their foliage range through yellow, red, crimson, and pink. The flowers that are produced on the varieties grown for their colorful leaves are hardly noticeable. Others have plain green leaves but bear gorgeous spikes of blue flowers in the winter. They are not good as houseplants, but will survive in a greenhouse having a minimum night temperature of 55-60 degrees with a 5-10 degrees rise in the daytime and a fairly humid atmosphere. *Coleus fredericii* is an annual or biennial plant that has deep purple flowers in late winter or early spring. It grows 3-4 feet tall. *C. amboinicus* is a shrubby plant that grows about 2 feet tall. It has thick, brittle, fuzzy green leaves that have a strong aroma. Their flowers are lavender-pink.

**POTTING:** When grown indoors, these plants need rich, well-drained soil that contains a good amount of leaf mold or peat moss. When grown outside they will flourish in any good soil in full sunshine. For the plants that are grown for their flowers, light shade should be provided. To keep them in good shape and help them grow bushier, the tips of the shoots should occasionally be pinched. Make sure to do this with an upward pull (especially with *C. thyrsoideus*) however, because if pinched down, a long strip of skin will be stripped from the stem along with the leaf. When the plants have filled their pots with roots, they should receive weekly doses of dilute liquid fertilizer. Their soil should be kept moist.

**PROPAGATION:** Coleus can be easily raised from seed. Seeds are sown in early spring in pots containing light, sandy soil. They are covered lightly with soil and glass is placed over it. Keep

them in 65-75 degree temperatures. The seedlings are then set 1 inch apart in flats of well-watered soil and shaded until established. They are then potted separately. Cuttings of shoots, 2 inches long, are inserted into sand, vermiculite, or other rooting mediums at any time of year. They should be kept in a warm, moist propagating case or be covered with a bell jar until they have formed roots. After they have rooted, they are treated as seedlings. When they have almost filled up their pots with roots, they should be transplanted into larger pots that are filled with the same kind of soil mixture as described above in the potting section, but with the addition of a little bone meal and dried cow manure. The last repotting should be into pots ranging from 6-9 inches.

VARIETIES Colored leaves C. Blumei and its varieties. Beautiful flowers C. thyrsoideus; C. shirensis; C. Fredericij; C. amboinicus.

## 8. Cosmos

*Annual, Cosmos* If you are a new gardener, Cosmos are a great plant to start with. Fast growing, there is little that can go wrong with this tall growing plant. Cosmos are native to Central America and Mexico. They grow quickly to a height of 4-5 feet. Brightly colored single or double flowers include white, pink, orange, yellow, and scarlet. Cosmos look great at the back of the garden and in informal arrangements. Cosmos are grown from large seeds, making them easy to plant. They germinate quickly and never stop from there, normally growing four to five feet in a season. Sow Cosmos seeds directly into the garden just before the last frost in your area. Space plants 12 inches apart and thin to 18 inches. While most Cosmos are annuals, there are perennial varieties. Perennial varieties are Rhizomes and can also be propagated by division. Cosmos plants prefer full sun to partial shade. They will do well in both average and poor soils. They are tolerant dry soil conditions. Add a general purpose fertilizer once or twice a season. Taller plants may require staking. However, this can be avoided if planted in an area protected from the wind. Easy to grow, hardy Cosmos produce daisy-like blossoms from mid summer to fall. Cosmos are native to Central America and Mexico. Cosmos grow quickly. Some varieties reach a height of up to six feet. Bright colored single or double flowers come in white, pink, orange, yellow, and scarlet. Big blooms are 2" to 6" across. Tall Cosmos are best placed at the back of the flower garden. With little care and attention, they will produce long lasting flowers that are good as cut flowers in vases. **Propagation:** Kids and new gardeners love the big, easy to handle Cosmos seeds. They can be planted outdoors in early spring. Cover seeds with 1/8" of soil. Space seeds " to 6" apart. Thin plants to 18" apart. For indoor starts, allow 4 to 6 weeks before the last frost. Most Cosmos varieties are annuals. There are a few perennial types. Perennial varieties are Rhizomes which can be propagated by plant division, or separaton

of the Rhizomes. Grow Cosmos plants in full sun to partial shade. They are best grown in average to poor soils. If grown in rich soil, you may end up with lots of foliage and fewer flowers. They are tolerant dry soil conditions and are heat resistant as well. Most varieties will grow quickly to 3-4 feet. Some varieties can reach six feet. Taller plants may require staking. Deadhead flowers to promote additional blooms.

## 9. Four O'Clock Flowers

*Annual, Mirabilis Jalapa* Four O'Clocks were one of my Grandfather's favorites. He enjoyed the bright trumpet shaped flowers. Four O'Clocks got their name because it opens in mid-afternoon. It remains open overnight, and closes in early morning. They will also remain open on cloudy days. They are also noted for their strong, pleasant fragrance. Native to tropical areas of North and South America. They are also called "Marvel of Peru". Four O'Clocks are actually perennials that are grown as annuals in the U.S. The bushy plants make attractive hedge or border. Flower colors include white, red, pink, yellow, and some two-toned blooms. Because the flowers are open during the evening, we recommend you place them in areas where people will see them in early evening hours. How many flowers do you know of are open in the evening? Four O'Clock are typically grown from large seeds, making them easy to plant. Four O'Clock seeds germinate quickly, and grow fast, up to 2-4 feet. Sow seeds directly into the garden just before the last frost in your area. Cover seeds with 1/4" of soil. Space plants 12 inches apart and thin to two feet apart. In addition, Four O'Clocks are propagated by its tubers. Tubers should be dug up in the fall and stored in the dark, in damp peat moss or sand. Four O'Clock prefer full sun, but will tolerate partial shade. Note that in partial shade they may grow lanky. They will do well in rich, well composted soil as they are big eaters. Keep soil moist. Add a general purpose fertilizer once or twice a month to encourage vigorous growth. Four O'Clocks fit well in borders, as small hedgerows. Try growing them around your mailbox! Everyone touts attractive, Four O'Clocks as "Old-Time" or "Old-Fashioned" favorites. Well, these easy to grow annuals are a favorite in today's home garden, too. Four O'Clocks are tropical plants, native to North and South America. The bright, trumpet shaped flowers open in mid afternoon, hence the name " Four O'Clocks". Flowers stay open overnight, and close in early morning. They will also remain open on cloudy days. Colors include white, red, pink, yellow, and some two-toned blooms. The bushy plants grow quickly to 2-4 feet. They make attractive hedgerows or borders. Place these plants in areas of evening traffic, so passersby can see the open flowers and enjoy their nighttime fragrance.

**Propagation:** Grow Four O'Clock from seeds. The large seeds are easy to handle, and germinate quickly in 7-14 days. Directly sow Four O'Clock seeds into the garden after the last frost in your area. Cover seeds with 1/4" of soil. Space plants 12 inches apart, and thin to two feet apart. Four O'Clocks can also be propagated by it's tubers. After the plant has died in the fall, dig up tubers.

Brush off excess soil. Store the tubers in a dark area, in damp peat moss or sand. Grow Four O'Clock in full sun. They prefer rich, well composted soil. Keep soil moist. Water regularly, especially in dry weather. Four O'Clock are heavy feeders. Add a general purpose fertilizer once a month to encourage vigorous growth, and big, bright blooms.

## 10. Godetia

*Annual, Clarkia Amoena* Godetia is a spring blooming annual flower. It is native to western North America, from British Columbia down to California. Many people consider this easy to grow flower as a wildflower. Godetia plant grows 12" - 30", depending upon variety. The plant grows quickly. It blooms in the spring, in just 30 to 60 days. It produces Azalea-like blooms. Colors include white, pink, purple, lavender, and red. Godetia was name after Swiss botanist Charles H. Godet. Other Names: Farewell to Spring Godetia are grown from seeds. Godetia seeds can be directly seeded into your flower garden, or started indoors four to six weeks before the last frost date in your area. Sow seeds early in the season, and cover lightly with 1/8" of fine garden or potting soil. Ideal plant spacing is 16" -20". Godetia plants do not like to be crowded. Grow Godetia in full sun. Plants need lots for sun, or they will grow slowly. They grow well in average to rich soil. Mix in compost when planting. Keep the soil moist, not wet. Add a general purpose fertilizer when planting them, then once a month after that. Godetia is easy to grow. As wildflowers, they require little care. In the home garden, mulch around them to help retain soil moisture, and to keep the weeds down. Flowers bloom early to mid summer. Taller varieties may require staking. Godetia are good re-seeders. Plant them where they can drop their seeds and grow undisturbed for years. If you allow them to reseed in a location, you will likely need to thin new plants in the spring.

## 11. Impatiens

If you are looking for shade lovers, Impatiens is the plant for you. They do well in the shady parts of your yard, make excellent indoor houseplants, and are very showy in hanging baskets. Impatiens plants have glossy, attractive leaves which you will enjoy when the plants are not in bloom. Very popular as houseplants, Impatiens are fun to grow indoors. And, growing Impatiens is easy. Plants are compact. and will brighten up your home in winter. You can take your pick of a wide variety of colors, and some bi-colored varieties. **Did you know?** Impatiens are also called "Touch-Me-Not's and Snapweed". Why? Because water builds up in the seed walls, and can burst when touched, spraying seeds all over. Impatiens are grown from seed, requiring both light and heat to germinate. Sow Impatiens seeds into trays or peat pots, covering with 1/8" of seed starter soil. Use a germination mat or place them on top of a warm appliance. They are best started indoors since plants have a long development period. Cuttings can

easily be made from established plants. Once your plant is established, you can make cuttings for basket and containers for all of your friends! Impatiens plants grow well in partial to full shade. They prefer rich, moist (not wet) soil that drains well. Water them regularly. Add a general purpose fertilizer once a month. In containers, pots and baskets, water every 3-4 weeks with a liquid fertilizer in place of dry fertilizers. Impatiens grow 16-18" tall. In the garden, space plants 12-18 inches apart. Impatiens are susceptible to frost. Bring them indoors before Jack Frost visits your garden.

## 12. Larkspur Flowers

*Annual, Consolida Orientalis* Most likely, you first saw the tall and stately spikes of Larkspur in your grandparents flower garden. When in bloom, these big flower spikes are lovely in the garden and indoors in vases. Colors include light and dark pink, blue, rose, lavender and white. Larkspur are members of the Delphinium family. There are many varieties of Larkspur, so it should not surprise you that they range in height from one to seven feet. Best of all, tall growing Larkspur plants produce flowers that burst into bloom in the spring when many other flowers are still weeks away. **Did you Know?** Larkspurs can be poisonous to some animals, most notably cattle. Larkspur are started from seed. Directly sow Larkspur seeds into your flower garden after all danger of frost. Sow seeds early in the season and cover lightly with 1/8" of garden soil. Space them 4 inches apart and thin seedlings to 10-12 inches apart. Larkspurs are Rhizomes. You can separate the rhizomes of established plants and replant in new areas. Larkspur plants like full sun to partial shade. They are very easy to grow and grow rapidly. They do well in average soils and in cool weather. The soil needs to be kept moist to feed their quick growth. Water them during dry periods, once or twice per week. Add a general purpose fertilizer once a month until after they have bloomed. Cut blooms just before they peak. Place in vase and arrange with other flowers, or alone by themselves. Once your Larkspur are established, they will grow well until the first frost. Larkspur are annuals and highly susceptible to frost. Fungal disease is common, most notably Sclerotium rot which yellows leaves and wilts plant. Larkspur is also affected by mildew. Treat affected plants immediately with a general purpose fungicide. Remove seriously diseased plants to keep the disease from spreading.

## 13. Delphinium

*Annuals and Perennials*, Ranunculaceae There are both annual and perennial members of this tall and showy, flower family. These spiked flowers originated in Europe and are found naturally in forest clearings. They re an old-fashioned favorite. Gorgeous spikes come in jewel-like shades of blue, lavender and diamond-bright white, some with darker center spots. With many vanities in this family, Delphinium plants range in size from about one foot to several feet. **Caution:** All parts of Delphinium are poisonous and could be fatal. If you have children or pets, you might want to steer clear of this flower. Delphinium are started from seed. Sow Delphinium seeds directly into your flower garden after all danger of frost. They can also be spread around fields as a wildflower. Sow seeds early in the season and cover lightly with 1/8" of garden soil. Space them 4 inches apart and thin seedlings to 1 1/2 feet apart. Delphiniums are Rhizomes. You can separate the rhizomes of established plants and replant in new areas. Delphinium plants like full sun to partial shade. They are very easy to grow, and grow rapidly. They do well in average soils and in cool weather. The soil needs to be kept moist to feed their quick growth. Water them during dry periods, once or twice per week. Add a general purpose fertilizer once a month until after they have bloomed. Cut bloom s just before they peak. Place in vase and arrange with other flowers, or alone by themselves. Once your Delphinium are established, they will grow well until the first frost. Delphinium are annuals and highly susceptible to frost.

**Nasturtium** If there is a secret flower in the gardening world, it is Nasturtiums. These easy to grow annuals offer a lot of benefits to you the gardener and to other plants in your garden. Here are some of the benefits you enjoy with these flowers, err vegetables, err..... An easy and quick growing annual. Edible leaves to spice up salads A companion plant that helps to ward off insect pests. A plant that prefers to be ignored. It thrives best in poor and dry soils.

Nasturtiums are fast growing and can be directly seed into your garden. Sow Nasturtium seeds after the last frost date for your area. Depending upon soil temperature when planted, they will usually come up in a week to ten days, sometimes less. Sow seeds 1/2 inch deep and 10 to 12 inches apart. Nasturtium plants grow very well in poor soils, and like dry soils. So you can plant these versatile flowers in areas where other flowers and vegetables would fare poorly. There are two types of Nasturtium, a regular plant which grows 6 to 10 inches and vining type which will grow to about 15 inches. Nasturtiums are a flower and a vegetable that begs to be ignored. Grow them in poor soils and if anything, keep the soil dry. Don't bother with mulch, compost and fertilizers. They do like full sun, but will tolerate partial shade. They make great plants for those areas in your garden that other plants refuse to grow in. Just remember, keep the soil dry and they will grow well. The flowers make for good color in the garden, but are not great for

harvesting and vases. The edible leaves can be harvested as soon as several leaves are on the plant. Like any leaf type of plant, they taste better when young and older leaves can be bitter. Related to the cress family, Nasturtiums have a slightly pepper taste. The flowers are also edible, but have less taste. Try using the seeds in pickling for a somewhat different taste. Like any annual, Nasturtiums are susceptible to frost. If they are still blooming as fall arrives, cover them on cold nights. If you plant them in a flower garden along your house, they just might be the last vegetable you harvest in the fall. Nasturtium are believed to be excellent companion plants. Their peppery leaves ward off insects. Among those common pests which nasturtium are believed to deter are cucumber beetles and squash vine borers

*Annual, Tropaeolum* How would you characterize Nasturtium? A flower or a vegetable? Actually, it's both. By far the majority of home gardeners consider it to be a flower. But to other gardeners, they grow Nasturtium for the edible leaves, flowers and seeds. Related to the cress family, Nasturtiums have a slightly pepper taste. Nasturtium is also well known for its use as a companion plant with other vegetables. It wards off certain insects. Nasturtium is an easy to grow annual, native to areas from the southern area of South America up to Mexico. The majority of popular varieties are bush type plants, growing up to 12 inches. There are some less known vining varieties. Bright, fragrant flowers sit atop long stems. Colors include yellow, orange, pink, red, scarlet, and mahogany. Nasturtiums are grown from seed. Plants are fast growing, and can be directly seed into your garden after all danger of frost. Seedlings will sprout in approximately 7 to 8 days. Sow Nasturtium seeds 1/2 inch deep, and 10 to 12 inches apart. Nasturtium plants prefer full sun. They grow well in average to poor soils. And, they prefer the soil on the dry side. We suggest you select a spot in your garden where little else will grow. Established plants require very little, if any, attention. For optimum growth, add fertilizer in mid season. Keep the soil on the dry side. Chances are, you will not need to water these drought tolerant plants during the season. The flowers make for good color in the garden. They will bloom in as little as 35 to 40 days after they sprout. Blooms will continue all season long right up to frost. Deadhead blooms to promote new flowers, and to maintain an attractive appearance. Nasturtiums are susceptible to frost. If they are still blooming when fall arrives, cover them on cold nights.

## 14. Candytuft

*Annuals and Perennials, Iberis Sempervirens* For the beginning gardener and people with poor garden soils, here is an easy and fast-growing plant. Candytuft has its "roots" in Spain, or Iberia as it was once called. Candytuft is actually a small, evergreen bush. Its small, compact growth and tolerance of poor soil, makes it popular in rock gardens. Fragrant tufts of candy-like red, white and pink colored flowers bloom from summer to autumn. There are both annual and perennial varieties. Candytuft are grown from seed. Established Candytuft plants can also be propagated by cuttings or division. Plants can be started indoors 6-8 weeks before the last frost in your area. Sow Candytuft seeds early in the season and cover lightly with 1/8" of fine soil. Space seeds or seedlings 8-10" apart. Candytuft are very easy to grow. They prefer full to partial sun and a well drained soil. They will do well in average or poor soils, and tolerate dry soil conditions. They are perfect for rock gardens. Water them during dry periods, once or twice per week. Add a general purpose fertilizer once or twice a season. Candytuft grows 1-15 inches tall. Perennial varieties should be mulched over winter to protect them from extreme cold. In the spring, prune back stems to about 4" to promote lush, fuller growth. Candytuft have few insect and disease problems. If insect or disease problems occur, treat early with organic or chemical insect repellents and fungicide. There are about 30 species of Candytuft. Some are annuals, while others are perennials. Annual varieties are hardy. Candytuft are native to southern Europe, North Africa and the western region of Asia. These low growing plants are at home in rock gardens, flowerbeds, and make good ground cover. They are at home in containers, too. Compact plants are 10" to 16" tall. They produce dense clusters of fragrant flowers. Colors include white(most popular), pink, red, lavender, crimson, rose, and lavender. **Interestingly,** Candytuft are members of the mustard family.

**Propagation:** Growing Candytuft plants is easy. They are grown from seed. They can be directly seeded into your flower garden, or seeded indoors for transplanting later. Direct sowing seeds outdoors should be done after the soil has begun to warm in the spring. Place transplants outdoors after the last frost date. Sow seeds early in the season and cover lightly with 1/8" of fine soil. Grow Candytuft in full sun or partial shade. Soil should be rich and well drained. They will do well in average or poor soils, and tolerate dry soil conditions. Water them during dry periods. Apply a multi purpose fertilizer once a month.

## 15. Carnation

*Annual, Perennial, Dianthus* Carnations are very popular as boutonnieres, in corsages, bouquets, and in a wide range of floral arrangements. They grow big, full blooms on strong, straight stems. Their blooms last a long time. Carnations are fairly easy to grow. I am sometimes amazed that more people don't grow these great and versatile flowers. They can be planted in flowerbeds or containers. They produce a spicy clove-like fragrance, and the most common colors are white, red, and pink. **Did you know?** Carnations are often called "Pinks" in the garden. To create a carnation from the multiple flowers on the stem, pinch off all flowers on the stem except the center or terminal bud. Florists tint Carnations into any single or or multi-color imaginable for everything from weddings to Saint Patrick's Day and proms. Yes, the white carnations are used for tinting. Carnations are grown from seed. Carnation seeds can be directly seeded into your flower garden, or started indoors for transplanting later. If planting outdoors, sow them early in the spring. But, make sure the soil is not too wet. When sowing seeds, cover lightly with 1/4 inches of fine soil. Space seeds or seedlings 12" apart. If you are growing perennials, you can propagate them from cuttings or by division. Once your plants have been established, they can be propagated by separation in the fall. Carnations plants are very easy to grow. They prefer full sun and a rich, well drained soil. Water them during dry periods, once or twice per week. Add a general purpose fertilizer once or twice a month. Carnations will grow 16-18" and make great borders or edging. Space plants 12" apart. Once your Carnations are established, they will grow well and bloom from the spring and throughout the summer. The perennial varieties are hardy. They will withstand light frosts before going dormant for the winter. Perennials should be mulched for winter protection against extreme cold temperatures.

While most Carnations are perennials, there are some annual varieties. Carnations are also called by their Latin name: "Dianthus". To gardeners, they are also sometimes referred to as "Pinks". They are popular as boutonnieres, in corsages, bouquets, and in a wide range of floral arrangements. Carnations grow 18" to 24" tall, and produce a spicy clove-like fragrance. Long lasting blooms grow on straight, strong stems. The most common colors are white, red, and pink. Floral shops tint them just about any color imaginable. Carnations are easy to grow. They can be planted in flowerbeds or containers. **Propagation:** Direct seed Carnations into your flower garden, or started indoors for transplanting later. If planting outdoors, sow them early in the spring. When sowing seeds, cover lightly with 1/4 inches of fine soil. Space seeds or seedlings 12" apart. Perennial varieties can also be propagated by cuttings or plant division. Division of established plants is best done in the fall. Growing Carnations is fun. They need full sun. Soil should be rich and well drained. They prefer moist, not wet soil. Water them during dry periods, once or twice per week. Add a general purpose fertilizer once or

twice a month. Once your Carnations are established, they will grow well and bloom from the spring and throughout the summer. The perennial varieties are hardy. They will withstand light frosts before going dormant for the winter. Mulch around Perennials for winter protection.

## 16. Dianthus

*Annual, Crimsonia* Dianthus are hardy perennial flowers with bright, fragrant blooms, perfect for your flowerbed. Some of the more popular Dianthus are known as Carnations, Sweet William, and Cottage Pinks. Dianthus has fragrant blooms that are 1" to 1 1/2" diameter. Most varieties will grow 18" to 24". They look great in a flowerbed, or a rock garden. They can be planted singly, or in groups. Dianthus are grown from seed. They can also be propagated by cuttings. Dianthus seeds can be directly seeded into your flower garden, or started indoors for transplanting later. Dianthus prefers warm weather. If planting outdoors, sow them after the soil has begun to warm in the spring.

We recommend an indoor start, six to eight weeks before the last frost in your area. If started early, they will bloom in the first year. Sow seeds early in the season and cover lightly with soil. Space seeds or seedlings 10-12" apart. They will tolerate a little crowding, and look good in clumps or groups. Dianthus are very easy to grow. They prefer a cool climate, full sun, and rich, well drained soil. Water them during dry periods, once or twice per week. Add a general purpose fertilizer once a month. After the flowers have died, cut the stems to ground level.

Dianthus is a group of flowers with hundreds of family members. Among the more well known members are Carnations, Sweet William, and Pinks. Members of the Dianthus family include annuals, biennials, and perennials. They originated in Southern Europe, the Mediterranean region, and China. If you are a flower grower, chances are you have a few members of the Dianthus family in your home garden. Dianthus have bright, fragrant blooms, with fringed, ragged edges. Flowers are 1" to 1 1/2" diameter. Most varieties will grow 18" to 24", with a few varieties growing up to three feet. Dianthus are a popular choice for both flowerbeds and rock gardens.

## 17. Dusty Miller Plants

*Perennial, Senecio Cineraria* Dusty Miller are an easy to grow perennial. Dusty Miller is grown for its silvery-gray, fern-like foliage. Dusty Miller makes terrific border and edging plants, offering a striking contrast to the colorful flowers and green colors of your lawn and garden. Dusty Miller are grown from seed. They can be directly seeded into your flower garden, or started indoors for transplanting later. Or, you can sow Dusty Miller seeds outdoors, two to three weeks before the last frost in your area. In southern areas of the country, they can be directly seeded into your garden in the fall. Start Dusty Miller plants indoors, six to eight weeks before the last frost in your area, will give an early start for these showy plants. Sow seeds early in the season, covering lightly with soil. Final spacing for the plants is 10"-12" apart. They will tolerate a little crowding.

Dusty Miller are very easy to grow. Once established, they will thrive for several years. Note, in some areas, Dusty Miller are grown as annuals. Dusty Miller prefers a warm climate, full sun, and a rich, well drained soil. Mix in plenty of compost prior to the first planting. Add organic mulch each season to replenish the soil. Water them during dry periods, once or twice per week. Add a general purpose fertilizer once or twice a month. Dusty Miller will grow tall, 10" - 18" tall. They will produce flowers. Many people remove them, or pinch back the buds to promote leaf growth. Trim plants as desired, to maintain an attractive shape. *Perennial* Yes, Dusty Miller produces flowers. But, most home gardeners grow them for their fern-like, silvery foliage. They are a strikingly attractive plant in the flowerbed, and perfect for border edging. Dusty Miller plants, are an easy to grow perennial. Some people grow them as annuals. If you are space limited, you can grow them in containers on your patio or deck. Mix them in with other annuals or perennials to make an attractive, colorful arrangement. Dusty Miller plants are grown from seed. Directly seed them into your garden 2-3 weeks before the last frost in your area. For an early start, sow Dusty Miller seeds indoors in seed trays or pots, 6-8 weeks before the last frost. Seeds take about 2-3 weeks to sprout. Keep the soil moist during the germination period. If starting indoors, we recommend using a heated germination mat. When sowing seeds, cover lightly with a loose soil. Final spacing for the plants is 10"-12" apart. They tolerate a little crowding. Note: In warm winter areas, seeds can be started in the fall.

## 18. Forget-Me-Not

Biennials, *Perennials*, Boraginaceae For coveted garden coolness, forget-me-not cannot be beat. And the tiny, true blue flowers with yellow centers are so lovely, blooming above hairy leaves and stems! Colors include blue, white, and pink. Forget-Me-Nots make a wonderful carpet or ground cover under taller plants or small deciduous trees, and looks best planted in large "pools" or masses of plants. Send or give Forget-Me-Nots as a sign of true love or friendship. **Did you Know?** Forget-Me-Not seed packets are popular handouts and giveaways for funeral services, rememberances, sales promotions, and even political campaigns. Forget-Me-Not are started from seed. Directly seed Forget Me Not seeds into your flower garden after all danger of frost. Or, for earlier blooms, start them indoors a few weeks before the last frost in your area. Sow seeds after all danger of frost. Cover lightly with 1/8" of garden soil. Space them 4-5 inches apart and thin seedlings to 10" apart. Perennial Forget-Me-Nots can be propagated by separating clumps of established plants.

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### 1. How to Grow Forget-Me-Not:

Forget-Me-Nots are easy to grow. They will bloom profusely in shady areas, and do not require a lot of attention. They prefer shade, but will do well in sun, too. They grow well in average soils but the soil should be kept moist.

Add a general purpose fertilizer once or twice a season.

They may need mulching for winter protection in northern areas, or grow them as a biennial.

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### 2. Insect and Disease:

Insects and disease are not too common. If problems arise, treat early with insecticides or fungicides as appropriate.

## 19. How to Grow Foxglove Flowers

*Biennial or Perennials, Digitalis*

Now here is an old garden gem. Foxgloves have spikes of distinctive, freckle-throated bells that stud the flower stems. They provide a graceful, stately look in a partly shady garden. They are at home in the woodland or native garden, and look well in the back of the home garden.

Foxglove blooms during early summer in various shades of shell pink, rose, cream and white, with contrasting freckles. They are natives of Europe, Western Asia and Northern Africa.

**Caution:** The leaves are poisonous. If you have children or pets, you might want to steer clear of this flower.

The poisonous substance in the leaves is called Digitalis. You may recognize this as a chemical sometimes used in the treatment of heart disease.

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### 1. Propagation:

Foxglove are started from seed. Sow Foxglove seed directly into your flower garden after all danger of frost. They can also be spread around fields as a wildflower.

Sow seeds early in the season and cover lightly with 1/8" of garden soil. Give them plenty of room. Final spacing should be 24". We recommend sowing a few seeds every 24", marking the position. Then, thin the seedlings to one after they have sprouted and grown an inch or two.

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### 2. How to Grow Foxglove Plants:

Foxglove like full sun to partial shade. They will grow quickly to a height of 2 to 5 feet, depending upon the variety you have selected for your yard or woodlands area.

Foxglove will do well in average soils and in cool weather. The soil needs to be kept moist to feed their quick growth. Water them during dry periods, once or twice per week. Adding a general purpose fertilizer once a month will result in bigger, fuller blooms.

Cut blooms just before they reach their peak. Place them in a vase and arrange with other flowers, or alone by themselves.

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### 3. **Insect and Disease:**

Insects and disease problems are not a major problem. If problems occur, treat early with organic or chemical insect repellents and fungicide.

## 20. **How to Grow Geraniums**

Geraniums are easy to grow annuals that fit well in home gardens, container gardens, flowerbeds, and even as houseplants. We like them for their big, bright bloom, and because they are so easy to grow almost anywhere. Geraniums make great flowers for kids.

Home gardeners use Geranium plants in a wide variety of ways. They are well suited for container gardens by themselves or with other flowers. You can use them to make a potted gift for a friend for any occasion. They grow well in flower gardens along with your other favorites.

When the weather gets cold these hardy plants will withstand light frosts and patiently await transplanting into containers to move them indoors. Smaller, dwarf varieties make the best houseplants. Geraniums like lots of sun. So, put them in a sunny window or room. They prefer temperatures below 70 degrees.

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### 1. **Outdoors:**

Geraniums can be grown from seed or cuttings. But, most people buy small plants from garden stores at very low prices and plant them around the garden and in containers. Plant them in full or partial shade. While they will tolerate poor soil, add compost and a general purpose fertilizer to maximize growth and plant health.

By mid-summer, your geranium plant will be growing bright white, red or pink blooms. They will continuously bloom all the way to the first frost and beyond.

**Tip:** To promote continuous blooming, pinch or cut off the blooms after they die.

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## **2. Indoors:**

Geraniums live approximately 18 months. They will last over the winter as indoors houseplants. Getting them to bloom indoors is sometimes a little difficult, as they often go dormant, or grow slowly. After transplanting, place them in a cool, but sunny location. Cut them back by about 1/3. Don't overwater. They prefer soil on the dry side. Fertilize once a month.

If you want to grow cuttings, snip off several new growths, about 3-4 inches in length. Then stick them in moist potting soil. Keep the soil moist and they will root. Comes spring they are just about the right size for planting in a container on the porch or directly in the garden.

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## **3. Insects and Disease:**

Yet one more benefit of these plants is they are seldom bothered by insects and diseases. In literally decades, of growing geraniums, we have never sprayed for either insects or disease. We hope you have the same experience. But, if a problem does occur, treat it early.

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## **4. Hardiness:**

Here is one annual that will withstand the cold. It is among the hardiest of annuals and will compete with Mums for the last flower of the year.

## 21. How to Grow Geraniums

### *Annual*

Geraniums are both easy to grow and versatile. One of the most popular of flowers, they are grown outdoors in flowerbeds, indoors as houseplants, and are commonly found in containers on patios and decks. When grown in containers, they look handsome by themselves, or arranged with a group of flowers. The easy to grow/easy to care for characteristics of Geraniums spells "gardening success" for first time home gardeners and kids.

They commonly grow 12-24 inches tall. However, there are some varieties that will reach 5-6 feet!

Durable and hardy Geraniums have scalloped leaves. The plant produces five petaled flowers from mid-summer to frost. Colors include red, white, pink, salmon, orange, purple, and bicolors.

### **Propagation:**

Geraniums can be grown from seed. Geranium seeds can be directly seeded into your garden after all danger of frost. We recommend an early indoor start, 8-10 weeks before the last frost. Use of a heated germination mat will also be helpful to give your Geraniums a strong, healthy start.

Geraniums can also be propagated by cuttings. Cut off a young, shoot about 3"-4" long. Place cuttings in moist soil. Keep the soil moist for a couple weeks to promote root growth.

### **How to Grow Geraniums:**

#### **1 Outdoors:**

Geranium plants prefers full sun. It will also do well in partial shade. If you live in a warm, southerly climate, opt for partial shade. They will grow in average to poor soil. If planted in poor soil, add compost and a general purpose fertilizer, to maximize growth and plant health.

Geranium plants prefer slightly dry soil. Water during dry periods. Then, allow the soil to dry out between watering. Add fertilizer once a month.

Space plants 12" apart.

Geraniums will begin to bloom by mid summer, and will continue to frost. Deadhead spent flowers to promote new blooms, and to maintain an attractive appearance. Also, remove any damaged or dead leaves and stems.

Hardy plants can survive a light frost. If you are planning to bring them indoors, do so right around the first frost.

Try geraniums in containers either singly, or mixed with other annuals.

## **2 Indoors:**

Geraniums live approximately 18 months. They are good candidate to move indoors when cold weather arrives. Cut them back by about 1/3. Or, start new plants in late summer for use as houseplants. Place them in, or near, a sunny window. They prefer temperatures below 70 degrees.

Don't overwater. Allow the soil to dry slightly between watering. They prefer soil on the dry side. Fertilize once a month with a liquid fertilizer.

## **3 Insects and Disease:**

Geranium have few problems with insects. However, plant disease can occur, most notably leaf spot and blights. To minimize plant disease problems, provide good air circulation and avoid getting water on the leaves. If disease problems occur, remove affected leaves and stems. Apply fungicides as needed.

## 22. How to Grow Lavender

*Perennial, Lavendula*

A member of the Mint family, Lavender is the most popular of aromatic herbs. Since ancient Roman times and before, people have loved Lavender for its beautiful, fresh scent. Gardeners, crafters, homeowners, they all just love it!

Lavender is native to the Mediterranean and northern Africa. Wildly popular, this hardy perennial is now grown around the world. In the flower garden or herb garden, Lavender is attractive with its grayish foliage. When in bloom, the Lavender scent drifts pleasantly across the yard.

We recommend planting some along the house under your windows, so the scent can waft inside in the breeze. Most varieties are under 1 1/2 feet. But, they can grow up to two feet tall.

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### **Propagation:**

Lavender are grown from seed. We recommend an early start indoors six to eight weeks before the last frost. You will want to get these plants in bloom in your yard as early as possible. Place seedlings in a sunny window or use gro lights.

You can also directly sow seeds into your garden. Sow seeds early in the season and cover lightly with soil. Space seedlings or thin plants to 18" apart, in rows 24 inches apart.

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### **How to Grow Lavender:**

Lavender grows best in full sun. They do well in most soils, but a well drained soil is a must. They are tolerant of droughts.

Add a general purpose fertilizer once or twice a season.

Pick flowers in full bloom and place in a small vase.

The scent is in leaves, stems and flowers. Harvest in early morning when the oils are at their strongest in the plants. Cut the stems and spread loosely on a screen to dry.

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### **Main Uses:**

Lavender was used by ancient Romans to scent their bath water. Since ancient times, it was also stored with clothes and linen for a fresh scent.

Lavender is popular in crafts, potpourri, sachets and as dried flowers. The oils are used to make perfumes.

## **23. How to Grow Lupine Flower Plants**

*Annuals and Perennials, Lupinus*

A member of the pea family, Lupines are a wonderful old-fashioned flower. There are annual and perennial varieties. They bear very large, showy spikes covered with unusual pea-like florets on long, sturdy stems. Colors include white, red, pink, blue, yellow, lilac, violet, and apricot. Plants have attractive, handprint-shaped blue-green leaves. They usually bloom in June-July.

Easy, quick growing Lupines rise to a stately 3 feet and prefer cool weather climates.

Lupines are great in flower vases alone or in arrangements.

**Strange as it may seem**, some Lupines are poisonous, while others are edible! Unless you know our Lupines, we recommend you do not serve them at the dinner table.

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### **Propagation:**

Start Lupine from seed. Sow Lupine seeds directly into your flower garden after all danger of frost. They can also be spread around fields as a wildflower.

Sow seed and cover lightly with 1/8" of garden soil. Space plants 12" - 14" apart.

Perennial Lupines can be propagated by cuttings or division. Make cuttings in late summer as the weather begins to cool. Division is best done in the early fall.

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### How to Grow Lupine Plants :

Lupine plants like full sun to partial shade. They will grow quickly to a height of 2 to 3 feet.

Lupine will do well in average soils and in cool weather. The soil should be loose and lime free(they do not like lime). Keep the soil moist to feed their quick growth. Water them during dry periods, once or twice per week. Adding a general purpose fertilizer once a month before blooming will result in bigger plants and blooms.

Deadhead spent blooms to prolong the blooming period.

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### Insect and Disease:

Insects and disease problems are not a major problem. If problems occur, treat early with organic or chemical insect repellents and fungicide.

## 24. How to Grow Lupine

### *Annuals and Perennials, Lupinus*

Lupines are an old-fashioned flower with annual and perennial varieties. A member of the pea family, they are native to North America and Europe. Good looking, easy to grow plants have hand-print shaped leaves. Established plants will grow well for years. The most popular home garden varieties grow 3' - 4' tall. Larger shrub and tree varieties benefit by a regular pruning

Lupine plants produce attractive, sweet, pea-like blooms on large showy spikes. Flowers bloom from mid spring to mid summer. Colors include white, red, pink, blue, yellow, lilac, violet, and apricot.

Lupine flowers are great in flower vases alone or in arrangements.

**Important Note:** Some Lupines are poisonous, while others are edible. Unless you are certain the variety you have selected is safe, keep Lupines away from children and pets.

**Propagation:**

Grow Lupine from seed. Sow Lupine seeds directly into your flower garden after all danger of frost. Or, broadcast seeds in an open field or meadow to grow as wildflowers.

Sow seed and cover lightly with 1/8" of garden soil. In the flower garden, space plants 12" - 14" apart.

Perennial Lupines can be propagated by cuttings or division. Make cuttings in late summer as the weather begins to cool. Plant division can be done in early fall.

**How to Grow Lupine Plants:**

Lupine grow best in full sun to partial shade. They are fast growers. Lupine grow well in average, slightly acidic soils. In average soil, add compost prior to planting. The soil should be loose. They prefer cool weather.

Keep the soil moist to feed their quick growth. Water them during dry periods, once or twice per week. Adding a general purpose fertilizer once a month before blooming will result in bigger plants and blooms.

**Tip:** Deadhead spent blooms to prolong the blooming period.

**Insect and Disease:**

Slugs can be a problem. Use slug pellets as needed.

Insects and disease problems are infrequent. Apply insecticides and fungicides as needed..

## 25. How to Grow Peony Plants, or Peonies

*Paeoniaceae*

Thick and lush leaves. Big, bright, showy flowers. These are the two most common descriptions of peonies. Oh, we forgot the word "popular". Big, lush peony plants with big, bright, showy flowers are very popular with home gardeners!

Peonies have their "roots" in two areas of the world. "Common Peonies" originated in southern Europe. Any idea where the "Chinese Peony" originated? Tree peonies come from China, too. The Chinese peonies have double blooms and are more fragrant than their European cousins. Peonies are perennial plants, and grow quickly. They produce colorful, showy blooms in late spring to early summer. There is a wide range of colors to choose from, including white, red, crimson, yellow, and rose.

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### **Propagation:**

Peonies are grown from roots. The roots develop "eyes" which in turn grow into a new Peony. When transplanting roots from an existing plant, make sure there are at least a couple eyes on the roots.

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### **How to Grow Peony Plants:**

Peonies like rich, well drained soil, and full sun. Add plenty of compost and well rotted manure prior to planting, and again each fall.

Plant roots with eyes 1"-2" deep. Space plants a minimum of 24"-36" apart.

The plants will grow fairly quickly to their full height, and bloom in the spring to late fall. Make sure to provide water during periods of drought. Add a general purpose fertilizer a couple of times a year. Use a fertilizer high in Phosphorus about two weeks prior to blooming.

Peonies produce a thick, lush plant. If the plant appears too bushy, trim and thin to improve air circulation. This will help to avoid plant disease that can harbor in the dark, humid areas of this dense plant.

The profusion of leaves and flowers can cause the plants to fall over, spoiling the beauty of the bloom. Make sure to support the plants with garden stakes or hoops.

In the fall, trim the plant back. If it has experienced plant disease, you can trim it back to the ground. Remove and dispose of any diseased leaves and stems.

Add a covering of mulch in the fall in areas where there is little or no snow cover.

After a few years, the clumps of roots can get too thick and may require digging them up and removing some of the roots. A sure sign of the need for thinning the roots is smaller flower blooms. Chances are, your friends will appreciate your delivery of roots from your favorite plants.

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### **Insect and Disease:**

Peonies usually have few insect problems. The presence of ants is common. They are attracted to the sweet flower buds. Ants do not hurt the plant.

There are many plant diseases that can affect your plant. These include blights, leaf and stem spots, wilts, molds, and viral disease. Treat plants early with a fungicide. Better still, apply fungicides early in the season before disease occurs. Repeat applications as indicated on the fungicide label.

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### **Medicinal Uses:**

Ancient Chinese used parts, of the peony plant, primarily the roots, for treatment of fever, muscle cramps, liver ailments, atherosclerosis, hepatitis, and even PMS!

While ancient cultures used peonies in medicine, it is listed as a poisonous plant. See [Poisonous Plants-peonies](#)

## Growing Peonies

HYG-1241-94

Hope Weber

Peonies are perennial favorites in the flower garden. Few herbaceous plants can rival them for floral display and foliage. Their exquisite, large blossoms, often fragrant, make excellent cut flowers and the foliage provides a background for annuals or other perennials.

Two types of peonies are generally grown in the home landscape, *Paeonia* hybrids or garden peony and *Paeonia suffruticosa* or tree peony.

The following information pertains to *Paeonia* hybrids. Peonies are classified according to flower form. All peonies have five or more large outer petals called guard petals and a center of stamens or modified stamens. Single forms have centers of pollen-bearing stamens. Centers of semi-double forms consist of broad petals intermingled with pollen-bearing stamens. Double types have dense centers of only broad petals (transformed stamens). The anemone form, often included in the semi-double category, may have more than one row of guard petals encircling a center of thin, petal-like structures. Japanese types are similar to anemones but have staminodes (stamens that do not produce pollen) in their centers. Flowering usually lasts one week in late spring to early summer. By selecting and planting early, mid- and late-season bloomers, flowering may be extended for six weeks. Flower color may be any except blue.

Peonies grow from two to four feet in height. Support is often required for tall, double hybrids. Peonies thrive in sunny locations and well-drained soils, tolerating a wide range of soil types. Best growth is in soil with a pH range of 6.5 to 7.5, deep and rich in organic matter. They are hardy from zone 8 to zone 2 (central Ohio is zone 5) with some exceptions. In cold climates, those with an average minimum temperature below -20 degrees F, winter mulching is necessary if there is little or no snow cover. Because winter chilling is required for dormancy, peonies do not perform well in subtropical areas. Planting, transplanting and dividing peonies are best done in early fall but may be done in spring as soon as soils are workable. Each plant requires an area about three feet in diameter. Dig a generous hole, large enough to accommodate the roots, and incorporate aged organic matter in the bottom. Place the peony in the prepared hole so that the eyes (small, red-colored buds) are one to two inches below the soil's surface. Backfill and water well.

Peonies may be left undisturbed for many years. A decline in flower production usually indicates overcrowding and the need for division. Carefully lift the clump and wash away the soil to expose the eyes. Using a clean, sharp tool, divide the clump into sections, each with three to five eyes and good roots. Replant immediately.

### **Pests and Problems**

Peonies have few pests or problems. The most frequently occurring pests are botrytis blight and leaf blotch, both fungal diseases. Especially prevalent during wet springs, botrytis affects leaves, stems and flowers. Spots appear on leaves, stems soften and decay, and flowers either rot or buds blacken and fail to open. Prompt removal of infected material and a thorough fall cleanup are essential for control. In spring when shoots emerge, use a fungicide labelled for botrytis according to package instructions. Leaf blotch develops during warm, moist weather. Glossy, dark purple spots form on the upper surfaces of leaves. Again, removal of infected leaves and good fall cleanup are necessary for control. At first signs of infection, apply a properly labelled fungicide. Avoid overhead irrigation.

Other fungal diseases include Phytophthora blight and Verticillium wilt. These are soil borne fungi with no cure other than destroying infected plants. Do not replant in diseased soil.

The only insect pests of any consequence on peonies are scales. Scales are seen on stalks and leaf bases in late summer and overwinter on the below ground portion of stalks. For control, remove plant material in fall then apply a properly labelled insecticide in late May and mid-June the following year. The presence of ants on peony blossoms is neither beneficial nor harmful to the plant. Ants are simply attracted to the sugary liquid secreted by flower buds.

A common problem of peonies is the failure to bloom. It may be the result of:

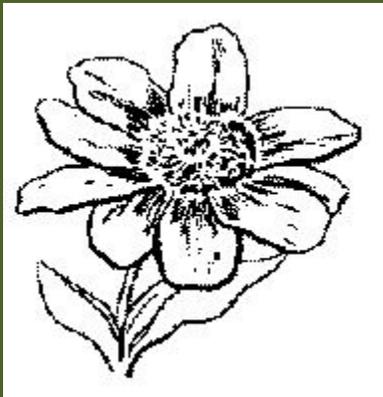
- planting too deeply
- immature plants
- excess nitrogen
- inadequate sunlight
- overcrowding
- phosphorus and/or potassium deficiency
- insect or disease problems
- competition from roots of nearby plants
- late freezes

## Recommended *Paeonia* hybrids

E	-	early	bloomer
M	-	midseason	bloomer
L - late bloomer			

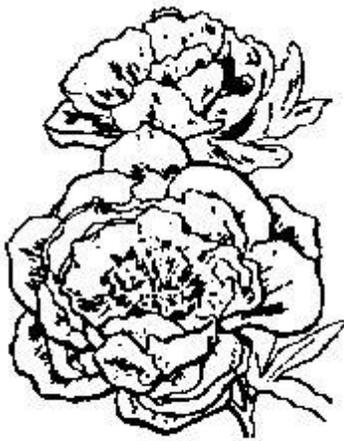
### ***Single***

- *P.* 'Bowl of Beauty' - rose pink - E
- *P.* 'Krinkled White' - white - M
- *P.* 'President Lincoln' - deep red - LM
- *P.* 'Seashell' - pink - M



### ***Semi-Double / Anemone***

- *P.* 'Mildred May' - white - M
- *P.* 'Robert W. Auten' - dark red - M



Semi-Double

Semi-Double



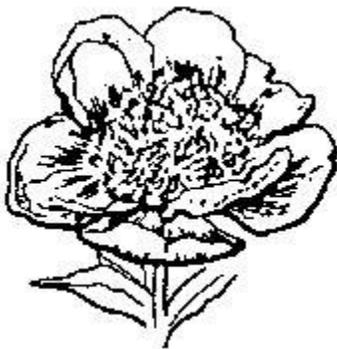
Anemone

Anemone



### Japanese

- *P.* 'Cora Stubbs' - pink, cream center - M
- *P.* 'Nippon Beauty' - red, red/yellow center - L
- *P.* 'Break O'Day' - rose, red/gold center - M
- *P.* 'Carrara' - white, white center - M



### ***Double***

- *P.* 'Kansas' - brilliant red - E
- *P.* 'Festiva Maxima' - white - E
- *P.* 'Nick Shaylor' - blush pink - L
- *P.* 'Fairy's Petticoat' - dainty pink - E
- *P.* 'Sarah Bernhardt' - med. rose pink - M



## **26. How to Grow Phlox Flowers**

*Annual, Perennial*

Here is an old fashioned annual that deserves more recognition than it gets. The large clusters of flowers are very showy on compact plants. Compact is an understatement, as these plants grow only 6-18 inches tall. The most common Phlox is annual. There are also perennial varieties.

Despite their small size, Phlox make good cut flowers, and are great in containers or window boxes. A native of North America, the jewel-like flowers grow in clusters at the top of the stems. These bright colored blossoms include shades of red, purple, scarlet, yellow, and white, some with a flirty eye.

**Did you know?** Wild Sweet William is a specific variety of Phlox.

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**Propagation:**

Phlox are grown from seeds. Phlox seeds can be directly seeded into your flower garden or seeded indoors for transplanting later. For spring blooms, start indoors six to eight weeks before the last frost. Young seedlings will transplant well into their permanent home.

Sow Phlox seeds early in the season and cover lightly with 1/8" of fine garden or potting soil. Water thoroughly once.

Transplant Phlox into your garden after the last frost date for your area. Space them 8-10" apart. They will tolerate a little crowding. They will look great filling in a flowerbed, or as a border edging.

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### **How to Grow Phlox Plants:**

Phlox like full sun. They prefer rich, loose soil that drains well. Add a general purpose fertilizer when planting them, then once a month after that.

Once your Phlox plants are established, they should grow well with few problems. Keep the soil moist to slightly dry. Water them during dry periods, once or twice per week. Keep them well weeded, or apply a 2-3 inch layer of mulch for a tidy appearance. Pinch back tall stems to promote a bushier appearance.

**Tip:** Remove spent blooms to promote additional blooms and extend the blooming period all summer long, and right up to the first killing frost. This will also keep the appearance neat and beautiful.

Phlox are hardy annuals. They will often survive the first few light frosts. They will not survive a hard frost or freeze.

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### **Insect and Disease:**

Nematodes can be a problem. Treat early with insecticides specific to nematode. If disease problems occur, treat early with fungicide.

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## 27. How to Grow Phlox

*Annual, Perennial*

Looking for a brightly colored display of profusely blooming flowers? Try growing Phlox. This plant produces large clusters of flowers on compact plants. There are both annual and perennial varieties of this native North American flower.

Phlox plants are small and compact, growing just 8-10 inches tall. They have bright colored blossoms in shades of red, purple, scarlet, yellow, and white, some with a flirty eye.

Phlox looks great wherever you put them on display. Try them in a sunny flowerbed. Or, grow Phlox in windowsill planters, or containers on your patio or deck. They are good as cut flowers, too.

### **Propagation:**

Phlox are grown from seeds. Directly sow Phlox seeds into your flower garden after all danger of frost has past.

For earlier spring blooms, start seeds indoors six to eight weeks before the last frost.

### **How to Grow Phlox Plants:**

Phlox plants like full sun. They prefer rich, loose, well draining soil. Mix plenty of compost into the garden space prior to planting. Add a general purpose fertilizer when planting them, then once a month after that.

Sow Phlox seeds early in the season, and cover lightly with 1/8" of fine garden or potting soil. Water thoroughly.

Transplant Phlox seedlings into your flower garden after the last frost date for your area. Space them 8-10" apart. They will tolerate a little crowding. The small plants look good as borders and edgings, and planted in mass.

Plants will grow well with little care, and few problems. Keep the soil moist to slightly dry. Water them during dry periods, once or twice per week. Keep them well weeded, or

apply a thick layer of mulch for a tidy appearance. Pinch back tall stems to promote a fuller, bushier appearance.

Deadhead spent blooms to promote additional flowers, and extend the blooming period all summer long. This will also keep the appearance neat and tidy.

Phlox are hardy annuals. They will often survive the first few light frosts. They will not survive a hard frost or freeze.

### **Insect and Disease:**

The most common insect problem is nematodes. Use insecticides effective against this pest. Otherwise, apply insecticides or fungicides only as needed.

## **28. How to Grow and Care for Rose Bushes**

There is unquestionably no flower as beautiful or as loved as a rose. They say beauty is in the eye of the beholder. More "beholders" carry, display and grow roses than any other flower. They are the undisputed favorite of growers and flower buyers alike.

Roses carry special meaning with each color. [Meaning of Each Color](#) Many gardeners consider one or several roses a must in their gardens. A properly maintained and cared for rose garden will produce blooms from June until frost. It beautifies the yard and adorns the rooms of your house while providing a light and sweet scent.

Growing rose bushes is easy and rewarding. A mostly sunny location and a little gardening basics is all you need to get started. With a little learning you can turn your rose bushes into a perfect bush providing a profusion of roses. Like any other form of gardening the more gardening care and information you know for the particular plant you are growing the more successful you will become.

### **Rose Growing Information:**

[Caring for Cut Flowers](#) [Varieties](#)

[Propagation](#)

[Care and Feeding](#)

[Insect Treatment](#)

[Adorable Homepages](#)

[Colors and Meaning](#)

[Diseases](#)

[Winter Protection](#)

[Rose Hips](#)

[Send Someone Fresh Flowers](#)

## 29. How to Grow Daylilies

Daylilies are an easy to grow plant that is grown for both its large, colorful flowers and its attractive foliage. Daylilies are gaining in popularity and are grown just about everywhere in the U.S. as well as around the world. Different varieties can be found in a wide range of colors to choose from. These plants are tolerant of poor soils and growing conditions, making them an ideal plant for areas where other plants just will not thrive.

Daylilies are propagated by their roots. Large roots are separated and planted four to six inches deep in the spring. Add compost into the soil before planting and mix in a general purpose fertilizer. Simply plant the root and watch it grow. Mulch around the plant to keep the weeds down. The appearance of your lilies will be enhanced by a weedless surrounding.

**Tip:** Try a low ground cover like white Alyssum around the lilies.

Once planted the daylilies will quickly grow and thrive with little attention. They will bloom brightly once a year and the blooms will last for a week or so if the weather is not too hot.

After blooming, the big, bright leaves will shine in your flower garden until fall.

Pull up the roots around the first frost. Store the roots over winter in your basement or other cool, location. Some people will store them on sand. Do not store them where they will freeze as this will kill the roots.