

University of Missouri Extension

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Roses: Selecting and Planting

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Roses are one of the world's most popular flowers. Their beauty and delicate fragrance have universal appeal. Roses are well adapted to many different environmental conditions. They are useful for cut flowers and many landscape effects. Since they are the product of centuries of breeding and selection, many shapes, forms and colors provide endless types to select from and use.


The many types of roses available offer selections for almost any situation. Hybrid tea, floribunda and grandiflora are the most commonly planted types. These require a rather vigorous pest control program to maintain them in a vigorous, productive condition. Shrub and species roses require little or no pest control. Once they are established they grow and flower for years with very little attention.

Different types of roses are described here and a few varieties highly rated by the American Rose Society are suggested as an aid to the beginning rose grower. Varieties are listed by major color or as blends. Blends are those varieties with flowers that are not a solid color.



At all stages of flower development, the hybrid tea rose provides classic beauty with universal appeal.



 The hybrid tea rose Broadway

Hybrid tea

The most popular of all roses today. It originated from crosses between hybrid perpetuals and the tea rose imported from China in the 18th century. Flowers are large, many with a delicate fragrance. Plants are vigorous, but not as hardy as most of the "old-fashioned" shrub or hybrid perpetual roses.


Following are some of the hybrid tea roses that have received high ratings by the American Rose Society. Space does not permit a complete list.

- **Red**
 - Chrysler Imperial
 - Oklahoma
 - Mr. Lincoln
 - Olympiad
- **Red blend**
 - Mon Cheri
 - Granada
- **Red white blend**
 - Double Delight
- **Pink**
 - Royal Highness
 - Sweet Surrender
 - Sheer Bliss
 - Dainty Bess
- **Pink blend**
 - First Prize
 - Chicago Peace


Touch of Class

- **Yellow**
 - King's Ransom
 - Oregold
- **Yellow blend**
 - Peace, right
 - American Heritage
 - Broadway
- **Orange**
 - Tropicana
 - VooDoo
- **Apricot blend**
 - Brandy
- **White**
 - White Knight
 - Pristine
 - Pascali
 - Honor
- **White blend**
 - Garden Party
- **Mauve blend**
 - Paradise



 Floribunda roses are important for landscape use because their shoots branch to produce many flowers.



 The European variety of the floribunda rose plant in full bloom.

Floribunda

Developed from crosses between hybrid teas and polyanthas. Flowers are intermediate in size between the two parents, but they have the same form and substance as hybrid teas. Floribundas are slightly hardier than hybrid teas and produce a greater abundance of flowers. They tend to grow lower and bushier than hybrid teas, which makes them suitable for mass plantings. Following are some rated highest by the American Rose Society:

- **Red**
 - Europeana
 - Red Pinocchio
 - Sunfire
- **Pink**
 - Cherish
 - Gene Boerner
- **Pink blend**
 - Sea Pearl
- **Yellow**
 - Sun Flare
 - Sun Sprite
- **Yellow blend**
 - Little Darling
- **Yellow orange**
 - Chrisma
- **White**
 - French Lace
 - Ivory Fashion

- Iceberg
- **Mauve**
- Intrigue

Grandiflora

Resulted in crosses between floribundas and hybrid teas. This group combines the free-flowering characteristics of the floribundas with the size and quality of the bloom of the hybrid tea.

Plants are generally fairly tall growing and vigorous. Some of the highest rated varieties include:

- **Red**
 - Ole
 - John S. Armstrong
 - El Capitan
- **Red white**
 - Love
- **Pink**
 - Queen Elizabeth
 - Camelot
- **Yellow**
 - Gold Medal
- **White**
 - White Lightnin'



 The Fairy, a polyantha rose variety, produces small, light pink, double flowers almost constantly throughout the summer.



Polyantha

Flowers are smaller than the floribunda but borne in larger clusters. Plants are hardy, bushy and relatively disease resistant. They are excellent for mass plantings and borders. Varieties are more limited and flowers are not as suitable for cutting as the previous types. Outstanding varieties available include

- China Doll
- The Fairy
- Mrs. R.M. Finch

Miniature



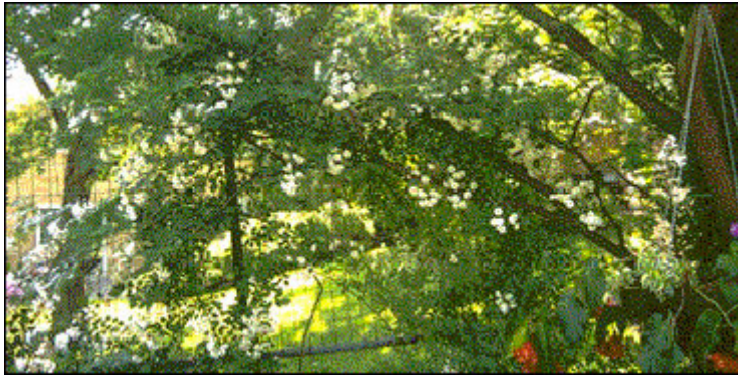
As miniature roses become more and more popular, more varieties are being developed.


Dainty little rose plants are replicas of their larger relatives. Flowers are small and plants range from 6 to 12 inches in height. Leaves and even thorns are perfect miniatures. Plants are bushy and most are quite hardy. They are useful for low edging and in rock gardens. Many varieties are available from specialists in many colors and blends.

Tree

Hybrid tea or floribunda varieties are grafted on top of a long stem or "standard." Tree roses generally need support and are susceptible to winter injury. They make interesting accent plants. To avoid winter injury, wrap the top with burlap and protect stems with burlap and evergreen boughs.

Climbing



 Climbing roses do not climb, but they produce tall, vigorous shoots that must be supported.

This category includes all varieties of roses that produce long, vigorous cane growth that can be trained on fences, trellises or posts. Climbing roses don't climb in the sense of many other plants. They don't twine or have tendrils that make them self-supporting. Several different categories of climbing roses are available with slight differences in hardiness and culture.

Ramblers

An "old-fashioned" type of climber. Plants are vigorous and fast-growing. Small flowers in large, dense clusters are produced only in spring. Foliage is glossy and plants are hardy, but most varieties are susceptible to a foliage disease called mildew. They are generally being replaced by newer climbing types.

Everblooming climbers

Vigorous growers that are relatively winter hardy. They do not produce the constant bloom of hybrid tea roses but have larger flowers in smaller clusters than the ramblers. The most abundant flower production is in the late spring with scattered bloom during the summer and fall. Included are such popular varieties as:

- America

- Blaze
- Don Juan
- New Dawn
- Golden Showers

Climbing hybrid teas

Originated as seedlings or chance sports of hybrid tea varieties. They generally don't flower as heavily as the bush forms and have about the same susceptibility to winter damage as the hybrid teas. Therefore, most need some winter protection. Flowers are identical to the hybrid teas of the same variety. Examples of this type are:

- Climbing Crimson Glory
- Climbing Picture
- Climbing Peace

Climbing floribundas

These also originated as sports of the original bush varieties. They are slightly hardier than the hybrid teas but normally benefit from winter protection. Representative varieties include:

- Climbing Goldilocks
- Climbing Pinocchio
- Climbing Summer Snow

Pillar

Roses of this type are intermediate between bush types and climbers. Canes are long but not quite as vigorous as climbers, and the wood tends to be too stiff to bend along a fence or trellis. Therefore, they are normally trained against a post for support. Examples of this type are often listed with climbing roses.

- High Noon
- Pillar of Fire


Creeping

This group can also be categorized with the climbers. These roses have very pliable stems that make them suitable for use as groundcovers because

the stems normally lie close to the ground. They may be trained upward, however. Most suitable for a groundcover is the very hardy *Rosa wichuraiana*, or memorial rose, which has been used in the breeding of many newer climbers and ramblers. Other creeping types include:

- Max Graf
- Little Compton Creeper
- Coral Creeper
- Carpet of Gold
- White Banksia



 A shrub rose in full bloom.

Shrub

The term "shrub rose" is often given to a miscellaneous group of species, hybrids and varieties. They have also been listed as "old-fashioned" roses although new varieties have been developed. They are a hardy group of roses with a wide range of flower forms and colors.

There are many uses for these types in the landscape both in the shrub border, as screens, accent plants or even in foundation plantings. They compete better with other shrubs than hybrid teas. Most are heavy feeders and tolerate a wide range of soil conditions. Most of them have greater disease resistance than hybrid teas. They normally bloom once a season — in June. A few newer varieties are repeat bloomers and produce a crop of flowers in fall.

Hybrid perpetual

These are the roses that form the link between the roses of the early 1800s and the roses of today. These are the roses that were crossed with the tea rose of China to form the hybrid tea. They are vigorous, hardy roses with good disease resistance. Most are repeat bloomers, although their largest crop of flowers is produced in spring.

Rugosa rose (*Rosa rugosa*)

This rose and its hybrids are easy to grow and have extreme vigor and hardiness. Their hardiness makes them ideal for windy and exposed sites. Many varieties grow up to 6 feet tall, but they can be kept shorter with pruning. Rugosas bloom throughout the season and in the fall develop good orange foliage color and bright red hips. The foliage has a rough surface and dark green color. Flowers are both single and double, and come in many colors. Rugosas are excellent for screens or hedges where large plants are needed but do not combine well with "modern" rose plantings. One of the most popular rugosas is 'Hansa', which is large and vigorous with thorny canes. Its large, double, reddish purple flowers have a strong, spicy scent and they bloom freely throughout the season. 'Therese Bugnet' bears clusters of ruffled, bright lilac-pink flowers with a sweet fragrance. It offers a spectacular display of rich red foliage in the fall, and the canes remain a deep red throughout the winter. Other popular rugosas include:

- 'Sara Van Fleet'
- 'Grootendorst'
- 'Belle Pointevine'
- 'Magnifica'

Cabbage rose (*Rosa centifolia*)

Varieties of this rose are depicted in the paintings of Dutch masters. Flowers are large, often with 100 or more petals. They are mainly available in shades of pink. Plants are vigorous, growing up to 6 feet tall. One of the oldest roses under cultivation.

Moss rose (*Rosa centifolia mucosa*)

This rose and its varieties are closely related to the cabbage rose but have a "mossy" growth at the base of flowers and on the stem. Their growth is similar to the cabbage rose. Not common today, they reached their peak popularity during the 19th century.

Damask rose (*Rosa damascena*)

These highly fragrant roses grow 4 to 6 feet tall. Flowers are large, double and primarily in pink shades. The famous York and Lancaster rose is one of the Damask types.

Other species and varieties

The vast number of other species, hybrids and their varieties are too numerous to mention here. Most of these are available only through specialists. Check for their names and addresses in classified sections of garden magazines and catalogs. Among them are:

- Sweetbriar rose
- Cottage rose
- French rose
- Father Hugo rose
- Apple rose
- Scotch rose
- Prairie rose
- Virginia rose
- Memorial rose

Modern shrub roses

Many gardeners avoid roses because of the intense maintenance they require. But roses are becoming easier to grow and more desirable in the landscape through efforts to create roses that are more carefree by improving their winter hardiness and disease resistance. At the same time, these roses are being bred to have improved flower quality, appealing growth habits, and attractive foliage that will complement just about any garden style. Few hardy garden shrubs can compare with roses for astonishing diversity of color and the continuous bloom throughout the summer. The majority of modern shrub roses are on their own rootstock; if they die back to the crown in the winter, they will recover vigorously each spring from the roots.

Parkland

Canadian rose breeders developed the Parkland series of roses for their ability to do well under extreme winter cold and drought conditions. The most popular of the Parkland series are the Morden shrub roses, including 'Morden Blush', 'Morden Centennial' and 'Morden Fireglow'. They produce beautiful hybrid-tea-like blooms throughout the season, and the shrub has a compact growth habit with attractive glossy foliage. 'Cuthbert Grant' combines hardiness with perhaps the best flower quality in a shrub rose. Although Parkland roses have traditionally had problems with blackspot in Missouri, recent introductions such as 'Morden Snowbeauty' and 'Morden Sunrise' display significantly improved resistance to blackspot.

Explorer

Another Canadian series, the Explorer roses, offer disease resistance, excellent winter hardiness, and repeat blooming characteristics. 'Champlain'

is one of the most popular of the Explorer series with clusters of rich, velvety red blossoms continuously from May to frost. This extremely hardy rose has a compact growth habit that makes it perfect for any garden. Other Explorer series roses in the that perform well in Missouri include:

- 'David Thompson'
- 'De Montarville'
- 'Henry Hudson'
- 'Henry Kelsey'
- 'Martin Frobisher'
- 'Simon Fraser'
- 'Jens Munk'
- 'John Cabot'
- 'William Baffin'

Buck

'Carefree Beauty' is one of the best-known Buck roses, bred by Griffith Buck at Iowa State University. His goal was to combine cold tolerance with disease resistance and abundant flowering. 'Carefree Beauty' combines these characteristics with large, fragrant semi-double rose-colored flowers throughout the growing season. It also bears a crop of hips that add color to the garden throughout the winter. Other Buck roses that are good performers in Missouri include:

- 'Aunt Honey'
- 'Earth Song'
- 'Hawkeye Belle'
- 'Hi Neighbor'
- 'Winter Sunset'

Meidiland

With their vigorous, spreading growth habit, Meidiland roses are attractive in single plantings and when planted in mass. Meidiland roses were developed in Europe with disease-resistant, attractive glossy foliage and heavy blooms throughout the season. 'White Meidiland' bears the largest flower in the series — beautiful white blossoms with more than 40 petals each. 'Scarlet Meidiland' has small, cherry-pink semi-double flowers in large clusters throughout the season. In the fall, the shrub bears bright red hips that persist well into winter. The vigorous, trailing growth habit of the canes makes this a good choice for a tall ground cover. Another Meidiland rose, 'Bonica', was the first shrub rose ever to be named an All-America Rose selection in 1987. 'Bonica' can be planted singly but also provides an accent in a mixed border or with other shrubs. Like other Meidiland roses, 'Bonica' may require some winter protection to get through the tough month of March in Missouri.

Miscellaneous



Many old-fashioned roses have been grown for hundreds of years. This Austrian Copper is spectacular in bloom.

- **'Nearly Wild'**

This everblooming, low-growing, compact shrub, produces many single, pink flowers all season long. It is winter hardy and its compact size makes it a good choice for the small garden, flower border, or as an accent shrub. Nearly Wild, like other modern shrub roses, combines winter hardiness, disease resistance and ease of care.

- **'Harrison's Yellow'**

Also known as the 'Yellow Rose of Texas', it is an old favorite and one of the few yellow shrub roses. Double, bright yellow flowers cover the plant in June. It grows up to 6 feet tall, has an upright growth habit and is tolerant of shade.

- **Alba**

These roses bloom just once a year, a characteristic that led to their loss in popularity in the 19th century. Alba roses are extremely winter hardy with remarkable resistance to diseases and insect pests. They are elegant, graceful shrubs with an arching growth habit and fragrant blooms that range in color from white to blush to pale pink. Foliage is a distinctive bluish green. Albas are large shrubs that can grow 10 feet tall and will tolerate some shade and poor soils.

- **'Alba semi-plena'**

A also known as the White Rose of York, this rose produces pure white, fragrant flowers with eight to twelve petals, opening to reveal yellow stamens.

- **'Celestial'**

It produces sweetly fragrant light blush pink blooms on an attractively shaped shrub.

- **'Konigin von Danmark'**

This rose has double, quartered pink flowers shading toward light pink on the outer petals. The blooms are extremely fragrant and brilliant, and the blue green foliage accents the warmth of the flowers.



Essential growing conditions

Light

Roses grow best in full sunlight. If full sun is not possible, locate them where they get a minimum of six hours of bright sunlight each day. A location where they get only morning sun is to be preferred to one where they get only afternoon sun. Morning sun helps dry leaves quickly and reduces disease problems. Afternoon sun in midsummer fades and burns petals.

Drainage

Roses will not tolerate soggy soil. If well-drained areas are not available, consider planting them in a raised bed or installing subsurface tile drainage.

Competition

The roots of most roses don't compete well with those of trees and shrubs planted close by. Therefore, roses are generally most successful if grown in beds away from large plants. If this is not possible, extra fertilizer and water are necessary to make up for that taken away by other plants. Rose roots compete poorly with grass roots; therefore lawn grass must not be allowed to grow to the base of roses.

Soil

Roses are quite tolerant of many different soil types. However, they produce best growth in a relatively fertile soil high in organic matter. A soil that produces good vegetables will produce good roses. Heavy clay subsoil or sandy soil with low fertility must be improved if roses are to be grown successfully in them.

Where it is available, aged manure is one of the best soil additives in preparing for roses. Where not available, peat moss or leaf compost are beneficial. Add about one-half pound of superphosphate to each bushel of organic material applied to the soil.

Apply a layer of organic matter 2 to 4 inches thick on the surface of the area for a bed. Dig it into the soil as thoroughly as possible. It is best to dig up the area well in advance of planting. Many gardeners prefer to dig the area in fall and again in spring. When planting in individual holes, remove all the soil and thoroughly mix it with the organic matter. Use about one part organic material to two parts soil. Don't work soil when it is excessively wet.

Selecting plants

Grades

Roses are usually sold as two-year, field-grown plants. They are graded according to vigor and size. The main grades are 1, 1-1/2 and 2. Number 1 grade is the largest, and each succeeding grade represents slightly smaller plants.

The size of top grades will vary with variety, but always select only the top grade available for the desired variety. Most nurseries handle only 1 and 1-1/2. These grades normally are worth the extra investment. They produce more vigorous plants with abundant flower production. "Bargain" roses, sold at extremely low prices, are often culls from the growing field and are below the grading standards for the lowest grade. Extreme care in selection is advised. They are not generally a bargain.

Ways to buy

Bare root

Roses may be purchased bare rooted from local nurseries, mail-order nurseries and many other stores. When selecting these plants in a store, make sure that the canes are plump and green with smooth, unshriveled bark. If roots can be seen, select a good, well-balanced root system with a fresh appearance. A plant in good condition will feel heavy; a dried-out plant will feel comparatively light and twigs will be brittle if bent.

If you plan to purchase rose plants from a local store, select them as soon as possible after the shipment has arrived. Stores are often too warm and the dormant rose plants soon develop premature, weak growth. Over a few weeks, this can weaken or even kill the plant.

Container

Plants started in containers can be purchased and planted at almost any time during the growing season. Plants can be selected in flower and planted for immediate effect. But only container-grown plants in fairly large containers should be used. Number 1 roses should be purchased in at least a 2-gallon container. Number 1-1/2 or 2 plants should be in at least a 1-gallon container. Field-grown plants that are potted in small containers often have too many roots removed to develop vigorous growth after planting.

Planting roses

Time

In general, the best time to plant roses depends on winter temperatures. Where temperatures don't drop below -10 degrees Fahrenheit, either fall or spring planting is satisfactory. If you live in an area where winter temperatures go below -10 degrees Fahrenheit, spring planting is preferred. Plants should be planted in a dormant condition if purchased bare root, but container-grown plants may be planted throughout the growing season.

Spacing

Temperature can influence spacing of rose plants. In areas where winter temperatures are severe, plants don't grow as large as in mild climates. Therefore, in most of Missouri, hybrid tea roses should be spaced 2-1/2 to 3 feet apart. Large vigorous growers such as hybrid perpetuals need 3 to 5 feet of space and the climbers need from 8 to 10 feet of space.

Planting bare-root roses

Preparation

Examine bare-root roses before planting. Trim off any slightly broken roots or stems. New plants have been pruned and rarely need additional pruning.

After purchase, unpack the plants at once. Plants sold in a bare-root condition are often slightly dried. If they will be set out the same day or the following day, soak the roots for several hours or overnight. Don't soak plants unless they can be planted promptly. Soaking for more than 24 hours may damage them.

If plants will not be set out within 24 hours, moisten the packing material and repack the plants. Keep them in a cool place above freezing. They can be kept two to three additional days in this way. If the plants must be held longer, heel them outdoors. This is done by laying the plants in a shallow trench and covering the roots with soil. If tops are dried out, it will be beneficial to place the entire plant in the trench and cover both top and roots until planting.

Setting plants

When plants are ready for planting, make sure that the roots don't dry while the area is being prepared. Keep them in moist wrappings or in a bucket of water while preparations for planting are being made. The soil or bed should have been prepared in the fall or early spring as time and weather conditions permitted. Preferably, soil should be worked up at least four to six weeks before roses are planted in a new bed.

Planting bare-root roses

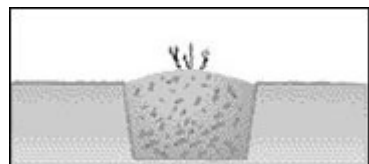


Figure 1

Dig hole to allow full spread of roots. Separate topsoil from subsoil.



Figure 2

Form a cone-shaped mound of prepared topsoil in center of hole. Firm slightly.

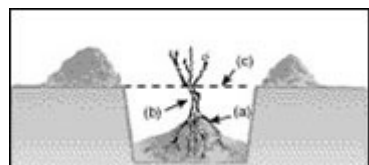


Figure 3

Spread roots over cone-shaped mound, (a). Position plant so bud union (b) is slightly below soil level (c).

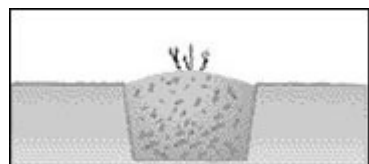


Figure 4

Water, then fill hole with soil, mounding it up around the base of each plant.

The hole should be large enough to permit full spread of the roots without touching the edges of the hole. The planting holes should be at least 12 to 16 inches deep and 18 to 20 inches wide (Figure 1). Larger holes will be beneficial.

Depth of planting

Modern hybrid roses are budded on special rootstocks. The point where the top and roots come together, known as the bud union, forms a "knuckle." If this union is injured by cold weather, the entire top may die and the roots will produce a "different" or undesirable plant. In southeast Missouri, plant roses so that this union is slightly below the soil level. In northern Missouri, this union should be 2 inches below soil level. Make the hole deep enough for proper positioning of the bud union without crowding roots.

After the hole has been properly dug, fill it about half full with a good garden soil prepared as described earlier. Build it up into a cone-shaped mound, and firm down slightly (Figure 2). This should eliminate air pockets. Notice that the roots of the rose plants, when spread, form a type of cone; they should fit over the mound. Look at the individual plant; make the mound tall enough so that when the roots fit over it, the bud union will be in the proper position.

Remove the plant from bucket or wrapping for prompt planting. Don't allow roots to dry. If they are too large for the hole, don't cut them off. Replace the plant and dig a larger hole.

If the hole is proper, spread the roots over the mound and begin covering them with soil (Figure 3). Pack the soil gently around the roots.

Next, fill the hole with water, allow it to drain into the soil, then add more water and allow to drain again. A minimum of one gallon of water should be applied at planting time.

After the water has drained into the soil, fill the hole and mound up the soil slightly around the base of the plant (Figure 4). This will help keep the base moist while it is getting established and also allow for settling. If possible, allow the plant to settle overnight and then mound soil up around the canes about 6 or 8 inches high. This will keep the canes from drying during establishment. When growth is well developed, remove the mound carefully to ground level.

When planting tree roses, climbers or ramblers with long stems, tie them to stakes or supports immediately after planting.

After planting is complete, make sure that the plants don't dry out during the establishment period or during the growing period. Don't fertilize until the plant is well established.

Planting roses from containers

This is easily done and can be done at most times of the year. Dig the hole about 6 inches larger in diameter than the container. Some containers must be removed, but those made of plantable paper need not be removed. To be sure, ask at the nursery where you made your purchase.

To remove the container, cut the sides so the root ball can be removed with as little root damage as possible. Space them as previously described and to the same depths. Keep them moist. If they are planted in midsummer, when temperatures are high, be prepared to place a temporary shading structure over them until they are established.

Rose rosette disease

- Learn about rose rosette virus, a rapidly emerging problem on roses in the Midwest.

New varieties of roses are constantly being introduced

The All-America Rose Selections organization evaluates new rose varieties in test gardens throughout the country and each year presents awards to the highest rated new varieties. For information, write All-America Rose Selections, 221 N. LaSalle St., Suite 3500, Chicago, Ill. 60601.

The American Rose Society evaluates both old and new varieties and publishes ratings in Handbook for Selecting Roses. It is available by writing the American Rose Society, P.O. Box 30,000, Shreveport, La. 71130-0030.



Brass band rose

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