

Rose

The rose is legendary. It is woven into the history of India and enjoys pride of place. Starting from the usual pink variety, tremendous progress has been made in rose growing in the country. The roses which are seen in foreign and Indian catalogues are now available at reasonable prices in the country. The hybrid Tea varieties is fast growing but is still confined to a few center only. There is the vast scope for introducing them widely. The keynote for success was light soil, good drainage, open sunny position, occasional sprays with insecticide during the rainy season and continuous pruning for die back.

There is a wide range of colour, size and shape in the roses. The size varies from the tiny Cri-Cri to the large bloom of 'American Heritage'. The colour would vary from the soft translucent pink of 'Michele Meilland' to the brilliant vermilion of 'Super Star'. Morden roses are derived from crosses between the Chinese roses(*Rosa chinensis*) and the European roses(*R. gigantea*, *R. damascene* and *R. moschata*).

Throughout history roses have captivated the hearts and minds of gardeners and non-gardeners alike, inspiring the creation of numerous poems, legends, and books on their uses and care. They are one of the most popular garden flowers grown on the face of the earth as evidenced by the several garden clubs, societies, organizations, and businesses devoted to them. There are countless species and cultivars available in a wide range of colors and forms, with new cultivars being introduced each year to improve on the previous year's selections

With the abundance of information available on roses and rose care, there is still some mystery about their proper care and maintenance. For every different type of rose available, there is probably a gardener with a different approach to caring for roses. It is as much of an art as it is a science to growing beautiful roses, but the following information will give you some important basics to help demystify the process.

Types of Roses

There are six different types of roses grown in garden , namely, hybrid tea , floribunda, polyantha, climbing and rambling, miniature and shrub roses.

Hybrid tea roses and the original tea rose are the world's favourite roses and are available in many gorgeous colors. Hybrid tea roses are among the most beautiful flowers in the world. They are the florist's rose. The blossoms are fantastic and each flower can have as many as 60 or more petals. The fragrance also makes the hybrid tea rose an excellent choice to give as a bouquet or to grow in garden.

Hybrid tea roses are different from other roses because they produce their flowers usually one bloom to a long stem rather than in clusters. Most hybrid tea roses produce flowers during the

entire growing season and the plants grow 3 to 6 feet tall. Tea roses come in shades of white, pink and yellow. Caring for hybrid tea roses is no more difficult than other roses although you do need to give them special care in colder climates. They are no more or no less pest or disease resistant than other kinds of roses.

Floribundas: They include hybrids of HTs and Polyanthas and certain other hybrids which have the same habit of blooming in large clusters. The plant have the form of HTs and the flowering propensity of dwarf Polyanther. Some of the finest example of these are 'African Star', 'banjaran', 'Angel Face', 'Bridal Pink' etc. one of the most floriferous of these is 'Iceberg'.

Polyanthas: As their name implies, they produce flower in profusion either in trusses or in a mass of single or double bloom and bloom for long period.

Miniatures : these are the baby roses which of late have gained in popularity due to growing admiration for miniature plants. They can be used as edges and also in rock garden.eg- cri-cri.

Climbers and ramblers: A distinctive class of climbers is known as ramblers. In Indian, they bloom freely in the hills only. As the name indicates ramblers are more free flowering and cane be grown to climb in any shape of arches or pergolas, etc. Climbers are not as flexible as ramblers. Some examples of climber are 'climbing peace', 'Pink Mardan' and 'Delhi Pink Pearl'.



Propagation : rose can be propagate by means of seeds, cuttings, layerings or by grafting , the most popular form of this being budding.

Seeds : garden roses are not normally propagated from seeds for two reasons. First, many varieties do not set seed, or if they do so, this is on a meager scale. Second, the seedlings often vary from each other with the result that instead of the original variety- known as the seed parent. One is confronted with a number of different type.

When planting roses, location, climate, and space should be taken into consideration. Roses are delicate flowers that need careful attention on details.



Before going deeper in location for flowers a decision has to be made whether planting it straight to the ground or pots, flower farm or a green house. Four season country or tropical. These decisions have to be made before choosing the location to answer the where. When roses will be planted on a large flower farm the amount of rainfall on rainy seasons should be taken into consideration. Roses do not bear good flower on heavy rain. In fact they prefer being in exposed under the sun in at least few hours during the day.

Things to Consider

Types of Soil

This is fundamental to all plants specially roses. That may differ from one variety to the other. Other species and varieties may prefer one type than the other. Rosaceae, those medium size roses, grow in almost all type of soil. Generally, roses tend to grow more on soil with higher moisture retention. Clayish soil had been discovered to show best results.

Soil pH

Soil pH measures the acidity or the basicity in the soil. Soils with PH level below 7.0 are acidic soil. Roses do not grow abundantly on acidic soil. This will produce unhealthy plants. If the acidic level of the soil were rather high treating it with lime and other organic materials would be one best solution.

Amount of Sunlight

Still this may vary on species. The general requirement for roses is between 4-8 hours of sun exposure. Generally roses bloom completely in full sun meaning an 8-hour exposure to direct sunlight. Other species though like the common garden roses; they can stand and still bloom on a 4-hour exposure.

Fertilizing

Because roses are heavy feeders, a routine fertilization program is important for plant health and vigor. To provide the proper nutrients for roses in the amounts needed for optimum growth, it is important to first test soil to determine its pH, texture (i.e., clay loam, sandy loam), and existing mineral nutrient content before adding fertilizer. A soil test should be done prior to planting and every two to three years thereafter.

Roses grow best in the pH range of 5.5 to 7.0. Powdered sulfur can be used to lower the pH.

Soil texture, which is the relative percentage of sand, silt and clay composing soil, will influence the amount and frequency of fertilizer application. Sandy loams, for instance, will require more frequent applications because they drain rapidly, leaching essential nutrients. They contain little clay (and possibly organic matter) that would normally hold nutrients.

It is always a good idea to amend soil with organic matter, such as humus, peat moss, manure or composted sewage sludge for an added source of slow release nutrients. The addition of organic matter will also improve the soil's drainage and nutrient holding capacity. It is recommended that two to four inches of organic matter be added and worked into new beds to a depth of 12 inches. Many gardeners find the combination of organic materials and a fast release, complete, inorganic fertilizer, such as a 5-10-5, 10-10-10 or 12-12-12, works best to produce beautiful roses.

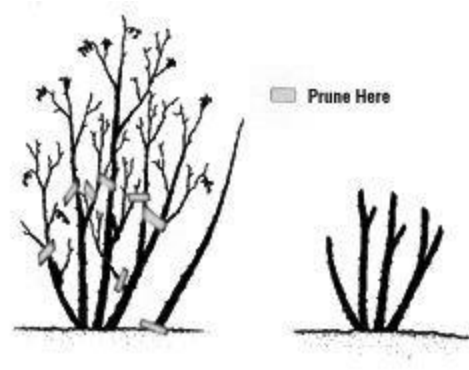
Pruning

Basically, pruning is done to improve the appearance of the plant, to remove dead or diseased wood, to let in sunlight and air to the center of the plant and to control the quantity and quality of the flowers produced. Deadheading, or the removal of spent blooms during the season, encourages more blooms (on continuous blooming varieties), improves the appearance of the plant, and removes potential harboring sites for disease organisms.

Prune rose bushes to a uniform height, between 12 and 24 inches; remove suckers below the soil line.

The tools essential for pruning roses are pruning shears, long handled lopping shears and a fine toothed curved saw. All should be sharp to produce clean cuts and to avoid tearing or crushing the stems. A fine toothed curved saw is used for larger climbing roses.

In general, roses should be pruned just before growth begins in March or early April. The exceptions are old (heirloom) roses and some climbers that produce blooms on the previous year's wood. They should be pruned after they bloom.



Pruning Bush Roses

Pruning roses is part of the experience of growing roses cannot avoid and should not fear. Pruning of most species of this popular flower should commence during the late winter or early spring.

Following a logical sequence of steps while pruning will help make the job seem less complicated. The first step is to remove any dead, diseased or damaged wood. Cut the stems one inch below darkened areas, making sure cutting back to green wood. It should be white. If tan colored, continue pruning sections of the stem until the pith appears white.

The second step is to remove branches that grow toward the center of the plant. This opens up the plant for better air circulation and allows sunlight to penetrate the inner portion of the plant.

The third step is to locate crossing branches and remove the weakest one. Crossing branches may rub against each other, causing abrasions that may serve as openings for disease organisms to enter the plant. Remove sucker growth, which is growth coming from below the bud union. Sucker growth is from the root stock and is a different rose variety; if not removed, sucker growth will crowd out the desired variety.

Finally, prune to shape the plant. Miniature roses need only minimal pruning.

Many rosarians add one extra step to their pruning routine. After pruning, a water soluble, white glue (i.e., Elmer's) can be applied to the cut surfaces of the stems to prevent rose cane borers from entering.

Care for roses

Deadheading Roses

Removal of spent blooms, called "deadheading," is an important summer maintenance practice for roses, especially the continuous blooming varieties. Removing the spent blooms conserves the energy the plant would normally use for seed production, encourages repeat flowering, and removes potential disease harboring sites. Spent flowers may not be removed from species such as *Rosa moyesii* and *R. rugosa* because their large colored hips add another ornamental feature to the plant in the autumn.

To deadhead, remove the flower by cutting back, at a 45 degree angle, to the first outward facing bud in the axil of a leaf with five leaflets.

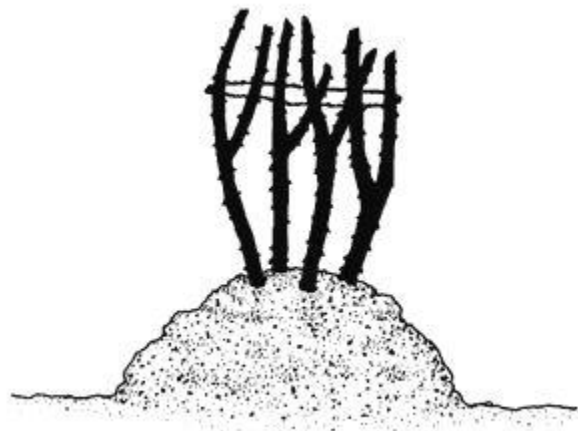
The continuous blooming climbing rose is deadheaded a little differently. Remove the spent blooms just above the foliage, making sure not to remove any of the foliage since new blooms will be produced from the leaves immediately below old flower clusters.

Winter Protection

Winterizing roses is a very important maintenance practice to ensure vigorous growth from year to year. First, choose the most winter hardy roses available to plant in rose bed. Next, make sure roses are healthy and not under stress because they have a better chance of surviving winter than weak plants. Reduce stress on roses going into the dormant season by irrigating adequately in late autumn and discontinuing nitrogen application in late summer or early autumn.

For minimum winter protection, tie canes of bush roses together, and then mound soil 8 to 10 inches high around canes.

Reduce breakage of tall canes by winter winds by cutting them back to 30 to 36 inches and tying tips together. Remove dead and fallen leaves around the plants. Hill soil over the center of the plants in broad rounded mounds at least 12 inches high and 12 inches wide. Cover the soil



mounds with a mulch of leaves, straw, boughs, or some similar material.

Another method includes using all mulch, such as, wood chips, sawdust, shredded hard wood, or pine bark, instead of soil, mounded to 15 to 18 inches. Some gardeners prefer to construct wire mesh cylinders to surround each plant, which they fill with mulch. Still others use rose cones, baskets with bottoms cut out or burlap to wrap the plants.

For maximum winter protection, cover the rose bush with a protective cylinder. Use straw, leaves or similar material to insulate the bush inside the cone. Puncture several one inch holes around the top of the cone for air circulation.

To winterize climbers, remove them from their support. Lay them on the ground and cover with 3 to 4 inches of soil. If this cannot be done, gather the tips of the stems together, tie them, and wrap in straw with a wrapping of burlap over that. The base of the climber should be covered with 10 inches of soil.



When severe winter weather conditions have subsided, which is typically mid-March or early April in Ohio, remove most of the mulch and soil from around the bases of plants. You may leave a 2-inch layer of mulch in the bed.

Diseases and insect pests

The common diseases observed in roses are die-back and black spot. Die-back result in the blackening and drying of shoots from the cut end after pruning. A fungicide paint containing four parts each of copper carbonate and red lead and five parts of linseed oil should be applied at the cut ends after pruning to prevent the die-back disease. Sometime when a flower is cut much above a leaf node, it causes die-back of the shoots and hence it is always a good practice to cut the blooms just above a node.

Among the insect pests, the important ones are aphides, red scales, mites and white ants. Rubbing the affected parts with cotton wool soaked into methylated spirit is also useful.