



Jerry Baker
America's Master Gardener®

THE NEW
GARDEN
LINE SERIES
VOL. VI

ROSES

AMAZING TIPS, TRICKS & TONICS!

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- ▼ A Little Red Wine for Beautiful Blooms
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Plus More
**ROBUST
ROSE TIPS!**

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Introduction

Roses are probably the most popular of all garden flowers, and with good reason. They can be grown in practically every part of the country, they can be used for dozens of decorative purposes, and you do not have to spend a fortune on them. Somewhere, there is a perfect rose for everyone; searching for it can be a lot of fun.

Roses can be separated into 2 main classes—bush roses and climbing roses—by their growth habits. Is your rosebed small? Then grow bush roses that require no support. Do you have a trellis or pillar to cover, where roses will add grace and beauty? Then the climbers that produce long canes will do this dramatically.

There are many varieties of roses available for use in borders, lawns, and as specimens. Even if you have only the tiniest bit of space, you can still enjoy the miniatures—the fairy princesses of rosedom. So believe me, these grand ladies belong in every garden.

If you have a rose or rose care question, why don't you call me "On The Garden Line" Saturday mornings from 8:00 a.m. - 10:00 a.m. EST on your local Mutual Broadcasting Station. The toll free number is **1-800-634-3881**.

Also, for more comprehensive information, please refer to one of my other full size books:

Plants Are Still Like People
Jerry Baker's Flowering Garden
The Impatient Gardener

or pick up a copy of **America's Gardening Newsletter, "On The Garden Line®,"** which is also jam-packed with timely tips, tricks and tonics on lawn, garden and house plant care.



BUSH Varieties

Bush roses are grouped into classes according to their flowering habits, winter hardiness, and other characteristics. The types of bush roses include: hybrid tea, floribunda, grandiflora, polyantha, hybrid perpetual, shrub, old fashioned, tree or standard, and miniature.

HYBRID TEA ROSES

These lovely roses are what most people think of when they start "thinking roses." They are called hybrid teas because their ancestors were the beautiful, fragrant, tender tea rose of China. Another reason is that these roses have an odor similar to that of tea or fruit—both of which are delightful.

Hybrid teas usually have just 1 bloom per stem, at most 2 or 3, and the stems are gracefully long. The shapely buds are ideal for cutting or showing. The flowers themselves will vary from singles, which have but 1 row of petals, to doubles with many rows.

Mature hybrid tea rose bushes, depending on the variety, will grow from 2 to 6 feet tall. They come in a wide range of colors, including pure white, and many shades of red, yellow, pink, and orange. A special mass planting of hybrid teas of the same color can be a real show-stopper.

Most hybrid teas have some fragrance. This characteristic, however, is variable, and when fragrance is present, it is usually most intense in the early morning, before the fragrant oil has evaporated from the base of the petals.

Most hybrid teas are winter hardy in areas where the winter temperatures do not often go below zero, but since varieties differ in cold resistance, it is best to play it safe. Be considerate! Don't let your lovely roses shiver and possibly die in the cold of winter—bundle them up in a nice overcoat of leaves or hay to keep them warm and safe during the snowy days ahead. They will repay your care many times over in producing lovely rosebud children the following spring.



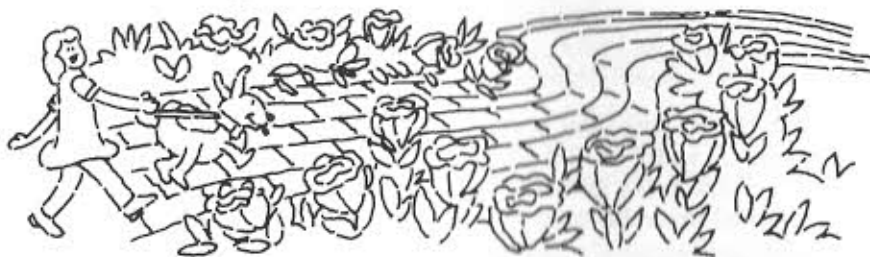
BUSH VARIETIES

FLORIBUNDAS

No one should ever knowingly neglect a flower as beautiful as a rose, but if your time is limited, or if you must be away often—and you still want to grow roses—then try floribundas. They will grow and flourish with less care than any other type of rose, with the possible exception of some shrub species.

Floribunda roses bear their flowers in clusters, and the individual blooms of many of them are as lovely as hybrid tea blossoms, which they closely resemble. Most of them, however, have smaller flowers than the teas, but the heavy clusters make up in quantity what they may lack in quality. Floribundas were developed from the hybrid teas and polyanthas.

These shapely plants are relatively low in height. They are becoming increasingly popular, especially for bed planting where large numbers of flowers are wanted. They are excellent for cutting, and they are also splendid for edging walks or driveways and for boundary plantings.



GRANDIFLORAS

These are usually taller than the hybrid teas, which they resemble in type of bloom—single on long stems—and in hardiness. Actually, the blossoms are in between the floribunda and the hybrid tea. Though the flowers are somewhat smaller than those of the hybrid teas, grandifloras make up for this by blooming more abundantly. This is one of the many reasons why this type of rose is excellent for cutting.



And this grand lady needs no apology when used for showing or display plantings. In fact, grandifloras are often used with the hybrid teas. Together, they make an unbeatable combination.

POLYANTHAS

Polyantha roses are smaller than grandifloras, and are borne in rather large clusters. The clusters are similar in form and size of individual flowers to many of the climbing roses, to which dainty polyanthas are closely related.

The polyanthas are hardy and may be grown in many areas where hybrid teas are difficult to grow. They will live and flourish, year after year, in many areas of the hot, arid Southwest where hybrid teas may not do too well.

Polyanthas are very useful in bed plantings, or in borders with perennials. They are also excellent for mass plantings.

HYBRID PERPETUALS

These were the June roses in your grandmother's garden. The flowers lack a bit of the refinement of the hybrid teas, but these pretty milkmaids make up for their short-comings in vigor and vitality.

Prior to the development of modern hybrid teas, hybrid perpetual roses were very popular. As their name indicates, they are considered to be everblooming types, although most of them do not bear continuously through the growing season, as the hybrid teas do.

If given good care and proper pruning, these bushes will usually develop into large, vigorous plants. They are well adapted to the north and are very hardy. They can also withstand low winter temperatures without protection.

SHRUB ROSES

These are actually a miscellaneous group of wild species, hybrids, and varieties, all of which grow into large, dense plants used in general landscape work. Shrub roses are a sort of lumped-together group.



BUSH VARIETIES

Included in this group are the increasingly popular *rosa rugosas*, which are once again being planted because of the high Vitamin C content of their large, meaty rose hips.

OLD-FASHIONED ROSES

These are the varieties that were popular in Colonial gardens. These "sweet old ladies" may not be quite as attractive to look at as the newer varieties, but they have their own particular charm, for they are usually much more fragrant. Further, they are all very hardy, require little care, and provide an abundance of flowers in June.

TREE ROSES

Tree roses are distinctive because of the form of the plant, rather than the type of flower. They are created by grafting any of the bush-type roses onto upright trunks. Many of the better-known varieties of bush roses are also available as tree roses.

You don't need to look down to see your tree roses because these pretty little misses will meet your glance at eye level.

Tree roses are often used in formal plantings or to accent a particular part of the garden. Many varieties are budded at the top of a husky, upright trunk, which is, in turn, budded to a root stock. In cold wintry areas, tree roses are vulnerable to winter damage, and should be protected by laying over and burying.

MINIATURE ROSES

These are the fairy princesses of the rose kingdom that are deservedly popular. Miniature rose plants are very small; some varieties only grow to be about 6 inches tall.

In foliage, plant shape, and flowers, they are small-scale models of their full-size counterparts. The flowers, about 1 inch across, are usually double.

Miniatures are frequently used in rock gardens, as border plants, for edging beds, and as pot-grown plants, both indoors and out.

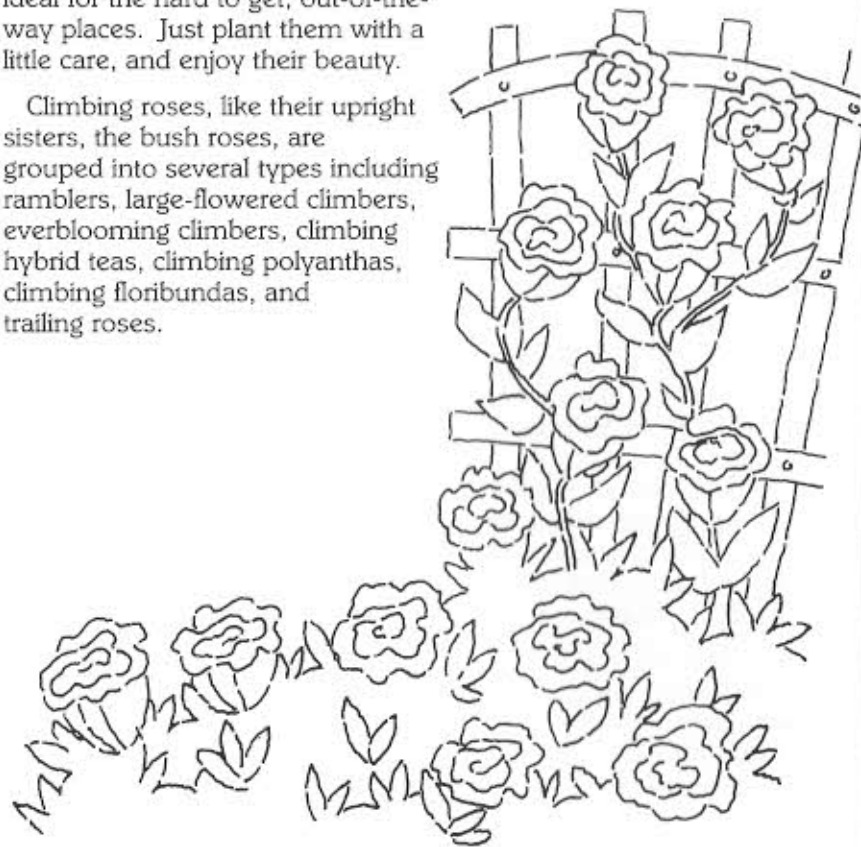
CLIMBING Varieties



Climbers include all varieties that produce long canes and require some sort of support to hold the plant up off the ground. They may be trained on fences, trellises, or arbors, or they may be used without support to cover banks and aid in holding soil in place.

Most varieties of climbing roses are quite hardy which make them ideal for the hard to get, out-of-the-way places. Just plant them with a little care, and enjoy their beauty.

Climbing roses, like their upright sisters, the bush roses, are grouped into several types including ramblers, large-flowered climbers, everblooming climbers, climbing hybrid teas, climbing polyanthas, climbing floribundas, and trailing roses.





CLIMBING VARIETIES

RAMBLERS

Rambler roses grow very rapidly and will sometimes develop canes as long as 20 feet in one season. The flowers are quite small, usually less than 2 inches across, and are borne in dense clusters. The plants flower only once during a season, and then on wood that was produced the preceding year. The foliage is glossy and the plants are very hardy; but unfortunately, many varieties are very susceptible to mildew.

LARGE-FLOWERED CLIMBERS

The large-flowered climbers, in comparison to the ramblers, grow much more slowly. This is desirable because it makes training the canes to grow on posts or other supports easier. Even so, they may require heavy annual pruning to keep them under control.

The large-flowered climbers are well adapted to small gardens where they may be trained against a wall, a fence, or a small trellis. When the plants are well-grown, the flowers are rather large and very useful for cutting.

The method of training may affect the bloom, for many varieties do not bloom as freely when the canes are trained vertically as they do when they are trained horizontally.

EVERBLOOMING CLIMBERS

The everblooming usually bear an abundance of flowers in early summer. After this period of heavy bloom, the plants produce a few scattered flowers until fall. At that time, if growing conditions are favorable, the plants may again bear heavily.

CLIMBING HYBRID TEAS

Climbing hybrid tea roses originate as seedlings and chance off-shoots of bush varieties. When a bush hybrid tea produces a cane that has climbing characteristics, the new type of plant is usually given the same name as the bush variety from which it originated.



In general, the climbing forms of hybrid teas do not bloom as continuously as their bush parents. The flowers, foliage, and other characteristics, however, are usually identical. The climbing hybrid teas are just as susceptible to winter injury as the bush forms.

CLIMBING POLYANTHAS & FLORIBUNDAS

These types, like the climbing hybrid teas, originate as off-shoots and seedlings from polyanthas and floribundas. The flowers of these varieties are generally identical to the bush forms from which they originated, and they also bloom fairly continuously.

They are hardier than climbing hybrid teas, but not hardy enough to withstand severe winter climates unless they are protected.

TRAILING ROSES

Trailing roses are climbers adapted to planting on banks or walls. They produce long canes that creep along the ground, making a pleasing groundcover. Their flowers are not as attractive as the other types, but they have their place. Trailing roses may be very useful where there is a problem, such as a steep bank to cover, adding a bit of color and beauty to what may otherwise be an eyesore.

To conclude, the climbing, trailing, and rambling roses are all very useful. Each can earn its place in the sun. If you have a specific place or purpose for a rose of this type, be sure to read the description of the rose's characteristics very carefully before planting.



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BUYING Roses

When buying roses, make sure that the wood canes are green, soft, and healthy. Foliage should be bright, firm, and not shriveled, stunted, or discolored. Try to plant your roses within 24 hours of purchasing them.

Roses can be purchased in any of the following forms:

BARE ROOT: That is to say, roses can be purchased with no soil covering the roots. In most cases, only a nurseryman would buy these if he intended to pot his own roses for sale, package them in plastic sleeves (with a sawdust mixture covering the roots to maintain moisture), or plant them in a plantable container of either paper-mache or biodegradable cardboard.

PACKAGED: This popular method of merchandising dormant roses early in the season is generally used by larger retailers.

PRE-PLANTED: Roses that are pre-planted tend to give you earlier blooms than packaged roses because they are well established by the time you purchase them. Mail order nursery and garden centers with outside display areas find this method safer for early display outside.

POTTED ROSES: This style of display selling is usually available later in the season. The plants are well-leafed and most already have several buds.



PLANTING



Roses grow best where they have full sunshine all day long. They will grow satisfactorily, however, if they have at least 6 hours a day of sun.

If you must plant roses where they are shaded part of the day and you have a choice of either morning or afternoon sun, plant them where they will have the morning sun.

If plants are shaded in the morning, their leaves remain wet with dew a few hours longer than if they were exposed to the morning sun. Moisture on the leaves encourages the development of several leaf diseases, and should be avoided if at all possible.

Also, remember that when watering your roses, don't get their heads wet. Roses prefer deep watering from the end of an open hose about twice a week. Deep watering is necessary because healthy roses, during a hot July or August, can take 3 to 5 gallons of moisture from the soil every day. This does not mean that you shouldn't use my soap solution to wash their pretty faces whenever it is needed—just do this at a time of day when it will dry quickly. After all, roses thrive on tender, loving care.

DON'T HOLD ROSES TOO LONG

When you're ready to set out the plants, examine their roots. Cut off any dead or injured growth. Remove any broken or dead canes, and if necessary, cut the canes back to about 12".

Nurseries usually cut the tops of roses back to about 12" before shipping the plants. If the tops have been cut back, do not cut them further; flowering is usually delayed if canes are cut back to less than ten inches.

Remember to protect the roots from drying out at all times. Never expose them to sun or drying winds. Move the plants to the garden with their roots in a bucket of warm soapy water, or coat the roots with a thin layer of mud.

PLANTING

DON'T KEEP YOUR ROSES WAITING

The best time to plant roses is when you can get a spade into the ground. If you plant your roses in fall in those areas where the temperatures regularly dip below freezing, then don't bother to cut the wood back. Remember what I said: **you should plant them the day you bring them home.** Don't go off and leave them in the trunk of the car or the garage, and expect them to be bright-eyed and bushy-tailed 2 or 3 days later. If they are worth buying, then they are worth the time it takes to plant them.



If winter temperatures in your area don't go below 10°F, plant any time the bushes are fully dormant. If winter temperatures do not go below -10°F, plant roses in fall or spring. If winter temperatures regularly go below -10°F, plant roses only in spring.

Some garden centers sell roses that are planted in containers can be transplanted any time from spring to fall.

PLANTING

Purchase only healthy looking rose bushes. If they're **packaged roses**, make sure the buds are not dried out, the sprouts are long and yellow, and the top wood is black or brown.

Pre-planted roses should have fat, healthy buds, or deep green young growth.

Potted roses should look just like they were growing in the garden: clean and healthy, without insects, and free of disease. The center should be open with the foliage growing to the outside to let sunlight into all of the leaves.



When selecting a location for a rose, it should be a bright, sunny spot, and the soil should be light, crumbly and rich with leaves, peat moss, cow manure, and other organic matter.

Dig a hole twice as wide as is necessary and deep enough to fill with the above type of soil if your garden is in a hard soil area or clay. Into the bottom of each hole, add a handful of Epsom salts and bone meal. With hard or clay soils, add 3 to 4 handfuls of gypsum to the sides and bottom of the hole.

Place a small, cone-shaped pile of soil in the center of each planting hole. Set the plant on the peak of the cone and spread the roots down the slope. Never cramp the roots in a hole that is too small for them, and never set them flat against the bottom of the hole.

If winter temperatures in your area regularly go below -10°F, make the top of the cone low enough to keep the bud union about 2" below ground level. If the temperatures go below 10°F but not lower than -10°F, set the bud union 1" below ground level. If winter temperatures are warmer than 10°F, set the bud union at ground level or slightly below it.

Fill the hole slowly and carefully. Make sure all roots touch the soil. When the roots are covered, add water to help settle the soil about the roots, then continue filling up the hole.

Water it well, followed by my **Start-Up Meal.**

Mound the soil 8" to 10" high around the canes of bush and climbing roses, and 3" to 4" around the canes of miniature roses. Remove the soil mound when the danger of frost has passed.

START-UP MEAL

- 1 tbsp. liquid dish soap
- 1 tbsp. hydrogen peroxide
- 1 tsp. whiskey
- 1 tsp. Vitamin B-1
- in 1/2 gal. warm tea water

 **PLANTING**

After setting tree roses, drive a sturdy pole into the soil beside the upright trunk and tie the trunk to the pole. This will prevent the trunk from whipping about in the wind and loosening the roots.

REJUVENATING OLD ROSES

This is a situation sometimes encountered on older properties and estates. No matter how well they were made in the first place, sooner or later, rosebeds need renovation. The soil may actually have become "rose-sick" due to impoverishment, sourness, or water-logging. If this is the case, new roses planted in it have little or no chance of succeeding.

In such cases, the following question often arises—would it be better to clear out the whole bed and make a new one, or replace only the bushes that have lost their vigor and vitality?

In the long run, it is probably more economical—if the majority of the roses are in poor condition—to dig them up and remove all of the soil to a depth of 18" to 20". The subsoil should then be broken up and enriched, and good, loamy topsoil should be brought in to replace what has been removed.

If this plan is not practical, the next best thing is to give the soil a rest from roses for at least 2 years. During this resting period, do something to bring the soil back into condition—like following good cultivation practices or growing other kinds of flowers.

There is no need to destroy the old rose plants. If they are healthy, plant them in rows in another part of the garden where they will thrive. Use the flowers for cutting.

If only a few of the bushes are unhealthy, replace them individually. It is still advisable, however, to remove the soil to a depth of 18" or so, and replace it with fresh topsoil before setting in the new bush.



If your rosebed includes only 1 variety, then replace the old bushes with the same kind. If it includes mixed varieties, try to maintain the balance of the bed by choosing new varieties that are equal in vigor to the remaining ones.

Sometimes roses that sprouted and grew in spring will die before flowering time. This can be caused by winter injury. To achieve quick results, replace these dead roses with potted roses.

Remove potted roses from their containers carefully so that the roots and mass of soil will be disturbed as little as possible. Set the plants so that the crown will be about 1" below ground level. Do not prune the growing tops. Be sure to keep the roses well-watered, especially if the weather is hot and dry.

SPACING—GIVE THEM SOME ELBOW ROOM

Space hybrid teas, grandifloras, polyanthas, and floribundas about 2' apart in areas where winter temperatures are very cold (-10°F or below), about 2-1/2' apart where winter temperatures are moderate (10°F to -10°F), and at least 3 feet apart where winter temperatures are mild (above 10°F).

No matter where you live, space hybrid perpetuals 3' to 5' apart and climbers 8' to 10' apart.

A BED OF ROSES

Masses of blooming plants of the same color always make a lovely display, and roses are no exception. Keep varieties separate and if possible, each bed should contain a different variety. If your space is not large enough to allow for this, group 2 or 3 harmonious varieties in each bed. This is far better than indiscriminate mixing.

When planning the bed, consider the height of each variety—your roses may all belong to the same class or type and still vary greatly in height and vigor of growth. Again, read your nursery catalog carefully before making your selections.



PLANTING

Remember that your ladies will need occasional grooming to keep them looking their best. Operations such as pruning, spraying, cultivating, and removing dead blossoms and winter coverings must be carried on from time to time. Therefore, do not make your rose beds too wide. You want to enjoy your roses, and a little thought given to this matter in the planning stage will make a big difference later.

A bed 6 feet wide will take 3 rows of plants (hybrid teas) without too much crowding. If you plant tree roses, give them plenty of room, at least 4' to 6' between plants.

SOIL PREPARATION

If you are planting only a few roses, dig individual planting holes for them. Make the holes at least 18" to 20" in diameter. If you are planting a large number of roses, spade up the bed to a depth of at least 18", then dig your planting holes in the prepared bed.

If your soil is very heavy, if it is light and lacking in fertility, or if the builder of your house has used subsoil from the basement excavation to level your lot, you can improve your soil by adding organic matter such as peat moss, leafmold, or manure to it. Most gardeners prefer manure. If you use manure, you should also add a half pound of bone meal to each square yard of your rose bed. Many rose nurseries supply rose food, which can be used in place of the bone meal.

Preparing your rose bed is very important because a planting will not, in all probability, be disturbed for many years. Rose bushes will grow and flourish in almost any kind of soil provided it has been properly prepared.

If drainage is good, soil that is a bit on the heavy side usually gives the best results. I don't want you to think, however, that clay soil is essential for roses. Clay soil sometimes drains poorly, and requires the addition of cinders, sand, or gravel, as well as liming, to open it up.



Since a plentiful supply of moisture in the subsoil is necessary, the subsoil should be well broken up to a depth of 20" to 24". After the planting holes are dug, either in beds or in unprepared soil, loosen the soil in the bottom of each hole and work in a spadeful of well-rotted manure. Do not use fresh manure—it will injure any roots coming in contact with it.

The manure must not be placed in a separate layer, but should be well mixed in with the soil.

It is a good idea to prepare beds and dig planting holes well in advance of planting time. This will make planting easier on both you and your roses—you'll be prepared to set them out as soon as they arrive at your home.

If you have the time, prepare the soil in fall, regardless if you're planning to plant in fall or spring. If the soil has to be completely re-worked, do it at least 4 weeks before planting. Treat these "ladies" with consideration right from the very start and they will repay your courtesy—just wait and see!

EARLY SEASON PURCHASES

Unless the plants are frozen when you purchase them, unpack them at once. If they are frozen, store them where they can thaw out gradually; do not unpack them until they are completely thawed.

Inspect the roots for drying. If they are dry, soak them in a mixture of 1/2 cup liquid dish soap in a gallon of weak tea water for an hour or 2 before planting.

Again, I insist that you plant your roses as soon as you buy them. If you cannot plant them at once, moisten the packing material and repack the plants. They can be kept this way safely for 2 or 3 days.

If you have to hold the plants for more than 2 or 3 days before planting, heel them in. This is done by placing them in a trench and covering the roots with moist soil. If the canes are dry, cover them lightly with soil also.



CARE

Always cultivate your roses with care because their roots may grow close to the surface and can be injured by deep cultivation. The main purpose of cultivation is to discourage weeds which you can do by either hand pulling or cutting them at the soil surface.



A good mulch will help control weeds, conserve moisture, and add fertility (as it decomposes) to the soil. Almost anything can be used as a mulch. Peat moss, ground corn cobs, ground tobacco stems, buck-wheat and cottonseed hulls, spent mushroom manure, and well-rotted straw manure are all good mulching materials.

Mulch about a month before your roses bloom. First, remove all weeds and rake the soil lightly. Then spread the mulching material evenly around the plants to a depth of 2" to 3".

Keep the mulch on the soil throughout the year. The mulching material will decay and become incorporated into the soil. Add new material as the mulch settles and/or becomes thin around the plants.



WATERING

Roses get very thirsty. They need large amounts of water, especially during the summer and sometimes even in fall when the weather is cooler—so watch it carefully. They cannot ask you for a drink, but as you establish communication with your roses, you will KNOW. Even when rainfall is plentiful, occasional waterings are beneficial and in the drier areas, it's a MUST.

Do not sprinkle. Soak the soil thoroughly to a depth of 8" to 10". Direct a small, slow moving stream of water from a garden hose around the bases of the plants. A heavy stream is wasteful because most of the water runs off and fails to penetrate the soil.



SOIL ACIDITY

Roses grow best in soil that is medium to slightly acidic (pH 5.5 to 6.5). Your state agricultural extension service or County Agent's office will test your soil for you. Or you can test it yourself with any of the inexpensive, easy-to-use testing kits that are sold in garden centers.

If the pH of your soil is below 5.5, apply lime at a rate of 3 to 4 pounds per 100 square feet. If the pH is over 6.5, apply sulfur. Use 1 pound of sulfur per 100 square feet. If the pH is between 7 and 7.5, use 1 pound, 2 pounds if it is 8, and 3 pounds if it is 8.5.

CARE

Soil acidity can change quickly, so you should check the pH at monthly intervals after treating to see if another application of lime or sulfur is needed.

FEEDING

For best results, roses need to be fertilized at least once a year to keep them healthy and happy. Right after pruning, you should apply well-decayed manure, and turn it in lightly with a fork. Or you can use bonemeal, dried blood, or other organic matter. You can also apply a complete rose fertilizer, but do not do this until late fall. If applied too early, it may cause the rose to produce soft growth that is unable to ripen which will be winter killed.

To supply the necessary elements, use a complete fertilizer every 3 weeks, such as Super K-Gro Systemic Rose & Flower Care (8-12-4). Spread 1 heaping tablespoon evenly around the plants, scratching it into the soil surface. It is also an excellent idea to apply 1/2 cup of Epsom salts on the soil around each rose bush each spring.

More than any other flowering plant, roses must be fed on a regular basis (every 3 weeks) because they work so hard to continuously produce the heavy stems and foliage to support the abundant flowers. I alternate their diet, starting with the **Start-Up Meal** on page 13. Next, I use the 15-30-15 liquid fertilizer mixed in a weak solution of instant tea and 1 ounce liquid dish soap added per gallon of water.

The third mixture consists of the following which are added to 1 gallon warm water. Each rose bush then gets a quart of the water mixture.

- 1/2 oz. liquid fish fertilizer
- 2 tbsp. instant tea
- 1 tsp. baking powder (dissolved)
- 1 tsp. iron
- 1 oz. dry red wine
- in 1 gal. warm water



WATCH YOUR ROSES' COMPLEXION

Apply fertilizer when new spring growth is well established and all danger of severe freezing is past. A second application can be made 3 weeks later. In cold climates, don't apply fertilizers after July 15th; in mild climates, do not apply after August 15th. When applied late in the season, fertilizers of any type may stimulate fresh growth and delay hardening of the wood before winter sets in. As with other flowers, complexions are a good indicator of your roses' general health—of lack of it.

FOLIAR FEEDING

Foliar feeding applies plant nutrients directly to the foliage, rather than to the roots. Foliar-fed roses have much heavier stems and branches; more new growth; heavier, darker, and cleaner foliage; and blooms that are larger, of better color, and more numerous.

If you want to try foliar feeding, dissolve 1 tbsp. liquid fertilizer in 1 gallon of water, and then drench the leaves of the plant thoroughly. Allow the runoff to soak into the soil for the roots. If your roses are heavily mulched, pull the mulch back during the feeding, and replace afterwards.

JERRY'S ROSE GROWING SECRETS

1. Buy vigorous plants.
2. Select a planting site that will receive at least 6 hours of sunshine every day, a little more if possible.
3. Set plants in beds that have been well prepared.
4. Water frequently, especially during dry weather.
5. Carefully cut flowers; don't damage the remaining parts of the plant.
6. Prune the plants each year.
7. Dust/spray regularly to prevent disease and insect damage.
8. Protect from winter injury where heavy freezes occur.



WINTER Protection

Roses must be protected against low winter temperatures, but remember, they can also be injured by fluctuating temperatures. Occasionally, rose varieties that are hardy in the north where winter temperatures are constantly low are injured during winter in areas farther south, where the temperature is subject to considerable fluctuation.

What can you do? As a first step toward avoiding winter injury, keep your roses healthy during the growing season. Strong, healthy plants that have been regularly bathed and properly nourished are more likely to escape winter injury than plants that have lost their leaves because of insects, disease or nutrient deficiency.

BUNDLE UP YOUR ROSES

Immediately after the first killing frost, while the soil can still be easily worked, is the best time to put your gals in "fur coats." To do this, pile soil 8" to 10" high around the canes. It is best to bring this soil from another part of the garden—if you dig it from the rosebeds, you may injure the roots of the rose plants. After mounding the soil about the canes, tie them all together to keep them from being blown about which will loosen the root system.

Inspect the plants frequently to be sure the soil does not wash away before the ground freezes. In short, love your rose in the winter when they are shivering, bare, and defenseless as well as when they are rounded, beautiful, and blossoming. They will appreciate the attention even more at this time.

Where the temperature regularly goes below zero, further protection is necessary. Pile hay, straw, or strawy manure over the mounded canes. To hold it in place, throw a few shovelfuls of soil on it. Remove the straw and soil in spring as soon as the danger of severe frost has passed. Remove the soil carefully to avoid breaking off any new shoots that may have started to grow beneath the mound.



STRAW HATS FOR TREE ROSES

These lovelies deserve the best of care. In areas where the temperature does not often go below zero, wrap their heads in straw and cover with burlap.

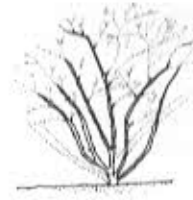
Where the temperature drops to -10° to -15°F, protect tree roses by covering the plants with soil. Carefully dig under the roots on one side of the plants until they can be pulled over on the ground without breaking all root connections with the soil. Cover the entire plant with several inches of soil. Add a little hay or leaves.

In spring, after the soil thaws and the danger of severe frost is past, remove the soil cover from your sleeping beauty and set her upright again.

Climbing roses also need protection in areas where the temperature regularly drops below zero. Lay the canes on the ground, hold them down with wire pins or notched stakes, and cover them with several inches of soil. Remove the soil in spring after the danger of severe frost is past. This should be about the time May flowers replace April showers. Then you will avoid "spring kill" (mistakenly called "winter kill").

PRUNING

Roses are **never** cut back in the fall. In areas where the temperatures go below freezing, it is absolutely necessary to cover them with a thick layer of leaves, straw and soil. In spring, cut your roses back to just above the lowest outside foliage break, and seal the cut with a mixture of antiseptic mouthwash and latex paint.



PRUNING

Prun roses annually to improve their appearance, to remove dead wood, and to control the quantity and quality of flowers produced by the plants. If roses are not pruned, they soon grow into a bramble patch and the flowers will be small and of poor quality. Sometimes undesired shoots come from the understock. These should be removed as soon as they appear, or they are liable to dominate the plant.

Rose pruning is not difficult. Use sharp tools. A fine-toothed saw is useful for cutting dead canes. All other pruning can be done with pruning shears.

Do not leave bare stubs when pruning. Make all cuts to the point on the crown from which the pruned member originated, or to a strong, outward-facing bud.

You are not wounding your pretty lady! Actually, she is being trimmed, manicured, and shaped up, and will be all the more beautiful for the extra attention. She will also thank you for your care of her—in her own way—by producing far more beautiful blooms.

SHAPING BUSH ROSES

Bush roses should be pruned in early spring, just before growth starts. First, remove the dead wood; be careful to cut an inch or so below the dark colored areas. If no live buds are left, remove the entire branch or cane.

Next, cut out all weak growth and any canes or branches growing toward the center of the bush. If 2 branches cross, remove the weaker one.

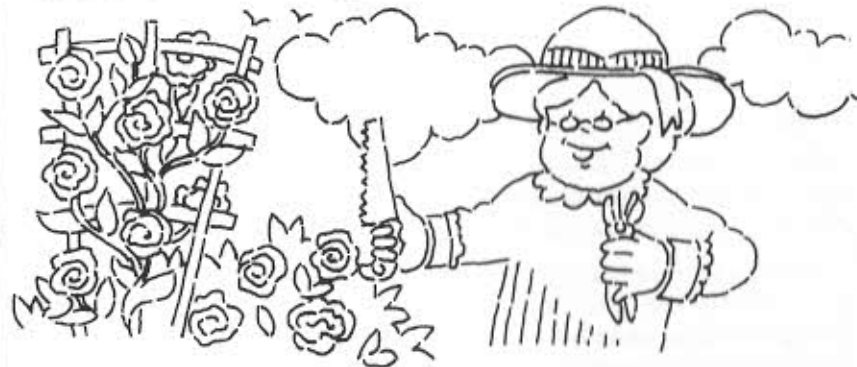
Finally, shape the plant by cutting the strong canes to a uniform height. In mild climates, strong plants can be pruned to a height of 24" to 30."

In some areas, the winters are so severe that much of the top of the plant is killed. Under these conditions, it is not possible to do much to shape the plants. Just cut out the dead wood, saving all the live wood you can.

TREE ROSES REQUIRE EXTRA PAMPERING

Tree roses require heavy pruning in spring and some pruning during the growing season to keep the tops from becoming too large for the stems. After removing the dead wood, cut back the live canes to a length of 8" to 12", and shape the overall structure of the plant.

If tree roses do not start strongly into growth, it is worthwhile to try the following plan, which will keep the brier stems thoroughly moist until the trees are able to look after themselves. Use strips of burlap, flannel, or heavy paper, and wrap them around the stems so that they are fully covered from top to bottom. Keep the material moist by sprinkling it daily, or even twice daily if the weather is exceptionally warm and dry. This treatment, administered during the tree's first spring and early summer, has helped many tree roses become established during the first difficult months.



SUCKERS

This is the term used to describe shoots that spring from the stock on which the named rose was budded. If they are allowed to grow, they will weaken the true rose, and may even cause the plant to die. The suckers on tree roses are easily recognized because they have numerous spines and smaller, light green leaves. Also, if they arise below the place where the bud rose was inserted, you may be sure it is a sucker from the understock.

PRUNING

If suckers develop on the main stem, they can be easily seen, but sometimes they appear at the top of the stem and are hidden among the branches. Look carefully, for they often escape detection. When found, cut them away to their base on the roots or stem of the stock. Breaking them off does no good because they will grow again.

HELPING YOUR CLIMBERS REACH NEW HEIGHTS

Prune hardy ramblers just after they have flowered. This pruning stimulates new cane growth and development of new laterals on which the next year's flowers will be borne.

Where ramblers are trained to a trellis or support so high that one season's growth will not cover it, cut off some of the older shoots. Shorten strong, vigorous canes. This pruning will stimulate the development of laterals, which will elongate and eventually cover the trellis.

In spring, remove all dead canes and weak branches. Prune sparingly, for removal of too much wood at this time will reduce the production of flowers.

Many of the large-flowered climbers, especially the everblooming types, do not produce as much growth each year as the hardier climbers. For this reason, pruning must be less severe.

Use special care in pruning the climbing "sports," otherwise they may revert to the bush habit. Do not cut down the branches in the spring following planting as you do with ordinary climbing roses. Prune very lightly until they are well established. Cut out only thin, weak shoots.

After a year, or perhaps 2, the plants will be vigorous enough to be pruned in the usual manner. At that time, cut out parts of the old branches to make room for the new canes.

INSECT & Disease Controls

Black spot, powdery mildew, rust, and cankers are the most serious diseases that attack roses. To protect our sometimes sick and defenseless ladies, and bring them back to flowering health, you should use plenty of soap and water, feed well, mulch and water. This should discourage most of the winged warriors. But, should 1 or 2 penetrate your defenses, here are the chemical controls that I recommend:

THRIPS Tiny, slender pests, 1/16" long. They puncture buds, cause discoloration and failure to open. Dust or spray often with Rose & Floral Dust, Malathion, or Rose & Flower Insect Killer. Regular spraying from the time buds are very small is important.

LEAF ROLLERS Also called rose-leaf tiers. Small green caterpillars that feed on, roll, and tie upper leaves together, thus distorting growth. Spray with Malathion, Rose & Floral Dust or Rose & Flower Insect Killer.

APHIDS Greenish-yellow, black, or red plant lice that cluster on bud stems and suck juices. They multiply rapidly and secrete a sticky substance often called honeydew. Use nicotine dust or nicotine sulfate spray if temperature is above 65°F. The controls must actually touch aphids. Malathion or Rose & Flower Insect Killer will take care of aphids. Plant wild garlic between the roses.

TARNISHED PLANT BUGS Brassy, flat, 1/4" long. They puncture new growth and distort surrounding plant tissues. Cultivate soil cleanly. Dust with Rose & Floral Dust.





INSECT & DISEASE CONTROLS

FULLERS ROSE BEETLES Crawling, gray beetles, 3/8" long. They feed at night, leaving an unsightly black excrement. Dust plants with Sevin or Rose & Floral Dust.

ROSE SLUGS Small green caterpillar-like pests. They bore into new shoots and pith of pruned canes. They mutilate foliage rapidly. Seal newly cut ends of canes. Cut below wilted portions of others. Spray leaves with Malathion or Rose & Floral Dust.

LEAF-CUTTING BEES Disfigure foliage, but their main damage is by larvae that bore into the ends of pruned stems. Wax stem ends with a crayon. Prune stunted stem tips and use Rose & Floral Dust or Rose & Flower Insect Killer.

TWELVE-SPOTTED CUCUMBER BEETLES Yellow-green, 1/4" long, twelve black spots on their back. They eat blooms late in season. Dust with Sevin every 10 days or use & Floral Dust.

ROSE CHAFERS Iridescent beetles 3/8" long. They appear in great numbers and are prevalent in sandy soil. They feed on buds, open flowers, and foliage. Show preference for light colored flowers. Hand-pick, or dust every third day with Rose & Floral Dust.

ROSE SCALE They're dirty white, scale-like sucking insects that often encrust stems. Use dormant oil spray in spring, and soapy water after leaves drop. Burn dead stems.

ROSE MIDGES Minute pests attack buds, cause necks to crook at right angles and buds to blight. If you have had rose midges in the past, dust with Rose & Floral Dust before growth is 6" tall. After buds show, apply Rose & Floral Dust at 7-day intervals.



RED SPIDER MITES Very tiny mites that hide on the underside of leaves. Prevalent when weather is dry and hot. They suck juices, turn leaves yellow, and stunt plants. Coat leaves with a fine dusting of sulfur or wash off with water or Rose & Floral Dust. Malathion is a fair control.

HARLEQUIN BUGS Brilliantly marked, 3/8" long. Bad pests in the south from California to Virginia, but not too much in the north. Branches attacked turn brown as if scalded. Hand-pick bugs and egg masses.

JAPANESE BEETLES If plants are kept clean, these won't be too big a problem. Dust on sight with Sevin, or spray with Malathion or Rose & Flower Insect Killer.

CANE BORERS Enter stems, and cause death of shoots by hollowing out pith. Cut off infested shoots; kill borers. Spray foliage from June to July with Rose & Flower Insect Killer; seal ends after pruning.

MILDEW Whitish fungus growth, covers leaves and your flower buds and stems. Prevalent coast to coast. Use Rose & Floral Dust on both sides of the leaves.

ROSE CANKER In spring, showy brown patches above which no growth starts. Prune out all visible cankers, taking a 1" margin for safety. If seriously infected, dispose of plant.

BLACK SPOT Spots show first on leaves in early summer, then grow progressively worse. Keep foliage coated with fungicidal spray or dust such as Captan or Rose & Floral Dust. Apply before rain. Feed to promote active growth of bushes. Pick off black-spotted leaves promptly and burn.



CUTTING Roses

DISBUDDING

For large, single-stem roses, disbud the plants when the buds are very small. Remove all but the terminal bud on each stem. The terminal bud then develops into a much larger flower.

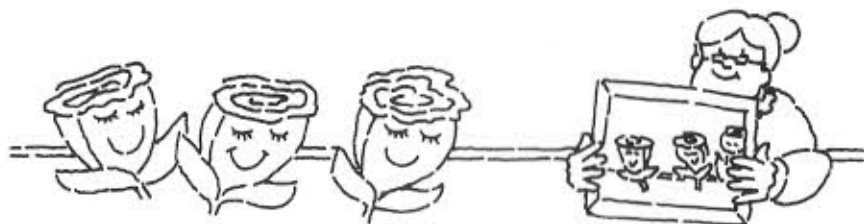
Also remember that when the new shoots are growing, most of them bear 3 flower buds at the tips. In nearly every instance, the center bud will yield the finest bloom, so the side buds should be removed as soon as possible, thus throwing the whole strength of the shoot into the formation of 1 fine flower.

CUTTING ROSES

Cutting the blooms is in itself an important horticultural operation. Improper cutting can injure the plant and decrease its vigor. Always use sharp tools to cut the blooms. Breaking or twisting the flowers off will injure the remaining wood.

It is probably best not to cut any flowers during the first season of bloom. If early flowers are not cut off, the plants usually develop into large bushes by fall. At that time, you may cut some flowers.

If you do cut flowers during the first season, cut them with very short stems only. Removing foliage with long-stemmed flowers robs the plant of its food-manufacturing capacity and cuts down on its growth and subsequent flower yield.



Even when the plants are well established, it is unwise to cut stems any longer than actually needed. At least 2 leaves should remain between the cut and main stem.

The best time for cutting roses is in the evening, between 5 p.m. and 7 p.m. Place them immediately in water that reaches almost to the blossom. Roses should never be cut when wet because they will lose color, and may become stained. If any have been out in the rain, try to dry them off in a cool, dark, airy room. Keep spare blooms in reserve.

If you do not cut the flowers, remove them when their petals fall. Cut them with sharp shears or a knife just above the topmost leaf. A withered individual flower in a cluster should be removed to give the remaining flowers more room to develop. After all flowers in a cluster have withered, cut off the entire stem just above the top leaf.

Roses that are cut just before the petals start to unfold will continue to open normally and will remain in good condition longer than if they are cut after they are fully open.

GIVING BEAUTIES A FACE LIFT

Cut roses that start to wilt prematurely can be revived and their beauty will last for several more days. To do this, make a slanting cut an inch or so from the base of the stem, and place the stem in very hot water for a few minutes. Now quickly plunge the stem into cold water. The hot water drives off any air bubbles that may have formed in the stem and permits the cold water to rise and revive the flower.

This treatment won't revive old flowers that have reached the full extent of their usefulness, nor flowers that have been wilted for several hours.

A lady so proud and beautiful will be pleased to keep her youthful appearance a few days longer. And with that out of the way, now it's time to stop and smell your roses!