

Rose Care and Fertilization

Fertilization

(Also consult the [American Rose Society: Fertilization](#) web site.)

Roses may be the flowers of love and romance, but there's nothing romantic about spindly canes sporting spider mites, beetles and mildew instead of beautiful flowers. Just as romance sometimes needs a little helping along, so do your roses. The bonus in keeping roses watered, fertilized, mulched and pruned is that the resulting healthy plants are less susceptible to pest attack.

There is perhaps less agreement about how, when and with what to feed roses than any other aspect of their care. If there is any recommendation resembling a consensus of opinion, it would be to feed the modern, repeat-bloom rose varieties first in the spring right after pruning. Next, feed when they have developed flower buds, and then again about two months before the first frost in your area. Gardens with fast-draining, sandy soil or those in southern climates are usually fed more frequently.

Use a commercial rose food or a acid forming regional fertilizer like Carl Pool Acid Rose Food 9-17-5 or an organic formulation like Espoma Rose Tone 4-3-2 or Carl Pool 5-6-4, every six to eight weeks, March through October.

Apply the rose food as well as the water-soluble and foliar fertilizers available according to the manufacturer's directions. Dry fertilizers should be scratched into the soil beneath the leaves - but not touching the canes or bud union - and then watered in well. The older varieties of roses that only bloom once a year should be fertilized one time in early spring. (For more information, see the [American Rose Society: Older varieties](#))

FEEDING AND SPRAYING ROSES IN SOUTH CENTRAL TEXAS

(Also consult the [American Rose Society: Spraying](#) web site.)

Your feeding program, like your spraying, should be done regularly. Roses are heavy feeders. To keep them growing vigorously, an organized program should be followed. Water rose bed thoroughly before and after food has been applied.

- **January thru February** -- As the weather and ground warm up, around mid to late February, organic fertilizers may be applied. Give each large bush one to two cups of a mixture of alfalfa meal, cottonseed meal, fish meal and blood meal, scratch in lightly and water in well.
- **March thru May** -- The initial feeding should be chemical, either liquid or dry. It is applied when spring pruning is completed. Carl Pool, Green Light, Miracle-Gro, Peters or Rapid-Gro are all good soluble fertilizers. Give each Hybrid Tea or other large bush, one tablespoon of fertilizer dissolved in a gallon of water.

For miniatures use one teaspoon of liquid food per gallon of water. Give each plant about a quart. Dry rose fertilizer can be applied in place of liquid. Use according to directions. Liquid feeding in this period should be once a month. Mature climbers should be given double the amount given to Hybrid Teas.

- **June thru August** -- With the introduction of timed release fertilizers, a summer long feeding in one application is possible. These fertilizers are formulated to feed continuously for three to four months in our climate. Feed each average sized bush at least three or four ounces, working it lightly into the soil. Water thoroughly. If you don't care to use this type of product, continue feeding with a water soluble food (twice a month), or a monthly application of dry food. As the weather becomes hot, you may want to switch to soluble

fertilizers as they are more readily available to the plants. Iron chlorosis occurs at this time; Sprint 330 can correct this deficiency.

- **September thru October** -- With the advent of cooler weather and rain, your roses will begin their heavy fall blooming season. Once you have done your light fall pruning, you can apply a cup of organic rose food per bush and follow this two weeks later with a liquid feeding with Miracid 30-10-10. Don't feed with either liquid or dry foods after the beginning of October.
- After heavy rains, it is a good idea to give your bushes a supplemental liquid feeding with Miracid 30-10-10.

With regard to spraying, prevention is critical in keeping your roses free of fungus and insect problems. A hit and miss program will get you and your roses into trouble. Basic spraying can be divided into three different phases.

- **March thru May** -- Once bushes have been pruned, a clean up spray consisting of Ortho Funginex and Malathion should be applied to both the bush and the ground area around the bush. This will take care of any over wintering fungus or insect problems. Once your new growth starts, spray every seven days with Funginex, a liquid product. This fungicide has three advantages over others in that it leaves no residue, protects against mildew, blackspot and rust and needs no sticker spreader. Rust is not a big problem in this area, but does appear on occasion. Spray top and bottom of the leaves until the foliage glistens to obtain complete coverage. If your bushes should become infected with either mildew or blackspot, spray every five days until control is obtained. Insecticides such as Bonide Systemic Insecticide (Orthene) can be used about every 21 days to combat most insect problems that occur during this period. Use according to label directions.
- **June thru August** - By this time of the year, if our weather is normally (hot and dry), you can lengthen your spraying interval for fungus problems to every 10 to 14 days. Insecticides should be used sparingly. The biggest problem that may occur at this time is an infestation of spider mites. A good way to treat this problem is to apply a hard spray of water to the bottom of the foliage every three or four days throughout the summer. This will interrupt the mites' breeding cycle. (The bushes will also benefit from the washing). A miticide such as Bonide Systemic Insecticide (Orthene) or Green Light Red Spider Spray may also be used.
- **September thru November** - Once the weather begins to cool off and the early morning and nights become more humid, follow the same spray program used during the spring for both fungus and insect problems. To prevent spray bum of foliage in all seasons, water rose beds thoroughly before spraying. In hot weather, spray in early morning or late evening when temperatures are cooler.

When spraying, it is very important to wear protective clothing; this should include a chemical spray mask, gloves and a long sleeved garment.

Mulch

Using mulch, especially an organic one, is about the closest thing possible to a garden panacea. A mulch keeps weeds to a minimum, the soil moist and loose and adds nutrients.

Apply mulch in the spring just as the soil warms and before weeds start coming up. Mulch can also be applied anytime during the growing season if the weeds are removed and the surface lightly cultivated. Spread 2 to 4 inches of mulch over the bed, leaving some space open around the base of each rose. Replace the mulch as it deteriorates during the year.

For organic mulches, you'll want to use whatever is locally available and cheap. Some options include pine bark mulch, shredded pine bark known as soil conditioner, pine needles, or chopped oak leaves. Extra nitrogen fertilizer may be needed when these mulches are first applied. Mixtures of materials are usually more satisfactory as they have less tendency to pack down and, moreover, permit easy transmission of water and fertilizers. Many compost mixtures are available -- also a light layer of manure may be applied under the mulch.

Watering

Adequate soil moisture is indispensable to the vitality of roses. (For more information, see the [American Rose Society: Watering](#)) Seldom can you rely on the natural rainfall to be adequate. The rule-of-thumb is 1 inch of water each week, but the actual frequency of watering will depend on your soil and climate as well as the age of the plant.

The goal is to slowly water until the soil is soaked 12 to 18 inches deep. Soaker hoses or a hose with a bubbler attachment are inexpensive solutions and keep water from splashing onto foliage and spreading diseases. Soil-level and drip-irrigation systems are more expensive but make watering a breeze.

Pruning

(For more information, see [American Rose Society: Pruning](#)). Pruning controls the size and shape of roses and keeps the modern varieties blooming repeatedly all summer long, as they flower on new growth. The supplies you'll need include a good, sharp, curved-edge pruning shears; long-handled lopping shears; a small pruning saw; plus a pair of leather gardening gloves.

Well-established varieties of modern rose bushes such as hybrid teas, floribundas, and grandifloras should receive a major pruning each spring after the winter protection has been removed and just as the buds begin to swell (usually about when daffodils bloom). Harsh pruning makes bigger, but fewer blooms. And, there is no report that anyone ever killed a plant with a pair of pruning shears.

All that's needed otherwise during the growing season is to remove and destroy any diseased foliage or canes and to dead head, or remove the faded flowers, cutting their stems just above the first leaf with five leaflets.

Most old-fashioned and species roses as well as the climbers that bloom only once a year flower on wood from the previous year's growth. They are pruned right after flowering.

Practically all rose plants are budded on a special root, or understock. Occasionally you may find a sucker, or shoot, growing from this root stock itself. These sucker canes can usually be identified by the different leaf size and coloring. Remove sucker growth by cutting the canes off as close to the root stock trunk as possible

Pruning Methods

(also consult the [American Rose Society : Pruning](#))

Annual heavy pruning is essential to insure the prolific bloom and long-life of a rose bush.

Explaining the concept of rose pruning without a live bush to demonstrate on is difficult, so let your mind loose to help visualize the following steps in rose pruning.

Pruning of roses is actually done year round. Every time you cut off old blooms and remove twiggy growth you are actually promoting new growth. There are two times a year when you prune more seriously, spring and fall.

You will need the following items:

- a good pair of hand pruners (preferably the scissor type, not anvil type)
- a sharp keyhole saw and large loppers
- a heavy pair of leather gloves
- a pruning compound
- a dull knife.

Steps to Pruning Roses - Spring

Spring pruning in South Central is normally done between the third week of February and the first week of March. The length of time taken for a bush to bloom depends on the number of petals in the bloom and how deeply it has been pruned. For multi-petalled roses, the spring blooming can take as long as 60-70 days, while fewer petalled varieties can take 35-40 days. Weather is also a factor in bloom cycles. Cool and warmer temperatures will weather will lengthen these periods cause the soil to heat up faster and blooming to occur sooner.

1. The first step in spring pruning of Hybrid Teas, Grandifloras, Floribundas and Climbing roses is to remove any canes that are dead or just old and non-productive. These canes are usually gray in color and scaley. To prune hybrid tea and grandiflora roses follow certain principles including:
 - o High pruning for more flowers earlier or low pruning for fewer, bigger flowers later
 - o Pruning to remove weak and crisscrossing canes
 - o Removing growth an inch below a canker
 - o Removal of damaged, dead, or broken canes back to healthy growth
 - o Removing sucker growth as close as possible to main root.

This pruning will encourage future "basal" breaks which are the life blood of any rose bush. Basal breaks refer to new shoots, soon to be producing canes, which arise from the graft union. These should not be confused with "suckers" which arise from the rootstock below the graft union. Remove all suckers.

2. The next step involves taking a good look at the bud union. If you have any old, dry scaley wood on the union, remove it. Use the dull knife to scrape the bud union to remove the scaley wood. By doing this it will again make it possible for new basal breaks to come about.
3. Beginning to fine tune the pruning, remove all twiggy growth on the remaining canes. (Note: The fine tune pruning on climbing roses should be done after they bloom in the spring.) Try to clean out the middle of the bush as much as possible. This allows for good air circulation to prevent insects and disease.
4. Now you are ready to prune on the good healthy canes. With the early flush of growth on the roses the most important procedure this year is to prune each cane back to a dormant bud. A bud that has already begun growth will continue to grow vigorously and bloom very little. A dormant, non-growing bud will initiate growth after pruning and will produce an abundance of blooms.

One comment always heard is to "prune to an outside bud." The basic technique for most pruning is to cut 1/4 inch above the nearest outward-facing bud with the cut at a 45-degree angle (the higher point above the bud). This means when picking the point on a given cane to cut back to, make sure there is a good bud on the cane facing toward the outside of the plant. This will insure the growth of the new bud is to the outside, therefore keeping the center of the rose bush clear and open for air circulation.

Another guideline in pruning back an individual cane is to cut the cane at the point when the diameter of the cane is the size of a pencil or slightly larger. Because of the need to prune back to a dormant bud, the size of the cane may be larger and the cane length may be shorter.

If old and large canes have been removed to the bud union, it is a good practice to seal these large cuts. This helps prevent insects and diseases from infecting the cuts. Smaller canes in many cases don't need to be sealed. Use some sort of sealing compound such as orange shellac or even Elmer's glue.

5. When pruning is completed remove any old foliage left on the canes and spray with a mixture of Funginex or Benomyl and Orthene or Diazinon as a clean up spray. Spray the entire bush and the ground around the bush.

6. The final product of your pruning should be a rose bush about 18 to 24 inches tall with 4 to 8 canes. Add some fertilizer and regular pest spraying, and that pitiful looking rose bush will soon give you a shower of flowers.

Floribundas are usually not pruned as severely as hybrid teas. Even so, be sure to remove any dead, broken, damaged, or blotched branches back to where the pith, or center of the cane, is white and healthy looking. Next, remove weak, spindly canes, canes growing toward the center of the bush, the weaker of two canes that crisscross, canes that grow out, then up, and suckers, if any. Finally, trim all remaining canes back to one-half their former height.

Miniatures - In the spring it is best to cut miniatures almost down to the ground (i.e., 2 to 3 inches). Moreover, if they are over three years old it is a good idea to divide them by cutting the whole plant in half or more. Be sure to leave some roots on each division.

Old-Fashioned (Antique) and Shrubs - Remove any dead canes and lightly trim remainder of bush, removing about a third of the growth. Mass blooming is the aim with these roses. Additional light grooming throughout the year is encouraged since everblooming varieties bloom on new wood. Varieties that bloom only once during the season should be pruned AFTER they have bloomed since they bloom on old wood.

General - If the bush is over two years old, cut out one or more of the oldest and largest canes using a keyhole saw. Also, clean off the bud union with a dull knife. Seal any large cuts with Elmer's glue or shellac. Remove debris from beds and any leaves remaining on bush after pruning is completed.

Steps to Pruning Roses - Fall

The fall pruning is lighter than in the spring and consists of removing twiggy and unproductive growth along with any crossing or dead canes. All foliage is left on the bush at this time. Labor Day is a good time to do the fall "grooming."

Climbers are not pruned in the same manner as Hybrid Teas. To encourage growth of more flowering laterals and stimulate production of new canes, you should not cut back long canes unless they are outgrowing the allotted space. Varieties differ in this respect since some will produce new canes from the base each year, while others build up a woody structure and produce long, new canes from a position higher up on the plant. Thus, when pruning, the following practices are recommended:

Everblooming varieties -- Cut back to two or three bud eyes all laterals that bore flowers during the past year. Remove any dead, diseased or twiggy growth. For established plants, oldest canes are removed annually at the base. Remaining canes are repositioned and secured, if necessary. For routine maintenance, remove all spent blooms and cut back to a strong bud eye. Canes are tied in place as they mature. Avoid attempting to do this before the wood matures, as soft tender growth is easily broken off.

Ramblers and once blooming varieties - These types should be pruned after blooming as they will normally bloom on year old wood. Thus, after spring bloom, cut out old, unproductive wood and weak canes.

A good practice is to avoid severe pruning for the first two or three years after planting, as it takes this long for most climbers to mature. During this period, remove all dead and weak canes and spent blooms (in some instances, climbers will bloom very little for the first couple of years). New canes of most climbers should be trained horizontally to encourage the growth of flowering laterals. Strips of old pantyhose make good "ties". Pillar roses will grow and bloom upright.

Summer Care of Roses

Summer is the most important time of the year for continued care of rose bushes. Most people have a tendency to slack off due to an increase in other activities. For bushes to be healthy and productive, they must have water. One to two inches a week is generally recommended. Keep an eye on beds next to a fence or house, even after a good rainfall there is an excellent possibility they will still be dry. Maintain a systematic spray program. To maintain moisture in beds, keep mulch on the beds.

Fungus diseases are not as prevalent in the summer months. Blackspot and powdery mildew, however, can be a problem if a regular spray program is not maintained. The spray interval can be lengthened to 10-14 days if we are having the hot, dry summer that we usually can expect in this area.

A regular spray program for insects is not necessary. Too much spray is harmful to the plants, so only spray when insects are present. Thrip are persistent warm weather insects. For control of these pests, start spraying the buds every couple of days, prior to sepals coming down, with Orthene or Cygon. If this doesn't eliminate them, continue spraying after the bloom has opened as these insecticides will not harm the petals. The spider mite is another warm weather invader, which, if left unchecked, will cause the leaves to eventually shrivel and fall off. Some degree of control can be obtained by using an insecticidal soap spray or water washing the underside of the foliage every three days or so with a hard spray of water.

Continual light feeding of roses during the summer months is recommended in this area. If using a granular food, use monthly. During the hottest months, a weaker solution of liquid food may be used.

South Central Texas Rose Growing

"When the going gets tough, the tough get going" has to be the motto of a rose grower. Everything that this area is famous for--heat, drought, alkaline (basic) soils, insects and disease--roses detest. But "if it were easy, anyone could do it," so every spring rose growing enthusiasts plant thousands of rose bushes.

Some areas have deeper soils which are not as alkaline so the rose's life expectancy is enhanced. However, most of us are not blessed with such an excellent planting situation and have to contend with four inches of topsoil and sixty feet of rock. When confronted with adverse soil conditions, the rose grower will "modify" the growing area. The general recommendation is to choose a sunny location, loosen or till the soil, and construct a raised planting bed with railroad ties, bricks, etc., to a height of about eight to ten inches. Four to six inches will do for a mini-bed. Fill it with a loose, somewhat acidic soil mix. A good mix is basically one-third grainy, washed sand; one-third peat or compost and one-third topsoil. (For more information, see the [American Rose Society: Soil](#))

Pest Control

(Also consult the pest control information on the [American Rose Society: Pests](#))

Blackspot - identified by black spots and yellow colored leaves. It is probably the most common disease in this area. It is usually in evidence when the weather is cool and damp. Once established, it is almost impossible to eradicate for the rest of the season. Normally it is transferred from bush to bush by rain or watering that splashes the spores upward from the soil. The best control is obtained by spraying with Ortho Funginex or Daconil and keeping the lower leaves removed from the bushes. Once blackspot is detected, spray about twice a week and remove infected foliage (from beds as well as from bushes). Prevention is the best cure.

Powdery Mildew - The chief symptoms are buds and top growth covered with a white, powdery material. In time this will cause the leaves to curl. Powdery mildew is usually evident when days are warm and nights are cool. Normally it

is non-existent in this area in the summer months. The best treatment is prevention by spraying bushes weekly with Ortho Funginex. If mildew is present, spray about twice a week until eradicated.

Rust - This is a fungus rarely ever seen in this area. It looks like small piles of rust under the affected leaves and should be prevented by spraying regularly with Funginex.

Insect Problems

Thrip - Perhaps the most serious insect threat in the San Antonio area is the thrip problem. These microscopic insects are prevalent during hot, dry spells and will cause the buds to stay closed or only partially open. The most common symptom of infestation is a browning of the petal edges. Thrip are especially attracted to light colored roses.

Aphids - these are succulent, light green insects that cover the buds and new growth, They are sometimes found inside deformed flowers and will leave white streaks on petals.

Cane borers - These insects will enter a fresh wound and cause considerable damage. Paint large cuts with a sealer to prevent this problem.

Corn Ear Worms - These worms will bore a hole into the flower bud.

Cucumber Beetles - This small green and black spotted "ladybug" is common in the San Antonio area. it will be found in and around the bloom and eats holes in the lower, inside portion of petals.

Leaf Cutter Bees - The cutter bee will cut circular holes in individual leaves. They use the "cutouts" to line their nests which can often be found around piles of wood or other debris.

Spider Mites - These are tiny, microscopic pests which are generally found on the underside of the leaves in hot and dry weather. The leaves turn yellow and gray, then brown and drop off.

COMMON ROSE PROBLEMS IN THE SAN ANTONIO AREA

The single most important factor in creating rose problems in Bexar and surrounding Counties is the high pH range of the soil. A reading of 7 is considered neutral. Above 7 is alkaline and below is acid. Roses grow best in the 6-7 range. Unfortunately, most soil in this section of Texas tests over 8. Another factor that contributes to the high alkaline content of the soil is the high pH of our water, generally even higher than that of the soil. Many nutrient deficiencies are usually associated with our high pH range.

Common rose deficiencies in this area

Chlorosis - this is the most common problem associated with a high PH. It is due to the iron being unavailable to the plant in alkaline soils. Secondarily, it may also be caused by deficiencies of nitrogen, manganese, magnesium or a lack of enough oxygen available to the root system. Iron deficiency will start with a yellowing of leaves. The veins in the leaves will stand out. A long range cure is the bimonthly applications of Hi Yield Iron Plus and/or other acidifying mixtures. Another long range solution is the application of a cup of a granular sulphur compound to each rose bush once or twice a year.

Nitrogen deficiency - A plant that lacks nitrogen will display pale green foliage and veins. Moreover, growth on the top becomes shorter, buds fail to develop in a proper fashion and small and poorly colored flowers result. Nitrogen deficiency is common in alkaline soils. It can also result when straw, hay or sawdust is used as a mulch. As the mulch breaks down, nitrogen is extracted from the soil. Supplemental nitrogen may be added in the form of water soluble products such as calcium nitrate, granular urea or organic blood meal. The use of composted mulch is recommended.

Other problems

Crown and Root Gall - Crown gall can be recognized by a roundish knotty growth at the bud union. Root gall can be

recognized by a large nodule on the roots at the bud union. In these cases, cut out the affected portion and spray with Clorox or Lysol disinfectant. An alternative solution is to destroy the plant.

Canker - There are several types of canker. One of the more common types in this area is stem Canker which can be recognized as a dark sooty area near a wound. The best treatment is to remove and destroy the infected plant.

Die Back - Die back is not a disease but a symptom that is connected with many diseases. Two things can be done for die back. First always cut flowers at the base of a leaf axil. Second, when die back is present, cut below it to a five leaf axil or bud eye.

Mosaic - A virus which manifests itself as a yellowish, irregular patterning on the foliage. Mosaic virus is introduced by using either infected budwood or infected rootstock and may actually lie dormant in the bush for several years. Currently, there is no known cure and as long as "variegated" foliage is of no consequence, the bush can have a very productive life.