

## IS YOUR GARDEN READY?

The most important activity in the Rose Garden is the proper pruning of your rose bushes. This operation is best performed when the rose bushes are in the dormant stage. Dormancy normally occurs during late December and January in our area.

### PROPER TOOLS SHOULD BE ASSEMBLED PRIOR TO STARTING.

1. A sharp slicing type hand pruning shear. I prefer Felco because they are light weight and durable.
2. A long handled lopping shear to cut out thick branches.
3. A fine tooth pruning saw to cut away large stubs and canes close to the bud union.
4. Heavy gloves and clothing durable enough to protect you from the rose prickles.
5. A good sealing compound such as tree seal or white carpenters glue.

### THE REASON WE PRUNE:

1. To shape our bushes so that they will be symmetrical.
2. Cutting out old wood encourages new basal breaks.
3. Keeps the center of our rose bushes open to sun and air, healthier plants and more productive blooms.

### PRUNING PROCEDURE:

1. Cut away all old (grayish) and dead branches.
2. Cut away all branches that cross over the center of the bush to improve sun and air circulation.
3. Cut away all small twiggy growth which is unproductive and robs our bushes of much needed nourishment for healthy growth.
4. Break off all growth from beneath the bud union of commercially grown plants. This growth is commonly called suckers. Plants grown from cuttings DO NOT have suckers.
5. Cutting back the height is a matter of personal preference. One way is to prune bushes to about one-third of last years growth. Another is to cut to laterals, and another cutting to a specific height, such as 12 inches or 18 inches. Newer wood should be left longer than old wood because new wood is more apt to experience die back. When pruning, make all cuts at a forty-five degree angle with the low side of the cut being just above the dormant bud.
6. Prune new plants of one years growth or less, lightly for maximum growth of leaves which are necessary to manufacture food, also stem growth for storage of plant food to supply the young plant with sufficient nourishment for healthy spring growth.
7. Cut or saw all stubs from the bud union to enable new cane growth to come from center of the bud union.

8. Seal all large diameter cuts with a good compound to prevent die back, water from softening the pithy center and to prevent cane borers from boring into branch tips and laying their eggs.
9. Whenever pruning, decide in which direction you wish the new growth to grow. New growth always comes from the very top bud you cut to. Cut about  $\frac{1}{4}$  of an inch above the bud you choose, that will determine the direction of the new growth, by the direction which the bud points.

### **Fundamentals of pruning**

PRUNING SHEARS of the scissor action type make the cleanest cuts. Hold them so that cutting blade is down.

PROPER CUT slants at almost 45-degree angle; upper point is  $\frac{1}{8}$  to  $\frac{1}{4}$  inch above growth eye, lower point is slightly above level of eye on opposite side of stem.

CUTS TO BUD UNION should be flush to it. Any stubs may die back into union, allowing later entry for disease.

READY FOR PRUNING, dormant bush is leafless or nearly so. Note the number of stems and their varying thicknesses.

REMOVE old canes that produced no strong growth, branches crossing through bush's center, weak stems. Shorten remaining canes.

IN MILD CLIMATES, healthy growth should not be reduced by more than one-third. This is moderate to light pruning.

IN AREAS where winter damage occurs, remove all dead and injured wood. This may leave bush only half to a third the size it was in fall.

A STANDARD (popularly called "tree rose") consists of three parts: understock, stem or trunk, and head. Onto a regular understock is first budded a rose that will produce a long, thick cane for the trunk. Then a year later, the desired hybrid tea or floribunda is budded onto the trunk. Basic pruning guidelines apply to standards, with the accent on symmetry. After pruning, the head should not have any stems extending beyond its generally domed-shaped outline. Most vulnerable part of a standard is the trunk. Give each standard a sturdy stake at planting time, placing stake close to trunk and extending several inches into head. Trunks are susceptible to sun-scalding, so place stake on sunny side of trunk or wrap burlap around trunk.

## PROTECT AGAINST INSECTS, DISEASE

Strolls among your roses do more than lift your spirits; you'll catch tiny invaders before they do much harm. Healthy plants, a spraying or dusting program, and regular inspections for new problems keep insects and disease in bounds.

**1. Red spider mites.** Although technically not insects, these tiny pests can work havoc on your roses. They consume plant juices, causing leaves to turn bronze or dull red, wither, and fall. Plants may be stunted. Webs may appear around leaves and twigs. To prevent them, gather and burn dead leaves; mites overwinter in debris to reinfest plants in summer.

If you catch them early, they can often be washed off with water hosed or misted on. They tend to increase rapidly during hot weather, so you may have to resort to a rose miticide applied every three days to kill new mites until the infestation is over.

**2. Rose scale.** Shady, humid locations are favorite spots for these gray or white scalelike insects. The scales encrust the stems, sucking sap from branches, so plants eventually wilt and die. Cut off infested parts and burn them. The eggs can live through the winter, so make a thorough check in the spring. Apply a dormant lime sulfur spray in early spring. Use a rose insecticide, labeled for use with rose scale, particularly in late spring when the crawlers are hatching.

**3. Fuller rose beetle.** These crawling, gray-brown beetles are about a quarter inch long but do most of their damage in the larval stage. The beetles leave a black excrement on the leaves. Check your local garden center for an insecticide labeled for use against them.

**4. Roseslug.** These small, soft, yellow-green caterpillar-like pests can quickly skeletonize foliage – leaving only a frame of veins. They can also bore into new shoots, and the pith of pruned canes, so be sure to seal newly cut ends of canes.

**5. Rose chafer.** With a preference for light-colored flowers, the rose chafer feeds on buds, open flowers, and leaves in early summer. It's a quarter to a half inch long, iridescent gray-brown, and spiny legged. If the infestation is light, handpick the insects. If numbers appear to be growing, apply an insecticide labeled for use against them.

**6. Tarnished plant bug.** Their name is descriptive: these insects are a brassy, green to brown, mottled color. They can distort flowers and wilt stem tips. The insect lays eggs along the stem and punctures the plant tissues. It can also carry diseases.

**7. Aphids.** These greenish-yellow, black, red, green, or brown aphids (also called plant lice) suck juices from tender shoots and buds. They cluster on bud stems and secrete a sticky, disease-prone substance called honeydew. Aphids are easy to control with soapy water.

**8. Leafrollers.** These are lively, greenish caterpillars that roll themselves up in the foliage and eat through it from the inside out in spring. Or they tie together several leaves and destroy the bud; this "prunes" the cane tip. Handpick the leaves or crush them to kill hidden caterpillars. Or use an insecticide labeled for use against them.

**9. Thrips.** Only about a sixteenth of an inch long, these tiny insects can do damage beyond what their size might suggest. Because of them, buds fail to open or they produce distorted, discolored, and brown flowers. Thrips favor white and pastel roses, but will bother others, too. Remove infested buds. Check insecticide label to make sure it will control thrips.

**10. Rose midge.** You may only barely see this minute maggot that attacks buds and young shoots and causes them to suddenly turn black. Cut affected portions off and use a commercial insecticide.

**11. Japanese beetles.** They are shiny copper and green and develop from white grubs that feed on grass roots. They cluster in groups, destroying flowers and skeletonizing leaves. The Japanese beetle seems to prefer roses of lighter colors and increase in mid-summer. Handpick them or spray with an insecticide labeled for use against them. The grubs can be controlled with a soil insecticide.

**12. Spotted cucumber beetle.** With a yen not only for vegetable garden crops, but also for your flowers, this versatile beetle feeds on rose blooms. It's yellow-green, a quarter to a half inch long, and has black spots on its back. The cucumber beetle also carries bacterial diseases. Read insecticide label to make sure the one you select controls spotted cucumber beetles.

**13. Leaf-cutting bee.** The bees disfigure foliage with their neat circles "cut" from the margins, and their larvae bore into ends of the pruned stems. To control, wax stem ends after you prune. Cut off stunted stem tips. Use a commercial insecticide.

**14. Mildew.** This fungus disease occurs most often when days are warm, nights cool, and air circulation poor. It appears as grayish-white patches on leaves, flower buds, and young shoots. The leaves will curl and become distorted in severe cases. Most climbers and ramblers are susceptible. Plant resistant varieties. Use a commercial fungicide.

**15. Harlequin bugs.** Rose growers in the South – from California to Virginia – may be plagued by this brightly colored pest. Leaves get calico markings and branches turn brown. Bugs and egg masses can be removed by hand. For larger infestations, use an insecticide listing harlequin bugs on the label.

**16. Black spot.** Black spots with fringed margins show first on leaves in early summer. Leaves turn yellow and drop early. Plants can become defoliated, weakened, and more susceptible to winter injury. Blooming is reduced. The disease is spread by splashing water; to assist in control, run sprinklers only in the morning so water dries off quickly. When rain is forecast, apply spray or dust labeled for control of black spot. In selecting new plants, choose resistant varieties. Keep roses healthy to help them fight the disease. Pick off spotted leaves.

**17. Rose canker.** This fungus disease usually enters through wounds and causes canes to turn brown, purple, or white. No growth starts above them. Often the wood dies back from pruning cuts. Prune to below the canker in early spring, and apply a spray of dormant oil.

**18. Rust.** The orange spots are a problem along the Pacific coast because of the wet, mild weather. Hybrid teas and climbing roses are susceptible. Use a commercial spray.

**19. Cane borer.** Tunneling into canes and under bark, cane borers kill shoots by hollowing out the pith. Wilting of the top of the plant indicates the borer's presence. Cut off infested shoots and kill borers. Seal canes after pruning. Use an insecticide labeled for use against cane borers.

When you've handpicked insects and judiciously pruned diseased portions of your favorite rose bushes, and the pests are still getting ahead of you, you may decide to take action with a chemical product. If you have only a few plants, a hand sprayer, similar to

the kind used for misting indoor plants, does a good, uniform job with insecticides. For more bushes, try a proportioning sprayer that attaches to the end of a garden hose.

Generally, you need not apply insecticides until you notice the insects. For diseases, the approach is a preventive one. Spray or dust every ten days or so, even if you don't see any problems. By the time you notice a disease on your plant, it may be too late to control it. Rather than spray twice, combine insecticides and fungicides (if you need both) in the same spray, or buy one of the combination sprays at a garden center.

Systemic pesticides are absorbed into the plant through the soil and need to be applied less often.