

## *Helping Our Roses Make it Through the Long, Hot Summer* By John and Jean Grotgen, Consulting Rosarians

Roses require sun, but heat is one of the worst enemies that they face. July, August, and September can be scorchers. Not only are our roses at risk from heat damage, but the accompanying humidity breeds insects and fungal diseases.

The effort and care that you give to your roses at this time will be critical for future bloom cycles in the summer and into the fall months. The following practices might help your roses make it through the coming hot and humid summer so that you will have roses to exhibit at the Fall National Rose Show in Marietta Oct. 7-11!

### Watering

Water is essential to carry the nutrients to different parts of the plant, so your top priority will be to water your roses on a regular basis. Most authorities agree that one to two inches [measured in a rain gauge] of water per week is needed to keep the plant healthy and hydrated. Many factors, including the wind, kind of soil, drainage, age and size of plant, and whether the plant is in the ground or in a container, will impact this requirement. If your city has local water restrictions follow their guidelines.

Kitty Belendez, a California rosarian, says as a rule of thumb, if it is 90 degrees, water every day; if it is in the 80s, water every 2 days; if it is in the 70s, water every three days. Watering deeply less often is better than a light watering more often, since deep watering encourages the roots to grow deeper.

How do you know if your roses are stressed and needing water? Stick your finger in the soil. If there is no moisture 1" below the surface, it's time to water. If possible, water the ground in the morning which minimizes evaporation. Avoid wetting the leaves later in the day, since this could encourage fungal diseases such as blackspot and mildew. If you do wet your leaves, allow time for them to dry by night. If young and tender growth is wilted, then you know that it is past time to water.

### Fertilizing

Roses need lots of nutrients to produce those beautiful blooms. So, if we expect them to bloom profusely, we have to feed them. Roses also love variety in their food. And they should be fed twice a month while they are growing. We alternate every two weeks between a granular (13-6-6- with sludge or Milorganite) and a liquid combination of Bloom Master or equivalent (lower nitrogen), fish emulsion,

Epsom salts, and iron now and then.

*Water your plants well before and after feeding - before applying **any** kind of fertilizer.* If you apply liquid fertilizers to dry soils, the roses will suck up the fertilizer quickly and it may cause the leaves to burn. Sprinkle granular fertilizers around the drip line, scratch into the soil, and water well. Avoid spraying foliar fertilizers in the heat of the day. Some suggest cutting back slightly the recommended amounts in the heat of summer. With new bushes, perhaps 1/2 the recommended amount should be used until the bush is growing well. Remember, delayed release fertilizers break down faster in hot weather. If the delayed release fertilizer is supposed to last three months, for example, it's probably expended in two months in the heat of summer.

### Spraying

Our approach is to spray regularly for prevention of disease. When harmful insects appear, spray insecticides that especially target those pests and spare non-harmful bugs and have a miticide at the ready. An effective spray program is also critical to maintaining as much healthy foliage as possible during the summer months. Healthy leaves make healthy plants. The more foliage on the plant after pruning for the Fall rose shows, the higher the quality of bloom produced. *Water your plants well before spraying so they'll be less likely to suffer spray burn* (scalding of leaves, resulting in brown or crispy leaf tips.) Avoid spraying late in the day, because wet leaves through the nighttime tend to breed disease. Spray the undersides of the leaves first. Many disease and insects start here. Move around the bush to thoroughly cover the undersides of the leaves. You will notice that the overspray will come up through the bush and fall back onto the upper surfaces of the leaves. After thoroughly spraying the entire underside of the plant, the top surface is then lightly sprayed. Avoid a buildup, or puddling, on top of the leaves as it can cause burn.

A spreading/sticking agent can really make it easier to get it right. A few drops of dishwashing liquid usually works well. Indicate 5 contains a red indicator dye that turns the water pink at pH 5.0 which is the ideal acidity for most pesticides. It is an excellent product and reduces the quantity of spray material you need to apply.

Protective gear is necessary. At a minimum, use long sleeves and pants, hat, waterproof gloves, respirator/mask and eye protection. Take a shower right afterwards. As always, read (continued on page 11)

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(continued from page 2) the label and use only as directed.

When we had a relatively small garden, our spray program was fairly simple. Now our program is more comprehensive and involves rotating a combination of systemic and contact fungicides every two weeks, as well as including a foliar fertilizer (Response) and a commercial spreading/sticking agent (Indicate 5). Currently our preventive spray looks like this: Compass, Pentathlon, Response and Indicate 5 one week then two weeks later Honor Guard, CuPro (copper fungicide), and Response (CuPro and a spreader/sticker do not mix).

We use insecticides only when insects are present. Aphids usually appear on the lush, nitrogen-rich new growth. Thrips inhabit the buds and blooms. We treat aphids and thrips with Merit and Conserve SC. Merit is available commercially (Bayer). Orthene can be very effective but kills good bugs and can lead to spider mites. Spider mites appear on the bottom leaves. Regular pesticides do not work on these guys. Miticides (Floramite, Forbid, Avid, and others) are required and need to be utilized as soon as these especially destructive pests appear. They tend to be expensive but are necessary with large gardens. Mites supposedly can be controlled with a strong stream of water to wash the mites off the plants. This needs to be done every three days as the mites can crawl back on the plant especially when it is very hot and dry. We have not had much success with this.

### Staking

Our plants get taller after having had two, three, or four bloom cycles, and they may need protection from gusty winds or from other roses. Use various materials (PVC pipe, plastic or bamboo stakes) to support and to protect your roses, particularly as you may be gearing up for a fall rose show. Push the stake into the ground at least a foot and tie the canes with strips of panty hose cut into 1" by 6" strips [or stretchy plant tape].

### Other Summer Practices for the Rose Grower

Continue to deadhead your spent or faded blooms. This encourages your bushes to produce more roses rather than to develop hips and stop the blooming. Also, faded or spent blooms are unattractive and can breed disease. Remove suckers that start up from below the graft union.

Keep a calendar of what you do. Record what you spray and when, also what you fertilize and when. At many of our ages, it is so easy to forget!

Finally, focus on saving yourself from heat-related illnesses. Do your rose-tending in the morning when it is cooler. Wear lightweight, light-colored, and loose-fitting clothing. Drink plenty of liquids. Take breaks and get out of the sun. Use common sense and take these needed precautions so that you can garden safely during these summer months. Both you and your roses deserve nothing less.

*(Thanks to Walt and Linda Reed, David Clemons, Marty Pawlikowski, and other rosarians who have written on these subjects and from whom we have borrowed freely.)*