PRUNING YOUR ROSES

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If wild roses can thrive without pruning, then why do we bother to prune our roses? The reason is that without pruning, our modern rose types will grow into a mess of tangled branches and twigs with thin spindly ends which only produce small inferior blooms and an abundance of dead and diseased wood.

Pruning has two distinct objectives:

1. For the well being of the bush we do what is called sanitary pruning. We accomplish this by removing all the growth that is detrimental to the bush, such as dead, diseased and damaged wood (the A3 D=s@). Sanitary pruning can and should be performed and practiced all year round. As soon as you notice die-back or canker, do not procrastinate; cut the diseased portion of the cane off about 2 inches below the lesion.

2) <u>For our own objectives we prune</u>:

- To control the quality and quantity of flowers produced (see AMain Pruning@ below)
- b) To shape the bush to a pleasing vase-shaped appearance and reduce the size, if that is desired.

These objectives are achieved by eliminating <u>unwanted wood</u> such as crossing stems and those that grow toward the center of the plant (which we want to keep free of growth). An open center lets the sun in, promotes good air circulation, and helps to dissipate the moisture collected on the leaves. This practice reduces the optimal conditions for developing fungal diseases. An open center also facilitates spraying - you get better coverage with less effort and spray material. Furthermore, twiggy growth (that cannot support a decent size bloom), blind wood and lopsided canes or branches (that distract from the symmetry of the bush) are removed.

c) To rejuvenate the bush - A cane older than 3 years old is seldom productive. This kind of Awearing out@ is a natural process for roses. A new vigorous shoot will spring out from a point usually lower down the cane. Technically this is a Alateral@, but we usually call it a Abasal break@. Varieties that have a more pronounced Oriental past in their ancestry seldom have Abasal breaks@ coming out of the bud union, but mostly originate from the framework of the old wood (Robert Whitaker, AR, Feb 85). This new shoot will compete for the available supply of nutrients. The older part will not produce any good flowers but will produce only twiggy growth, blind shoots, or rosette type growth. Eventually this older cane will die and rot. By cutting off the old cane at the point where the new cane emerges, we hasten nature's process. We can also eliminate old unproductive canes that do not produce any new, vigorous shoots. These canes are cut all the way down to the wood from which they originate, or at the bud union, whichever the case may be. If these canes are rather thick (3/4@ or more), it is better to remove them in the active growing season when better callusing (healing) will take place rather than in the dormancy period. To obtain a perfect ridge of healing bark (callus), cut the cane flush to the wood it comes from, trim the edge with a sharp blade, and seal with amber shellac (carbolated Vaseline or Elmer=s glue as a second choice). If the cut is not sealed the bark will dry out and the welt of healing will not appear.

For our own needs we can also differentiate between several pruning objectives and corresponding pruning methods. These objectives are for: 1) garden display; 2) strictly exhibition; 3) cut flowers only, used by commercial growers in the cut flower trade; and 4) all of the above. Most of us prune for Aall of the above@. Hard pruning is used for the 2nd and 3rd objectives. Those bushes cannot last long, and after three years or so they are exhausted and must be discarded. Repeated severe reduction of

the top growth curtails the root system to the point that it cannot support the top growth in the following years.

Roses that are grafted on Rx Fortuniana rootstock do not tolerate hard pruning, and actually there is no need to severely prune them. Bushes on Fortuniana, moderately pruned, provide plenty of excellent blooms that are competitive and win top honors at local, district and national level rose shows as well.

Equipment needed for pruning: 1) a pair of stout leather gloves: 2) good scissor-type (bypass) pruning shears (anvil type is not recommended); 3) pruning saw or carpenter=s key-hole saw; and, 4) an 8@ Mill ABastard@ fine file for metal. The very best pruning shears are the Swiss made AFelco@ pruners, but they are quite expensive (\$20 -\$40). However, you can buy a very well-made Japanese copy of them for about 1/3 of the price, although they do not last as long as the AFelco@ shears. Whatever the brand of pruners you have, it is very important to keep the cutting blade razor sharp. You can do the sharpening yourself with an 8@ Mill ABastard@ fine file for metal. When pruning, always keep the cutting blade of the pruning shears toward the remaining wood and the holding blade (the thick one or anvil blade) to the part that is being removed. We strive to make clean unbruised cuts at the end of the remaining cane. There is much less die-back from the clean cuts and they heal (callus) better. For mid-sized canes and larger (thicker wood), some Rosarians use lopper shears, but these often crush the remaining cane ends and this encourages die-back. For these larger canes a pruning saw is preferred for these cuts. For younger wood (especially soft wood), the best tool still is a good sharp pruning knife in skilled hands. The pruning knife produces the cleanest and smoothest cut. If the surface of the cut made by the pruning saw or loppers is rough, then it can be slicked smooth with a sharp knife or single-edge razor blade. This technique improves the chances of callusing over the wound. As mentioned earlier, large cuts heal only if they are coated over with amber shellac, carbolated Vaseline or Elmer=s glue, all of which prevent the bark from drying out.

The chores of spring pruning can be divided into two stages to make pruning more manageable, especially if you have a lot of bushes. We can begin with preliminary or pre-pruning, followed by the main pruning, done later, at the appropriate time.

PRELIMINARY PRUNING can be done any time in January (at your convenience) before the main pruning season. Pre-pruning consists of: 1) eliminating dead, diseased and damaged wood (sanitary pruning); 2) removing unwanted wood; and 3) removing unproductive wood. Some Rosarians do not perform pre-pruning because if the weather stays warm the bushes may be stimulated to start untimely new growth.

MAIN PRUNING: Central Florida weather in December, January and February is very unpredictable. There are periods of cold spells, frosts and even freezes followed by periods of warm weather and then turning cold again. Because of our unpredictable climate, deciding the best time for the main pruning is often like a game of chance. The main pruning is generally performed sometime between mid-January and mid-February, preferably in the midst of a prolonged cold spell.

This is a general rule, but there are variations; some rosarians start at the beginning of January and some, at the opposite extreme, at the end of February, or some start their main pruning at the beginning of March. The reasoning behind later pruning is to avoid any cold or rather cool weather (35-40 degrees) after pruning that would adversely influence the new growth and flowering. It has been observed that if we have prolonged cold/cool weather after pruning that the subsequent new growth will be badly affected with blind shoots, blooms with very short stems, rosettetype growth, etc. In my opinion the only problem with such late pruning would be if the weather is warm in the latter part of February the bushes could start pushing out new growth and then, of course, immediate pruning would be required. As was mentioned earlier, some Rosarians start their pruning the beginning of January, thus disregarding what kind of growth they will get after pruning. That growth will be pruned off at a specific time to promote the second flush of blooms for the mid-April rose shows.

HOW to prune: If you did your pre-pruning earlier, all you now have to do is shorten the wood you have kept. Depending on the growth habit of the bush, the usual shortening is 1/3 to 1/2 of the overall length. Tall canes are cut to the point where they are about 1/2@ in diameter; try to leave wood that is bigger than a pencil.

The general rule is that all pruning cuts should be made 3@ above the axilbud eye, at a 45 degree angle sloping away from the bud. When I started to grow roses (30 years ago) I duly followed that rule and lost quite a few buds. I must confess that my pruners were not as sharp as they are now! Then I noticed that some professional gardeners left: - 1@ stubs above the axil bud eye when making their cuts. From then on I did not follow the 1/4 inch commandment, and left 1@ stubs when making cuts higher up the cane, on younger and softer wood. I know a lot of people will frown upon this, but I have proof in my garden, and other rosarians with the same opinion have authored articles appearing in the American Rose Magazine and in the 1990 Annual as well. When eliminating hard wood it is pruned flush to the wood from which it comes. Utilizing this technique, I very seldom lose any selected axil-bud or experience die-back (reaching toward the sprouting bud). If die-back occurs, I prune it off before it has reached the new shoot that has grown from the bud (this time I cut it flush to the new shoot). I think that a 1/40 cut is too close to the bud and our cuts are not always precise. With a 1/4@ cut there is no room for error resulting in a cut that may be too low. With the 1/4@ cut from the bud the soft wood (green thin woody part with large pith) may get crushed by the shears that are not always as sharp as they could be, and the Aplumbing@ leading to the bud may be damaged. While pruning, if you happen to cut into diseased wood, dip your shears into rubbing alcohol (or any other appropriate disinfectant) before making the next cut.

On very young and newly planted bushes you may have only thin wood, so those bushes should be only lightly pruned. Just remove any dead and diseased wood and try to train these bushes into a vase shaped structure (if possible) with cane ends just tipped. On new bushes pinch off the first flower buds, as this directs the plants energy into developing stronger canes and overall bushier growth. Grow a strong bush first, then flowers.

If you did not do any preliminary pruning, start with that first, (removing the wood as listed under Apreliminary pruning@, above). Then it is easier to decide where to make your cuts on canes and laterals which you have decided to keep. This is generally the way for pruning almost all types of modem roses.

Laterals of horizontally trained canes from established climbers are pruned back so 1-3 eyes remain on each lateral. Once-blooming Old Garden Roses are pruned back after the bloom cycle has ended since the buds which produce blooms are on last year=s growth, and pruning before blooming removes the source of flowers. Species roses and most shrubs

require just sanitary pruning and a light trim to keep them in shape. If there are old unproductive canes, remove them flush to the wood from which they emerge.

When the main pruning is complete take a soft wire brush and gently clean the bud union area. With the wire brush we are trying to remove the corky bark that may have formed during the year. The bark is removed because it tends to inhibit basal breaks (the growth of new canes from the bud union).

Post Pruning Activities: Immediately after pruning strip off all the old, worn-out leaves. Some of them could be afflicted with visible fungal lesions, while others may be infected but not showing any visible symptoms, and some may be carrying fungus spores, mite or insect eggs. Also pick up leaves from the ground in the beds since these are a source of infection too. Start the new growing season with a clean slate. To perform this pick-up chore more efficiently you could rake off the top part of the mulch, with all the fallen leaves and other debris from the bed, leaving the older, partly decomposed mulch. Be careful not to disturb the feeder roots. After cleaning up the beds cover with 4 - 5 inches of fresh mulching material.

After the bushes are pruned, old leaves removed, the beds cleaned up and remulched, it is recommended the bushes be sprayed. Contrary to popular belief, fungicides do not kill the spores. However, I would recommend spraying the pruned bushes once with basic Copper fungicide or Kocide 101 (copper hydroxide); or a mixture of Triforine (or Funginex) and Mancozeb (also trade names Dithane M45, Manzate 200) can also be applied. Fungus spores hide in cracks and crevices of the bark, and Powdery Mildew spores hide in the dormant leaf buds. They are just waiting to germinate when the conditions are right. The spraying would also help to prevent die-back on the cut ends of the canes. If you add Saf-T-Cide or Target oil emulsions to the fungicide spray it will help smother the insect and mite eggs. You can also use Volck oil or similar oil insecticides for the same purpose, but use them alone. When the buds begin to emerge start regular fungicide spraying as a preventative program.

As the new buds start to break along the main canes, thumb prune (rub off with your fingernail) those buds that are growing toward the center of the bush or those that are growing on a collision course with a neighboring cane. In addition, there is sometimes more than one bud emerging from the same location. Leave only the strongest one, rubbing off the others. It is important to keep checking for and removing these multiple buds and those pointing toward the center or any other unwanted direction as well.

ALL THE KNOWLEDGE ONE HAS GAINED IS USELESS IF NOT PUT INTO PRACTICE!

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