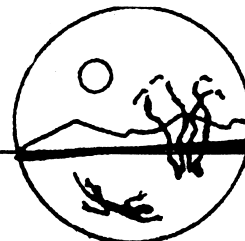


High on the Desert

Cochise County Master Gardener

Newsletter

The University of Arizona and U.S. Department of Agriculture cooperating.



Garden Basics: Pruning

Now that your garden tools are sharpened, cleaned, and ready, it's time to prune. Roses are pruned differently from fruit trees; fruit trees are pruned differently from shrubs and shade trees, and then there are vines, brambles, and hedges.

There are four primary objectives for pruning: improving appearance, directing growth, maintaining health, and increasing yields of fruit or flowers. A fellow master gardener once said to me, "Pruning is for humans, thinning is for plants." The more I garden, the more I understand this statement. Shrubs and trees in the wild do fine without the human touch. Pruning is done by Mother Nature with wind, fire, and other forces of her touch.

The basic needs of ornamental shrubs and shade trees are routine thinning of dead, damaged, or diseased wood, branches that cross and rub against each other, and suckers. This type of

pruning does not stimulate excessive new top growth or change the natural appearance or growth habit. On the other hand, as humans we like things pleasing to the eye and prune to open up a canopy, encourage

See back page of this newsletter for information on an upcoming pruning demonstration.

dense growth, or to attain a formal appearance. In the worst case scenario, continual pruning to keep a plant in bounds usually means that a plant was placed in an area too small for it. Knowing the growth pattern of a plant (the shape and mature size) will ensure planting the right plant in the right place and aid in training the plant towards its natural form.

Quirky, interesting form and character is what gives our native plants their beauty. For example, Texas rangers naturally grow loose forms—wild and rangy and bloom on new year's growth. Assaulting it by shearing it into hedges and balls

weakens it, reduces the flower display, and ultimately takes away its dignity. A better approach to pruning rangers is to thin out older, woody branches to channel growth back into the plant and selectively pinching back stems at various lengths to encourage lush growth while keeping its natural, beautiful form.

(continued on next page)

High on the Desert

The Fifth Annual High Desert Gardening & Landscaping Conference, is right around the corner - February 12-14!!! Register right away!



Cochise County Cooperative Extension

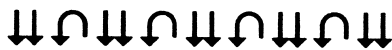
1140 N. Colombo, Sierra Vista, AZ 85635
(520) 458-8278, Ext. 141

450 Haskell, Willcox, AZ 85643
(520) 384-3594

Pruning in the right season is important. Flowering plants do so on either new or old growth. Knowing which sort of growth your plant bears flowers will determine when to prune. Spring flowering plants bloom on last season's growth (lilacs and redbuds for instance) and should be pruned after flowering. Growth made after flowering will produce next year's buds. Summer and fall blooming plants (such as butterfly bush and crepe myrtle) flower on current season's growth and should be pruned during the dormant season without sacrifice to next year's blooms. Some plants bloom repeatedly (including roses, butterfly bush and verbena) and can be lightly pruned (often called deadheading) after each flush of bloom to encourage more flowers. Evergreens are usually pruned during the dormant season. Pruning is both an art and a skill.

Through trial and error I have found that the best approach to beautifully shaped flora is research, research, research, attending pruning demonstrations, and practice, practice, practice.

Cheri Melton
Master Gardener/Staff Writer



Cuttings "N" Clippings

► The Cochise County Master Gardeners Association will be holding its monthly meetings (the first Wednesday at 5:00 pm) at the Mona Bishop room of the Sierra Vista Library during 1998. Please make a note of this change!

Give your back a break, sow seeds with a pipe...

Backaches can occur from too much bending and stooping while planting. To give your back a break, try using a 3-foot section of PVC pipe with a steep-angled hole at one end, then insert it into the ground and simply drop the seed from the other end. Cover the seeds with a hoe or rake and that's it—you're done. (And you didn't even have to bend once!)

-Gardening by the Yard

Are You Short On Space?

Are you short on space for your vegetable garden? You may want to consider a planting technique called intercropping. It has been proven scientifically that, in most cases, the traditional method of planting crops close together in widely spaced rows is inefficient. Within the rows, each plant competes for the same resources (light, nutrients, and moisture), while weeds thrive between the rows.

The amount of space a plant requires can vary significantly. For example, cauliflower requires a larger "circle" (with the cauliflower being at the center) than lettuce. You can take advantage of this fact by spacing plants in staggered rows with equidistant spacing in both directions. In other words, the amount of space between the plants in each row is equal to the amount of space between the rows themselves. Thus, the "circle" of each plant barely overlaps the circle of another plant.

Intercropping is designed to maximize the space available. Since some plants grow more slowly, they won't occupy their "circle" for a couple of months. During this time, you can plant faster-growing plants next to or around the slower-growing ones. The former plants will be harvested before the latter plants mature. For example, plant garden cress around young cabbage. The cress, which is fast growing, can be cut a couple of times before you must remove it to allow more space for the cabbage.

Undercropping is a variation of intercropping. Upright or tall crops (such as sweet corn) are combined with ground-hugging or low-growing plants (e.g., lettuce or cucumber). Another example involves combining climbing plants such as runner beans with fast-growing lettuce. The beans are grown on canes that are placed in a pyramid shape.

Although intercropping is an economic way to use the soil, be careful not to go overboard. Each crop must have adequate resources to grow properly. Since all plants are spaced relatively close together, thereby placing a high demand on the soil, be sure to provide sufficient nutrients, water, and mulch. There are many crops that you can combine, just be sure your plants are compatible.

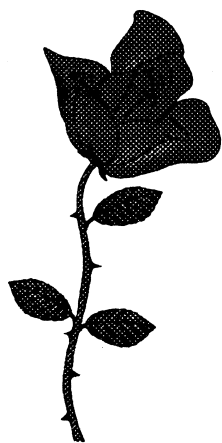
Source: *The Salad Garden* (Joy Larcom).

Karen C. Brown
Master Gardener Trainee

Newsletter Staff:

Carolyn Gruenhagen
Cheri Melton
Virginia Westphal

Robert E. Call,
Extension Agent, Horticulture



A Case Against Roses in the Desert

I just celebrated my fifth anniversary of coming to Arizona, and my fourth in my present home. It's amazing how the thing that attracts you at first is the thing that drives you crazy after a while. That's the way it is with me...and the roses. We saw the house in October and the roses were stunning. Bright pink and dark red grandifloras, coral and pink floribundas, white and yellow teas...over a dozen in all. It was heavenly! We moved in over Thanksgiving. The previous owner had thoughtfully pruned the roses for us. I should have taken it as an omen that the short, ugly, thorny sticks were laying in wait for me.

I knew there would be pruning, I'd had roses before in east Texas. But anyone who can't grow nice roses in east Texas has no business having anything but gravel in their yard—they have a brown thumb! I was filled with the enthusiasm of a new home owner. I had not yet learned about the importance of low water use and native plants as the mainstay of a southwestern garden.

Spring came, and the tender red foliage was lovely. I was elated. Then came the aphids. No problem, I'd defeated meaner pests before. Bring out the insecticidal soap! These were harder than those wimpy Texas aphids, but I prevailed at last. Then came the heat of summer. The amount of water required to just keep them alive

Mulch Available at Fort Huachuca

Fort Huachuca sells mulch to the general public as a by-product of forestry operations. Contact John Miller at (520) 533-3315 to make arrangements if you would like to buy some. There is a nominal fee per pickup truck load—you load your truck. To get on post, you will need registration and proof of insurance for the vehicle, unless it has a fort decal.

This mulch is usually fresh, coarse chipped wood and should be used as landscape or surface mulch, not as an organic component for soil ammendment (it will scavenge nitrogen if used as soil ammendment). As a surface mulch, this is excellent stuff to help retain moisture in the soil. Mr. Miller is very picky about his mulch, and ensures that no thorny materials or poisonous plants are chipped at the storage site. He also suggests that to make loading the product easier on you, bring a spade fork and large plastic trash can as tools.

was amazing, and then the darn things wouldn't bloom. Six weeks of pitiful, near wilted, thorny, roseless bushes. The love affair was starting to wilt as well.

The weather cooled with the monsoons. Finally, I thought, I'll have lovely roses again. But it was not to be. The double whammy struck. Powdery mildew and black spot had come to visit. I couldn't see how big their suitcases were then, but now I know they wanted to move in for good. I work in the environmental business and know the potential horrors of engineered fungicides in residential areas. Many of these products are teratogens and mutagens. Despite the fact that I didn't know my neighbors well, I would not take the chance of damaging them or their children by using such products in close residential quarters. So I Bordeaux'd and Safer'd my way through the fall. The paraphernalia was amazing. I tried several types of sprayers and permanently clogged them with the muck that forms in the bottom when using sulfur based products. I was relieved when winter came. I had gotten some lovely roses, but each one had cost me about an hour of my

life and four or five dollars, or so it felt.

The first winter that the roses were ours, my husband pruned them. Since then it has been a joint effort. It always reminds me of my Dad's thoughts on lawns. He says, "I have to wonder about people who water and fertilize a crop so they can harvest it several times a year in order to throw it away." I'm beginning to feel that way about my roses. I have developed an allergy to rose thorns. My hands swell, turn red and hurt. I have also developed a Laissez-Faire management philosophy. I still spray when the aphids are really bad, but I prefer to hope that beneficial insects will see the restaurant sign. I supplement the water a bit during the heat, but probably not enough because they always burst forth with an amazing bloom of mildew and black spot when it finally rains. I spray sulfur fungicide after I've pruned in the winter, but that's about it. If I had more time and energy, I'd rip out all but two and replace them with salvias and lavenders. Anyone want some roses?

*Gretchen Kent
Master Gardener Trainee*

The Agent's Observations

The time is fast approaching when dormant pruning and training of ornamental shrubs, roses, shade trees, evergreens, fruit trees, grapes, and brambles should be completed. Annual pruning is done to keep plant material producing young growth where production of flowers and fruit are wanted. Generally fruit is produced on at least one year old wood (as is the case of peaches, grapes, and brambles) or two year or older wood (as is the case with apples and pears). Dormant pruning is best when completed before buds swell and open. However, pruning can be done through the flowering of fruit trees although competition with honey bees may be painful! Grapes may be pruned until small leaves are present, though they will bleed, but that is not damaging to the plant. Brambles and roses can also be pruned when small leaves are present. Generally pruning of flowering ornamental shrubs is done when flowers are spent. Deciduous shade trees (those that

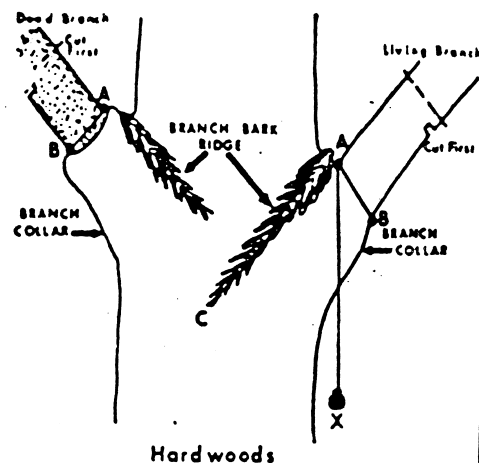
lose their leaves in the winter) and conifers are pruned when dormant. Evergreen shrubs can be pruned during early spring.

The first rule of pruning is to remove any dead, diseased, broken, rubbing, or parallel branches. A parallel branch is one directly above or below the desired branch and shades it out or is shaded itself. Also, remove any root suckers, water sprouts, or branches positioned low on the trunk. When making cuts do not cut through the branch collar. Cutting through the collar will cause poor healing and encourage disease (see illustrations). Generally pruning sealer or paint is not needed for most pruning cuts. In some cases, typically ornamentals, these compounds can aid in decreasing desiccation and disease, especially if large cuts are made. One example is fruitless mulberry which is susceptible to sooty canker disease.

The most critical time to train fruit trees is during the first three years from planting. The first dormant season select three to five limbs that are well spaced around the tree, with the lowest branch about two feet from the ground. This is the first whorl of scaffold branches and should also be well spaced up the tree trunk between two and four feet from the ground. Branches should be spread from the main trunk at a 50 degree angle using spreader sticks, ties, or weights. This will encourage good tree structure and initiate early fruiting. When a one-year-old shoot is tipped, more growth will occur. However, if cuts are made into two-year-old or older wood, regrowth is much less. Thinning cuts are made at the

base of shoots to remove them completely from a branch.

Apple trees are trained and pruned into a central leader, forming a tree that is pyramidal in shape. Peach, nectarine, sour cherry, and Japanese plum are trained and pruned as an open-center tree which looks like a wine glass. Pear, apricot, European plum, and sweet cherry are trained and pruned as a modified central leader, which is similar to a central leader tree, but the top of the leader of the tree is pruned back to encourage regrowth.

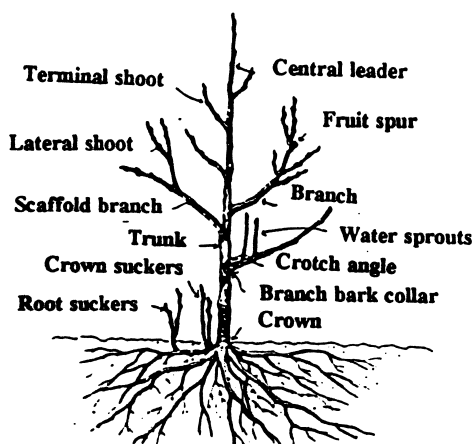


NATURAL PRUNING STEPS

1. Locate the branch bark ridge
2. Find Target A - outside of branch bark ridge
3. Find Target B - swelling where branch meets branch collar
4. If B is hard to find - drop a line at AX. Angle XAC = to angle XAB
5. Stub branch to be pruned
6. Make cut at line AB

Mature neglected trees that need renovating are not just a one year project but will take several years to correct. Half the wood of a

(continued on next page)



High on the Desert

Conference Registration

Date _____
 Name _____
 Address _____
 City _____ State _____ Zip _____
 Telephone _____

Full Conference \$60.00

(After January 31 \$70.00)

One Day \$40.00

(After January 31 \$45.00)

Amount Enclosed _____

(No refunds after February 6, 1998)

Please make check payable to:

Cochise County Master Gardeners Association

Mail to:

Cochise County Master Gardeners Association

1140 N. Colombo

Sierra Vista, AZ 85635

To help with our planning, indicate preference
for each session:

I	II	III	IV	V	VI
A	A	A	A	A	A
B	B	B	B	B	B
C	C	C	C	C	C

_____ I would like to attend Saturday Tour (circle 1)

A B

Look for the new commemorative T-shirts!

For information call:

The U. of A. Cooperative Extension Office

Sierra Vista, AZ (520) 458-8278, Ext. 141

HURRY!
 Register with this form and
 late fee will be waived!
 Good only through Feb. 6!

1998 Conference Program

Thursday, February 12

7:30 - 8:45 am Registration and Breakfast

8:45 - 9:00 am Welcome

9:00 - 10:15 am General Session

Ted Hodoba, Author, *Growing Desert Plants From Windowsills to Gardens*, past president of Native Plant Society of New Mexico, and owner of Desert Moon Nursery, Veguita, NM
Landscape Plants for High Deserts

10:30 - 11:45 am General Session

Robert Smith, Ph.D., Author, *Venomous Animals of Arizona*, Associate Professor, Entomology, The University of Arizona, College of Agriculture
Venomous Animals of Arizona

11:45 - 12:00 pm Exhibits

12:00 - 1:30 pm Lunch, Door Prizes & Exhibits

1:45 - 2:45 pm Session I

- A. Rob Call, *Backyard Tree Fruit Production**
- B. Rob Grumbles, *Joshua Trees and Other Agaves*
- C. Lucy Bradley, *School Gardens: A Place to Grow*

3:00 - 4:00 pm Session II

- A. Carolyn Chard, *Square Foot Vegetable Gardening**
- B. Barb Skye, *Xeriscape Principles*
- C. Carl Jones, *Urban Tree Management and Care*

4:15 - 5:15 pm Session III

- A. Sherri Wooldridge, *Creative Flower Arranging**
- B. Jim Koweek, *Do-Your-Own Landscape*
- C. Glenn Minuth, *Microclimates for Gardening*

Friday, February 13

7:30 - 8:45 am Registration and Breakfast

8:45 - 9:00 am Welcome

9:00 - 10:15 am General Session

Sheri Williamson, Naturalist/Biologist, Southeastern Arizona Bird Observatory, Bisbee, AZ
Wildlife Friendly Landscaping for the Southwest

10:30 - 11:45 am General Session

Tom Thompson, Ph.D., Associate Professor, The University of Arizona, College of Agriculture
Nitrogen: What, Where, and Why

11:45 - 12:00 pm Exhibits

12:00 - 1:30 pm Lunch, Door Prizes & Exhibits

1:45 - 2:45 pm Session IV

- A. Don Breckenfeld, *The Basics of Soil**
- B. Terry Mikel, *The Origins of Plant Names*
- C. David Christiani, *Landscape Design Principles*

3:00 - 4:00 pm Session V

- A. John Begeman, *Raised Bed Gardening**
- B. Tom DeGomez, *Landscape Trees for Elevations Above 4,000 Feet*
- C. David Kopek, Ph.D., *Buffalograss: It's Now or Never*

4:15 - 5:15 pm Session VI

- A. Mary Olsen, Ph.D., *Plant Diseases**
- B. Al Buhl, *Growing Wine Grapes*
- C. Peter Gierlach, *How I Got Rich Growing Native Plants*

5:30 - 7:00 pm Reception

Saturday, February 14

- A. Ft. Huachuca's Historic Trees Tour-9:00 am
- B. San Pedro Riparian Tour-9:00 am

***Denotes Basic Gardening Session**

NOTE: ALL SPEAKERS AND TIMES SUBJECT TO CHANGE WITHOUT NOTICE



**COOPERATIVE EXTENSION
U.S. DEPARTMENT OF AGRICULTURE
THE UNIVERSITY OF ARIZONA
TUCSON, ARIZONA 85721**

**OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE \$300**

**BULK RATE
POSTAGE & FEES PAID
USDA
PERMIT No. G268**

peach, nectarine, or Japanese plum can be removed in one year. One-third of the wood per year for apple, cherry, apricot, and European plum. Remove only one-tenth of the wood per year of pear to reduce vigorous regrowth which is susceptible to a bacterial disease called fire blight.

For further information on pruning plan to attend the fruit and nut tree demo on Saturday, February 14 (see flier in this newsletter) or contact the Cooperative Extension office.

*Robert E. Call
Extension Agent, Horticulture*

**Everyone is welcome to
attend the free pruning
demonstration!**



Fruit & Nut Tree Pruning Demo

Apple
Pear
Cherry
Plum
Peach
Nectarine



Pecan
Walnut
Pistachio

**Saturday, February 14, 1998
9:00 am**

1534 Apache Point, Hereford

(Turn West on Ramsey Canyon Road, turn left at Richard Road and turn right on Apache Point Road, proceeding for 1/2 mile to #1534)

Demonstration given by

Robert E. Call

Extension Agent, Cochise County