

# COOPERATIVE EXTENSION

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



the Cochise County Master Gardener

## NEWSLETTER

VOL. 6, NO. 2

FEBRUARY 1995

### HIGH DESERT GARDENING

Jerry Ambrose

Guest Writer

January is sure a confusing month, isn't it? One day 70 degrees, the next it's 40. Three nights in the 40s, then 10 in the 20s. What's a person to do in his or her garden?

Well, because our soil doesn't freeze and snow isn't common, there's much to be done by the active gardener this month.

How about pruning your fruit trees? Peach, nectarine, plum and apricot need regular work every year. Cherries, pears and apples should at least be evaluated. In the nuts, almonds need significant pruning each year, but pecans, walnuts and pistachios just need touch up for form.

And after your pruning, a dormant spray of oil and copper or oil and lime-sulphur will clean all overwintering insects and eggs off your trees, as well as beginning the sprays needed for controlling various fungi that affect your leaves and fruit. The other two fungicide sprays should be applied three to four weeks apart; the first one as buds begin to swell.

January may be the month you dormant prune your roses as well. If they are pushing new growth now, prune them now. If not, wait until early February. It is also prudent to dormant spray roses, using oil and copper or oil and lime-sulphur. Before you spray, clean all the old leaves from beneath your bushes and spray the ground thoroughly under them as well. This spraying should drastically reduce your mildew, black spot, and thrip problems in early spring.

What's that, you say? You don't have the slightest idea of where to start in pruning your fruit trees and roses? And you wouldn't dare try? Well then, invest in your garden. There are several excellent books all published in paperbacks that describe and discuss how to go about all this. They are reasonably priced and are good as a resource forever. They're available in bookstores, nurseries, and maybe the discount houses. You

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*Robert E. Call*

Robert E. Call  
Extension Agent,  
Horticulture

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might also borrow one from the library. Give it a shot.

If you still have questions after reading about it, check with your local nursery professional or with the Cooperative Extension advisor at the University of Arizona.

[The Cooperative Extension offices in Willcox and Sierra Vista offer free pruning brochures. Call for a copy. Also, see information concerning a free pruning demonstration elsewhere in this newsletter.]

You can enhance your garden in January as well. January-February is the time of the year that many shade trees, all fruit trees, many small fruits and vegetables, and roses are available in the "bare-root" form at nurseries and garden outlets.

Expect to find some 12-15 different shade trees and ornamental trees as well. Since this is such great stone-fruit country, apples, apricots, pears, peaches, plums, prunes, asian pears, cherries, and nectarines should be available. Pecans, walnuts, almonds, pomegranates, and persimmons will round out the normal availability but look around a bit and you might find more exotic fare such as jujubes, filberts, and plumcots.

There are many forms of fruit trees available—standard, compact, semi-dwarf and genetic dwarf—so there are sizes to fit any garden.

Choose late-blooming varieties of fruit trees due to our propensity for hard frost until April 1, and plan to wait on figs until they're available in containers because it's generally too cold to establish them effectively from bare-root here.

This is great lilac country, so look for them now in bare-root. You should also be able to find blackberries, raspberries, strawberries, artichokes, rhubarb, asparagus, horseradish, and Jerusalem artichokes. Have fun looking!

And there are roses . . . The newest and best varieties are available in bare-root now. All American Rose selections are those varieties that have tested highest in test gardens all across America, and while normally more expensive, they typically do best overall. There are some great varieties out there that cost less, too, so check with your local nursery professional or the Cooperative Extension office at the University of Arizona for varieties suited to Cochise County.

Remember to dig wide holes and add soil sulfur and organic matter when you plant most of the above. Roses and fruit trees will need some special care because of our windy climate—check with your local nursery professional for details.

Staff: Barry R. Bishop  
Jan Groth  
Carolyn Gruenhagen  
Elizabeth Riordon  
Virginia Westphal

# High on the Desert

**Run! Don't walk!**  
**Time is getting short**  
**The High Desert**  
**Gardening & Landscaping**  
**Conference**  
**is less than**  
**2 weeks away!!!**  
**Register right now!**  
**Registration form included in this**  
**newsletter!**



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## Help Wanted!

**Master Gardeners, your help is needed as room monitors and visual aid assistants for the High Desert Gardening & Landscaping Conference. If you can help, please contact Grady Banister, 378-6737.**

### TREES FOR SALE



The Arizona State Land Department Forestry Division, with the cooperation of the U.S. Forest Service, Soil Conservation Service, Cooperative Extension Service, and nursery contractors, annually supplies tree seedlings to rural landowners for windbreaks, reforestation, erosion control, wood products, wildlife habitat, and Christmas tree plantations. These seedlings are bulk purchased, stored, and redistributed to the landowner at the lowest possible cost. The purpose of this program is to encourage rural residents to establish tree and shrub stands for conservation purposes.

The variety of species offered to the public by the State Land Department, Forestry Division, is a compromise between public demand, seedling stock available, and variety of climatic conditions existing within the state.

Bareroot seedlings are sold in bundles of 50 plants (18" - 36" in length).

Small Container Seedlings are sold in multiples of 30 seedlings (each root container is 1" x 1" x 10". Top height of seedling is 6" - 10").

Large Container seedlings are sold in multiples of 30 seedlings (each root container is 2" x 2" x 7". Overall height is 12" to 18").

For more information or APPLICATION TO PURCHASE SEEDLING TREES contact the Willcox or Sierra Vista Cooperative Extension Office, the U.S. Forest Sierra Vista Ranger District, 5990 S. Hwy 92, Hereford, or the Arizona State Land Department, Forestry Division, 233 N. Main Avenue, Tucson, AZ 85701 (tel. 602-628-6016). All orders must be received at the Flagstaff office at least two weeks prior to the scheduled pickup date, regardless of the desired pick-up location, so don't delay. Time is getting short!

## IT'S NOT JUST "DIRT"

**Barry R. Bishop**  
**Staff Writer**

Every time you turn around, businesses are advertising potting soil at what appears to be a special low price. They say this bag is two cubic feet, this bag is such and such, this bag is three yards and so on.

If you are like me, confusion is my middle name. What this all means is great if you know what is being offered, and sizes, of course, but I don't.

So I have studied and come up with a good potting soil you can blend yourself. The soil in which house plants and even starter inside beds have in them requires a little more attention than plants grown in the outdoors. It is most important in any artificial growing medium to have the right proportions to provide the right nutrients needed to sustain plant growth.

Ideally we should have sterilized soil to ensure freedom from soil-borne pests, diseases, and weeds. There are three methods to use to sterilize the soil:

1. **Formaldehyde Method** — To treat soil in a flat 16 by 22 by 2 inches deep, mix 4 tablespoons for formalin (40% formaldehyde) with 6 tablespoons of water. Apply this outdoors. Moisten the soil, sprinkle the solution on it, mix the two well, then cover with plastic for 12 hours. Air for another 24 hours (or until all odor disappears) before sowing seeds.

2. **Oven Method** — Place a 4 inch layer of moist soil in a metal baking pan and cover with aluminum foil. Insert a candy or meat thermometer in the soil through the foil. Place the pan in the oven using low heat. When the thermometer has a reading of 180-200 degrees leave in the oven for another half hour. Remove the pan from the oven and let set for 24 hours.

3. **Pressure Cooker Method** — Fill a canning type pressure cooker with 2 cups of water. Place a rack inside the cooker and stack shallow pans of soil (approximately 3/4 of an inch deep), leaving space for the steam to circulate. Heat and when 10 pounds are reached,

maintain it for another 15 minutes. Remove from the stove letting it cool down. Wait 24 hours before using.

This general-purpose mixture can be used for most everything that have strong root systems:

2 parts garden soil (the soil you sterilized)  
1 part peat moss or leaf mold  
1 part perlite, coarse sand, or bird gravel  
1/4 part bone meal or 1/8 part superphosphate  
1/2 part dry cow manure

For plants that need a soil with more organic matter, such as begonias and African violets, use the above mixture with double the amount of peat moss or leaf mold.

For plants such as azaleas, camellias, and gardenias, double the peat moss and dry cow manure and use superphosphate instead of bone meal.

For desert cacti and succulents, a moist, very porous potting mixture is essential. By volume use 2 parts of soil, 2 parts perlite, 1/4 part bone meal, and 1/2 part dehydrated cow manure.

Note: Purchased potting soil can be stretched by adding 1 part garden soil to every 3 parts purchased soil.

### **TREES FOR SCHOOLS ARBOR DAY '95 PROJECT**

**Arbor Day - April 28, 1995**

Class projects and/or school-wide projects are being sought for Arbor Day '95. Proposals should involve staff, students, and parents.

Projects may involve a period of one day, one month, or longer and should be integrated as a thematic unit with your curriculum - science, literature, writing, art, music, ecology, math, health/safety, social studies, geography - one of these or any combination of all of them. The use of trees should be specified - windbreak, shade, reading, hugging tree - whatever your group desires. Design assistance is available through De Lewis, 458-4170 and Steve Schliebs, 378-1332.

*High on the Desert*

**Second Annual High Desert Gardening & Landscaping Conference**  
**February 16 & 17, 1995**

**Conference Program**

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

- Session VI 2:00 - 3:30 pm**  
 A. Bill & Athena Steen, *Straw Bale Construction*  
 B. Tom DeGomez, *Growing Strawberries and Brambles*  
 C. Mike Merkwin, *Composting - The Oldest Form of Recycling*

- Session VII 3:30 - 5:00 pm**  
 A. Kevin Dahl, *Less Work, More Production With Permaculture*  
 B. Janet Rademacher, *New Water-Efficient Plants For the High Desert*  
 C. Terry Mikel, *Soil, Plant, Water Relationships*

**Reception 5:00 - 6:30 pm**  
 Entertainment by Busted Cowboys

**Saturday, February 18, 1995 - Optional Tours**  
 A. Ron & Norma Murray, *Cactus Gardening*  
 B. Rob Call, *Fruit Tree Pruning Demonstration*  
 C. Bill & Athena Steen, *Straw Bale Construction*  
 All tours are included in the registration fee. Transportation is on your own with carpooling suggested. Maps will be provided. The number of participants is limited to the first 20 to register for the *Cactus Gardening* tour. Please indicate on the registration form.

\* Dr. Gary P. Nabhan first moved to Tucson in 1976 to serve as a Research Assistant at the Arizona Sonora Desert Museum, where he also served as Writer-in-Residence before becoming Staff Science Advisor in December 1993. He has a B.A. from Prescott College and an M.S. and PhD from the University of Arizona. He is a cofounder of Native Seeds/SEARCH as well as author of eight books and over fifty technical articles on ethnobiology, natural history and desert life.

*Robert E. Call*

Robert E. Call, Extension Agent, Horticulture

**Thursday, February 16, 1995**  
**Registration and Breakfast 7:30 - 9:00 am**  
**Welcome and General Session 9:00 - 10:00 am**  
 Gary Paul Nabhan, PhD\*, *Lessons From the Desert Elders: Food and Health in Dry Lands*

- Session I 10:30 - 11:45 am**  
 A. Matthew B. Johnson, *Mesquites In High Desert Landscapes*  
 B. Mike Kilby, PhD, *Table and Wine Grapes*  
 C. Tom Doerge, PhD, *Improving Desert Soils*

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

- Session II 1:30 - 3:00 pm**  
 A. Peter Gierlach, *Grow Native or Move Back to Ohio*  
 B. Donna Ellsworth & Roberta Gibson, *Bees, Butterflies and Other Beneficials*  
 C. Jimmy Tipton, PhD, *Roots - What's Going on Underground*

- Session III 3:00 - 4:30 pm**  
 A. Jim Koweek, *Do Your Own (DYO) Landscape*  
 B. Elliot Edwards, *Gourd Culture and Crafting*  
 C. Roberta Gibson, *Ants In Your Plants*

- Session IV 4:30 - 5:45 pm**  
 A. David Epele, *Agaves For Landscapes*  
 B. Page Bakarich, *Wildflowers!!*  
 C. Deborah Young, PhD, *Diagnosing Plant Problems*

**Friday, February 17, 1995**  
**Registration and Breakfast 7:30 - 9:00 am**  
**General Session 9:00 - 10:00 am**  
 Howard Shapiro, PhD, *Sustainable Agriculture and Biodiversity*

- Session V 10:30 - 11:45 am**  
 A. Joel Glandsburg, *Anasazi Water Harvesting*  
 B. Dale Leiendecker, *Growing Vegetables*  
 C. Dick Kelley, *Arizona Oaks*

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

*High on the Desert*  
 Conference Registration

Name \_\_\_\_\_  
 Address \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 Telephone \_\_\_\_\_

Mail to: U of A Cooperative Extension Office

ATTN: Rob Call  
 1140 N. Colombo, Sierra Vista, AZ 85635  
 (602) 458-1104, Ext. 141

Please indicate your preference for each session:

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

Full Conference \$60.00 After Feb. 3 \$70.00  
 One Day \$40.00 After Feb. 3 \$45.00  
 Commemorative T-Shirt \$10.00 After Feb. 3 \$12.00  
 Size M L XL (circle one)

Amount Enclosed \$ \_\_\_\_\_

Make check payable to: High Desert MG Conference

Cactus Gardening Tour   
 Request vegetarian meals

[This form may be reproduced]

## THE AGENT'S OBSERVATIONS

**Robert E. Call**  
**Horticulture Agent**

**QUESTION:** Can I prune pine trees and juniper shrubs during this winter?

**ANSWER:** Pruning of pine, juniper, cedar, fir, and spruce tree and shrubs should be done during the spring. Pruning is a stressful event for nearly all plants. The mentioned conifers are not growing much if any during the winter season and will have growth start in the spring. Waiting until spring to prune or trim these plants will afford them the opportunity to heal properly because of the strength they will have during the spring push of growth.

**QUESTION:** What are these fuzzy brown spots about 1/8th to 1/4 inch in diameter on the underside of oak leaves? The affected oak trees were planted last spring.

**ANSWER:** At first it looked like an egg mass of a lepidoptera, that is the moth and butterfly family. After further examination of the sample leaf it was determined to be a gall of the woolly leaf gall caused by cynipid wasp. Other gall forming insect are other wasps, aphids, psyllids or other insect. Most galls are formed as a reaction of the plant to larval feeding or adult egg laying. Most of the time the gall is formed from the reaction of chemicals that the insect secretes which produces mutation of plant cells. This abnormal tissue many times provides cover over the newly laid or hatched eggs. Also many times the inside gall tissue is a food source for newly hatched insects.

**QUESTION:** Is it all right to have red delicious apple trees blooming now? Why is this happening?

**ANSWER:** It is not good or normal to have fruit trees blooming this time of year. Those flowers will be frozen and die and not produce any fruit. This is happening because of the weather. There is not anything that can be done about it without drastic measures like growing in a temperature controlled greenhouse. The trees have not had proper chilling, that is not enough hours in the cold. Let me explain. When there is not prolonged low temperatures, that is temperatures between 32 and 59 degrees F., the chill requirement is not fulfilled. Time between these temperatures accumulate chill hours, with 43 degrees being optimum. Each hour above 60 degrees negates an hour of chill accumulation. For red delicious apples 1,234 hours of chill are required to overcome dormancy. Other deciduous fruit trees have other total chill requirements. Without this chill requirement normal growth will not occur, flowering can be sporadic, small leaves and fruit, short shoot growth and low yields will result. That is the reason standard apple trees do not grow or produce well in Tucson, Phoenix, Yuma or other warm areas of Arizona. They plant low chill requiring apple trees which do not have the fruit qualities that "normal" chill varieties have. To grow citrus you can not have too much cold and to grow apples you need to have cold winter weather.



Our deepest sympathy is extended to newsletter staff writer, Jan Groth, and her family. Jan's brother, John Fitzgerrell, was killed in an airplane accident last week near Marana, AZ.

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Address correction requested

## It's time to prune your trees!

Come to a free pruning  
demonstration, March 8  
10:00 am - Noon  
by Rob Call, Ag Agent

8144 Dakota Road - Hereford

Directions: From Sierra Vista, drive South on Hwy 92, turn left on to Ramsey Road, turn right on to Moson Road and travel about 1/4 mile to Dakota. Turn left on to Dakota to the third street, Geer Road. Turn on to Geer Road, which is the driveway, and continue about 1/4 mile to the home. For more information call Sydney Yuncevich at 378-0930.

