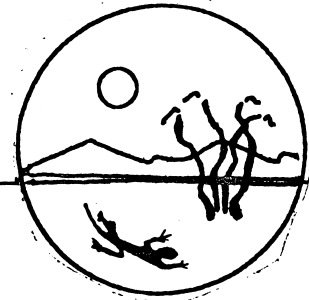


High on the Desert

Cochise County Master Gardener Newsletter



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

Conference Enormous Success!

"The 1996 High Desert Gardening & Landscaping Conference held March 1 & 2 at the Wyndemere Hotel and Conference Center in Sierra Vista, Arizona was maybe the best ever!

The attendees were so positive and so involved! They came from all over Arizona, from the high and the low desert, from California, New Mexico, and Texas, everyone craving information.

Thanks for being there! We enjoyed seeing old friends and meeting new."

*Barbara Kishbaugh
Master Gardener*

"The whole conference was very well organized, kept to the schedule well. Good selection of varied information with very informative and entertaining speakers. The whole experience really excited me to want to try many of the new (and old) ideas that were presented. Thank you so much! Can hardly wait till the next one!!"

Participant

"As an exhibitor I enjoyed your conference tremendously! I believe the attendees were all quality contacts . . . Thanks for a great conference!"

Exhibitor

"I would have been happy with just the food. Great speakers, tables, and information exchange. Great job you all!"

Speaker

"Nice accommodations! Good planning! Great speakers! Great displays! Good food! See you next year!"

Participant

Those are just a few of the comments we have received on our evaluation forms regarding our third *High on the Desert* conference! With such positive remarks again this year we are going ahead with plans for the Fourth Annual High Desert Gardening & Landscaping Conference on February 13-15, 1997! We hope to see many more of you there! It's a wonderful, informative experience.

I would like to thank our twenty-one exceptional speakers, our fantastic sponsors and exhibitors, the many businesses that donated wonderful door prizes, and the Wyndemere Hotel and Conference Center staff for their great support. Special thanks to the hard working and dedicated Master Gardeners who planned and carried out this conference.

February 13-15, 1997

Next year's conference will be even better!

*Rob Call
Extension Agent, Horticulture*

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Cuttings 'N' Clippings

➤ Here is the recipe for the "5-5-5 surefire animal deterrent" according to a gardening authority on the Lynette Jennings Home Show. It is supposed to keep away all kinds of wild animals, like deer, rabbit, *etc.* from your garden.

Break 5 raw eggs into a one gallon container, including the shells. Add 5 oz. of Tabasco Sauce, fill container with water, and let stand 5 days to ferment (preferably in the garage). Strain and spray around the perimeter of your garden. Repeat if necessary.

Jo Babbie
Master Gardener

➤ Did you know . . . a 1,700 square foot house is constructed of 13,450 board feet of lumber?

➤ Arizona Register of Big Trees is accepting applications for potential State Champion trees. Brochures and applications are available at all State Land Department offices and Arboretums around the state. If you have a champion you would like to nominate, contact Richard Harris at 965-9498.

Newsletter Staff:

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Robert E. Call
Robert E. Call, Extension
Agent-Horticulture

Improved Planting Standards

The University of Arizona Plant Sciences Department has released new recommended Planting Standards to improve the viability of new trees when transplanted in our Arizona soils. These planting standards are a compilation of research studies of other Universities, American Forests, International Society of Arboriculture, and independent research of leading national Horticulturists with modifications for Arizona Soils and climates.

1. Planting hole should be three to five times the diameter of the root ball and no deeper. The sides of the hole should be rough or sloping. Trees develop a root system that extends one and a half to four times the canopy diameter and lies within two feet of the soil surface. This lateral root system supports the tree and absorbs water and nutrients. Transplanting practices should encourage root spread.

2. Set the top of the root ball at or slightly above the soil surface. Trees planted in holes deeper than the root ball tend to subside as irrigation compacts the soil beneath the root ball.

3. Remove the tree from the container. Avoid lifting the tree by its trunk. Disentangle and spread any roots that had circled in the container. Score the sides of the root ball to encourage lateral root growth.

4. Place the tree in the hole and backfill. Do not add amendments to the soil. Do not tamp with your feet. Form irrigation borders (if used) just outside the root ball. Amended backfills tend to restrict root spread and reduce top growth. Amended backfills also tend to wick water away from the root ball.

5. Spread mulch on the soil surface to a depth of three to four inches. Keep mulch away from the tree trunk.

6. Do not prune unnecessarily. Root initiation and growth is stimulated by stem buds and leaves. Therefore shoot pruning reduces root growth and prolongs establishment.



Arizona Tree Seedling Program

The Arizona State Land Department, Division of Forestry, has for the last 23 years sold and distributed seedlings to Arizona landowners for conservation purposes. In 1996 they contracted with Greenwood Nursery to manage the Seedling Distribution Program. They will accept payment by Visa, Mastercard, and Discover, as well as personal checks and money orders. All orders of bareroot and container grown seedlings will be shipped directly to you by UPS.

For information on conditions of sale or seedling purchase application, contact your District Offices. For Cochise County it is 233 North Main Ave. Tucson, AZ 85701. Telephone (520) 628-6016.

Seed Saving

Saving seed from the gourd family (squash, gourds, cucumber, muskmelon, watermelon, etc.) was discussed at a recent Sierra Vista Garden Club meeting. Strange crosses were told of and misinformation was given as to what will cross with what. I have researched a few books and here is a short summation from several informative and interesting sources:

Webster's Dictionary says, "genus, Biol. a classification of plants or animals with common

distinguishing characteristics: a genus is the main subdivision of a family and is made up of a small group of closely related species or of a single species; the genus name is capitalized and precedes the species name, which is not capitalized."



Cucurbita pepo includes a variety of squash types, both hard shelled winter and tender summer squash, as well as acorn squash, small gourds, pumpkins, and spaghetti squash. Since varieties will cross, you can see the possibilities of odd and interesting crosses. The crosses are edible but may not be so tasty.

Cucurbita maxima includes hubbard and buttercup squash.

C. moschata includes butternut and Tahitian squash.

C. mixta includes green striped cushaw, hulless seeded pumpkin, pepita squash, and striped belize. (The last three are grown primarily for the edible seeds.)

A few botanists who have studied squash pollination think some crossing may occur between buttercup (*C. maxima*) or acorn (*C. pepo*) with butternut (*C. moschata*) but others disagree. Even the careful members of the Seed Savers Exchange plant one variety of

each of the four squash species during the same summer.

So we can safely save seeds if we plant in one summer, for instance, zucchini, buttercup, butternut, and hulless seeded pumpkin.

Cucumbers (*Cucumis sativus*), muskmelons (*Cucumis melo*), and watermelon (*Citrullus lanatus*) will not cross pollinate squash, nor each other since they are different species and in watermelon, different genus. Of course the varieties of each specie will readily cross with each other as do the squash types.

Wild gourds won't cross with garden squash because they a different genus.

If you want to save seed of your favorite gourd family variety, and your neighbor grows a different variety of the same specie, you still can do it, but the ways and means are another story - another time!

Yvonne Jingle
MG Trainee

Sierra Vista Garden Club News

The next meeting of the Sierra Vista Garden Club will be held March 21 at the Mona Bishop Room of the Sierra Vista Library. Guest speaker will be Jim Koweek, a nurseryman, speaking on Native Plants in the Landscape. Yvonne Jingle, President, invites everyone to attend.

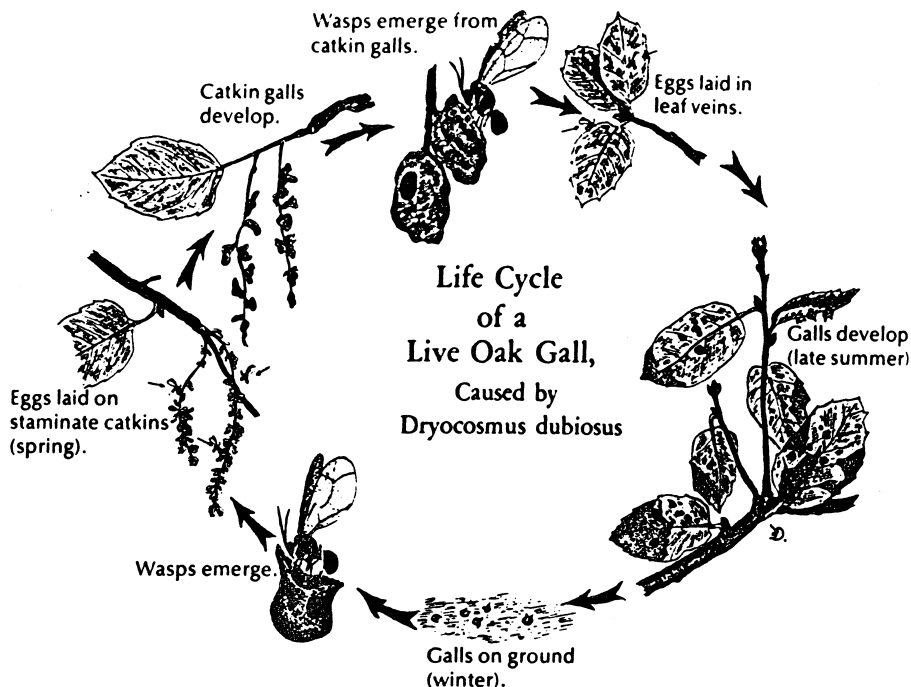
The Agent's Observations

CORRECTION: The gopher bait referred to in this column last month is called **Wilco Gopher Getter**. Sorry about that!

QUESTION: I have some juniper trees whose tips are turning brown. The trees were planted over 20 years ago and they receive enough water. When the branches are moving a yellow powder falls out of the "infected" area. What is causing the browning of the tips. Is it an insect or a fungus of some kind?

ANSWER: After examining a sample of the plant it was determined to have normal growth. The small brown tips are the developing male portion of the trees and when mature will produce pollen. The yellow powder that falls off the plant when disturbed is indeed pollen.

QUESTION: We live up in the mountains and have many oaks on our property. We have noticed brown growths near the end of branches that looks as if someone had thrown cow manure into the trees and it stuck! Also, we have some round "balls" hanging from the oak trees as well as some growths that are near the end of young twigs that look to be impaled on the twigs. What are these and where do they come from?



ANSWER: Wherever oaks occur, they are attacked by a small group of insects called gall makers. These insects cause deformities of plant tissue. The majority of gall making insects that attack oaks are wasps. Galls are produced by powerful plant growth-regulating chemicals or other stimuli produced by the insect that react with plant hormones. Some stimuli are feeding or egg laying. The inner walls of the galls are rich in protein and thus provide the larvae living in the gall a concentrated food source. The larvae are somewhat protected from predators while they are in the galls. Galls come in several shapes and sizes. They can be globular, dish-shaped or look like thorny, spiny balls. Galls are specific as to the kind of oak they occur on. For example, those found on the black oak

group do not occur on the white oak group. Many galls exhibit a characteristic gall alternation of generations. That is that the offspring of a gall wasp may produce galls that are completely different from those produced by their parents, but identical with those by their grandparents. Also, the site of the galls usually will be produced on a different part of the tree than those of their parents. It is reported that 717 species of gall wasps are found in North America. That number is decreasing as biologists unravel the mystery of alternating generations pairs and identify single species.

Source: *Insects That Feed on Trees and Shrubs*, 2nd Edition. Warren T. Johnson and Howard H. Lyon. 1991. Page 440.

Robert E. Call
Extension Agent, Horticulture

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A Transplanted Gardener . . .

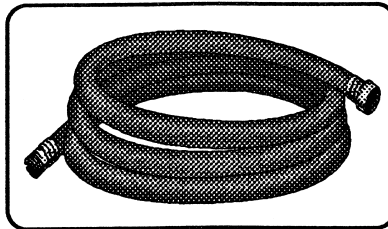
Lately I've been hearing talk among gardening friends about the stupid mistakes they've made. I firmly believe that no mistake is stupid if you learn from them! So in an effort to make everyone feel good about their mistakes I'm listing my mistakes made - lessons learned. Enjoy.

WATER: I think the hardest lesson to learn is about water. Actually I should say overwatering. I suspect that some of my plants were killed by too much water. Those in question are rosemary (I know it's tough to kill this plant but just give it too much water and you'll see and stop laughing!), lavender, and Mexican bush sage. Further research shows that the lavenders may have died by my mulching methods. I have learned to have a wait, watch, and see attitude. For instance when I transplant Texas rangers they always seem to droop for the next few days and sometimes even drop all of their leaves. I have learned that what they don't need is more water but just time to recover from the shock. When the books say drought tolerant or do not overwater, they mean it.

WHEN DO I NEED TO WATER? During the Master Gardening Course, Rob Call was always pounding into our heads to use a water probe. I wish I had listened because maybe more plants might be with me

today. If you are not currently using a soil probe (a soil probe is any long pointed metal rod shaped like a T that can be pushed into the ground 3-5 feet) try this next time you are about to water. Put your finger into the ground to check the soil. It's dry, right? Now go get the shovel or pick ax and dig down a few more inches. Aha - it's moist! I found that using the finger method is an inaccurate way to determine if watering is needed. A soil probe will easily push into the ground if the soil is moist and will not push in the ground at all when it's dry.

WATER METHODS: I have watered by a hand held hose, watering can, and by a soaker hose. Guess which one worked the best. If you said soaker hose you are right! Soaker hoses and drip irrigation setups are idea for our climate.



They put water where the plants need it, not wasting a drop for the weeds and ensures the soil is watered deeply. It also lessens what I call "make work," no hoses to drag around, sprinklers to set up, and storing all the stuff. Gary Gruenhagen wrote an excellent article on his soaker hose method in the June 1995 MG Newsletter.

MULCH: Two words explain my feelings on mulches. **Very Important.** Mulches decrease the soil temperature and

evaporation which in turn keeps the soil moist and cool, reduces the need for watering, and best of all keeps the weeds down. Trial and error have shown that lavenders do not like the dark mulches (I used bark mulch) that hold moisture as they are prone to fungal diseases. Instead they prefer 'dry' mulches like sand. Sand or gravel mulches are also preferred by cacti, succulents, and yuccas. Check out *Mulches* - another excellent article written by Barry Bishop in the September 1994 MG Newsletter.

TRANSPLANTING: Short and Sweet: I have found that I should never transplant plants in June. It's just too stressful for me and the plants.

"MAKE WORK": Here's an interesting story on a concept I call "make work." There is a circular driveway in our yard and the previous owners had lined the outside of the driveway with fairly large sized rocks. I thought this looked dorky so I hauled all the rocks to the dog run and stacked them around the outside of the fence. A couple of months later while weeding the area around the base of the house I decided that gravel mulches did have their place in some instances so I ordered 15 tons to be delivered and my dear husband and I proceeded to lay down black plastic and lay the gravel over this. A Good Thing - next year I won't have to weed around the house. (A fine example of "less work.") In the meantime I found that laying the rocks around the dog run was not such a great idea as

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(Continued from Page 5)

creepy things (*i.e.* black widows, scorpions, and a snake) liked hiding under these rocks and were dangerously close to the house and dogs. So I hauled all the rocks away into a pile a few feet away and laid down black plastic and gravel around the kennel. (This is called "more-less work.") A few weeks later I decided that I was going to create a Texas ranger room in the flower garden. I made a circular raised bed and decided to use the rocks to build a border to contain the soil. So I hauled the rocks - you guessed it - back to the circular driveway.

Moral of this story: Rocks are

very heavy after hauling them around a few times! Take the time to plan things out so you don't "make work" but do "less work."

*Cheri Melton
Master Gardener*

(Note: Copies of the articles mentioned in this column may be obtained by calling the Cooperative Extension Office in either Willcox or Sierra Vista.)



Happy St. Pat's Day!

Master Gardener Class Begins Soon!

The title "Master Gardener" is an opportunity for one to give of themselves to others in the field of gardening. Rob Call, Extension Agent, enforces the requirement of his Master Gardeners to fulfill the 50 hours of volunteer service following the completion of the 13 week course. He says, "Too often a person takes the Master Gardener Course and assumes that the title 'Master Gardener' is automatic. They forget that the course is only the beginning."

The next Master Gardener Course begins March 27 and will meet at the University of Arizona, Sierra Vista Campus from 3:00 - 6:00 pm for 13 weeks. For information, please contact the Cooperative Extension Offices either in Willcox or Sierra Vista. There are only a few openings left in the 1996 class.