

Communicator

University of Arizona

Cooperative Extension

Spring, 1993

Maricopa County Cooperative Extension
4341 E. Broadway Road
Phoenix, AZ 85040
255-4456, 8 a.m. - 5 p.m. weekdays
255-4455 after 5, weekends

Satellite location:
Property Owners and Residents Association (PORA) Office
13815 Camino del Sol Blvd.
Sun City West, AZ 85375 546-1672
Tues. and Fri. 9 a.m. - 3 p.m.
9 a.m. - 1 p.m. June 1 - August 31
Dial Extension 255-4980

THINGS TO EXPECT:

SPIDER MITES will become troublesome. Morning rinsing of foliage with a forceful, fine spray of water at least weekly through May is helpful. Miticides may be necessary.

LEAF FOOTED PLANT BUGS will be on deciduous fruit and nut trees. Nymphs (young), which resemble pink-orange spiders, are more easily controlled than the gray-black adults. Spray with carbaryl when fruits or nuts are pea-to-marble size and repeat two weeks later.

GRAPE LEAF SKELETONIZERS are small, black and yellow striped worms that skeletonize grape leaves. Prompt, thorough applications of carbaryl or *Bacillus thuringiensis (Bt)* to the leaves' undersides gives control. Also, Dave Langston wants to try introducing green lacewings as a test. Give me a call if you want to volunteer your grape vines!

DESICCATION OF TIPS AND EDGES OF LEAVES is caused by hot, dry air and worsened by winds. Water deeply to avoid moisture stress.

TOMATO BLOOM DROP is provoked by dry air and hot temperatures. Minimize exposure.

CICADAS the truest harbinger of summer, can be expected to become a nuisance again. No practical control is available.

SEASONAL LEAF DROP of Carob, *Rhus lancea*, pines, etc., is a normal seasonal tendency which is intensified by hot weather or drought.

THINGS TO DO:

PREVENT PROSTATE SPURGE by applying recommended preemergent herbicides immediately. Most research recommends Isoxzben or Pendimethalin. These should be used only when spurge has been a problem.

PLANT NEW SUMMER LAWNS after nighttime temperatures warm up to the upper 60's.

YELLOWING PALM FOLIAGE could be seasonal maturing of lower, older fronds or could indicate a nitrogen or iron deficiency. Palms respond well to micronutrient applications. The micromix should contain iron, zinc, and--very important--manganese.

PRUNE PALMS when flower spathes show.

WATERING NEEDS increase with the onset of summer. Water early in the day, as fast as the ground will absorb it, long enough for penetration through normal rooting depths, and only as often as necessary to prevent wilt of foliage.

SUNBURN PROTECTION should be applied to smooth bark of tree limbs or trunks not shaded by foliage. White tree paint or Snow provides the most practical protection.

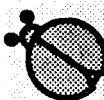
MULCH GROUND SURFACES under roses and other plants. Maricopa County Fair stable litter would be great, and the price is right!

WATER, MOW, AND FERTILIZE LAWNS ATTENTIVELY as stress can quickly become severe during June. This is also the best time to dethatch.

Terry H. Mikel
Extension Agent, Horticulture

NEW PUBLICATIONS

- MC 39 *Termites*
- MC 40 *ID of Termites & Similar Winged Insects*
- MC 50 *Whiteflies*
- MC 55 *Ants*



ALL ABOUT TREES

This early summer period is not only a time when we enjoy the shade and energy-saving benefits of trees but, with deciduous fruit, the harvest as well.

We started the season with a high sub-soil moisture content; but, with the early ripening peach and apricot varieties, it is important to maintain a high moisture level during the fruit sizing, late April through May, period. The Santa Rosa plum bloom was late and not very uniform this spring, which probably indicates lack of any chilling. We obviously had a wet winter, but our actual chilling hours were barely adequate for deciduous fruit.

Late April into May is a rapid growth period for new-crop citrus fruit. The recommended May fertilization is helpful in maintaining this fruit growth into the mid-summer and may help avoid too much "June drop" fruit loss. However, high late spring temperatures have much more influence on June drop than any cultural input. April and May is not too late to plant young citrus with good success. The trunks of young trees should be wrapped and the Bermuda controlled within the tree root zone to avoid competition.

Pecan trees have been out in full leaf with some spring aphid populations likely. Aphids are one of the insects that lacewing and other good bugs do a good job of keeping under reasonable control so no chemical is recommended. Where tree size and conditions allow, a couple zinc sprays should be applied during the April-May period. Pecans are alternate bearing, so a light nut set often reflects the off-crop year but may also indicate lack of good pollination.

Soil temperatures are now warm enough for good iron uptake on eucalyptus, citrus, etc., but trunk implantation capsules work well at somewhat less cost. To our knowledge the spray applied iron products are not very effective. Iron chlorosis in citrus is often a clue that the trees are being overwatered. Highly alkaline conditions also contribute so the sulfur-based amendments are helpful.

Early summer is ideal months for planting a wide variety of container trees (especially drought adapted plants) and palms. The planting hole should be deep enough to insure good sub-soil drainage. New research suggests that organic matter not be

mixed with the back fill but be used as a surface mulch. Where Texas root rot has been identified as a problem, tree selection should emphasize resistant species. Soil sulfur or other sulfur-based amendments are helpful as a root rot deterrent.

Lowell True
Extension Agent, Fruits and Nuts
Emeritus

IT'S BACK!

You can smell it...you can feel it...and you can see it with your own eyes at the Maricopa County Extension Office (4341 E. Broadway, Phoenix). Straw animal bedding and waste material from the Maricopa County Fair 4-H and FFA exhibitors is now available, and you can get as much as you want, whenever you want. For the 2nd year Terry Mikel has worked with the Fair (held in March) to promote environmental awareness and recycling. The project saved 15 large dumpsters of bedding and manure from being disposed in a landfill. Use it in your compost, as mulch, or till into your garden to prepare it for Fall. Have Fun!



MORE COMPOST

Free mulch (composted tree trimmings) is available at Agape Horticultural Services, Inc. at 2047 W. Elliot Road in Chandler. Bring your own bags and shovels and load your own at no charge. There is a \$5.00 charge per bag if you wish to purchase it already bagged. Call 820-3939 if you have questions.

There is also well-composted horse manure with wood shavings at 641 E. Palo Verde Road in Gilbert. This is a private home, so call for directions. The phone number is 926-0923. Bring your own bags, barrels, shovel, etc.

ALTERNATIVE PEST CONTROL METHODS

Most of us know that we should not take antibiotics every day when we are not ill; doing so would harm our bodies and cost money. Yet, we have a pest



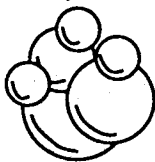
control operator spray pesticides in our yards every month or two, even though there are no insect problems present. Save yourself money and wait until you actually have an insect problem that requires treatment.

And to keep your home "healthy," you should consider using some of the following alternatives to pesticides when you do need insect control.

Traps: Sticky traps or strips have come back into favor for fly, cockroach, and mouse control. The new designs are more sophisticated, for example the fly strips have black houseflies printed on them, because it is known that flies prefer to land near other flies. Other traps contain scents that are attractive to insects. Ants visiting your hummingbird feeder? Try a little Tanglefoot™ adhesive on the hanger.

Other physical devices: Don't be afraid to use fly swatters to control any number of household insects. Vacuum cleaners are excellent weapons against carpet infesting species such as the carpet beetles and immature fleas. Remember to discard the vacuum cleaner bag immediately after use. In the garden use floating row covers as a barrier to insect pests.

Soaps: Soap and water mixes work against a number of insects, such as aphids or whiteflies. Ready-to-use products are available commercially or you may mix your own. Always test your plants for sensitivity by spraying only one or a few leaves at first. Avoid spraying during full heat of the day.



Desiccants: Silica gel and diatomaceous earth cause the insects to dry out. They may be effective on roaches, slugs, fleas, termites, and other insects. Avoid breathing the dust; wear a mask for protection.

Boric acid: This material controls crawling insects such as ants, cockroaches, and crickets indoors. It may be sprinkled into cracks or crevices or dry areas or mixed with food materials as baits. Keep away from children and pets, because boric acid may be harmful if swallowed. Create a trap that only the

insects can get into. You can use tuna cans tied together or margarine containers with the boric acid and sugar, cornmeal, or other foods, to entice the creatures into the trap.

Citrus oils: Citrus peels contain a material that is toxic to insects. On a hot day, grind up several peels and pour the slurry down the entrance of ant hills for outdoor ant control. Citrus oils are also available to rub on pets to repel fleas.



Bacillus thuringiensis (Bt): If your problem is caterpillars, then try spraying your plants with this bacteria. When the caterpillars chew on the plant, they will become ill and die. Be careful about using our alkaline water because water with a pH of 8 or above (common here in Arizona) reduces its effectiveness.

Other available materials that attack insects include other insect pathogens (diseases), insect growth regulators (which disrupt insect development), predators, and parasites.

Roberta Gibson
Research Specialist, U of A
Maricopa Agricultural Center

DRYING FLOWERS

With Spring flowers reaching the end of their bloom with the heat on their heels, take a few moments to press some of your favorite ones to decorate notepaper, bookmarks or small picture frame arrangements.

We've all seen fancy paper and wood presses in the stores and catalogues, but the most effective pressing device is an old phone book. Open to an inside page and use the curve of the pages to open flowers like snapdragons or other tubular flowers for a pleasing dried flower. Other flat flowers like daisies and leaves can be laid flat on the pages. Be careful of flower colors--white and yellows usually do not dry as well as the reds and pinks. Only experimenting will tell! Stack several phone books on top of each other for 2 to 3 weeks then use them in your favorite designs.

Gail Morris
Master Gardener

MASTER GARDENER ADVISORY BOARD

How many of you know that there is a Master Gardener Advisory Board? Not many, I bet -- just as I wasn't aware of one until a couple of years after I became a Master Gardener. I hope to answer the most commonly asked questions about the Board: Who, What, When, and Why?

WHY - The Board administers the Master Gardener program by providing leadership and overall direction to the Program in accord with the vision, goals, and objectives of the University of Arizona and the Cooperative Extension Office.

WHO - Joe Velazquez is Chairman. Other members are: Lucy Bradley, Carole Burtchaell, Don Copelan, Frank Determan, Raylan Evans, Marlene Hooper, Sam Kelsall, Don Nordlund, Karen Tsutsumida. Ex-officio members of the Board are Carolyn Chard, Donna Ellsworth, and Joanne Littlefield.

WHAT - The Board is administered by Terry Mikel and members are appointed to serve for two years.

WHEN - The Board currently meets the first Tuesday of every month at the Extension Office.

The last few months' activities included: formulating **Master Gardener Program Policy**; formalizing the organizational structure of the Maricopa County Master Gardener Program; improving the **Master Gardener Volunteer Interest Sheet** and **Master Gardener Time Record**; formulating a non-profit 501(c) organization to become monetarily separate from the University of Arizona; working with the University on applying adequate staffing requirements to the Master Gardener Program; and assuring that procedures are in place for the continuation of an effective Master Gardener Program for Maricopa County.

By the time you read this article you should have received a packet from Extension Office staff which would include the policy restatement, copies of the new forms, and procedures for reporting your volunteer time. If you have any questions, do call any member of the Board. Good gardening in 1993!

Carole Burtchaell
Master Gardener

1993 ARIZONA MG CONFERENCE

Mark your calendars now! The third annual Master Gardener Conference will be held August 5, 6 & 7 at the Arizona Biltmore. Sessions and optional workshops are planned with tours on Saturday, August 7. Conference registration charges will be \$75 for Master Gardeners, \$90 for non-Master Gardeners and \$100 late. The conference fee includes breakfast and lunch on both Thursday and Friday as well as workshop and Saturday tour costs. Look for more information about important registration dates and class listings in an upcoming mailing.

The Sponsorship Committee is requesting help in obtaining outstanding prizes for this fundraising opportunity. Resort weekends for 2, gardening books, restaurant meals, and other gardening related prizes will be welcomed. Contact Lenora or Roy (279-5219) so they can coordinate requests and not flood popular potential donors with multiples calls. Call if you have some good ideas of companies to solicit. They would be pleased to have you make the contact or the committee will. Donor forms are available.

Nelda Caldwell, in charge of floral arrangements, needs fresh cut tropical (not Mexican) Bird of Paradise leaves. Call her at 257-8621.

1993 INTERNATIONAL MASTER GARDENER CONFERENCE

As was reported in the last issue of the Master Gardener Communicator, the International Master Gardener Conference and Trade Show will be held August 12-15 at the Marriott Rivercenter in San Antonio, Texas. Conference Registration Forms are available and can be obtained by calling 1-800-633-2862 or writing to 1993 International Conference and Trade Show, 1143 Coliseum Road, San Antonio, TX 78219. The fee for this 3-day conference is \$150 (\$175 after July 1).

Specially priced travel arrangements are available by calling Herif Travel (9 am - 5 pm CST) at 1-800-633-3016. Accommodations at the Marriott can be obtained at 1-800-648-4469. Hope to see you there!

Carole Burtchaell
Master Gardener

MEET STAN FARLIN

Stan Farlin once spent his summers working as a scatter-raker. Now he directs Maricopa County's Cooperative Extension (CE). As director, he has varied responsibilities. They include such duties as overseeing the work done by the county agents and fostering the smooth functioning of the Master Gardener program.

And just what is a scatter-raker? Ask any long-time Nebraska farmer and he'll tell you that when it was time to cut the hay, you needed someone for the mower, you needed a good stacker-driver, and you needed a reliable worker to handle the scatter-raker that gathered the hay left behind after the other equipment had passed through. Doing the haying required a team effort, and Stan Farlin makes it clear that he views his current job in the same light.



He comes to Maricopa County from Kansas State University, where he served as an Extension Administrator and a Leadership Development Specialist. Stan officially began work at last November 23rd, taking over from Roy Rauschkolb, who served as temporary director.

"We always knew we needed an education," he says, recalling the years when he and his wife, also a native of Nebraska, were getting started. He went about getting that education "with every intention of going back" to his rural roots. It didn't work out quite that way.

Stan jokes that the birthplaces of his children reflect the various steps taken as he pursued his studies and shaped a career: the University of Nebraska (a daughter born); Colorado State (another); the University of Illinois (a third). Next came the University of Idaho (a son), and then the University of Nebraska (another son). Mark, the youngest, is now a freshman at the University of Southern California; and, like his dad, has a keen interest in football.

Asked about what he does for relaxation, Stan describes himself as a "sport spectator" who enjoys

going to tournaments. He confesses to having a brand-new set of golf clubs, never used, sitting in a closet. They're a gift from his kids. He says that he just hasn't had a lot of free time lately.

Directing Extension for a county that is as diverse as Maricopa is certainly a challenge. This county with the most densely populated urban center in Arizona is also the county whose gross agricultural receipts are equal to those of the State of Kansas. But whether Stan is talking about providing services for those who garden as an economic activity or those who garden in the pursuit of pleasure, he uses the same standard. "Our purpose", he states, "is to contribute to a better quality of life for those who call upon us."

Stan touches on the subject of tight budgets and the resultant understaffing, and speaks feelingly about overworked agents "whose job is never done". He discusses job burnout. He is also quick to note that he couldn't hope to do the job he does without the dedication of the volunteers that contribute hundreds of hours to the various CE programs.

Dolly Clark
Master Gardener



Donna Ellsworth talks about insects in the Childrens Area at the 1993 Garden Club Fair held on March 20. This year's fair was a great success and showcased the active gardening clubs of the valley. The clubs provided great advice, quality plants for sale and literature on becoming a member of their organization.

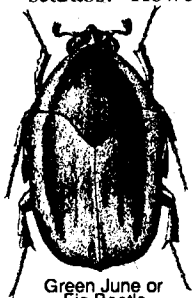
BITS ON GRUBS

Imagine you are digging in your garden and you find a white or cream colored C-shaped insect. You remember you found a similar insect in your compost heap. And, weren't there those "white grubs" in your turf last summer, in the spots that were loose and pulled up easily? Are these all the same insects? Are they all significant pests?



Immature
June Beetle
(white grub)

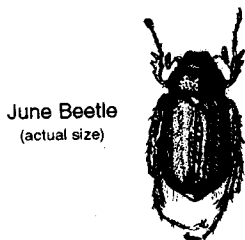
Actually, all these insects are the immature forms of beetles that belong to the family *Scarabaeidae* or "scarabs." However, they are not all significant pests.



Green June or
Fig Beetle
(actual size)

The grubs found in compost heaps (usually about twice as big as those found in turf) turn into the emerald-green beetles called **green June or green fig beetles**. The adults are often found on rotting or overripe fruit in July. They are part of nature's recycling program and usually do not need to be controlled.

The white grubs in lawns are another matter. White grubs may cause serious damage to bermudagrass by feeding on the roots. Use a shovel to turn over the lawn in areas that are brown, particularly along the edges of the damage. Look in the top 4" of soil for the grubs. If you have more than two grubs per square foot, you may want to consider control measures.



June Beetle
(actual size)

Pesticides are currently available for the control of white grubs in most lawn and garden supply stores. Always read and follow the pesticide label. To be most effective, the pesticides should be applied about 45 days after you see the adults (mid-August during

most years). Adults are hard-shelled reddish brown or black beetles from 1/2" to 3/4" long. They are called **May or June beetles** because they emerge from infested lawns from April to June.

If you prefer biological control, there are commercial preparations of a disease that attacks white grubs called milky spore disease. It will not harm people or

pets. Nematodes (microscopic worms) which attack white grubs are also available from biological supply companies.

Roberta Gibson
Research Specialist
Maricopa Agriculture Center

HANGING BASKETS

Patios, courtyards, and balconies are places where we can enjoy some carefully selected and well placed hanging baskets to extend the feeling of the garden. Cacti and succulents, with their bold forms and showy flowers, are wonderful choices to add interest and color to your landscape. As temperatures start to soar and many of our spring flowers are dying down, we really start to appreciate these "desert tough" plants which seem to thrive with the heat.

The following list of suggested cacti and succulents was compiled by Master Gardener and Desert Botanical Garden Docent, Judy Curtis.

CACTI

- *Echinocereustriglochidiates* - claret cup hedgehog
- *Wilcoxia schmollii* - lamb's tail cactus
- *Aporocactus flagelliformis* - rat tail cactus
- *Chamaecereus sylvestrii* - peanut cactus

EPIPHYTICCACTI

- *Epiphyllum anguliger* - fishbone cactus
- *Epiphyllum oxypetalum* - Dutchman's pipe
- *Riphsalis baccifera* - mistletoe cactus
- *Riphsalis cereuscula* - coral cactus
- *Riphsalis paradoxa* - link cactus
- *Riphsalidopsis gaertneri* - Easter cactus

SUCCULENTS

- *Aeonium floribunda*
- *Crassularupestris* - buttons-on-a-string
- *Crassula lycopodioides* - watch chain
- *Sedum nussbaumeranum*
- *Sedum winbergii* - goat's tail
- *Sedum morganianum* - donkey's tail
- *Stapelia gigantea* - giant starfish or carrion flower
- *Ceropegia woodii* - rosary vine, string of hearts
- *Hoya carnosa* - wax plant

FARM AND HOME

Are you taking all the gardening information available from the **Farm and Home** (TV 10, 5:30 a.m. Saturdays) for granted? A lot has changed since the first daily, straight-from-the-wire-service agriculture reports that Channel 10 aired in 1959. The **Farm and Ranch Report** was 10 minutes long and aired at 6:30 in the morning every day. The population of Maricopa County in 1959 was predominantly agriculturally based.

Cooperative Extension Area Information Specialist Bob Halvorson hosted the program until a month after his retirement in 1985. During his 25 years on the air, Bob says he "shot all his own 16mm film, did his own editing . . . it didn't cost the station a penny." (That part of **Farm and Home** has not changed. We schedule topics, program series, shoot and edit videotape or organize slides to bring the outdoors into the studio.)

The program began as a forum to talk about farming, water, safety, and crop conditions. Terry Mikel took over permanent hosting duties in mid-1989. I joined the show as producer to fill my MG volunteer hours in late 1989.

As the show's focus has evolved to serve the gardening population of urban Maricopa County, we try to keep all Extension programs promoted. But after 34 years people still want to know how to work their soil, what new plants are out there, how to identify insects and pests in their home or yard, what plant diseases are occurring, how to landscape, and more.

Recently someone asked me if we ever run out of things to talk about. I've been working on the show for 4 years, and the ideas just keep coming. If you haven't watched **Farm and Home** try it--*get out of bed early this Saturday or set your VCR*. No other program offers you the timely, helpful information about your home, environment, and family that **Farm and Home** does--5:30 a.m. on KTSP-TV 10. Check the VCR plus code in your TV guide.

P.S. Sometimes TV station executives respond to public input. KTSP, 511 West Adams, Phoenix, AZ 85003, phone 257-1234.

Joanne Littlefield
Public Information Program Coord.

THANKS!

If I didn't get a chance to personally thank those of you who were an enormous boost to me with all our garden education activities this year (Home & Garden Show, Garden Club Fair, Floriade, gardening talks), please allow me to thank you! Your willingness to get involved, pitch in wherever asked, and fill in wherever gaps need plugging is really appreciated. Working with such neat people as Master Gardener volunteers is one of the delightful fringe benefits of my job. And, we couldn't do half of what we do for educational outreach without you.

THANK YOU! THANK YOU! THANK YOU!

Joanne Littlefield
Public Information Program Coord.

KUDOS!

Terry Mikel recently accepted two University of Arizona recently accepted two "Communicator" awards for special achievements in extension communication. One was for the 1992 MG Conference; the other was for a *Farm & Home* Landscape series. These achievements could not have been accomplished without the help of the Coordinators and all of the Master Gardener volunteers! Congratulations to everyone involved!

VOLUNTEER OPPORTUNITIES

Two youth organizations in Central Phoenix are willing to donate space and time to a **gardening project**. Several Master Gardeners are needed to coordinate a garden and teach children how to grow vegetables and flowers. The program will involve children living in the public housing projects near Central Ave. and Buckeye. Call Lucy Bradley (255-4456) for more information and specific locations.

Master Gardeners are needed to help as **Phone Assistants** and in the area of **Volunteer Scheduling**. Contact Carolyn Chard (255-4456).

There are openings for **MG Class Notebook Assemblers**, **Home Horticulture Publication Library Books Coordinator** and **Office Clerical Assistants**. Contact Donna Ellsworth (255-4456) for more information.