

# Communicator

University of Arizona

Cooperative Extension

Winter, 1993

**Maricopa County Cooperative Extension**  
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Phoenix, AZ 85040  
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Dial Extension 255-4980



## THINGS TO EXPECT:

**PRUNE DECIDUOUS FRUIT AND SHADE TREES AND GRAPES BEFORE FEBRUARY** but first sharpen up your know-how.

**LIVING CHRISTMAS TREES** should have been moved outdoors to a shaded, cool location. They can be planted into permanent locations as soon as soil temperatures warm a bit.

**ARBOR DAYS IN ARIZONA** - February 5<sup>th</sup> for lower elevations and April 30<sup>th</sup> for higher elevations and the rest of the country.

**APHIDS** on many landscape and garden plants appear in February. Predator insects are often effective. When chemical applications are needed, apply by label directions or use thorough coverage contact sprays. Do not use systemics on any food plant.

**POWDERY MILDEW** often appears on new growth of roses, euonymus, cucurbits, and grapes. Repeat fungicide or sulfur applications are often needed to protect successive leaf growth.

## THINGS TO DO:

**FREEZING NIGHTS**--cover frost-sensitive plants; always remove covering during the day. Do not use plastic.

**FREEZE INJURY OF CITRUS FRUIT.** Most citrus fruit will not freeze unless temperatures drop into the mid 20's or lower for at least a couple hours. Lemons, limes, and other thin-

skinned fruit on the upper and outer periphery of trees may receive some injury at about 28°F.

**WINTER LAWN DISEASES**--Don't water too often, apply fungicide when needed, and avoid mowing during high moisture periods. The perennial ryegrasses are more disease resistant to fungus.

**PRUNE CITRUS, BOUGAINVILLEA,** and other freeze-tender shrubs and trees after they begin to grow.

**FERTILIZE FRUIT, NUT, AND SHADE TREES, SHRUBS, AND VINES,** but don't fertilize overseeded winter lawns until after February.

**PREPARE GARDEN SOILS** for spring vegetable planting; early planting means better yields in most spring crops.

**TREAT GUMMOSIS** infested citrus trees by scraping lesion and paint with a paste of Bordeaux or a solution of Subdue<sup>TM</sup>.

**DON'T DETHATCH** Bermuda grass and Hybrid Bermuda grass lawns until April or May.

**IRON DEFICIENCY TREATMENTS ARE CONFUSING.** Typically, the symptoms are an expression of another problem and not a lack of iron in the soil. Under moist and/or cool soil conditions iron is less available. If soil is allowed to dry some, the iron will be in a more available state. This may explain iron problems on plants in lawns but not on the same type of plant with an individual water source. To correct the symptom (not the problem) use iron in the Fe<sub>138</sub> chelation. Applying sulfur helps release tied-up iron also.

**FREEZE DAMAGE** can be assessed by March. Prune back plants to where new growth has emerged. Hibiscus is always a question mark as to its ability to produce new growth. Even when new growth is absent, the presence or lack of green color under the bark at the plant base should indicate whether or not the plant will rejuvenate.

Terry H. Mikel  
Extension Agent, Horticulture

## NEW WAY TO PLANT TREES

Some new thoughts about tree planting surfaced when Dr. Jimmy Tipton arrived. Dr. Tipton, Arid Ornamental Specialist, University of Arizona, has seen success other places and has an extensive test going on now using this new technique. Basically, the soil should be excavated 3 to 5 times wider than the container but no deeper than the soil line in the container. The soil should not be amended with organic matter, but the organic matter that is traditionally used should be applied as a surface mulch 3 to 5 inches deep but away from the trunk 6 inches.

After planting, water the entire back fill zone once. (Do not tamp the back fill.) Subsequent water should then be applied close to the tree for about a year and then moved outward to accommodate the spreading roots.

This technique is based on the fact that trees have a shallow spreading root system with a few anchor roots rising from laterals. If planted this way, the roots can more easily move outward in the loosened but unamended soil.

I know you are questioning the depth and the possibility of an underlying restrictive layer. If it exists, Dr. Tipton suggests poking a couple chimneys through the layer but do it out away from the plant, not directly under it. This is unlike our typical method; but, if you think about it for a while, the common sense of it comes through clearly.

Terry H. Mikel  
Extension Agent, Horticulture

## ALL ABOUT TREES

Water use of desert native and deciduous trees is very low during the mid-winter period so we would recommend that automated water systems simply be shut off until new growth starts in the spring period. The first spring water application should be long and deep, not only for the "leaching" effect for salt but also to maintain a deep reservoir of moisture that is not as susceptible to evaporation as we go into higher temperatures.

January is the month for deciduous tree pruning and planting bare-root fruit trees. In general, we don't

recommend severe stubbing back on mulberry trees as a pruning technique. The Q guide (Q394) on shade tree pruning has a good discussion on reasons and techniques of proper pruning. We do recommend Bordeaux solution as a paste, applied to the larger pruning cuts on mulberry to prevent entry of the Sooty Canker fungus. The bare-root planting season in January is mostly confined to deciduous fruit, but February through April is an excellent time for planting a wide range of containerized trees and shrubs.

The planting hole should be dug deep enough to allow good sub-soil drainage, a hole 3 to 5 times the root ball diameter and depth is recommended. In caliche an additional drainage "chimney" is helpful. Organic matter can best be used as a surface mulch effect around newly planted trees not mixed with the back fill soil.

This is the time of year that spring fertilization is an important part of spring growth and fruit development in deciduous fruit trees. Fruit thinning is also an important job in deciduous fruit to promote better size and avoid limb breakage. By March, the adapted early maturing peach and apricot varieties are sizing rapidly, so deep irrigation, once a week, is recommended for fruit development.

March and April are citrus planting months, and we should again emphasize not only what scion variety is being purchased but the rootstock variety as well. Rough lemon root is not recommended because of its' susceptibility to fungus disease and cold weather damage. Two or three year old nursery trees are a much better bet than older trees. The younger trees establish easier and are a better buy. The trunks of young citrus should be wrapped to prevent mechanical damage and bark burn as the weather warms up. The fertilizer planting pills can be used in the planting hole but no soluble fertilizer until new growth is out several inches. Thrips injury on new growth will be evident through the late spring and summer but is cosmetic so does not require control sprays.

Lowell True  
Extension Agent, Fruits & Nuts  
Retired

*A new bulletin offered by U of A Maricopa County titled "Scorpions" MC-71 is now available at the Extension office.*

## NEW VEGETABLE VARIETIES

Veggie gardeners, "Make new friends but keep the old, one is silver and the other gold." You all have "tried-and true" varieties that have served you well in the past, but some of the fun of gardening is trying something new - new to you or, perhaps, a variety just newly introduced. Will it grow well, produce well, taste good - or great? Time will tell!

Listed below are some Spring varieties - not mentioned in our Extension publication Q-337 (which is several years old) - that have been included in the Scottsdale College Community Garden newsletter and in the list of recommended varieties by the Desert Botanical Garden.

**BEANS, snap:** Astro, Bush Blue Lake, Century Gold, Fanfare, Harvestor, Majestic, Sprite, Wondergreen, Surprise (yellow)

**CORN:** Aztec, Candy Corn, Capitan, Gold Cup, Goldie, Honey & Cream, Honeycomb, Illini Chief, How Sweet It Is, Sundance

**CUCUMBER, pickle:** Bounty, Calypso, Carolina, Early Pick, Liberty, Saladin

**CUCUMBER, slicer:** Armenian, Dasher, Saticoy Hybrid, Slice Master, Sprint

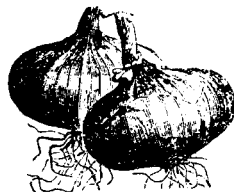
**EGGPLANT:** Black Bell, Market Prize, Midnight

**MELONS:** Ambrosia, Fordhook Gem, Gusto, Harper Hybrid, Sampson, Saticory Hyb., Sun, Venus

**OKRA:** Emerald

**ONIONS:** White Lisbon

**PEANUTS:** Jumbo, Spanish



**PEPPER, bell:** Bell Boy, Big Bertha, Emerald Giant, Gypsy, Hybelle Giant, Lady Belle Hybrid, Mercury

**PEPPER, chili:** Anaheim, Casabell, Colorado, El Paso, Fresno, Santa Fe Grande, Serrano

**PEPPER, sweet banana:** Cubanello

**POTATOES:** Red Norland, Shepedy

**PUMPKIN:** Hawden's Field, Triple Treat, Jackpot, Lady Godiva

**SPINACH:** New Zealand

**SQUASH, summer:** Burpee Golden Zucchini, Benning's Green Tint, Early Golden Summer Crookneck, Scallop Patty Pan Green Tint, Senator, Seneca

**SQUASH, winter:** Emerald, Gold Nugget, Golden Acorn, Royal Acorn, Spaghetti, Table King, Table Queen, Tahitian, Waltham Butternut

**SUNFLOWER:** any



**SWEET POTATOES:** NC 345, NC 320

**TOMATO:** Ace, Celebrity, Champion, Cherry Sweet 100, Early Cascade, Early Girl, Early Pak 7, Golden Delight, Pakmor, Small Fry, Spring Giant, Yellow Pear, Pearson

1993 seed catalogs have Bell peppers in a range of colors: lavender-lilac, "vivid-deep orange," bright yellow, vivid red. They not only taste good, but also could bring more interesting color to the garden.

There are also three varieties of vegetables recommended for the Southwest by a Bosque, New Mexico gardener in *Organic Gardening* magazine (January 1993): **Venture bush bean** (produced "a ton of delicious beans"), **Brandywine tomato** (very large, delicious and pink!), and **Lucious Plus cantaloupe** (small fruit and delicious).

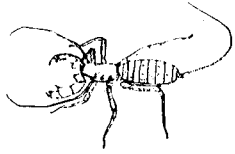
In *National Gardening* an article on new varieties "for warm spots" includes a 1-foot tall eggplant named **Bambino**, with tiny, one-inch fruits, and **Rosita**, a full-sized eggplant with slender eight-inch, pink fruits. Okra lovers might want to try **Big'Un**, "a large, fat-podded heirloom with few seeds and great taste."

The question is whether these new varieties will do well in our area. I invite you to send me your favorite varieties or recent discoveries (for Spring or Fall season). They will be added to an "unofficial" list I am compiling of good varieties for Maricopa County, with input from many gardening sources. Thanks!

Carolyn Chard  
Ag Program Coordinator

## BITS ON BUGS

Whipscorpions are one of the more interesting desert arthropods (class Arachnida) which we find in Arizona. These relatives to spiders often cause great alarm when occasionally found indoors because of their unusual appearance.



Whipscorpions are nocturnal, spending the day under rocks or other protected places. They feed on other arthropods, slugs and worms.

The large pinchers are used to grasp then crush or pierce its prey. Two types are reported. The whipscorpion or vinegaroon (order Uropygi) has the "scorpion-like" tail whip which is capable of shooting a vinegar scented mist when disturbed. The spray contains acetic acid and may cause slight burning to an open cut or mucous tissues. It is most commonly found in SE Arizona.



The tailless whipscorpion (order *Amblypygi*) is the one you'd see here in the Valley. It resembles the previous group but is more flattened and lacks the tail whip.

Donna Ellsworth  
Ag Program Coordinator

## GARDEN CLUB FAIR

For the third year, garden clubs from throughout Maricopa County will gather at the Maricopa County Cooperative Extension office grounds for the Garden Club Fair. Spring Equinox (March 20th) is the perfect day chosen for the public to learn more about all the garden clubs, their variety and the expertise members have to offer, as well as purchase club grown plants and supplies. The Fair will be held from 9:00 a.m. until 4:00 p.m. (and as past year's have shown) *rain or shine*. Master Gardeners will have a booth to provide plant and Master Gardener program information. If you are interested in helping out, contact Joanne Littlefield.

*The Desert Botanical Gardens will be starting their wildflower hotline on March 1. Call 481-8134, 24 hours a day.*

## SPICE UP YOUR FLOWER GARDEN

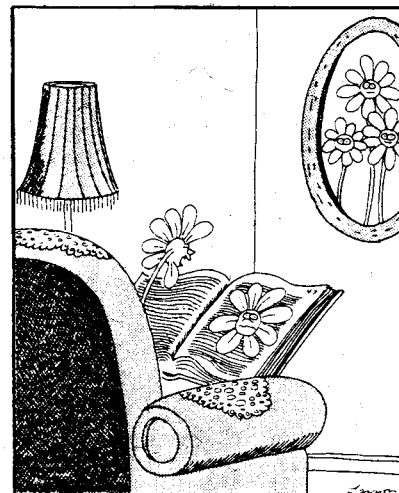
Try some different flowers this year! I spoke with the owners of three of our local nurseries and here are some ideas. Visit them for more information and offerings.

**Baker Nursery** offers *Chrysanthemum paludosum* - Paludosum daisy, a 1" white daisy with a yellow center that blooms Spring and Summer. *Tagetes lucida* - Mexican tarragon and *T. lemmonii* - Mt. Lemon marigold, have small yellow to golden orange blooms throughout the year, heaviest in Fall and Spring. *Zephyranthes* - rain lily, up to 2" crocuslike flowers, can bloom intermittently with rains throughout year but mostly late Summer to Fall.

**Desert Tree Farms** offers *Baileya multiradiata* - desert marigold, 1-2" bright yellow flowers year 'round, heavily in Spring & Fall. *Zinnia grandiflora* - prairie zinnia, deep golden papery 1" flowers in profusion throughout Summer. *Melampodium leucanthum* - blackfoot daisy, 1" white sweet scented flowers March to November.

**Greenworld Nurseries** offers *Erysimum* - wallflower, variety Bowles Mauve, has clusters of 4-petaled purple flowers which bloom Spring through Fall. *Artemisia spp.*, two varieties; Powes Castle and Silver Brocade offer beautiful colored foliage and small yellow flowers. *Nierembergia*, variety Mont Blanc has showy white star shaped blooms with yellow center.

Donna Ellsworth  
Ag Program Coordinator



As Harriet turned the page, a scream escaped her lips: There was Donald—his strange disappearance no longer a mystery.

## 1993 ARIZONA MG CONFERENCE

1993 is here and it's time to start planning for our Third Annual Master Gardener Conference. Last year's conference was a fabulous success due to the endeavors of many dedicated individuals. Each year we try to get more of our Master Gardeners involved

MASTER GARDENER  
CONFERENCE



so that we can take advantage of all their wonderful ideas. Working together to make this event happen is a great way to meet other Master Gardeners and to have a lot of fun along the way, as well as accumulate volunteer hours. We want you and we need you. So, if you would like to serve as Co-

Chair of the conference, a committee chair or a committee member, please sign up to volunteer today by calling Donna or Carolyn at 255-4456 or myself at 948-6588. Our first scheduled meeting will be February 17th from 9:30-11 a.m. I look forward to working with you on one of the following committees: Facilities, Conference Coordination, Program, Program Book, Theme & Artwork, Photography, Sponsorships, Registration, Finance, Publicity, Audio-Visual, Tours or Room Decoration. Together, let's make this the best conference to date.

Karen S. Tsutsumida, MG  
1993 MG Conference Chairman

## POWDERY MILDEW ALTERNATIVE

Recently Cornell University reported the results of several tests conducted over three growing seasons on fungal diseases of roses. The researchers noted that in all the trials, a 0.5 percent solution of baking soda was most effective in preventing black spot and powdery mildew. This is about 1/3 teaspoon of baking soda per 12 ounce spray bottle. A squirt of liquid dish soap will help it adhere to the leaves. It can be reapplied every 3 - 4 days. Last year several Master Gardeners tried this on vegetables as well as roses attacked by powdery mildew. We all had good success controlling the fungus. Try it and see if it works for you!

Gail Morris  
Master Gardener

## 1993 INTERNATIONAL CONFERENCE

The bi-annual International Master Gardener Conference will be hosted by the Bexar County Master Gardeners, Inc. in San Antonio, Texas. This is the 4th international conference which will be held from August 12-15 at the Marriott Rivercenter Hotel. Hotel rates are \$96.00 per night for single occupancy and \$108.00 for double.

This year's conference theme is "Gardening for a Better World." While still in the planning stages, one confirmed speaker is Mel Bartholomew, creator of "Square Foot Gardening." Joanne Littlefield will feature "Master Gardeners in the Media." Sixty-six classes, nine clinics and six short tours have been tentatively scheduled. In addition, a trade show, field trips to the Botanic Gardens, ranches, fruit-growing and vegetable growing areas near San Antonio and Xeriscape landscaping in "old" and "new" neighborhoods will be featured.

For more information call (800) 633-2862. Hope you can be there! I went to the one in 1989 and plan to go this year.

Carole Burtchaell  
Master Gardener

## RECORD RAINS

The good news is that excess salts should by now be leached out of your soil, and we may be in for another terrific wildflower year. The bad news? Many disease pathogens germinate, multiply and/or move best under wet conditions. Many plants may become more susceptible; fibrous roots decay due to reduced oxygen; leaves and stems have become more succulent with water uptake. We will most likely see: (1) more incidence of root rots such as *Phytophthora*, *Rhizoctonia* and *Pythium* and bacterial problems such as crown gall and fireblight, (2) more weeds will occur which may harbor disease pathogens and insects (i.e. leafhoppers spread curly top virus from weeds to tomatoes) and (3) cacti and succulents may have a difficult year particularly if located in poorly drained areas. (Saguaros may get top heavy and fall especially if soil has eroded or become saturated.)

Donna Ellsworth  
Ag Program Coordinator

## RETIREMENTS

The Maricopa County Extension office has lost two special agriculture agents. After 33 years, this holiday season we had the bittersweet opportunity to say good-bye to Lowell True, Tree Crops Agent for the Maricopa County Cooperative Extension office. Master Gardeners know Lowell best for his easy-going, open manner of providing information, through his session of the Master Gardener class, and with his help as we get our feet wet on the phones.

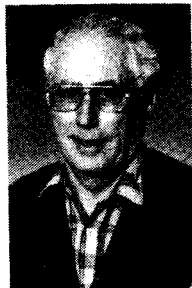


Lowell has received statewide, regional and national recognition for his expertise in citrus and deciduous tree fruit, nut and grape production. He served as Maricopa County Extension Director from 1982 to 1988 and has had statewide responsibility for citrus production since 1988. He has also been active in the Valley of

the Sun Men's Garden Club and many TV viewers have come to look forward to his advice through TV news spots on Channel 10 and on the Farm and Home Show (5:30 a.m. Saturdays, TV10).

Lowell has promised he will continue to drop by the Extension Office and also guest teach future Master Gardener courses. To say we'll miss his smiling face is indeed an understatement!

Herb growers and those looking for different vegetable varieties to try have long come to rely on the expertise of Maricopa County Commercial Vegetable/ Alternative Crops Agent Fred Harper. After 22 years with Extension, Fred recently retired with a "brighter" destination, Bermuda. Fred began as Minister of Agriculture with the new year.



With the help of Fred's efforts, the state now has Organic Certification legislation, an Herb Grower's and Marketer's Association, Farmer's markets at several locations in Maricopa County for urban residents, an Organic Grower's Association, the

Vegetable Industry Development Corporation and the Arizona Herb Association.

Fred has always been more than willing to share the information he has gathered on alternatives to conventional agriculture and possibilities for the backyard grower and the commercial venture. We're sure the island of Bermuda will enjoy a profitable future with Fred as a resident. His efforts will be missed.

Joanne Littlefield, MG  
Public Information Coordinator

## MEET VERA!

Some years ago, Vera Coronado worked as an aide in the West Phoenix Justice Court; her duties sometimes included assisting at on-location arraignments of jailed suspects considered too violent to transport to the courtroom.



These days Vera works in a somewhat tamer environment. She's located up front in the reception area at the Extension office, where she routes calls, provides information, and works at her computer station.

Coming from a family of seven children, this peppy and diminutive native of Arizona is used to working hard and helping people. When the need arose, Vera, together with her late mother, provided help of a very special kind for a member of the Coronado family, raising one brother's two children until he remarried and could make a home for them.

For at-home relaxation, Vera has long had an interest in all kinds of arts and crafts, including such handwork as embroidery and crocheting. As a matter of fact, in one notable year she completed 5 crocheted afghans in time for Christmas gift-giving. Recently though, Vera has tempered her crafting enthusiasms due to her experiences with what has become an increasingly common workplace problem: carpal tunnel syndrome. Under certain conditions, Vera's wrists can get really sore. All the same, this "up-front" Extension secretary continues to do a first class job.

Dolly Clark  
Master Gardener

## NOVEMBER MASTER GARDENER EDUCATIONAL TOUR

Those of us fortunate enough to attend the two-day educational tour on November 5 & 6 found out the saying *Learning can be fun!* is not restricted to the classroom.

Stopping along the way to Tucson, we visited the Tom Mix wash, an area identified by a memorial to the famous screen cowboy who met his death along that very road. As we ventured out among the thick desert habitat, we felt the strain of the city melt away as we discussed plants that we normally whisk by in the confines of our cars. Oddly enough, I can remember Terry eating only one plant. The rest of us decided to wait for lunch.

North of Tucson we toured **ARBICO**, a developer and supplier of sustainable environmental alternatives. Our tour guide and vice-president, Sheri Frey, led us through an organic demonstration garden and beneficial insect production. Then we headed to **Tohono Chul Park**, a lovely experience, and the **Desert Turfgrass Research Center** and **Karsten Solheim Laboratory**. Dr. Dave Kopec mesmerized the group with everything we always wanted to know about turfgrass, and then some.

On Friday we headed to Willcox and Rob Call, agent for Cochise County, led us past more apple orchards than most of us ever dreamed existed in Arizona! We then toured the largest apple packing plant in Arizona, getting to sample and purchase what many of us felt were the sweetest apples we ever tasted!

The most unusual stop was a ten acre tomato greenhouse, built and operated by the Dutch. The environment resembled a biosphere as we walked by rows of tomatoes all growing in liquid nutrient solution.

Last stop was at Stouts Cider Mill, a store full of the sights and smells of pies, cider, fudge and every imaginable delight that none could resist. The vans were riding low on the long ride home as we all carried with us our apple rewards, new-found knowledge, and many fond memories of a great two days.

John Nagle  
Master Gardener

## FLORIADE 1993

The Arizona Nursery Association (ANA) and Phoenix Home and Garden magazine are joining together to present Floriade 1993 "Colors of the Desert". The event will take place March 5, 6 & 7 at Margaret T. Hance Park (the Deck Park) in central Phoenix from 10:00 a.m. until 5:00 p.m. each day. ANA and Phoenix Home and Garden anticipate between ten and fifteen thousand people will attend the show.

Master Gardeners have been asked to have a booth at the show. This is a great opportunity to answer gardening questions, hand out plant bulletins and provide information about the Master Gardener program. We have decided on the theme 'Gardening By the Foot'. The MG's who tend the office demonstration garden will be building a square foot garden display to show how it's done. If you have any other 'gardening by the foot' ideas, such as containers, etc., please contact Joanne or Carolyn. If you would like to help out any of the show days, or have time to compile materials beforehand, contact Joanne Littlefield.



The City of Phoenix Water Conservation and Resources Division has recently published a brochure listing the numerous trees, shrubs, groundcovers, vines, grasses, wildflowers and accent plants suitable for residential xeriscape designs with a listing as to landscape theme, flowering season and size. The brochure is free-of-charge by writing to:

**Landscape Image Brochure**  
City of Phoenix  
Water Conservation and  
Resources Division  
455 North 5th Street  
Phoenix, Arizona 85004