THINGS TO EXPECT:

ALTERNARIA ROT may be found in blossom ends of navel and occasionally Orlando tangelos. No chemical control is available to prevent possible spread and attracting pests.

ALEPPO PINE BLIGHT is thought to be induced by day/night temperature extremes on tender, actively growing sections of these trees. Brown needles cling to plump, healthy branches. Sun-exposed sides are most affected. Normal defoliation occurs in the spring.

REDDISH-PURPLISH GROWTH on some eucalyptus varieties can be caused by cold weather inducing micronutrient tie-ups.

CHLOROSIS & LEAF DROP of citrus and other evergreens can occur. Short days, winter weather, drought or over-watering may be responsible.

FUNGUS DISEASES IN FREQUENTLY WATERED WINTER GRASS can occur. Minimize watering frequency to slow succulent growth and promptly treat with recommended fungicides. See discussion below for one of them.

FROSTY MORNINGS MAY OCCUR. Wrap the trunks of young citrus and other cold-tender trees to protect them from the winter freeze. Cover sensitive vegetables and bedding plants with cloth when freezing nights are forecast. **Remove these coverings every morning. Leave the trunk wraps on.**

THINGS TO DO:

COMPLETE WINTER LAWN OVERSEEDING by mid-November for good establishment. Fertilize winter lawns monthly to maintain good color. Ammonium nitrate fertilizers give quickest response during cool seasons. (See page 7.)

COMPLETE FLOWER AND FALL VEGETABLE GARDEN planting by November. Don't forget wildflowers! To receive last year's Communicator article "Wildflower Frenzy" call the publication line at 255-4980, then press 3021.

REDUCE THE WATERING SCHEDULES OF LANDSCAPE PLANTS to allow natural dormancy to occur. Slow growth is more resistant to freeze injury. Winter watering schedules should be adjusted to about 1/3 of the summer frequency for deciduous and dormant plants, but water deeply each time. Winter lawns and growing flowers may require once to twice per week depending on the weather. **Don't overwater.**

DELAY TREE & SHRUB PRUNING UNTIL JANUARY. Fruit tree pruning demonstration in January will be the January Update.

PYTHIUM FUNGUS outbreaks are a threat to rye grass lawns. Descriptively called "Greasy Spot," this fungus is most infectious in moist turf. Consequently, expect it in frequently sprinkled lawns, during rainy weather or periods of wet morning dews. Diseased areas vary in size and shape—sometimes appearing as streaks, spread by lawnmower wheels. Some early sliminess may be evident and grass in dead spots usually appears flattened. New growth is rare in diseased areas. Postpone mowing suspicious areas until they are dry to avoid spread from moisture-carried spores. Don't water any more often than necessary and preferably during the morning to early afternoon. If fungicides are necessary, spot applications of SUBDUE™ (liquid or granular applicate) to infected areas and traffic paths should confine spread.

Terry H. Mikel
Extension Agent, Horticulture
ALL ABOUT TREES

By November the weather is cool enough to induce the beginning of leaf drop in mulberry and ash. Many people get in a hurry to prune mulberries to avoid raking all those nasty leaves. It is a much better idea to wait until mulberries have gone into full dormancy before pruning. Moist cut surfaces are probably more susceptible to sooty canker fungus. Infected branches should be removed during mid-winter and cut surfaces painted with Bordeaux™.

Pecan husks will begin splitting in early November but some additional time on the tree will improve the meat quality in pecan nuts. Husks that have not split by late November usually indicate poor filling and marginal nut quality. Also known as a Pop! Discoloration in pecan nut meats is generally due to early season stink bug punctures.

Fall pruning is acceptable on a wide range of evergreen trees but if we hit one of our really cold winters, pruning on the frost tender types should be delayed until February. This would include Ficus, citrus, etc.

Water requirements on deciduous trees and native species are generally well supplied by normal winter rainfall. Evergreen trees will need some help if winter rains are sparse but still no more than half the summer schedule.

Several citrus varieties are ripening during this late fall period. Lemons have been mature for a while but do hold well on the tree and continue to sweeten through the winter. Most citrus varieties improve in quality with additional time on the tree. Mature tangerine varieties can have severe stem end rind breakdown under wet conditions so should be picked as they mature.

November is a good time for fall planting of native and other non frost tender type trees. The combination of relatively warm soil temperature and expectation of winter rain are positive factors for fall planting. Slow release fertilizer tabs in the planting hole are probably worthwhile to insure some nutrient availability through the winter.

Lowell True
Extension Agent, Fruit & Nuts
Emeritus

BITS ON BUGS

Master Gardeners, be sure to update your files! Thanks to Roberta Gibson, U of A Research Specialist, (and often the Bits on Bugs featured writer) and Dr. Dave Langston, U of A Extension Entomology Specialist, we have an incredible number of new and valuable publications available. They created a neat series titled More About Bugs and Their Relatives, where each fact sheet features information on a different insect in an interesting Question & Answer forum. Below is a list of this series. Check your MG notebooks, depending on when you took the class, you may or may not have acquired these. Call the publication line to order the pubs you need. Dial 255-4980 then press 3021.

- MC 25—Cicadas (revised)
- MC 39—Termites
- MC 40-ID of Termites & Similar Winged Insects
- MC 50—Whiteflies
- MC 55—Ants
- MC 71—Scorpions
- MC 73—Blacklights for Scorpion Control
- MC 75—Insect Pheromones

Upcoming fact sheets will feature Arizona spiders, conenose bugs, cockroaches, Africanized bees and mites.

Even more exciting is the brand new 58 page Master Gardener Entomology Manual finished this year. The manual includes basic entomology, features the different insects found in Arizona, and includes general control principles. It is so full of graphics and pictures that you’ll want to douse it with soapy water. The manual will be available soon but will have a charge. We’ll let you know when it is available.

Donna Ellsworth
Ag Program Coordinator

MG INC. MEETING DATE

George Johnston of the Superstition Mountain Historical Society will be the featured guest at the October 26th meeting from 7 - 9 p.m. in the Palo Verde Room of the Extension Office. Please join us!
BEES IN THE GARDEN

If the so-called “killer” bees are making themselves at home in Arizona, should you worry when heading out to the garden? Probably not, according to Dr. Dave Langston and Roberta Gibson in reports prepared for the Arizona Africanized Honey Bee Advisory Committee.

The Africanized honey bee is a close relative of the European honey bee common in America today; the resemblance is so close, in fact, that they can only be identified by laboratory analysis of at least a half pint of the bees. They are actually slightly smaller than European bees, and deliver LESS venom than your common garden bee. The primary differences that have led to the Africanized bee’s nasty reputation is that the new bees in town are not very choosy in selecting nest locations (even setting up hive-keeping in old tires and mail boxes), and they are more aggressive about defending their nests. Consequently if you wander among the flowers, at home or in the wild, the individual Africanized bee out about her business is no more likely to sting you than any other bee. But if the bees in the colony feel threatened, the Africanized hive will send out many more bees, and they will be more likely to sting than European bees. They are also quicker to feel threatened than the common bees.

There are several things to do to reduce your likelihood of disturbing any type of bee. Don’t wear perfumes, after shaves, shiny jewelry, leather or fur. Wear light colored clothes (dark clothing - including red - make you resemble a nasty, honey-eating bear). Wear long pants, and long-sleeved shirts. Bees that are SWARMING tend to be mild-mannered, because they don’t have a hive to defend, but it is best to stay away from a swarm as well. If you see the location of a hive, stay away; do NOT throw things at it, disturb it or attempt to spray it. Stay out of the flight path to the entrance. In case of a bee sting emergency, call “911.” The Africanized bee hotline number is 255-4933 or 1-800-645-5440 at the Dept. of Agriculture. 16 colonies have been found in Arizona so far.

If you are being attacked by bees, and you are near a building or car, get inside immediately and close the doors and windows. It’s alright if a few manage to get in with you. The change in light disorients the bees and they will switch to trying to get out.

If no shelter is available, run away as far and as fast as you can; once you are far enough away from the hive, you are no longer a threat and the bees will return to the hive, but the required distance could be as much as a half mile. If possible, run through tall brush, which will confuse them. Do not wave your arms or swat at the bees; the motion just disturbs them more. Cover your head as much as possible, pulling your shirt over your head if necessary. Bees target the face and eyes because these are vulnerable areas on wild animals. Once you are sheltered or away from the bees, examine yourself for stingers, and SCRAPER - do not pull - them off. Pinching them just releases more venom. If you feel ill, or suspect you are allergic, get medical attention.

Roberta Gibson notes that Africanized bees have been in Texas since 1990, but only one death has resulted from 200 reported stinging incidents. Of inquiries regarding possible Africanized bees to Texas officials, 60% of the insects brought in were not even bees. To keep things in perspective, Gibson points out that people are more likely to be struck by lightning than to die of bee stings.

Janet L. Jacobsen
Master Gardener

1994 ARIZONA MG CONFERENCE

Karen Tsutsumida has volunteered to be Conference Chair once again with Cheryl Barcala as Vice Chair. The new position of Vice Chair was created to provide experience for the person holding that position to become Chair the following year. In addition the following positions were filled:

- **Exhibitors:** Leslie Honaker
- **Finance:** Shan Hays
- **Florals/Decorations:** Nelda Caldwell
- **Program:** Barbara Adler & Charles Stirrup
- **Publicity:** Patty Briguglio
- **Registration:** Dixie Humphries
- **Secretary:** Carolyn Strait
- **Theme & Artwork:** Carolyn Strait
- **Tours:** Cathy Jones

We are still looking for Chairs for Audio-Visuals, Facilities, Program Book and Sponsorships. Call Karen Tsutsumida at 948-6588 if interested.
SOOTY CANKER

Fall is the season when the dramatic symptoms of Sooty Canker show. Usually infected branches suddenly collapse, the bark becomes paper thin and under the bark lie the masses of dry black spores - thus the reference name to soot in a fireplace.

The disease is caused by a fungus whose spores (the "soot") waft aimlessly on every zephyr, alighting randomly on any surface. If the spot upon which the spore lands is an open wound (sunburn crack, pruning wound, broken branch, etc.) and the wound has some sap to feed the fungus, infection is possible. After infection at the wound site, the fungus grows downward in the phloem cells that carry the sugars from the leaves to the roots. This will cause some minor symptoms like slightly off-colored leaves, slight weakening, etc.

The dramatic symptoms mentioned before happen when the microscopic fungus in the phloem goes reproductive. It doesn't make a mushroom, conk or smut; instead, it produces millions of small conical structures that distribute the spores and rupture the vascular system. This is when you see the collapse, paper thin bark and the dry mass of spores. There is no treatment except sanitation. Remove affected branches 6-8" behind the infection to remove the spore source. Dip your pruning tools in bleach and water between cuts and paint the wounds with a Bordeaux™ mixture.

Plants most likely to get Sooty Canker are mulberry, ash and cottonwood trees. These have the greatest risk because they generally experience more stress due to their high water requirements and are notoriously butchered in the name of pruning. Stub or pollard pruning simply weakens the plant and offers more openings for possible infection.

Sooty Canker, like so many diseases, affects stressed plants the most. Keep plants healthy.

P.S. If you get it on citrus trees, it isn't called Sooty Canker - NO, it's more sophisticated. It's called Hendersonula - named for the diseases' causal fungus *Hendersonula toruloidea*.

Terry H. Mikel
Extension Agent, Horticulture

BOOK OF THE MONTH

There have been some great new books which have recently become available. *Shade and Color with Water Conserving Plants*, by James E. Walters and Balbir Backhaus is definitely one of them. This book is beautiful enough for your coffee table, but the pages are sure to become worn from use. The book starts with a forward and commendation from Dr. Jimmy Tipton, U of A Arid Ornamentals Specialist. Opening chapters help you to understand the climate, geography and soils of the Southwest, as well as landscape planning and maintenance.

Over 300 species and cultivars of arid-adapted plants (to provide shade or color) are included. Each plant description starts with the pronunciation of the scientific name, includes plant habit and landscape uses, climate adaptation, cultural requirements and possible problems. 219 color plates will assist you to identify and recognize these plants (check out plate 194, a photo by Terry Mikel).

The book concludes with a list of recommended reading, gardens worth visiting in the Southwest and a glossary. The appendix includes a great selection of concise reference lists.

The authors, both in the Phoenix area, are equally interesting. Balbir Backhaus (also the main photographer for the book) is a UC Davis Plant Science graduate, worked in Extension and has worked at local nurseries. James Walters, Associated Press garden columnist, majored in ornamental horticulture and was a U of A Maricopa County Master Gardener in the mid-1980's. He has received top honors for many of his freelance magazine columns.

The book is available from Timber Press for $39.95. You can find it at the Desert Botanical Garden gift shop and other local bookstores. If you'd like a signed copy let me know (255-4456 ext. 306).

Donna Ellsworth
Ag Program Coordinator

The Educational Tour for November 11 &12, has been postponed until further notice. Many thanks to Bill Frost in Gila County for all the planning.
THIS SPUD'S FOR YOU!

The potato is a unique plant to grow in the vegetable garden. Native to southern Chile, it was first grown by the Incas. It's a member of the Solanaceae (nightshade) family which includes tomatoes, peppers, eggplant, petunias and tobacco.

Potato plants arise from sprouts from “parent” tubers. A tuber is basically a specialized underground stem used by the plant for storing “food” as starch. Tubers of the new plant then grow on tips of stolons above the original tuber. If tubers are exposed to light they will turn green and form solanine, a toxic substance. This is why it is important to keep new developing tubers well covered by mulch.

Plant only fresh, disease-free seed potatoes during January and early February. Plant whole, if small, or cut large ones into egg-sized pieces with at least 2-3 “eyes” (dormant buds) and ample food tissue. Harden before planting. Ronniger's catalog (see below) has a special cutting method for better yields.

Plant potatoes 12-15" apart and 1-2" deep in loose, well-draining, moist soil. One method is to plant in the bottom of 4" deep furrows. When shoots are 9" tall, draw mulch around them in a mound or filling the furrow, leaving only 6" of shoot exposed. Continue this practice until flowering to prevent exposure of tubers to sunlight. After blossoms have formed reach carefully into the soil or mulch to harvest new potatoes. Undisturbed plants will continue to develop storage potatoes after vines have died. Handle carefully. Some varieties will take up to 120 days to harvest. See me for much more growing/harvest information.

Recommended varieties (from Q-337) include:
- Red LaSoda - good for the South, some tolerance to higher temperatures, midseason
- Red Pontiac - high yielding, midseason, fair cooking quality but good for storage
- Kennebec - popular late variety, excellent cooking quality, thin skin is susceptible to sunburn & greening
- Norgold - early variety, scab-resistant, good cooking quality, do not allow stressed growing conditions
- Centennial - a favorite, excellent baking, vigorous growth, uniform size, good storage

(Do not plant Russet Burbank or White Rose. A MG told me that Yukon Gold is a great eating potato and early (55+ days).

There are several garden catalogs in our office that sell potatoes. One specialty catalog is “Ronniger’s Seed Potatoes” from Idaho. They have many varieties that are organically grown. But think ahead since orders must be in by June 1 for January delivery.

Russian Potatoes

AZ Herb Association

2 lbs. frozen hash browns, thawed (I wonder how fresh-grown would do?)
1 tsp. salt
1/2 tsp. pepper
1/2 cup melted butter
2 Tbsp. garlic chives
1 cup Cream of Mushroom soup (or Cream of Chicken or Celery),
2 cups sour cream
2 cups grated cheddar cheese
3 tsp. dried or 3 Tbsp. fresh of each: basil, oregano, parsley, rosemary and thyme

Mix together, reserving some of the cheese for the top. Bake in a 9"x13" dish at 350 degrees F., uncovered for 40-60 minutes. (Freezes well.)

I would appreciate hearing about any MG’s experiences with growing potatoes.

Carolyn Chard
Ag Program Coordinator

HOME HORTICULTURE PROGRAM

Allen Boettcher, Home Horticulture Extension Agent, offers a free monthly program to Maricopa County residents. The topic changes each month and is presented at 7 locations around the valley. The November topics will be:

Winter Water Needs
Shrub Pruning
November Citrus Harvest

For times and locations call Dial Extension (255-4980), tape 727 which describes all of the horticultural educational opportunities available.
MEET KAREN TSUTSUMIDA

Karen Tsutsumida was in Libya when dictator Muammar Qaddafi seized power. She was in Temple Hills, Md., when rioting erupted in neighboring Washington, D.C., after the assassination of Martin Luther King, Jr. Karen has been places and seen things; but she doesn't give it much thought. She's too busy with what she's doing now.

Having just finished a highly successful stint as Chair of the Master Gardener Conference, Karen continues her very active role in Extension activities, serving recently as arts and crafts counselor at the week-long 4-H camp held near Mormon Lake.

Arts and crafts are second nature to Karen. She's an artist; specifically, she's a goldsmith. An accomplished metalsmith, she also creates light fixtures and garden ornaments. "All custom work," she explains. Karen has also shown dogs, worked in greenhouses, and raised horses. As a Master Gardener for six years, she enjoys all areas of gardening. What else does she do? Start the list with the responsibilities Karen currently has as Chair of the overall Extension Advisory Board for Maricopa County. Add to that her membership on the Master Gardener Advisory Board.

Karen and her husband, Patrick, presently share their Paradise Valley domain with 2 dogs, 3 cats, and 6 chickens. "The pet list changes constantly," Karen reports, laughing. As for her 22-year-old son, Justin, "He's the most wonderful kid on earth."

Born in Cincinnati, Ohio, Karen came to Arizona by way of "a lot of different states"—not to mention Spain and North Africa. She has traveled extensively. "I love to travel, I love different cultures. That's probably one of my greatest interests."

Karen is also generous in her praise of the Master Gardener group. "They're such giving people, and lots of fun to be with. I'm appreciative," she adds, emphasizing it, "of the work that all people at Extension do."

Dolly Clark
Master Gardener

FOOD BANKS WELCOME YOUR EXTRA PRODUCE

If you have moments of feeling that perhaps you are TOO good a gardener and you've run out of friends, freezer space and ideas on what to do with the extra produce, there are folks who will be happy to take whatever you'd like to give.

I've recently contacted a number of area food banks and pantries on their interest in receiving fresh produce, and EVERY organization I've talked to is willing, even eager, to accept any fresh fruits, vegetables and herbs you have to give away, if you will just bring it to them. And with over 200 of these agencies around the state, there's bound to be one near you. In fact, your little neighborhood center may appreciate such gifts most, because they generally must pay for the produce from grocers or from the larger food banks. Because these foodstuffs go into food boxes given out regularly to needy families, storage is generally not a problem. Even the ubiquitous grapefruit is welcome everywhere, except at Salvation Army kitchen (and if someone will donate a commercial juicer, grapefruit will be welcome there too).

For the agency nearest you, contact the Association of Arizona Food Banks, 252-9088 in Phoenix.

Janet L. Jacobsen
Master Gardener

MG SPEAKER REQUESTS

There has been a continuing increase in requests for Master Gardener speakers by organizations such as local garden clubs, schools, church groups, Salvation Army, etc. Glenn Stanley is now assisting Joanne Littlefield in coordinating this effort and needs your help. Subjects not covered in the recent Speaker Topic Survey include "Insects/Bees" and "Herbs." In addition, Fall and Spring Gardening speaker requests are quite heavy at this time.

Glenn will be attempting to contact those of you who expressed an interest in speaking on their profile sheets, but it would be helpful if those who are interested would contact Glenn at Cooperative Extension on Tuesday afternoons or at his home at 937-2130.
RYEGRASS

If you really like having green grass year 'round, then you're probably thinking about overseeding with a winter grass. Annual and perennial ryegrass are most commonly used for overseeding. When you start checking with the nurseries, you'll find that choosing your seed is like selecting one flavor at the 31-flavors ice cream shop. So what's the scoop?

Timing - Don't plant too early. Night-time temperatures can be too high for winter grasses to germinate well. High temperatures also may increase disease problems and allow Bermuda to be more competitive. You also can create more work for yourself with mowing and more expense with watering. Plant winter grasses in late October to mid-November here in the Valley for best results.

Quality - Mike Hills from Farmers Marketing Corp. recommends staying away from the "common" perennial rye seed which is really used for hay or pasture. Most perennial seed sold to the public is a blend of 2-3 varieties which may be chosen for their different complementary qualities. AZ law requires that hybrid seed sold here must be tagged with information. Look for:

Test Date - no more than 6 months before sale
% Germination - should be 90% or more
Purity - should be 95% or more
Weed seeds - should be 0.5% or less

Annual or Perennial? - You decide! Cost for annual rye ranges between $15-$25 per 50# bag. Perennial cost ranges between $50-$70 per 50# bag. Dr. David Kopec and Terry Mikel suggest benefits of each below.

<table>
<thead>
<tr>
<th>Annual</th>
<th>Perennial</th>
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<tr>
<td>Less expensive</td>
<td>Darker color</td>
</tr>
<tr>
<td>Germinates faster</td>
<td>More dense and attractive</td>
</tr>
<tr>
<td>Faster Spring die-out</td>
<td>Better frost and disease resistance</td>
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Which Brand? - Perennial blend brands available include Award, Sunstar, Pleasure +, Symphony, Eagle I, Legacy and Southern Select. Nurseries may carry national blended brands or market their own special blends of perennial rye, often exclusive to their store. For example: Greenworld has Village Green (exclusive), Medalist 7, and Shortcut, Bakers and Tip Top carry Sunbird, and Harpers has Sunbird, Green Winner and VIP.

Bluegrass and fescues can also be used as winter grasses. For more information about overseeding be sure to reference Overseeding Bermuda, bulletin 8652 by Dr. David Kopec.

Donna Ellsworth
Ag Program Coordinator

MASTER GARDENER NOTES:

The Phoenix Zoo wishes to thank the Master Gardeners and Lowell True for doing the Fall pruning of the 300+ roses on the Zoo grounds. Special thanks to Master Gardeners Sharon Barringer, Pat Briguglio, Carole Burtchaell, Joe Gentile, Gary Law, Bob Smith, Mary Smith, Carolyn Strait, Bill Terzenbach, and Winnie White.

Yellow plastic "whitefly traps" available for free. Contact us and we'll leave them in the greenhouse behind Cooperative Extension. Call Lenora Boner or Roy Stewart at 279-5219.

Following guidelines outlined in "Organic Gardening", I would like to start a seed exchange among Master Gardeners. When sending seeds, send enough for a small planting. Include any cultural requirements, if possible. If you would like to make a seed request but don't have any to trade, enclose a self-addressed stamped padded envelope directly to the listed person. If you do not have enough seeds for the request, make arrangements for next season. The addresses are printed for seed exchange purposes only, no nuisance mail. To get on the list, send a clearly written list of what you have and what you want to:

Sheri Semones
7701 E. Mawson Rd.
Mesa, AZ. 85287

VOLUNTEER OPPORTUNITIES

Master Gardeners are needed to help design and install several gardening projects in Central Phoenix. Call Lucy Bradley at 255-4456, ext. 345 for more information.