



Communicator

University of Arizona

Cooperative Extension

November- December 1997

Things to Expect

EL NIÑO. The last couple of El Niños brought a bounty of water for the desert flora, which was good; also a bounty of water roaring through the normally dry riverbeds. What will it bring this time? If this one is as wet as before, the desert will green beautifully. Trees will sigh in relief, wildflowers will explode, the hills will begin to look like chia pets (chia camel - neat!) and weeds will grow everywhere.

FROSTY MORNINGS. 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, as freezing nights are forecast. Remove these coverings every morning. Leave on trunk wraps.

ALTERNARIA ROT may be found in blossom ends of Navels and occasionally Orlando tangelos. No chemical control is available.

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 refoliation occurs in the spring.

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

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

FUNGUS DISEASE IN FREQUENTLY WATERED WINTER GRASS. Minimize watering frequency to slow succulent growth and promptly treat with recommended fungicides. This becomes worsened by warm weather, causing even more soft growth.

Things to Do

WINTER WATERING SCHEDULES should be adjusted to about ½ 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 watering depending on the weather. Don't over-water.

FERTILIZE WINTER LAWNS monthly to maintain good

color. Nitrate fertilizers give quickest response during cool seasons.

MOW WINTER LAWNS WHEN GRASS IS DRY to minimize spread of disease.

CONTROL WEEDS while they are young and tender, or before their seeds sprout.

PRUNE DECIDUOUS FRUIT AND SHADE TREES, ROSES AND GRAPES IN JANUARY - but first sharpen up your know-how and your tools.

TRANSPLANT BARE-ROOT PLANTS. Purchase good quality plants and transplant them promptly.

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

WATER BERMUDAGRASS LAWNS monthly if rains aren't sufficient.

*Terry Mikel
Extension Agent, Commercial Horticulture*

1998 Southwestern Low Desert Gardening Calendar

\$5.25 Plus \$2 postage/handling

Your gardening questions will be answered month-by-month in this handy wall calendar. Tips include:

- What to Plant
- What to Do
- What's Happening
- Energy Saving Tips
- Upcoming Gardening Events

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New Editor

My name is Val Carsey and I am the new editor of the *Communicator*. This is my 3rd time for living in the Phoenix area, and I have been here for a total of 30 years. I grew up in Colorado and have lived in Nevada (never won a thing on the slot machines during the 6 months we lived in Vegas), Florida and New Mexico. I also spent 6 months in France, and they had the coldest winter they had had in 90 some years while we were there.

I retired in December 1995 after 38 years as a federal government clerical employee. I spent the last 25 years at the Veterans Administration Hospital. My hobbies are my computer (which I bought in April and I have so much to learn about it), playing cards (I belong to a singles pinochle and bid 500 card groups), collecting recipes, reading, and collecting Christmas ornaments.

I am a 3rd generation gardener - my mother still gardens in Colorado, even though she is 86 years old. I like to grow flowers, mainly from seed, and bulbs. I have a few flowering shrubs, a tangerine tree and a plum tree. I hope to put in an asparagus bed this winter.

If there are any subjects you would like to see an article on or any suggestions you would like made in the *Communicator*, please let me know.

Rose Classification



The rose is a rather ancient plant that originated in Central Asia some 60 to 70 million years ago during the Eocene epoch. Fossil evidence here in the United States place the plants in Colorado and Oregon about 35 million years ago.

All roses belong to the genus *Rosa* of which there are at least 200 species and literally thousands of natural as well as manmade hybrids. The hybrids, in the majority of cases, do not belong to a specific species so they lack the conventional botanical nomenclature. They are, however, identified by the variety names their hybridizers have assigned to them. Herein lies the beginnings of a lot of confusion in rose classification.

To add insult to injury, the commonly used term rose "class" does not mean the same thing as the "class" category in taxonomy, but rather refers to a grouping of

species or hybrid varieties with similar characteristics and sometimes a common heritage.

The American Rose Society has arranged all roses under two broad categories. Old Garden Roses belong to rose "classes" that

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Editor: Valeta Carsey, Master Gardener
perflowers@aol.com

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Urban Horticulture Staff:

Lucy K. Bradley, Extension Agent
602-470-8086 Ext. 323, bradleyl@ag.arizona.edu

Carolyn Chard, Instructional Specialist
602-470-8086 Ext. 311, cchard@ag.arizona.edu

Shanyng G. Hosier, Instructional Specialist
602-470-8086 Ext. 306, shanyng@ag.arizona.edu

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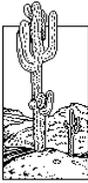
existed before the year 1867 and Modern Rose classes are those created after 1867. The year 1867 was chosen because that is the year the first hybrid tea *Continued on page 3 & 6.*

Rose Class	Breeding/Origin	Characteristics	Bloom Type	Fragrance	Examples
Hybrid Tea	O.G.R.-Tea x Hybrid Perpetual	Individual canes bush rather than shrub.	Stiffly petaled, high centered, all colors except blue and black.	Scentless to highly scented.	Mr. Lincoln, Double Delight, Peace
Polyanthas	In question: <i>R. multiflora</i> x <i>R. chinensis</i> .	Small bushes, 1-4 ft. high and wide. Some can be ground covers.	Cluster flowers.	May or may not be scented.	The Fairy, Cécile Brüner
Floribunda	Hybrid tea x Polyanthas	Multiple branching, more shrub-like than hybrid teas.	Constant bloom, cluster flowers.	Not a common feature. Angel Face very fragrant.	Angel Face, Iceberg
Grandiflora	Floribunda x Hybrid Tea	Multiple branching, tall shrubs.	Cluster flowers on long stems, long-lasting blooms.	Occasionally scented.	Queen Elizabeth
Hybrid Musks	Not closely related to the Musk Rose. Multiple O.G.R. x Modern Rose crosses.	Very long canes, shade tolerant. Copes with bad soil and neglect. Fairly heat tolerant.	Clusters of all colors, small to mid-sized.	Variety of fragrances, including musk.	Buff Beauty, Penelope
Hybrid Rugosas	Japanese sea coast.	Foliage is rough to deeply veined. Extremely cold hardy, but many also tolerate heat. Some get very large.	Petals that look like crumpled silk.	Spicy (clove) when scented.	Hansa, Sarah Van Fleet, Mary Manners
Large Flowered Climbers	Extremely mixed.	Stiff canes, large but not quite as large as ramblers. Canes must be tied up.	Larger flowers than ramblers. Some repeat bloom.	Not their strong feature. Don Juan very fragrant.	Blaze, Don Juan
Ramblers	Primarily <i>R. multiflora</i> x <i>R. wichuraiana</i> . Some are species.	Flexible canes.	Cluster flowers.	Some very fragrant.	Dorothy Perkins, Pauls Himalayan Musk
Miniatures	Descended from <i>R. chinensis minima</i> .	3 inches to 4 feet tall in zones 9 & 10.	All types and colors from singles of 5 petals to hybrid tea type.	Most are not fragrant but some like Scentsational are.	Scentsational, Jean Kennally, Starina
Shrub	Catch-all class.	From small bush to rapid climber. Most of David Austin English roses.	All types.	Zero to extreme.	David Austin's Heritage, Graham Thomas, Perdita
Kordesii (some place this in the shrub class)	<i>R. rugosa</i> x <i>R. wichuraiana</i> .	Some are shrubs, some are climbers, some are ground covers.	Variety of flower forms and colors.	Some are fragrant.	Dortmund
Tree Roses	Not a product of inter-breeding, produced by grafting.	Any rose variety that might look pleasing atop a trunk can be grafted onto a stem.	Often hybrid tea type, but others can be grafted.	Some are very fragrant.	Chrysler Imperial, etc.

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Meet the Natives

Arizona has flowering flora is wide life zone on 12,500 ft. to Sonoran life



Needless to say, not every Arizona native plant is suitable for cultivation at every elevation in the state. You would probably struggle with alpenines in Phoenix while brittle bush in Flagstaff doesn't work, either. However, Arizona native plants still have an untapped potential for urban landscapes that help bring a strong sense of place as where we live and the many life zones of Arizona. Right plant in the right place definitely applies to Arizona natives.

a rich flora of some 3,370 plants, ferns and fern allies. Its ranging from the Arctic-Alpine the San Francisco Peaks at near sea level in the lower zone in southwestern Arizona.

We know so little about the horticulture of Arizona native plants in regard to their growth, watering and propagation requirements. Granted, natives like Blue Palo Verde and Chuparosa are readily propagated and commonly grown. However, not all Arizona natives can be brought into cultivation. Some native plants like Mariposa Lily (*Calochortus kennedyi*) with brilliant orange-red flowers are probably best left in the wild desert gardens of Arizona due to their demanding horticultural requirements.

There is no objective criteria for bringing an Arizona native plant into cultivation but it is good to consider the following:

- A native plant should fill some design function in the landscape such as a shade tree, screening shrub, colorful groundcover or vine, accent grass, colorful wildflower or accent cactus and succulent;
- Provide a sensory experience in the landscape with their flower color, fragrance or fruit;
- Possibly provide wildlife habitat;
- Possibly provide the potential for water/energy conservation in the landscape;
- Enhance regional landscape image;
- Adapt to your garden's elevation.

A few observations. We frequently define Arizona native plants as occurring in the political boundaries in the state of Arizona. Plants do not honor political boundaries. Some botanists define native plants with geographical boundaries such as native to a region such as the Sonoran Desert. Not all Arizona native plants are drought tolerant, such as riparian trees like cottonwood and sycamore, but are surprisingly adaptable to the varying watering zones in

the landscape. Some gardeners prefer only using native plants in their landscapes. However, Arizona natives integrate well with other desert plants. For instance, Texas sage from the Chihuahuan Desert works well with Arizona natives like jojoba and desert hackberry. Of the approximately 300 low water use plants being grown commercially in Arizona, over half are Arizona natives. Desert plant growers have revolutionized the urban landscape plant palette for this region and are always seeking promising Arizona natives for landscape use.

Future articles will deal with Arizona native trees, shrubs, groundcovers, vines, grasses, wildflowers and cacti and succulents and their potential for urban landscapes in the Phoenix area.

Kent C. Newland
Past-President, Arizona Native Plant Society,
Phoenix Chapter

Landscaping to Attract Wildlife

Imagine going birdwatching without leaving the breakfast table. As you sip your orange juice, a flock of doves arrives for a drink of water outside your dining room window. While you spoon your melon, a pair of cardinals dines on desert hackberries. Eggs and bacon are accompanied by curve-billed thrashers digging for grubs and a black-tailed gnatcatcher hopping from twig to twig, gleaning insects from ironwood leaves. The antics of goldfinches harvesting seeds from the brittlebushes bring a smile to your face as you munch your toast. You linger over coffee, watching American kestrel parents bring prey to their nestlings and a Gambel's quail family scratch for bugs and seeds.



You don't have to own a piece of desert or live beside a mountain preserve to make this scene real. You can increase the variety of wild birds and other animals that visit or live in your yard by making a few simple
Continued on page 5

Landscaping to Attract Wildlife (*From page 4*) changes to your landscaping. The key is to offer a variety of natural foods, shelter and water.

Start by choosing landscape plants that are native to the Southwest. The imaginary scene mentioned insects several times with good reason. Nearly all land birds feed insects to their young and most of the adults eat insects for at least part of their diet. Most lizards and adult toads depend on insects and other invertebrates. Native plants are adapted to native insects and support moderate numbers of them, without being seriously damaged. Introduced plants tend to be either insect resistant (good for gardeners, bad for birds) or prone to severe infestation and damage (bad for everyone). Resorting to pesticides to save a plant endangers wildlife health, as well as eliminating the most universal food source.

Be sure to plant plenty of native shrubs and trees for food and shelter. Wildflowers and unmown native grasses are also good suppliers of insects and seeds. On the other hand, “zeroscapes” of cacti, rocks and a lot of gravel are poor wildlife habitat because there is little food and even less shelter. To attract the greatest variety of wildlife, select plants from each of the major “food groups for wildlife” listed below.

Berries and fruit for fruit-eating birds:

Shrubs: Desert hackberry, barberry, wolfberry, graythorn

Trees: Mexican elderberry, saguaro

Seeds for seed-eating birds and mammals:

Wildflowers and grasses: Lupines, sunflowers, desert marigolds, grama grasses

Shrubs: Brittlebush, quailbush, fairy duster

Trees: Palo verde, ironwood, sweet acacia

Nectar for hummingbirds, hooded orioles and others.

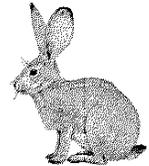
Wildflowers: Penstemon

Shrubs: Chuparosa, ocotillo

Trees: Desert willow

The fourth “food group” is insects and other prey. The plants in the list supply insects as well as berries, seeds or nectar. The fifth food group is foliage and twigs. If you use plants to provide the other food groups, you will automatically provide foliage and twigs.

Yes, this means that wild animals may eat your plants! Rabbits and other herbivores relish the protein and moisture in succulent new growth. Older, larger shrubs and trees can withstand moderate browsing by animals, but you may need to use poultry wire cages, an electric fence or a regular fence or wall to protect young plants, at least temporarily. Repellents are available but their effectiveness is usually short term and they work poorly if the animals are very hungry.



If you have an existing landscape that you want to enhance, add some native plants to provide insects and other food and leave some of the more mature vegetation to provide shelter and nest sites. You may want to also keep plants that have red, orange or pink flowers with long floral tubes, native or not. Hummingbirds are not particular about whether their nectar comes from a native, as long as the color is right and the supply is abundant. Just remember that the other part of their diet is insects.

The more kinds of food and shelter your landscaping offers, the more kinds of birds and other wildlife you will be able to attract. Try keeping a monthly log of what kinds of animals visit your yard and look for seasonal patterns. Note which plants different animals use the most and what they use them for (berries, insects, nesting, etc.). Binoculars and field guides may be helpful.

Last of all, be patient. The number of new wildlife species will grow as your plants grow. Hummingbirds will show up when the “hummingbird plants” bloom for the first time, but some species may not be interested until the shrubs and trees are fairly mature. Watching the changes is part of the fun.

*Carolyn Engel-Wilson,
Urban Wildlife Program Coordinator, Arizona Game
and Fish Department*

Healthy Gardening

Why do you garden? Some people enjoy watching things grow, others say that it's great exercise, while many find it relaxing. Whatever your personal reasons, it's not hard to believe that gardening is the second most popular form of leisure time physical activity in the United States. Seventy-five percent (75%) of all American households garden; gardening involves females and males of all ages, socio-economic classes, ethnic groups, and ability levels.



We all know that we enjoy gardening - and it is an important part of us. But did you know the many benefits we derive from "tilling the earth?"

First, there are the PHYSICAL benefits. We work in the sunshine and fresh air (most of the time). A limitless range of gardening activities help us stretch and exercise every major joint and muscle. We improve our general coordination, balance, stamina, strength, flexibility, and hand-eye coordination, while we burn calories. Remember the pure childlike physical pleasure of "playing with dirt?" Gardening stimulates all of our senses:

- We SEE the first seedlings emerge.
- We SMELL the orange blossoms.
- We TOUCH the dirt and compost mixtures as we pat our plants into "beds."
- We TASTE the first strawberry or tomato or orange from our yard.
- We experience a true physical "joy."

Gardening relieves physical stress but also helps us release EMOTIONAL stress. Being in a garden places you in "your own little world." You remember gardening with your grandmother, or playing hide-and-seek in the bushes with your friends, or being alone and at peace in your "secret garden." You should let go of tension and anxiety when you work with soil. As you become responsible for plants and watch them grow, you increase your self-esteem and self-confidence. You are hopeful, think about the future and are anxious to see "how your garden grows."

Gardening has INTELLECTUAL benefits too. When you garden, you never stop learning. You sharpen your powers of observation and your sense of curiosity and creativity. You try new seeds and plants, redesign garden areas,

figure out why the tree died, etc. You constantly learn new skills and techniques. You try drip irrigation, companion planting, composting, etc.

And don't forget the real "fun" of gardening - the SOCIAL side. Discussing your garden is a great conversation starter. Perhaps your new acquaintance grows huge vegetables in our heat, or has prize-winning roses. Gardeners are usually eager to share their knowledge. There are many local gardening groups to join and share your experiences and meet new friends.

Although there are many benefits of gardening, sometimes we do it because we "love" it and it's a part of us. We would all like to continue to garden for a very long time. Thus, it's important for us to be "healthy gardeners." This article begins a series of columns on "Healthy Gardening." Some future topics to be covered are: first aid and safety, allergies, skin cancer prevention, insect stings, back care, hazardous materials, etc. If you have a specific question that relates to gardening and your health, please mail your questions to: Communicator, Attn. Vicky Burke, 4341 E. Broadway Rd., Phoenix, AZ 85040.

Vicky Burke
Master Gardener &
Certified Pediatric Nurse Practitioner

Rose Classification (*Continued from page 2*) was introduced. For the serious student this does not help all that much since the British as well as the other European countries have proposed their own variations.

Traditionally most discussions of rose classification begin with the species (wild roses), progress to Old Garden classes and follow into Modern Roses. Due to the excessive length of such a project, I have chosen to reverse this order and start with Modern Rose classes and in a subsequent article deal with what I consider the most interesting classes, i.e., species and Old Garden Roses (O.G.R.). *Please refer to table, page 3.*

Floyd Evans
Master Gardener & Consulting Rosarian

Wildflower Gardening, Part 2

Continued from September/October issue.

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Weeding and Clean-up

A high weed concentration will out-compete your wildflowers if you don't work to control them. If you are planting in a problem-prone area, you should work out the weeds before planting seed.

Winter weeds can look like your flowers, but generally have more prickly edges. Weeds also tend to produce less showy flowers. Plant descriptions are usually given in catalogs and books, so it is helpful to have some references handy. A regular, quick check for weeds and focusing on removing weeds from small areas at a time can help to prevent them from growing out of control. Chemicals may be helpful to control perennial grasses near the wildflower bed.

After the plants have bloomed in the spring, they will dry out and disperse seed. After the seeds have dropped, dead plants can be easily removed by hand or raking. Summer plants that are growing underneath should be strong enough to withstand the pulling.

Wildflowers and their seeds will attract all kinds of wildlife: bees, butterflies, ants, birds, rodents and rabbits. Ants will collect seed but generally don't impact the bed too much. Remember, ants are important distributors and pollinators of native plants. Other larger animals may eat the seeds and sometimes the seedlings. Covering the area until plants are well established helps prevent problems.

Saving Seed

To ensure a new garden next year, collect the seeds when they are ripe. Pick pods when they are golden and almost dry and store in a paper bag or envelope; the pods will pop open in the container. It is best to store seeds in paper, or a sealed container, after they are completely dry. Keep the seeds in a cool dry place until planting time next fall. You may be surprised how much seed you are able to collect - many wildflowers are prolific seed producers.

*Lynne Senzek,
Master Gardener*

Books about Wildflowers & Weeds

✿ *How to Grow the Wildflowers* by Johnson and Millard, ISBN 0-9628236-2-7.

✿ *Low Water Flower Gardener* by Johnson and Millard, ISBN 0-9628236-1-9.

✿ *Desert Wildflowers* by Arizona Highways Books, ISBN 0-916179-15-X.

✿ *A Field Guide to the Plants of Arizona* by Anne Orth Epple, ISBN 1-56044-314-6.

✿ *Desert Wildflowers* by the Arizona Native Plant Society.

✿ *Weeds of the West* by Western Society of Weed Science, ISBN 0-941570-13-4.

New Introductions

Chrysactinia species Mexicana (Damianita). This is a 2' by 2' plant that can be grown in full sun. It has very fragrant foliage, so it smells wonderful. This blooms very heavily in both the spring and the fall with bright yellow flowers.

Janet Radmacher, Mountain States Wholesale Nursery

Ruellia. This a drought-tolerant plant that is native to our Southwest. It will grow in full sun, has gray-green leaves, and grows approximately 3' tall. It blooms some in the summer but its main blooming periods are spring and fall. One variety has white blooms and the other has iridescent sunset pink blooms.

Jim Baker, Baker Nursery

Caesalpinia pulcherrima variety Phoenix Bird™. This is a yellow flowering variety. Its lush green foliage, growth habit, and cold hardiness resemble its older sibling 'red bird of paradise.'

John Augustine, Desert Tree Farm

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Book Review

Cacti & Succulents by Hans Hecht, 1997. Sterling Publishing Co., Inc., New York. 160 pp. \$17.95



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Originally published in 1992 as “*Kakteen und Andere Sukkulenten*,” this is the first paperback printing of the English translation. Hans Hecht is a noted expert on the subject, and although the text was written primarily for European readers, the cultural information is well-done, and except for sections on overwintering, could apply almost anywhere. Photos and illustrations are in color throughout, and are superb. Introductory sections treat cacti, and then other succulents in general (evolution, morphology, uses, “interesting facts” about them). The bulk of the book is devoted to “The Most Beautiful Cacti and Their Care” (pp. 29-83), and “The Most Beautiful Succulents and Their Care” (pp. 85-121).

Each species described has a color photo, general and cultural notes, and short descriptions of other species related to the one pictured. A pleasing collection of plants has been chosen for presentation in each category, spanning the ranges of stem and leaf morphology among the succulents. Finishing chapters give information on buying and arranging plants, and on successful care and propagation. An excellent introductory book.

Carol Crosswhite
Curator, Boyce Thompson Arboretum

Horticultural Jewels

Black Dalea

Dalea is a lost cousin. It is hard to imagine a group of small woody shrubs that is easier to care for, of such great and intense bloom, but which is used so little. A genus of about 166 species, many are low herbaceous plants of grasslands and plains. But the Sonoran and Chihuahuan desert have a number of excellent larger, sometimes woody, members of the genus. One of the most attractive of which is Black dalea (*Dalea frutescens*).



Black dalea is a small shrub, usually about 3 feet tall and very rounded in form. It rarely requires pruning to keep it small, but a good hard pruning every other year maintains the tight, rounded form so typical of the species.

Black dalea is easy to culture and can find a home in most locations in the yard. It thrives in either full sun or partial shade and is not fussy about the soil if it is quite well drained. Like most daleas, black dalea requires only intermittent deep waterings through the summer, twice a month is adequate. In the late summer and early fall watering can be increased because this is the time of most growth and flowering in the plant, but even then is not absolutely necessary.

Flowers are a deep, intense indigo and profuse on the plant. Flowering in the fall will last 2-3 weeks and sometimes longer, especially if the plant is in a slightly shaded spot. Planted with or near bright yellow bloomers like sundrops (*Calylophus hartwegii*) or desert marigold (*Baileya multiradiata*), the blue intensifies and the combination is remarkable. Long ago the sundrops which I planted in front of the black dalea was overtaken by the dalea and now entwines in the plant giving the appearance of a plant with two flowers, large and yellow, small and blue.

The species is native as far north as Oklahoma and Texas into northeastern Mexico and is, therefore, quite cold hardy. Plant in the fall for easiest and quickest establishment.

Mary F. Irish,
Desert Botanical Garden

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Extension Spotlight

Dean Bacon, Farm Manager



Dean Bacon is farm manager of the University of Arizona Citrus Agricultural Center in Waddell. You may have seen Dean at the latest Southwest Low Desert Gardening & Landscaping Conference when he received the 1997 Achievement in Horticulture Award. The award was presented to recognize individuals who have made an outstanding contribution to the field of horticulture, and who have demonstrated a deep commitment to public information and education.

The farm Dean manages is located near the White Tank Mountains, ten miles west of Sun City. Forty acres of desert land, two full time and one part-time worker allow and help Dean to do his work. “We research everything that has to do with citrus, deciduous fruit trees, olives, berries, grapes, jojoba, herbs and spices, strawberries, and aquaculture,” Dean told me. They also focus on new gardening techniques and variety evaluation of these types of plants for the urban gardener and the commercial grower.

Many of these types of plants are difficult to grow in the Valley due to the “chill hours” needed for fruit production. The Valley typically has 300 - 400 hours below 46°F or “chill hours” annually. Research has shown that average night time temperatures have increased by 5° - 6°F over the last ten years in the Valley. As a result, fruit production has dropped. “In 1995-96 we had only ten chill hours, so there wasn’t much fruiting that year,” Dean said.

Part of Dean’s job is to work with big and small commercial citrus growers to see what research needs they have. He then coordinates with Michael Maurer, a county agent, and the University of Arizona and Department of Agriculture research folks to conduct research that answers the needs.

Always searching for creative ways to solve problems, Dean responded when the State legislature cut the budget back and stopped paying for the frost protection predicting done by the National Weather Service. Working behind-the-scenes, he got the growers to work together. Growers agreed to buy their own weather monitoring stations, and went in together to hire a predicting service on their own.

Dean interacts with the public by answering questions, speaking to garden clubs and other groups, and by conducting tours of the farm for students in grades K - 16 as well as foreign delegations from such places as Japan, Brazil, China, and Spain. An annual Citrus Field Day is presented at the farm for the public, with an additional day especially for growers that deals with more technical aspects of fruit growing.

Dean came to the U of A Citrus Station in 1977 as a research technician with a background and skills that have allowed him to repair and “fix things,” he told me. Apparently, that is an important part of keeping things running smoothly at the farm. Dean grew up in Berkley, California, attended San Francisco University, and holds a masters degree in entomology from there. After graduation, he came to Arizona State University to begin work on a Ph.D. in scorpions. Not finding the program what he wanted, he went to Northern Arizona University to do some other research work. He has taught high school, and ground arthropods for the Colorado River Project before obtaining his present position. Dean seriously underplays his expertise.

I asked Dean what he found most interesting about his job. He said that the number of people who have a love of gardening and want to grow something different with a willingness to experiment amazed him. He does love to give talks about deciduous fruit trees, and teaching Master Gardeners.

He only has one more year to do it though, as retirement looms on the horizon for Dean. He is looking forward to traveling with his wife and two daughters a lot. “Any place that’s different is my favorite place,” he said. He especially enjoys vacations that include hiking in nature. Any country that has Dean as a tourist will undoubtedly benefit from his expertise too.

Sue Hakala
Master Gardener

Environmentally Responsible Gardening
<http://ag.arizona.edu/maricopa/garden>

Phoenix Bonsai Society



Bonsai (*bone-sigh*) are artistically trained healthy and dwarfed trees or woody perennials growing in shallow containers filled with a fast-draining coarse soil mix. These plants resemble full-grown specimens which have been shaped by the elements over the course of many years. Although bonsai originated in China and India, the style most widely known was developed in Japan.

We meet at 7:30 p.m. on the first three non-holiday Tuesdays of the month at the Valley Garden Center, 1809 N. 15th Ave., Phoenix. The first monthly meeting includes a small show of trees, club business, and a general workshop. The 2nd Tuesday is a Styles workshop, which has a demonstration by one of our senior members followed with a critique by our teacher, Leroy Fujii. The following Sunday is an open workshop in that month's style at Grower's Market, 18047 N. Tatum Blvd. The 3rd Tuesday's meeting is a workshop for members to bring in plants to be pruned and shaped into bonsai-in-training in the style of the month. Non-members are always welcome to visit. Our largest annual show is downtown at the Japan Week Matsuri in late February.

Our club was organized in 1962 and has over 100 members. Our purpose is to encourage the art of Bonsai, promote the collection and exhibition of Bonsai, and to acquaint Bonsai fanciers with each other. For additional information or a complementary copy of our newsletter, please call Robert J. Baran, 861-6838.

History of African Violets

African violets are one species of a big family of gesneriads. Some of them are gloxinias, *Columnnea* (goldfish plant), *Aeschynanthus* (lipstick plant), *Achimenes*, *Episcia*, *Streptocarpus*, *Sinningia*, etc. They were discovered in 1892 in Tanzania.

In 1927 the first hybrid seeds came to America. Hybridizing led to plants very different from the first seeds. In 1939 the first double was introduced; in 1942 the first real pink single; in 1943 the first white single. Next came the "fantasys" - streaked, rayed, or splotched (plain color with a different color or deeper shade on the petals). 1952 brought the "Genevas," solid color with edges of white, pink, chartreuse or other contrasting colors; in

1953 there was the Star Sapphire, the first star shaped violet, with lobes of almost equal size. The usual flower of *Saintpaulia* has 2 upper lobes and 3 lower (very irregular). In 1954 came the first double pink. By 1961 there were 28 or more different varieties - all colors - all different foliage types. In the last couple of years have come "Pinwheels," chimeras, in which the flower is only partially mutated. Only the outer cells are mutated and the inner cells remain unchanged. Chimeras cannot be grown from a leaf or seed; they must be started from a sucker.

Researchers are trying to find plants more tolerant to cold, more insect resistant, with new colors, new shapes, etc. There are now thousands of varieties, but none with yellow or orange color yet. In the meantime, African violets reign supreme as the favorite houseplant the world over.

Rosemary Lort
Roadrunner African Violet & Gesneriad Club

Garden Harvest Recipes

Squash Casserole



- 3 c cooked, mashed winter squash
- ¼ c light cream
- 2 tbs. flour
- ¼ tsp. salt
- ⅛ tsp. pepper
- 1 tbs. sugar
- 1 tbs. grated orange rind
- ½ tsp. grated lemon rind
- 2 tbs. margarine
- 2 eggs, beaten

Combine all ingredients and put into a buttered 1-qt. casserole. Place the casserole in a pan of hot water, and bake at 350°F for 50 minutes or until firm in center. Serve with poultry or pork entree.

Serves 6. These and more recipes are available on HE-8533 "Winter Squash." Contact Maricopa County Extension office for details.

Calendar of Events

NOVEMBER

10/16 - 11/2 Arizona State Fair, Arizona State Fairgrounds, 19th Ave. and McDowell Rd. Call 252-6771 or visit their website at <http://www.azstatefair.com> for more information.

11/1 "Galaxy of Roses" Rose Show sponsored by West Valley Rose Society and Sun City Rose and Garden Club. Bell Recreation Center, 99th Ave. and Bell Rd., Sun City. Enter exhibits 6:30 a.m. - 10 a.m., view roses noon to 5 p.m. Call Ken and Peggy Jones prior to show for entry numbers, or for info 931-5004.

11/9 Fall Festival at Valley Garden Center, 1809 N 15th Ave. (north of McDowell Rd.), from 10 a.m to 4 p.m. Bake sale, White Elephant booth, garden books and magazines - they also will be selling plants (including African violets), bulbs and seeds. For more info call Betty at 375-9958 or Jane at 242-0362.

11/22 Feeling of Fall Festival, Boyce Thompson Southwestern Arboretum, 37615 Hwy. 60, Superior, from 10 a.m. to 3 p.m. Sip apple cider, eat apple pie and doughnuts, enjoy live music, displays on fall harvests, demonstrations and special activities for kids. Food will be sold and other activities are free with Arboretum admission. Admission charge: \$5 adults and \$2 ages 5-12. For more info call 520-689-2811.

11/22 Rose Show by Mesa East Valley Rose Society, Mesa Community College, 1833 W Southern Ave. (corner of Dobson Rd. and Southern Ave.), Mesa, in Kirk Student Center. Open to the public from 1 p.m. - 4 p.m. For info call Marylou at 926-3064

11/22 - 11/23 Show by Phoenix Chrysanthemum Society and Gardeners & Arrangers Guild, Valley Garden Center, 1809 N 15th Ave. (north of McDowell Rd.), Phoenix. Show open to the public 1 p.m. - 5 p.m. (Sat.) and 12 p.m. - 4 p.m. (Sun.) To exhibit in the artistic section contact Bob or Marian at 278-3684 (before Nov. 15). To exhibit in the horticulture section contact Bert at 930-7040.

11/29 - 11/30 Show by Orchid Society of Arizona, Valley Garden Center, 1809 N 15th Ave. (north of McDowell Rd.), Phoenix, 9 a.m. - 5 p.m. Plant sale, display "Then and Now," door prizes. For info call Berniece at 730-1479.

DECEMBER

12/4 - 12/6 Noches de los Luminarias at Desert Botanical Garden, 1201 N Galvin Pkwy. Hours from 5:30 p.m. - 9:30 p.m. Thursday, Dec. 4, is limited to MEMBERS ONLY. Tickets are now on sale, call 941-1225 Monday thru Friday, 9 a.m. to 4 p.m., \$10 for adults and \$4 for children.

12/7 Arizona Herb Society holds a Holiday Cook-Off for members at 5 p.m. Everyone brings a dish to be judged and then a potluck is enjoyed afterwards at Maricopa County Extension Office. For more details call Kirti at 705-0465.

Want your event included in this list? Call 470-8086 Ext. 306 and leave a message, or email Val at perflowers@aol.com.

Local Gardening Information

Check out these resources for gardeners in the Phoenix Metro area.



Farm & Home — hosted by Terry Mikel, Commercial Horticulture Extension Agent, Saturday at 5 a.m. (new time) on Channel 10.



Arizona Gardener — hosted by Mary Irish, Director of Public Horticulture at Desert Botanical Garden, Saturday from 7 a.m. - 9 a.m. on station KOY, 550AM.



Gary Petterson — of Gardeners' World, Friday mornings at 6:45 a.m. on Channel 5.



Become a Master Gardener Volunteer!

January 22 - May 14, 1998

Thursdays, 1 p.m. - 4 p.m.

13815 Camino del Sol, Sun City West

Dynamic, dedicated individuals interested in educating the community about ways to garden and landscape effectively in the low desert must attend a Pre-Application Workshop, November 6, 1997, 1 p.m. - 4 p.m., at the Cooperative Extension Office, 4341 E. Broadway Rd., Phoenix. **Call 470-8086 Ext. 727 for more information.**

