

# COOPERATIVE EXTENSION

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



the Cochise County Master Gardener

## NEWSLETTER

VOL. 2, NO. 4

MARCH 1991

### THE PLANT OF THE MONTH

Peter Whitman  
Staff Writer

For this month's plant, I've chosen Hesperaloe parviflora. This beautiful hummingbird-attracting plant is not seen in the home landscape as much as it should be. It makes a dense, yucca-like clump of very narrow, sword-like leaves that are 3 to 4 feet long and about 1 inch wide. It is an excellent replacement for the standard aloe which can often freeze on the tips of the leaves and look unattractive. The hesperaloe makes a good border or even a nice container plant.

The best attribute of the hesperaloe is not its year-round green foliage, but its 4 foot long rose red clusters of nodding flowers. They are loved by the Southwest's favorite bird . . . the hummer. On older plants, these flower spikes often reach over 8 feet in length.

The nurserymen will not be thrilled with me for telling you this, but hesperaloes are very easy to grow from seed. Simply collect fresh seed, (you can usually find hesperaloes growing around commercial landscapes), and place them in a one gallon pot covered with one inch of soil. Keep the soil moist until the seeds sprout, then water weekly. Keep the pots with the seedlings where they can get at least a half a day of direct sunlight. They will be ready to set out in 6 months to a year. They may also be propagated by division just as you would with other aloes or agaves.

The hesperaloe is a low water, versatile landscape plant that is very easy to propagate, has beautiful flowers, and attracts hummingbirds . . . It should have a place in every Southwestern garden!!

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## HIGH DESERT GARDENER'S BOOKSHELF

Jackie Dillon-Fast  
Staff Writer

We often receive calls at the Master Gardener Office asking what books are good introductions to gardening in our area. Many of the gardening bibles we see in bookstores were written for the more humid parts of the country and often list plants and practices that are not successful in an arid environment. Gardeners in Cochise County must also be wary of guides coming out of Tucson and Phoenix since they are designed for the intermediate and low deserts.

With this in mind, we have compiled a list of recommended books for gardeners in Cochise County and we will be reviewing one or two books each month. If you can't wait that long, the complete list of titles with short reviews is available from the Master Gardener Office, Monday through Friday, 9 a.m. to noon.

Sunset New Western Garden Book. By the Editors of Sunset Books and Sunset Magazine. (Menlo Park, CA: Lane Publishing Co., 1967 and later) Price: approximately \$15 (paperback)

If you buy no other gardening book, buy this one. The editors divide the Western States into 24 climate zones, placing most of Cochise County in Zone 10 (high desert). Unlike the USDA zones, which are extremely general (8 zones to cover the entire country), the Sunset zones take into account rainfall patterns, high and low temperatures, winds, and geographical and seasonal anomalies when determining their climate zones. The climate zones are used in recommending specific plants listed in the "Western Plant Encyclopedia" portion of the book. The Encyclopedia includes a general description, preferred care and usage, species descriptions, and occasional line drawings and propagation information for 6,000 western garden plants. The Encyclopedia section is one of the largest and most accurate sources for information on plants

for our area. It is used by nurseries, landscape professionals, and master gardeners throughout Arizona, California, New Mexico, and Nevada. In addition to the Encyclopedia, the Sunset New Western Garden Book has chapters on botany, propagation, fertilizing, pest and disease control, pruning, lawns, container gardening, and more. Later editions have full-color photographs and charts recommending plants for specific landscape situations.

The book does have some shortcomings. There are few pictures of mature plants, some species are not included, and there is little information on the problems experienced by specific plants (pests, diseases, nutrient deficiency, etc.) All-in-all, though, the Sunset New Western Garden Book is an excellent general guide to all kinds desert gardening and at \$15 it is well worth the price.



*Hesperaloe  
parviflora*

## GARDENERS CLUB

A new non-profit Sierra Vista Area Gardeners Club is forming. The first meeting will be Thursday, March 28, in the Art Gallery at the Sierra Vista Public Library from 2:00 - 4:00 pm. The club will provide information about growing flowers, vegetables, fruit trees, organic gardening and lawns in the high desert terrain. Sierra Vistans and residents of nearby areas are invited and welcome.

For additional information, please contact George Nasdahl (Cochise County Cooperative Extension Master Gardener) at 459-0159.

## GARDENING EVENTS SPRING CALENDAR

There are so many marvelous gardening activities available during the next two months that you'll have a hard time choosing which ones to attend! If you are looking for native or adapted desert plants for your landscape, I highly recommend the area plant sales. Make sure you get there early on the first morning of each sale or you will miss out on some rare and wonderful plants!

For more information on the following events contact the sponsoring organizations:

Tucson Botanical Gardens (TBG), 2150 N. Alvernon Way, Tucson, AZ. Tel. 883-9255  
 SAWARA, 48 N. Tucson Blvd, Suite 106, Tucson, AZ. Tel. 881-3939  
 Arizona Sonora Desert Museum (ASDM), 2021 N. Kinney Rd, Tucson, AZ. Tel. ~~883-2701~~ 883-2702 1380  
 Tucson Garden Center (TGC), Pima County Cooperative Extension, 4040 N. Campbell,  
 Tucson, AZ. Tel. 628-5628  
 Boyce Thompson Southwest Arboretum (BTSA), U.S. Hwy 60, Superior, AZ. Tel. 689-2811  
 Desert Survivors (DS), 1020 W. 22 St, Tucson, AZ. Tel. 884-8806  
 Desert Botanical Garden (DBG), 1201 N. Galvin Parkway, Phoenix, AZ. Tel. 941-1225

### MARCH

- 05 T TBG "How to Identify Plants" 7-9:00 pm \$20 (through 4/02)
- 06 W TGC "Citrus Trees" & "Selecting Good Nursery Plants" 9-10:30 am
- 08 F SAWARA 5th Annual Xeriscape Conference - Tucson Professional Day 12:30-6:30 pm \$40
- 09 S SAWARA 5th Annual Xeriscape Conference - Tucson Homeowners' Day 8:30 am - 12:30 pm \$12/\$15
- 13 W TGC "Selection of Interesting Native Plants" & "How to Set Out Summer Vegetables" 9-10:30 am
- 14 - 16 DBG National Wildflower Conference
- 16 S TBG "Spring Wildflower Walk" 9:00 am - 2:00 pm \$6  
 ASDM "Tucson Mountain Wildflower Walk" 8:30-Noon \$10/\$15
- 17 Su ASDM "Tucson Mountain Wildflower Walk" 8:30-Noon \$10/\$15  
 Reid Park Garden Fair (Tucson) [watch paper for times]
- 19 T ASDM "Tucson Mountain Wildflower Walk" 8:30-Noon \$10/\$15
- 20 W TGC "How to Plant Native Trees" & "Herbs" 9-10:30 am
- 21 T ASDM "Tucson Mountain Wildflower Walk" 8:30-Noon \$10/\$15
- 22 F Cochise County Cooperative Extension Spring Master Gardener Volunteer Training 3-6:00 pm Fridays thru May  
 \$25 for materials
- 23 S TBG "Spring Plant Sale" 8-10:00 am Members-only sale, 10:00 am - 4:00 pm Public sale
- 24 Su TBG "Spring Plant Sale" 10:00 am - 4:00 pm Public sale
- 27 W TGC "Pruning Native Trees & Palms" & "How to Keep Flowers & Vegetables Growing" 9-10:30 am
- 30 S TBG "Spring Wildflower Walk" 9:00 am - 2:00 pm \$6

### APRIL

- 06 S BTSA "Spring Plant Fair"  
 DS "Spring Plant Sale"  
 TBG "Annual Home Garden Tour - Tucson" 10:00 am - 5:00 pm \$6 & "Desert Herb Walk" 9:30 am -  
 3:30 pm \$15
- 07 Su BTSA "Spring Plant Fair"  
 TBG "Annual Home Garden Tour - Tucson" 10:00 am - 5:00 pm \$6
- 13 S ASDM "Spring Plant Sale"
- 14 Su ASDM "Spring Plant Sale"
- 19 F TBG "Cholla Bud Harvest Workshop" 9:00 am - 1:00 pm \$10
- 20 S TBG Children's Class "Surviving in the Desert & Mountains/Willy Whitefeather" 10:00-Noon \$7



PLANT SEEDS INDOORS  
 CHECK CACTUS FOR FUNGUS  
 PLANT COOL SEASON VEGETABLES  
 REMOVE WINTER MULCHES

A complete packet - one year's worth - of "What-to-Do" columns is available in the Sierra Vista Cooperative Extension Office if you need to consult them.

## FIRST SPRING MASTER GARDENER CLASS!

Jackie Dillon-Fast  
MG Program Coordinator

A spring Master Gardener Class is being offered beginning March 22. The class will meet every Friday through June 7th from 3 pm to 6 pm at the County Services Building in Sierra Vista. Optional field trips to gardens, orchards, and research centers will also be offered. Since each class covers an entire subject, attendance at all classes is required.

Classes are taught by University of Arizona and Cooperative Extension specialists as well as area gardeners, and emphasize urban horticulture in the high desert environment. Master Gardeners pay \$25 for class materials (a large binder packed with information) and must pass a final exam to be certified as a Master Gardener. Master Gardeners are required to commit 30 hours over the next year to answering gardening questions, either in the Master Gardener Office, on home visits, or at information booths, as well as 20 hours working on a community-oriented gardening project. Whereas some gardening experience is essential, enthusiasm and commitment to the program are most important.

We must have at least ten trainees to offer the spring training. If less than ten apply for and are accepted into the program, training will be postponed until fall. Potential Master Gardeners are asked to fill out an application outlining their interests and experience. These applications are available at the Master Gardener Office at 2500 Fry Blvd. in Sierra Vista (458-1104) Monday through Friday from 9 am to 1 pm. (We will also mail them to you.) The application deadline is March 15.

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Staff:

Jackie Dillon-Fast  
Carolyn Gruenhagen  
Rose V. Land  
T.J. Martin  
Peter Whitman

Articles to be published in next month's newsletter must be received at the Sierra Vista office by March 22.  
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## U of A CLASSES

Want to take formal classes in gardening-oriented subjects such as entomology and medicinal plants, but don't want to make that trek up to the University of Arizona Tucson campus? Consider taking one of the following U of A correspondence courses.\*

105R Introductory Botany (3 credits, 3 exams). A biology course designed for the non-science major who has a desire to deepen and broaden their appreciation of and understanding of the fascinating world of plants.

412 Plants Useful to Man (2 credits). Course for teachers and others wishing information on the uses of plants: foods and food plants, medicinal plants, plants and industry, plants in textiles and other manufacturers.

151 Insects and Man (3 credits). Introduction to the biology, ecology, and management of insects affecting man and his interests.

135 Conservation of Natural Resources (3 credits, 3 exams). Conservation and multiple use of renewable natural resources, including forest, watershed, range, wildlife, and recreation; history of forest and range use and its present status.

\* For a bulletin describing other correspondence courses or to register for a correspondence course, write to Correspondence Office, The University of Arizona, P.O. Box 41388, Tucson, AZ 85717-1388.



## ECOLOGICALLY- SANE PEST CONTROL (Part 2)

### C. Prevention - Discourage Pests With Cultural Controls.

**1. Grow healthy plants.** Pests seem to be drawn toward crops that are already weakened or damaged. Some crops have extra special requirements, but all plants need:

a. **Healthy soil** - Not too heavy or too sandy either. The soil should hold moisture for a reasonable period of time but also allow for proper drainage. It should provide a variety of nutrients for plant growth. A major component should be loam or compost.

b. **Proper nutrition** - Some crops are heavy feeders of certain nutrients. You may need to supplement what is naturally available in your soil. This is especially important during flowering and fruiting. The pH of your soil may inhibit the availability of certain nutrients to your plants.

c. **Correct watering** - For most crops, infrequent watering deep into the root area will maintain the consistently moist environment they need for optimum development. Daily shallow sprinkling can actually be dangerous, as it encourages shallow root growth. These plants are more likely to suffer damage from a temporary drought than those whose roots extend deeper into the soil where the moisture remains longer. Investigate soil or root-level watering methods such as drip systems or soaker hoses. This puts the water right where it is needed without wasting a lot or getting foliage wet (which can invite disease problems for many crops).

d. **Favorable climatic conditions** - All plants need a certain amount of sun, shade, wind, rain, warmth or cool, humidity, etc. Too much of anything can be as bad or worse than not enough. Try to select plants to fit the conditions that are available and plant them in areas that will meet their needs the best. Put sun and warmth-loving crops near heat-holding masonry walls or where they can get full sun. For plants that burn easily, plant them on the east side, in the shade of taller crops or provide shade cloth or a lath structure. Erect windbreaks where needed and provide protection from late or early frosts.

**2. Plant resistant or tolerant varieties.** Use native or adapted plants if possible. They have already evolved ways of dealing with many local problems. Some available varieties have inbred characteristics that make them less attractive to certain pests. Some may simply taste bad to bugs and others may actually make the pest ill if eaten. Other species are developed to be less accessible, having thicker foliage or tighter shucks perhaps.

**3. Time your planting to avoid trouble.** If your particular pest shows up late in the summer, plant your crop as early as possible. Try a species of vegetable that is bred to ripen a few weeks earlier so you can harvest the crop before the hordes arrive. Conversely, you could try a crop that can tolerate the heat better so that you can plant later to avoid the bugs. Consider transplants; the older, hardier plants can tolerate damage better than tender young sprouts.

**4. Interplant (between or around) your crops with companion/repellent plants.** Certain plants, planted together, seem to encourage healthy growth in each other. An added benefit is that many of the plants are reputed to keep many common pests away from their companions. Most of these protectors are heavily scented so perhaps they simply act as a living screen that your crop can hide behind (the pests are often drawn to a crop by its fragrance and the herbs hide the crop's scent). Some of the more common repellent type plants include, Basil, Borage, Catnip, Chives, Dead Nettle, Garlic, Horseradish, Hyssop, Marigolds, Mints, Mole Plant, Nasturtium, Onions, Petunias, Radishes, Rosemary, Rue, Sage, Tansy, Thyme, and Wormwood.

**5. Don't have monocultures.** Put a few of each variety here, a few there. Make it hard for the pest to find them all. This will also serve to slow or stop the spread of many common diseases.

**6. Rotate your crop's location from season to season or from year to year.** Don't let pest populations build up over time in a certain location. This will not only help keep your soil from being depleted of certain nutrients, but it also helps keep your insect pest population from building up. For example: if a few Corn Rootworms emerge from overwintering in your old corn patch only to find that it is now an onion patch, they will simply starve. You will have effectively broken the reproduction chain in that particular pest.

**7. Use mulch and ground covers.** They conserve moisture, decrease erosion and reduce competition from weeds. Many types of mulch are available and some are more suited for certain situations than others. You can use clear plastic to pre-warm the soil for an early spring planting or to "pre-sprout" weed seeds in a patch. These unwanted plants are then plowed under or

pulled up before your crop is planted. Clear plastic can also be used to "pasteurize" a plot by using the sun to "cook" many of the weed seeds, overwintering pests or micro-organisms that may be lurking in the soil

Black plastic is useful around winter crops or even some summer crops (like peppers and eggplants) that like their roots extra warm. The plastic can make it a bit difficult to water certain plants, but this can be overcome by leaving space around the stem of the plant for the water to run into. You could also consider using a drip system or place a soaker hose under the mulch. Being totally water-proof, plastic mulch does an excellent job of retarding water evaporation. Some folks object to the slick appearance of the plastic, but this can be easily taken care of by covering it with a thin layer of the decorative mulch of your choice later in the season when the soil is naturally warmer. In contrast, many organic mulches such as hay, leaves, straw, nut hulls, etc...are excellent choices when you want your soil to stay cooler than normal. By using these, you may be able to extend your growing season for such crops as lettuce, cabbage, brussels sprouts, and broccoli. (see "Clean Up")

In addition to helping maintain an even soil temperature and moisture level, mulch also helps control weeds. Not only do these weeds compete with your crops for water and nutrients from the soil, but they also attract and harbor many pests. Commercially available mulches include woven poly barrier cloth and horticultural paper products, but a very satisfactory homemade mulch can be made from layers of newspapers (no comics please!) or computer paper.

**8. Use agricultural fleece or netting when appropriate.** These come in many varieties and their primary purpose is to act as a barrier to keep pests away from your crops. Tree netting is used to exclude birds that like to dine on your ripening fruit and berries. Be sure to support it far enough away from the fruit so that the feathered diners don't just use the twine as a convenient perch as they reach in and peck away at your crop. The relatively large holes are small enough to keep out most birds but are large enough to admit pollinating insects. Unfortunately this also means that the netting will also admit fruit-destroying insects such as Codling Moths and Green Fruit Beetles.

Agricultural fleece (Remay, etc...) will effectively exclude most, if not all, insects that threaten your crops. You can place these row covers over your newly seeded or transplanted crop and leave them there until they need to be uncovered to allow access by pollinators. With the edges properly pinned down or covered with soil, the pests simply cannot get to your plants to chew on them or to lay their eggs. These barriers readily admit sunlight, air and water, and for crops not needing outside pollination, they can be left on from planting until harvest. On the down side, one major problem to watch for is heat buildup. The fleece tends to hold in heat and may literally "cook" your veggies right in the garden in the late spring, summer, or early fall. Keep an eye out for signs of heat stress and vent the cover on warmer days. This very tendency of heat retention makes fleece a good option for late fall, early spring or even winter crops as it helps provide a longer growing season and some frost protection. Check with your gardening supply source, some varieties of agricultural fleece are designed to hold in more or less heat than others.

**9. Clean up the area.** Remove any fallen fruit, dead foliage, etc...

- a. The open area will make pests easier to spot and it will be harder for disease to spread.
- b. Proper pruning will make for healthier trees and better air flow.
- c. Overripe or fallen fruit or veggies are simply an invitation for pests.
- d. Chop down or pull up weeds in non-mulched areas. If possible, get your neighbor to do the same. Chances are that any pests living on their property will eventually visit yours also.
- e. Rake away old mulch each season and put down fresh. Pests can use it as an overwintering or egg-laying material. Most natural mulches can then be composted and become part of next year's soil, the pests will be destroyed as your compost pile "cooks".

To be continued . . .

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