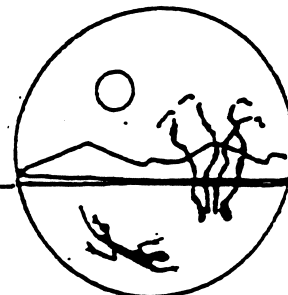


High on the Desert

Cochise County Master Gardener

Newsletter



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

PLANT PROFILE— Mediterranean “Natives”

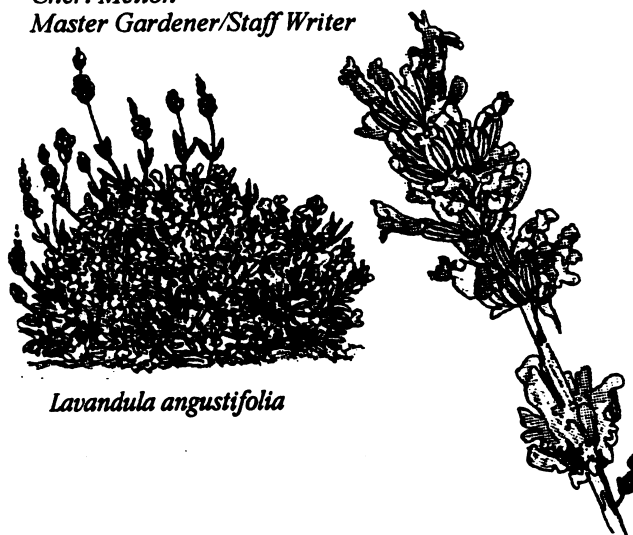
Many plants that perform so well in our Southwestern gardens are not true natives but outstanding “non-natives.” Two of my favorites are rosemary and lavender. Rosemary, *Rosmarinus officinalis*, is an aromatic perennial evergreen shrub and herb. Native to Mediterranean and Europe, especially the coastal areas—the Latin name means dew of the sea. It is the herb of friendship and remembrance. It endures hot sun, winds, and poor soils and little to no watering once established (it does require good drainage). The uses for rosemary are endless. In England rosemary is often used for hedges and topiary. In cooking rosemary compliments meat dishes, potatoes, and makes an excellent herb butter for vegetables. Strip the leaves off the stem for a barbecue skewer. Rosemary is a wonderful tonic to the heart, brain, and the nervous system. When eaten or used as a tea frequently it stimulates blood flow to the head and relaxes the muscles and prevents migraines and headaches.

Lavandula officinalis, Lavender, is one of the best loved scents. Also from the Mediterranean

region, it thrives in hot weather and will grow in almost any soil as long as it is well drained. I find that they make excellent container plants. Use lavender for hedges in the herb garden and collect the flowering stems just as the flowers are opening for drying. Dried flowers are used for potpourri, herb pillows (to help induce sleep), and linen sachets (to scent linen drawers and protect from moths.) Fresh flowers can be used to make jams, ice cream, honey, and lavender vinegar.

Other noteworthy “natives” from the Mediterranean include Olives (*Oleaceae*), Sweet bay (*Laurus nobilis*), and Thyme (*Thymus vulgaris*).

Cheri Melton
Master Gardener/Staff Writer



Lavandula angustifolia

Cochise County Cooperative Extension

1140 N. Colombo, Sierra Vista, AZ 85635
(520) 458-8278, Ext. 141

450 Haskell, Willcox, AZ 85643
(520) 384-3594

Cuttings 'N' Clippings

► Peggy Dierking has pelleted horse manure - free, you haul. Call her at 378-7125 (leave message).

► The Cochise County Master Gardeners Association meets the first Wednesday of each month at 5:00 pm. Please call the Sierra Vista Cooperative Extension Office for the location. All certified Master Gardeners/Trainees are invited to attend.

► Thanks to the Master Gardeners who opened their gardens to the public for the xeriscape garden tour. It was an unqualified success! Watch for the "2nd annual" next year!

► The Sierra Vista Area Gardener's Club meets on the third Thursday of each month at 2:00 pm in the Mona Bishop Room of the Sierra Vista Public Library. Eliot Edwards, Master Gourdsman, will be the guest speaker at the May 15 meeting. The garden club is requesting that you save seeds for their "Seed Exchange" at the 1998 High Desert Conference.

► The Ace Hardware stores in both Benson and Sierra Vista are presenting free "How to" Clinics. Check with the stores for upcoming classes and dates.

Cynara cardunculus

The globe artichoke is a welcome addition in the garden for those gardeners who desire edible landscape plants.

Imperial Star Seeds purchased from Shepherd's Seeds produced a humble tiny seedling.

The seed was planted in a well-prepared bed of native soil, sand, and horse manure.

A very large plant grew (3 to 4 feet in diameter) which required a bit of room. Some may even grow larger.

Artichokes can be planted in the fall or early spring. The flowers will produce globes of tender buds which are picked from the plant just about now in our high desert area.

Artichokes are perennial and a single plant will produce three or four new plants which will appear the following year at the base of the original plant. Once the fruit has been harvested, the plant will begin to dry out and go dormant during the hot summer.

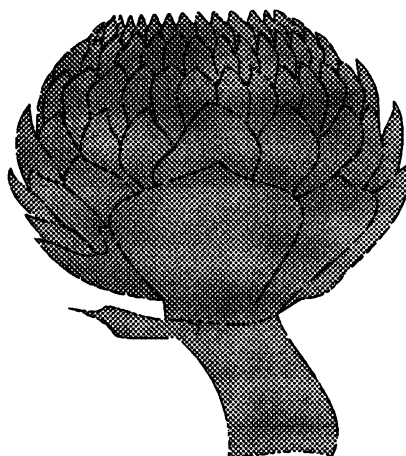
Each plant has a spray of spikey frond-type silvery serrated leaves. These striking leaves and large flowering stalks create a landscape plant of individual character. It is comfortable standing alone and with its

noticeable foliage is a great ornamental plant in the landscape. Artichokes are a good choice for a specimen plant.

An added bonus is that desert fauna do not enjoy the flavor of artichoke so the plant will not need to be protected against the nibblers of the desert. If the gardener wishes to not eat the fruit, the flowering stalk can remain on the plant and allowed to dry. The fruit will form a thistle-like single large flower on a sturdy stalk. After the flower dries it can be used as a decorative part of an arrangement, a single display, or in a wreath.

Artichokes are not difficult to grow in our area. The plant will begin to green again in the fall once the temperatures turn cooler. It is one of the first plants to vigorously announce spring.

*Barbara Kishbaugh
Master Gardener/Staff Writer*



Newsletter Staff:

Peggy Dierking
Carolyn Gruenhagen
Barbara Kishbaugh
Cheri Melton
Virginia Westphal

Robert E. Call
Robert E. Call,
Extension Agent, Horticulture

The Virtual Gardener— Mediterranean Plants

Cheri Melton's article on Mediterranean natives that have found homes in Arizona prompted me to see what I could find out about Mediterranean flora on the Internet. A search on the phrase "Mediterranean flora" yielded several interesting documents, many originated by the United Nations Food and Agriculture Organization (FAO). One of the most interesting of these documents was an FAO report on the East and South Mediterranean sub-region covering Mauritania, Morocco, Algeria, Tunisia, Libya, Egypt, Jordan, Palestine, Lebanon, Syria, Cyprus, and Turkey (<http://web.icppr.fao.org/srm/srm-SYN/med/1.HTML>).

According to the report, the wild ancestors of many of our favorite and most useful domesticated plants originated in this area, including cereals such as wheat, barley and rye; legumes such as chickpea, pea, and lentils; and vegetables such as beets, artichokes, carrots, rockets, lettuce. Many of our favorite fruit and nut trees also have wild ancestors from this region, including chestnuts, walnuts, apples, pears, plums, pistachios, hazel nuts, almonds, and olives.

The region is also the ancestral homeland of many flowers and ornamental plants such as *Allium*, *Anemone*, *Arum*, *Centaurea*, *Chonodoxa*, *Cistus*,

Cochicum, *Crocus*, *Cyclamen*, *Delphinium*, *Eranthis*, *Fritillaria*, *Galanthus*, *Gladiolus*, *Gypsophylla*, *Hellborus*, *Hycinthus*, *Iris*, *Laurus*, *Leucojum*, *Lilium*, *Muscari*, *Myrtus*, *Narcissus*, *Nectaroscordum*, *Nerium*, *Ophrys*, *Orchis*, *Ornithogalum*, *Peaonia*, *Panocratum*, *Retama*, *Rosa*, *Scilla*, *Scorzonera*, *Silene*, *Sternbergia*, *Tulipia*, and *Viola*.

One of the reasons why plants from areas around the Mediterranean do well in the Arizona desert is because the climate in some areas is very similar to our own. Although the climate varies widely in the region, it is generally characterized by relatively mild winters and hot dry summers. Annual precipitation ranges from 30 mm to over 2000 mm on the highest mountains (Sierra Vista's annual rainfall is about 400 mm). I spent a couple of years living in Turkey and found many areas in the interior of the country that look remarkably like Arizona deserts.

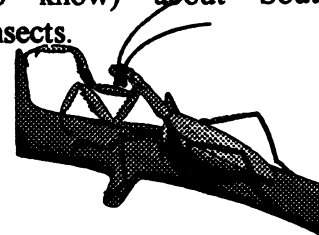
Gary A. Gruenhagen, Master Gardener
(gruenha@c2i2.com)

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How lovely the  
silence of  
growing things!

## Check Out These Books!

*Insects of the Southwest*, Floyd Werner, Ph.D. and Carl Olson, M.S., Fisher Books, 1994. Eight chapters of creepy insects. Great drawings and no nonsense text tell you everything you want to know (or not want to know) about Southwest insects.



*Gardening Success With Difficult Soils*, Scott Ogden, Taylor Publishing Company, 1992. Everything you need to know if you have limestone, alkaline clay, or caliche soils. (That means everybody should already have this book!) Highlight is the list of heat/drought tolerant plants that love these soils and tough conditions.

*Plants for Natural Gardens* and *Natural by Design*, Judith Phillips, Museum of New Mexico Press, 1995. You can purchase these two books separately or as a beautifully boxed companion set. *Plants for Natural Gardens* showcases over 180 plants native to the high desert. Highlight is the propagation technique for each plant. *Natural by Design* teaches the principles of design, planting, and maintenance. Gorgeous pictures.

Cheri Melton  
Master Gardener/Staff Writer

## May Reminders

- ✓ Deep water
  - ✓ Plant warm season crops
  - ✓ Check tree ties
  - ✓ Control pests
  - ✓ Control weeds
- (*Controlling Weeds* - a bulletin available from the Cooperative Extension)

## Locoweed (a.k.a. Crazyweed)

Locoweeds, Point locos, Peavines *Astragalus* spp. Fabaceae (Pea family)

There are many species of locoweed in Arizona, perhaps hundreds. Considered to be a low-growing, perennial herb, the leaves pinnately compound into numerous linear to oval leaflets. Flowers are said to vary in color, white to purple, by species but emerge from a leafless stalk (from the center of the plant) and form a spear-like cluster of blooms. The kidney-shaped seeds form in a tough, pea-like pod.

Long thought to be a joke or a point of humor, locoweeds (and their relatives) are no laughing matter, but are toxic to all classes of livestock in varying degrees. Horses are usually affected the most and will not recover if their poisoning has been of a chronic nature.

According to literature supplied by Kim McReynolds, Cochise County Range

Management Specialist, there are three distinct groups of toxic species within the *Astragalus* genus.

**Selenium:** The first group is associated with selenium-rich soils. Selenium smells like garlic. These plants have the ability to concentrate selenium at toxic levels to animals:

Two grooved milkvetch (5/8 lb. can be fatal to sheep within 30 minutes), Narrowleaf poisonvetch, Gray-Æs milkvetch.

**Stinking Vetch Loco:** This second group causes locoism (neurological symptoms ranging from incoordination, visual impairment, depression, unpredictable behavior, emaciation and eventual death) in livestock. All plant parts are toxic. Two indolizidine alkaloids (swainsonine and swainsonine N-oxide) are responsible for locoism in animals. These plants cause locoism in animals:

Specklepod loco, White Point, Purple Point loco, Two-grooved milkvetch, EarleÆs loco, Woolly loco, Sheep loco, Wooton loco, Silverline loco.

**Nitro compound:** The third group of *astragalus* species includes Timber milkvetch and Red stemmed peavine. Lactating sheep and cattle are the most susceptible group to poisoning. Horses have a low death rate but after recovery, they are only fit for minimal usage thereafter.

For immediate concerns about animal behavior in regards to any of the above suspected plants, consult your local vet.

Animals will not normally choose to eat any of these plants

if other forage is available. However, if an animal has been chronically exposed to locoweeds, it can become addicted and will seek the plants when grazing. Prevention and early diagnosis will save the lives of many livestock. Horses do not recover well.

For proper identification of any suspicious plants, submit plants with flowers to Kim McReynolds at the local Agricultural Extension Office.

*Peggy Dierking  
Master Gardener/Staff Writer*

## Water Factoids

➤ Water covers 70% of the earth's surface. At least 97% of the world's water is salty and undrinkable. Another 2% of the earth's water is polluted, polar ice, or otherwise inaccessible and undrinkable. That leaves approximately 1% of the earth's water for humans to use.

➤ On a daily basis, the people of the United States, directly and indirectly, use more than 380 billion gallons of water, or approximately 1,668 gallons per person.

➤ The use of six gallons of gasoline per week requires 6,000 gallons of water for production. If you drink one canned beverage per day, the production of that can required 29,000 gallons of water.

—Denver Water Department

## The Agent's Observations

**Q** How much fertilizer do shade trees need, what kind is the best, and when should it be applied?

**A** Ornamental trees and shrubs planted in fertile, well drained soil that are growing normally do not need extra nutrients. If they are not doing well fertilization may be helpful but only after the problem causing poor growth is corrected. Symptoms of poor growth may be light green or yellow leaves; smaller and/or fewer than normal leaves or dead spots; wilting of foliage; few flowers; short annual twig growth; and branch tip die back. These symptoms of poor growth may be caused by poor environmental situations like: inadequate soil aeration and moisture, or nutrition; adverse climatic conditions; wrong pH; or insects and diseases.

Normally the only nutrient applied to established trees and shrubs is nitrogen. Other situations like chlorotic leaves, manifested by yellowing of leaves but veins remain green, require specific applications of a nutrient, in this case iron. The amount of nitrogen needed will depend on the size of the plant. Measure the diameter of the

trunk about one foot from the ground. Apply 0.05 pounds of actual nitrogen/inch of trunk diameter. If a tree has a trunk diameter of six inches multiply by 0.05 to get 0.3 pounds of actual nitrogen. Divide the amount of nitrogen by the percentage of nitrogen content of the fertilizer to be applied. For example: 0.3 pounds of nitrogen applied as 21% ammonium sulfate would be:  $0.3/21\% = 1.43$  pounds of ammonium sulfate fertilizer from the bag.

Distribute the fertilizer evenly by measuring the distance between the trunk and drip line and multiply by 125%. This will determine the outer boundary radius for fertilizer application. Distribute the fertilizer evenly in the outer 2/3 of this circle. For example: If the trunk is eight feet from the drip line, then the outer boundary will be ten feet, ( $8 \times 125\% = 10$ ). Apply fertilizer around the tree or shrub in a doughnut shaped band 3.3 feet to 10 feet from the trunk, ( $10/3 = 3.3$ ). Applications are best applied from early spring.

**Q** I have a peach colored rose that has one blossom that is half peach and half white. Even one of the petals is half peach and white. How did this happen? Was there cross pollination?



**A** No cross pollination. You have found what is known as a "bud sport." This is a genetic mutation of the bud tissue. In this case the tissue most likely lost the genetic code for the peach color, therefore in the absence of color white results. This is how 'Golden Delicious' apples came into existence. In the late 19th Century a branch of a 'Red Delicious' apple tree produced a yellow apple named 'Golden Delicious.' Buds were grafted into other trees and rootstocks and viola! 'Golden Delicious' apples are now produced worldwide.

*Robert E. Call*  
*Extension Agent, Horticulture*

### Pecan Tree Budding & Grafting Workshop

May 8, 1997  
10:00 am in Elfrida

The public is invited  
to this free demo

Please call the  
Cooperative Extension  
Office in Willcox  
or Sierra Vista  
for directions to  
location

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# **Community Soil and Water Conservation Fair**

**Saturday, May 10 - 9:00-1:00 pm**

**The University of Arizona Sierra Vista Campus  
1140 N. Colombo**

**Sponsored by:**

**Hereford Natural Resource Conservation District  
The U of A Cooperative Extension**

## **DEMONSTRATIONS**

**Erosion Control  
Soil Analysis  
Water Harvesting**

## **EXHIBITS**

**Arizona Cactus and Succulents  
BLM**

**Cochise County Master Gardeners Assn.**

**Hereford NRCD  
Nature Conservancy  
U.S. Department of Agriculture  
U.S. Forest Service  
*WaterWise* Program**