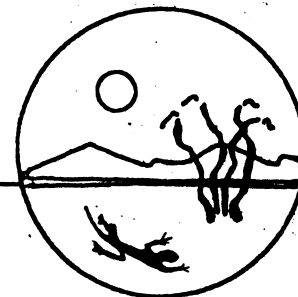


High on the Desert

Cochise County Master Gardener

Newsletter



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

PLANT PROFILE—A Notable Native

Botanical name: *Fallugia paradoxa*

Family: rose

Common names: feather rose, feather duster bush, ponil, Apache plume

Range: New Mexico, southern Colorado, West Texas, Arizona, southern California, southern Utah, southern Nevada, and northern Mexico on gravelly or rocky dry slopes and dry arroyos from 3,000' - 8,000'

Apache plume is a medium-sized, multibranched, semi-evergreen shrub that is long lived and depending on available water grows from 2 to 8 feet tall and wide. It has very small, dark green triangular leaves with three to seven deep lobes. The white flowers are five-petaled and resemble an old fashioned rose. The fruit is an achene, a dry fruit that does not split open when ripe and contains a single seed. Paradoxa stands for the unusual habit to produce both flowers and fruit at the same time. It is easily grown from fresh seeds, which requires no special treatment and usually flowers the first year after germination. The fragrant flowers and long-tailed, feathery, pink fruit seed heads bloom from May through October. Pruning is not necessary since the plant has a nice rounded shape, but new growth flowers best so pruning the older stems in early spring will produce a showy display. Site plants where the seed plumes are backlit by the rising or setting sun. Drought tolerant, heat loving, and hardy to -30° F., it also provides cover and seeds for birds and is very effective for controlling soil erosion.



Fallugia paradoxa

Fallugia paradoxa—a plant you should get to know!

Cheri Melton
Master Gardener/Staff Writer

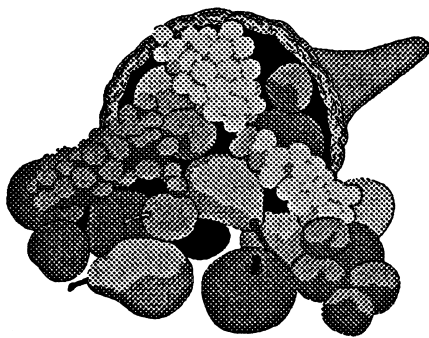
Cochise County Cooperative Extension

1140 N. Colombo, Sierra Vista, AZ 85635
(520) 458-1104, Ext. 141

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

Cuttings 'N' Clippings

➤ It's that time of the year again when fresh produce is available in "Arizona's Heartland"—Southeastern Arizona! The state's largest assortment of direct-sales farms are located here with the greatest selection available from July through October. A brochure locating these farms is available from the Cooperative Extension offices or by writing the Willcox Chamber of Commerce at 1500 North Circle I Road, Willcox, AZ 85643. Tel. (520)384-2272



➤ Now that you have all the lovely fresh veggies, whether from the direct-sales farms or from your own garden, what should you do with them? The Cooperative Extension offices have many brochures/fliers available to you at little or no cost. You can pick up a set of 13 on Food Preservation, drying or freezing, curing olives, and even one on desert edibles. Give the Cooperative Extension a call!

➤ Nowhere in the United States are there more rare and unusual native plants than in Arizona, and most of these plants are protected by law and can only be removed after a permit has been obtained. For more information contact the Department of Agriculture District Office, 515 S. Haskell, Willcox, AZ 85643.

Garden Tip Number 9284

I was reading a magazine article the other day that explained the "politically correct" way of referring to birthdays. One should not refer to people who have birthdays as "older," but rather as being "chronologically enhanced." Having celebrated a birthday not too many months ago, I resemble that remark, so this tip is for all you who, like me, are chronologically enhanced.

Anyone who has taken the Master Gardener training course from Rob Call has been indoctrinated in the screwdriver method of checking for soil moisture. If you want to know if you have watered your plants enough, stick a screwdriver in the ground. The depth to which the screwdriver penetrates the soil indicates how deep the water has gone. For example, if you have watered a mature oak tree and find that your screwdriver will only penetrate a couple of inches into the ground in the area under the tree, you

know you probably better water a little longer.

For the chronologically enhanced among you, the ground can be an awfully long distance away and a screwdriver can be an awfully short tool. This tip remedies that problem. Instead of using a screwdriver, you can easily manufacture your own "professional" water testing tool which will not only add to your image as an expert gardener but be easier on the back as well.

To make your water probe, get a "faucet key" from a hardware or other store that sells gardening supplies. A faucet key is a gadget about two and a half feet long that has a "D" handle on one end and two prongs (the "key") on the other and is used to turn the handle on a water faucet. Cut the "key" off the end (alternatively you could cut the "handle" off, but that would make the tool a little more difficult to use). The extra length of your new water probe as opposed to a screwdriver helps considerably to shorten the distance between the ground and chronologically enhanced arms and makes your watering check a lot easier.

Gary A. Gruenhagen
Master Gardener

Newsletter Staff:

Barry R. Bishop
Carolyn Gruenhagen
Cheri Melton
Virginia Westphal

Robert E. Call, Extension Agent,
Horticulture

DRIP, DRIP, DRIP...

Want to save time? Want to stop and smell the roses and quit dragging the hoses over them? Want a lush garden and a lower water bill? Then get on the drip. This spring I converted my garden to a drip system and have been singing its praises ever since to anyone who will listen. Imagine my joy when the last goof plug was inserted and I went to turn the system on. Then hearing pop, pop, pop and looking up to see every goof plug and emitter flying through the air. To my amazement I had created a huge water fountain in the garden! Of course, this was not my intention.

Luckily, Master Gardener De Lewis and Extension Agent Rob Call were presenting a *To Drip or not to Drip* seminar the following week. I'm not going to go into the details of how to set up a drip system, but remember when you were a kid and made things from Leggos and Lincoln Logs? It's that simple. Check out the library for info and drip equipment companies usually provide a free pamphlet with their systems. What I do want to relay to you is the absolute joy it has provided me. I was spending three hours, three times a week dragging a hose through my garden watering. Now I water once every 10-14 days as necessary (use your soil probe to check if watering is needed). Plants that were on the verge of dying are now huge, lush jungle plants. You can

expand the system—when adding new plants it's so easy to get them 'on-line.' Just locate the poly hose, punch a line into it, add the appropriate emitters and you're done. You can regulate precisely the amount of water that is being delivered to a plant and wean them off or increase the water as needed.

Drip waters the root zone thoroughly without loss to evaporation. The water is kept off the foliage which decreases certain diseases. You can put it on a timer so watering is done automatically when you're on vacation. The only thing I can say against drip is that it can cost a little during initial set up. Oh, but returns I gain—sitting on the deck enjoying the sunset with a glass of lemonade watching the hummers while the plants are being watered—is priceless. By the way, if you also create a water wonderland, check your pressure regulator. A great big THANKS to De and Rob for a great class.

Cheri Melton
Master Gardener/Staff Writer

Note: Watch for announcements in this newsletter of other seminars sponsored by the Master Gardeners in the upcoming months.



To Oleander or Not to Oleander

This is the first article in a series of reports on local poisonous plants.

Nerium oleander
Dogbane family—*Apocynaceae*

Area gardeners/landscapers have an important decision to make:

1. to permit the oleander in their yards.
2. to keep the oleander out of their yards.

Why should one have to decide this issue? The oleander is both very beautiful, and at the same time, extremely deadly.

Flowering oleanders with their striking color range of white to red and shades of yellow, pink, and salmon make exceedingly attractive borders and hedges as they easily reach 8 to 20 feet in height. It is no wonder that many Cochise County landscapes feature them.

Besides their good looks, oleanders tolerate all types of soil, as well as heat and cold temperature extremes, plus they grow easily and rapidly.

A super plant for your yard? Remember that ALL parts of the oleander are poisonous if eaten. Exercise extreme caution with both children and animals regarding its leaves and flowers. Horses experience a bloody diarrhea after consuming minute amounts of this plant and it proves to be fatal to them almost 100% of the time. Also, oleander fumes are dangerous, so don't use the wood for barbecue purposes.

The decision to permit the oleander in your yard is your decision.

Peggy Dierking
MG Trainee



The Virtual Gardener— Native Plant Database

The Apache plume (*Fallugia paradoxa*) profiled this month by Cheri Melton, is one of my favorite plants, so I thought I would look to see what one of my favorite Web sites (<http://www.fs.fed.us/database/feis/plants/>) had to say about it. This U. S. Forest Service Web site contains a database of useful information about native plants of the United States and is well worth a visit.

The USFS database is called the Fire Effects Information System (FEIS) and provides up-to-date information on the effects of fire on native plants and animals. Although the database is designed to support forest fire fighting efforts, it also has lots of information of interest to anyone wanting to grow native plants. The information on each plant in the database comprises the following sections: Introduction, Distribution and Occurrence, Value and Use, Botanical and Ecological Characteristics, Fire Ecology, Fire Effects, and References. The amount of information on each plant varies with the amount of research that has been done on that plant. The Introduction provides the scientific and common names of the plant as well as its taxonomy and Federal legal status. The Distribution and Occurrence section not only lists areas where the plant occurs (by state, ecosystem, and national forests and parks) but

also its habitats and associations with other plants. The Value and Use section describes the commercial value of the plant and its importance to livestock and wildlife as well as how the USFS manages its growth in the wild, including susceptibility to disease. The Botanical and Ecological Characteristics section gives a general description of the botanical characteristics of the plant, its form (tree, shrub, etc.), information on reproduction, a description of the environment where the plant grows in nature, its successional status, and phenology. The sections on Fire Ecology and Fire Effects discuss the plant's vulnerability and response to fire.

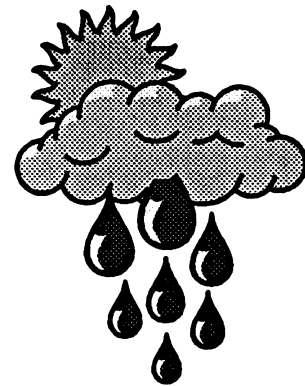
Although all the information in the database is interesting, the sections on botanical and ecological characteristics and distribution and occurrence are of most interest to gardeners. It is here that you can find out how the plant propagates in the wild and the environmental conditions that favor its growth. For example according to the database, Apache plume seeds germinate best when sown at 60 to 70° F. on a prepared bed and covered with fine loam or sand. The plant grows naturally in deep soils on moist, rich sites such as canyon bottoms but also appears to thrive on dry, rocky ridges and slopes. This is useful information to anyone attempting to find a home for the

Apache plume in their own yard.

There are many plant databases on the Web, but the FEIS is the only one that lists only native plants and gives so much useful information to the gardener and botanist.

By the way ("BTW"), if you have any comments on this or any other article or any suggestions for Web sites that should be featured here, drop me a line at gruenha@c2i2.com or write to Rob Call at recall@ag.arizona.edu. Happy surfing.

Gary A. Gruenhagen
Master Gardener



August Reminders!

- ✓ Keep pulling the weeds
- ✓ Fertilize
- ✓ Prolong annuals
- ✓ Plan your spring wildflower garden
- ✓ Watch for nutrient deficiencies, sunburn, saltburn, over watering, and insects
- ✓ Plant cool-season flowers and veggies (See related article on back page.)

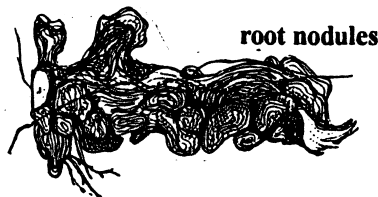
The Agent's Observations

Q My apple tree has branches that are dead or dying. Leaves are drying up and the bark is sunburned. What can I do to stop this?

A What you are seeing are the symptoms of a problem in the root system of the apple tree. It could be a soil born fungus like phytophthora, but is more likely to be a ground dwelling insect pest called a woolly apple aphid (*Erisoma lanigerum*). Also, pears are injured by the woolly pear aphid (*Erisoma pyricola*). These aphids are native to the eastern United States and Canada, but are a worldwide pest that attack elm, mountain ash, and some species of hawthorn trees as alternate hosts. It is the fluffy white woolly covering over most of the insect's posterior end of their blue-black bodies that account for its name. This cottony looking substance can be seen in small masses on branches and shoots where injuries or pruning cuts have been made, as well as on roots.

The life cycle of these insects is rather complicated. Females lay eggs on the bark of host or alternate host trees in the late

summer or fall. These eggs overwinter and hatch in the spring as wingless parthenogenic (development from an unfertilized egg) females producing ovoviviparous (eggs hatch within the females' body) stem mothers which establish colonies on the terminal leaves. These leaves soon become curled and stunted from feeding. By early summer winged forms appear and fly to other apple trees or hosts to establish new colonies. Repeated generations are produced during the summer. Some of the individuals may crawl to the roots where they continue to reproduce indefinitely. In the fall, winged individuals develop again and fly to hosts and give birth to sexual forms which eventually mate and lay overwintering eggs. Not all aphids leave the apple trees, some wingless forms remain all winter, both above and below ground, thus maintaining a continuous infestation year around.



On the roots nodules are formed from the insects feeding. These nodules are rough and bumpy looking and restrict the flow of water and nutrients from the roots to the leaves. Small leaves form and eventually the bark becomes sunburned and dried out and limbs die over several growing seasons. Winter soil

temperatures in the Southwest are not cold enough and normally do not freeze deeply, therefore the woolly apple aphids do not remain in check.

Control: When planting apple trees semi-dwarfing and dwarfing rootstocks with MM before the rootstock number should be used. Example: MM106 or MM111 are semi-dwarfing rootstocks which are resistant to the woolly apple aphid, but not immune. The MM stands for Malling-Merton which are agricultural research stations in England which developed these rootstocks. Currently chemical control is the only means available to control woolly apple aphid. However, BioLogic Company, a bio-engineering firm has developed a parasitic nematode (*Steinernema carpocapsae*) that has been 80% effective in controlling the ground dwelling form of this pest. They are not yet marketing the nematode. Chemical controls include dimethoate (Cygon), a systemic insecticide. Other organic and chemical based insecticides that control aphids will control the above ground generations of this insect when they are in the tree, although the ground dwelling forms will not be affected.

Source: *Insect Pests of Farm, Garden, and Orchard*. R. H. Davidson and W. F. Lyon. 1979. 7th Ed. pp. 392-393. John Wiley and Sons, New York.

(Continued on next page)

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Q

Are there any garden vegetables that I can plant for a fall harvest in Cochise County?

A

Many of the cool-season crops, those that can withstand freezing temperatures, do very well in Cochise County during the fall. In fact, the fall in Cochise County is better generally than the spring to raise cool-season crops. These vegetables include the cabbage family, i.e. broccoli, cauliflower, kale and cabbage among others. Also, spinach, small beets, peas—both snap and

edible pod—turnips, radishes, lettuces of all kinds, mustard greens and other greens may be planted. The onion family does best when planted in the fall and then over-wintered and harvested in early summer. Members include garlic, onions and chives. Prepare and plant during the last week in August or first two weeks in September. I have had broccoli, cabbage, cauliflower, and onions growing the whole winter long during mild winters, pulling the plants out in May to make way for warm-season crops.

*Robert E. Call
Extension Agent, Horticulture*



Master Gardener Picnic Planned

Master Gardeners, our annual Master Gardener Picnic will be held on September 4, beginning at 5:00 pm. We have reserved Ramada #1 at Veterans Memorial Park in Sierra Vista. Plan to attend—this is a great time to see old friends and make new ones.

Please bring a main dish, salad, or dessert to share along with your tableware, beverage, and your family!