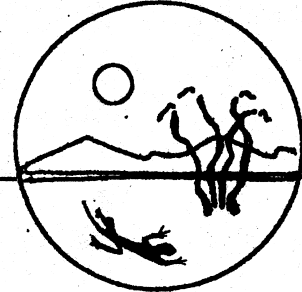


High on the Desert

Cochise County Master Gardener Newsletter



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

Write it Down!



Weather really does play a big role in our lives.

We haven't had the moisture we are accustomed to getting in Southeastern Arizona and we are having to water our gardens more. We can't kid anyone. It is hot—and dry!

When we look at a weather map of the United States, the weather in other areas has been cold. So cold, in fact, that spring is a thing of the past and in most areas the residents will jump from winter to summer without it.

So what?

Well, on the seed packet is printed how many growing days are needed to harvest a mature crop. This information is there for a reason, and we had better read it. The people with cold weather cannot plant crops that have long growing seasons because if they do, a fall frost might kill the growth of the plant, and they would lose both the plant as well as its fruit.

Soil needs to be warm in order to germinate the seeds that are planted in it. I don't

know if this is taken into consideration in the number of growing days printed on the seed packet. If it isn't, then the number of days to harvest will be longer.

Sowing the seeds in the ground is great, but it seems to take forever before the seedlings emerge. In fact, we often wonder if the seedlings will ever appear and think about planting more seeds. Then, just when we're about to give up on them, the sprouts appear.

We should take the time to read labels. We should know what was planted. We can throw away the seed packet and use a notebook or 3 x 5 cards, or keep the seed packet. When the next planting year rolls around, we will know what variety was planted, whether it provided what was wanted, or it failed miserably. We will have something to go on.

Knowing the length of time involved with that particular crop gives an idea of when it was ready to be picked and when it should be pulled out. Perhaps we were able to plant another crop with the leftover seed.

As you can see, record keeping will benefit you a great deal!

Barry R. Bishop
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Cuttings 'N' Clippings

➤ Gardeners love to make their own gourmet oils with fresh herbs or garlic. However, these infused oils can be a breeding ground for Clostridium botulism bacteria which cause botulism. Food and Drug Administration microbiologist Joe Madden, Ph.D. advises that you do not let homemade flavored oils steep at room temperature longer than 8 to 10 hours. Then refrigerate and use within 10 days. If you receive homemade oils as a gift and don't know how they were prepared, do not use them.

➤ Here is a quick way to remove the stems from strawberries: Insert a plastic drinking straw with a large hole into the bottom of the berry. Push it into the tip through to the stem and the stem and core come away very quickly.

➤ Capsaicin (pronounced cap-SAY-uh-sin) is the compound in chile peppers that gives them their heat. This ingredient is found in the ribs on the inside of the pepper, and it can burn skin and eyes on contact. The general rule is, the smaller the chile, the hotter. When handling the hotter chilies, try wearing food service gloves or place plastic baggies over your hands. Remember to never touch your eyes or nose after handling chilies!

Beware Wild Animals!

The Arizona Game and Fish Department warns that interactions between mountain lions and humans is on the increase this year due to the prolonged drought and diminished prey base. They offer the following tips:

- ◆ Do not hike, jog, or ride mountain bikes alone in wild land areas, even those immediately adjacent to human population centers.
- ◆ Keep children close to you.
- ◆ Do not run from a mountain lion. Stand and face the animal. Make eye contact. If you have small children with you, pick them up so they do not panic and run.
- ◆ Do not crouch or bend over.
- ◆ Do all you can to appear larger. Raise your arms. Open your jacket if you are wearing one. Throw stones, branches or whatever you can reach without crouching or turning your back. Wave your arms slowly and speak firmly in a loud voice.
- ◆ Women should be especially cautious in the wilds during their menstruation cycle.
- ◆ Fight back if attacked. Since a mountain lion usually tries to bite the head or neck, try to remain standing and face the attacking animal.

Game and Fish officials further explain that most mountain lion attacks can be attributed to a case of mistaken identity. The human involved is usually doing something that makes the mountain lion believe the person is normal prey.

Black bears, which can also be brown, inhabit much of the Huachuca Mountains and are common on the Fort. They are generally not aggressive, but they are always to be considered potentially dangerous. Stay away from bears, keep your garbage cans clean, and do not leave food scraps around. This will help discourage them from foraging in and around your area.

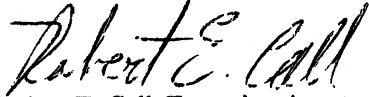
➤ Experts recommend a glass of milk or other dairy products such as ice cream if your mouth is on fire from eating a super spicy dish.

➤ Gardener Annemarie Garza of Colorado Springs came up with a handy idea for an old unused golf bag on wheels. She gave it new life as an oversize tote bag by placing seeds and tools in the little pockets and

her collection of hoes, shovels and rakes in the bag. She says, "It's perfect!"

Newsletter Staff:

Barry R. Bishop
Carolyn Gruenhagen
Cheri Melton
Virginia Westphal


Robert E. Call, Extension Agent,
Horticulture

When All Else Fails – Read the Directions

Heard that before? A lot of thought goes into each set of directions or instructions before they are printed.

There are many variables when it comes to one's garden, too. In fact, you spend a great deal of time turning from one book to another and sometimes the books all say the same thing, and what they say doesn't help.

You wonder where to go for help. How fortunate for us to live in an area filled with people who have been where you are and are available to help.

These people are the Master Gardeners. They have been trained by the University of Arizona Cooperative Extension and are here to help the gardener with their problems. If the Master Gardener doesn't know the answer, they will research it, talk with Rob Call, our Horticultural Extension Agent, or other experts and get back to you with the answer. The service is free.

Call the Cooperative Extension offices either in Willcox or Sierra Vista and if you should get an answering machine please leave your name and number and someone will return your call.

Several of the Sierra Vista nurseries have Master Gardener and/or Arizona Nursery Association owners or employees ready to help you out also.

The Virtual Gardener— Summer Monsoon

At this time of year, Cochise County gardeners look forward to the monsoon season when they don't have to spend all their time administering "artificial hydration" to their gardens. Since the cooling rains of the summer monsoon are just around the corner, I thought it might be interesting to see what information is available on the World Wide Web about the Arizona monsoon. Here is just a taste of what I found.

The word "monsoon" is derived from an Arabic word *mausim* meaning "season" or "wind shift." When most people think of a monsoon, they think of the rainy season in India or Southeast Asia that comes when the wind shifts from blowing out of the dry interior of Asia to blowing in from the ocean. A similar wind shift causes the summer rainy season in Arizona.

During the winter, the primary wind flow across Arizona brings dry air from the west or northwest. In the summer, the winds shift to a southerly or southeasterly direction bringing moisture from the south. Believe it or not, meteorologists are still not sure whether the moisture for the summer rains originates in the Gulf of Mexico or the Gulf of California, or both. A major research effort, the Southwest Area Monsoon Project (SWAMP), is attempting to

answer this and other questions about the monsoon.

The "pump" that drives the monsoon engine is created by the combined effects of a subtropical high pressure system called the Bermuda High that moves to a position to the east of Arizona in the summer and a large area of low pressure that develops over the Mohave Desert as the air there is superheated by the summer sun. Clockwise rotation of air around the high pressure area to the east and counterclockwise rotation of air around the low pressure area to the west draw moist air up from the south and southeast. As this moist air passes over the hot desert floor it is heated, rises, and cools, causing the moisture to precipitate out as rain. This same convective process creates the violent thunder storms that characterize the summer rainy season. The arrival of monsoon conditions is officially signalled by three or more consecutive days with dew points averaging 55°F or higher.

To learn more about the Arizona monsoon, point your Web browser at the following URL:
<http://saguaro.la.asu.edu/rcerveney/monsoon.html>

Gary A. Gruenhagen
Master Gardener



WOW!

More than 60 people attended the drip workshop last month.
Watch for more seminars/workshops in the fall!

The Agent's Observations

QUESTION: I have a pine tree that has masses of sap that look like large bubbles or balloons. These occur on small branches near the tips. Some of the needles are dead or dying. What is causing this and what can I do to prevent it?

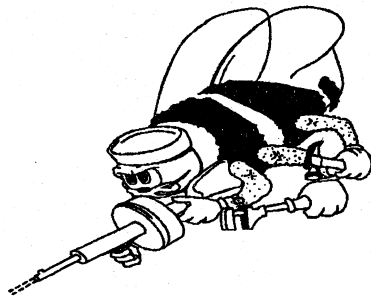
ANSWER: The mass of sap you see is the result of an insect larvae that is living inside of the blister-like bubble. If you "burst the bubble" you will find a pitch twig moth larvae. There are several species of pitch moths, however the one you have is most likely *Petrova comstockiana* (Fernald). Eggs are laid singly on the bark of limbs, the hatching larvae tunnel into the bark and cambium region and establish feeding sites. The pine tree exudes pitch and the larvae then uses the pitch to construct a "home" which includes frass or insect droppings. A mature larva is about 25 millimeters long and has a brownish head and light yellow body. Pupation takes place within the pitch mass and adults emerge during the summer months. In some species about half the population requires one year to complete a life cycle; the other half requires 2 years. In the case of this larvae it will feed on one site for one year then move to a new site, usually a branch crotch, and feeds for another

year. Thus two years are required for full development from the feeding stage to a pupal stage. Adult moths emerge only in the summer.

CONTROL: Normally there is no need to control these insects. Populations in our area rarely if ever reach economically damaging proportions. If they are really a problem then killing the larvae by pruning out and burning the "bubbles," or open the bubble and impale the larvae on a wire will decrease the population.

SOURCE: *Insects That Feed on Trees and Shrubs*, 2nd Edition. Warren T. Johnson and Howard H. Lyon. 1991. Page 72.

QUESTION: I have several bites on my face arms and legs. I have a sample of the insects that I think caused these irritations. I have seen an 1/8th inch insect with a snout that lays an egg that hatches and borrows up under the skin. Could you please tell me what they are and how to control them?



ANSWER: After examination under a dissecting microscope it was determined that there were

no insects in the sample but just pieces of scab and dead skin. There are no known insects that lay eggs on humans which hatch and crawl under the skin. There are skin mites, known as scabies, that can infest humans, but they are microscopic and members of the spider family. They can be controlled using medicated soaps that a dermatologist must prescribe. Also, during summer in the southwest, with low relative humidities and high day time temperatures, using hand lotion will moisturize the skin and relieve the creepy crawly itch that is attributed to insects.

QUESTION: I have some beautiful onions and garlic, that I planted last September, but they now have yellow tips on the leaves and then the yellowing progress toward the base of the plant and causes the leaves to curl. Also the place on the bottom of the bulb where the roots attach is rotting. Why is this happening so close to harvest? What can I do about it?

ANSWER: The problem you are experiencing is caused by a soil borne fungus named *Fusarium*. This disease is called Fusarium Basal Plate Rot and occurs worldwide. The infection can occur anytime during the growing season. The rot progresses from the stem plate up through the storage leaves causing the roots to rot and infects the bulb. Infected bulbs may appear discolored and

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when cut affected tissues appear brown and watery. Infected garlic shows reddish or reddish purple discoloration on the stem and bulbs early in the growing season with some discoloration on the bulb sheaths at harvest. This disease may also find entry into bulbs more readily when damaged by insects. Optimum temperatures for disease development are when the soil temperatures reach 77-82° F but the fungus can develop at 59° F. Infected bulbs break down during storage.

CONTROL: Rotation from a known infested soil should be for at least four years. Dipping seedlings in a fungicide before transplanting has reduced losses. Control damaging insects and plant resistant varieties are important control measure along with crop rotation.

SOURCE: *Compendium of Onion and Garlic Diseases.* Howard F. Schwartz and S. Krishna Mohan, Editors. 1995. Page 10.

Robert E. Call
Extension Agent, Horticulture

JUNE Reminders

- ✓ Check tree ties
- ✓ Remove stakes if tree can stand alone
- ✓ Mulch trees & shrubs
- ✓ Remove faded flowers & fertilize roses
- ✓ Stake tomato plants & watch for curly top - remove
- ✓ Prevent blossom end rot by even watering
- ✓ Water! Water! Water!

A Transplanted Gardener . . .

With the warm weather, high winds, and lack of rains we've been experiencing lately, I think it's appropriate to talk about some arid, drought tolerant desert plants that perform well under these conditions.

I can't help noticing how well my agaves, cacti, and ocotillos are doing in the garden. *Agave huachucensis*, *americana*, *parryi*, and *victoriae-reginae* are some of the few but wonderful agaves for the high desert. Be sure to look up the spread of these plants and allow room for them. For example, *victoriae-reginae* is a compact agave with a two feet spread while *americana* is a giant growing up to 12 feet across!

There are hundreds of cacti ranging from barrel, hedgehog, prickly pears, and chollas. My favorites include *Opuntia santa-rita*, or purple prickly pear. It grows to three or four feet across and high with flowers that are pure light yellow, and in the winter the green pads turn to a beautiful reddish purple. *Echinocereus triglochidiatus*, claret-cup hedgehog, grow in dense clusters of stems and the flowers are a bright orange/red. Mine has been doing best with some afternoon shade. *Echinocereus rigidissimus*, Arizona rainbow cactus, has beautiful pink flowers and the plant itself is a whitish, pink-red color which looks wonderful when not in bloom.

And let's not forget the sotols, yuccas, hesperaloes, and ocotillos. Hesperaloes and ocotillos are wonderful additions to hummingbird gardens. An added benefit to the above mentioned plants are they are relatively pest free, require little or no water after establishment, and are evergreen. Chollas and prickly pears are a great investment because you can propagate them easily and turn one plant into dozens.

Desert trees that I like are *Chilopsis linearis* (desert willow), *cercidium* species (palo verdes), and *prosopis* species (the mighty mesquites). Desert willows are great for hummingbird gardens. The seed pods that hang on through the winters that garden books describe as giving the tree "a ragged appearance" have reason to do so. Look at a desert willow seed carefully and you will see downy fibers attached to them. Hummingbirds use this downy material to make nests. In addition, desert willows provide nectar. Books will also tell you that the volunteer seedlings are a nuisance. Says who, I ask! I'll take free seedlings any day.

Palo verdes can't be beat for their spring flower show. The blue palo verde, state tree of Arizona, is fast growing and has a beautiful green trunk. Mexican palo verde has gorgeous yellow flowers that bloom for about a month. There is a beautiful Mexican palo verde on Wilcox St. in Sierra Vista. Mine were 8-10 inches when I planted them last spring, they are now three feet tall.

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Mesquites offer shade, nesting, and food for animals. (Just ask my dog, Gabby. Last year she ate every mesquite bean that dropped off the tree in her dog run!) Mesquites hybridize freely with each other. They are fast growing and reseed easily, which I love - more free trees!

Shrubs include cresote, saltbushes, Texas rangers, apache plume, and shrubby senna. Cresote, *Larrea tridentata*, is one of my favorites. It is evergreen, blooms yellow flowers, and when it rains emits this wonderful fragrance. This plant is used medicinally by Indians and is being currently researched as a cure for HIV. Another cultivar is *Larrea divaricata*, a Mexico native. I have a shrubby senna, *Cassia wizlizeni*, bought and planted

this spring and in despite of the adverse conditions it is just sprouting leaves everywhere. Bloom period is June through September, with clear, rich, yellow flowers. Texas rangers, the *Leucophyllum* species, are just great for this area. I collect them and have fourteen so far. An article about Texas rangers can be found in the Aug. 1995 MG Newsletter. Next month I will be doing an update and writing more about the virtues of *Leucophyllums*. Apache plume, *Fallugia paradoxa*, has fragrant white flowers, feathery seed tassels, semi-evergreen foliage, and is a fast growing plant that will flower the first or second year and has a pleasing rounded shape. There are various saltbushes, in fact you probably have a couple of 'volunteers' in your yard already.

Of course, there are hundreds more native plants to rant and rave about. A great place to visit and learn more about natives is public gardens. Sometimes a picture in a gardening book can't live up to the real thing in nature. Be sure to note the growing conditions of the plant you are admiring. Is it in full sun or shade? What is the exposure—sheltered or being blasted by the winds and the elements? What type of soil/ground condition is it growing in—sand, rocks, in a wash, on a hilly slope? Note these conditions and try to duplicate them in your garden. I hope this brief glimpse will whet your appetite for natives. Stay cool and happy gardening.

Cheri Melton
Master Gardener/Staff Writer