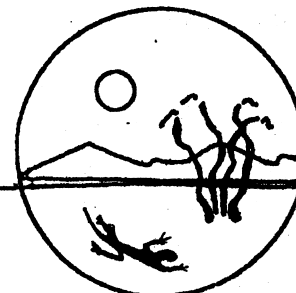


High on the Desert

Cochise County Master Gardener

Newsletter



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

Water! Water! Water!

If you take care of your soil, plant the right seed variety, what else do you need for a really great garden?

Water: a five-letter word that places chills up and down a person's spine.

If we put on too much we face a drowning incident. If we use too little we stress out plants and they die. Well, then how do you know how much? Good question!

In a vegetable or flower garden use a water probe. Who sells it? Where do I get it? What does it look like? Why not make one. A water probe is nothing more than a metal stick that has a sharp point at one end. It can be two or three feet long, and the sharp point at the end helps it to pierce the ground more easily.

A gardener takes the water probe, sticks it in the ground in the area to be watered or was watered. The probe gathers dirt on itself with the water in the soil acting like glue. If there is no water present dirt will not attach to the probe, and it will be difficult to push it into the dry soil. If there is water present the probe will go into the ground easily, and you will see the depth of the water on the probe when you pull it out of the soil. Water should be under the ground about six inches. Remember the old adages:

"water seeks its own level" and "water always goes down." It is true.

There are important things to remember when you water shrubs and trees. The soil surrounding the plant's roots is called the 'root zone' and serves as the plant's storage tank. Most of the roots spread one and a half times to three times as wide as the plant's canopy and usually penetrate two to three feet deep depending upon the size of the plant. Shallow or compacted soils can cause shorter and wider root zones. When you irrigate, water the complete root zone. Use your water probe to determine how much the water actually soaked into the ground. If the soil is compacted, the water will run off.

In Cochise County, a gardener should water trees and shrubs once a week in summer and every four to five weeks in the winter. Remember plants use three to five times as much water during the hot, dry summer months as they do during the winter months.

To prevent wilting, young plants should be watered more often than older plants. It takes as long as one to two years before the young plants get established. Water consumption rates vary greatly among plant species. High water plants (like roses) need to be watered twice as often as arid region plants.

On the next page I have listed some signs of over and under watering.

Cochise County Cooperative Extension

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OVER WATERING

- Soil is constantly damp
- Young shoots are wilted
- Leaves are green yet brittle
- Leaves turn a lighter shade of green, or turn yellow
- Algae and mushrooms are growing

UNDER WATERING

- Soil is dry
- Older leaves turn yellow or brown and drop off
- Leaves are wilted
- Leaves, other than peach, curl

TIPS FOR EFFICIENT WATERING

- Apply 3-4 inches of mulch under the plant canopy. Mulch retains soil moisture and discourages weeds. **DO NOT LAY PLASTIC OVER THE SOIL.**
- Avoid sprinkling tree and shrub leaves with water. Salts which are found in the water can damage the foliage.
- Control weeds, including grasses.
- If you water by hand use a watch and time yourself. Some time in the future think about installing a soaker hose.
- Once or twice a year water twice as long as you normally do to help leach salts out of the root zone.
- Expand the area being watered as the plant begins to grow.
- Prevent runoff. Retain the water in a basin around the plant or consider watering at a slower rate.
- Remember to use your probe!

Barry R. Bishop
Master Gardener/Staff Writer

Cuttings 'N' Clippings

➤ The garden is in and soon we'll have so many wonderful fresh fruits and veggies we won't know what to do with them. Try something different! Throw together these vegetarian burgers:

McVeggie Burgers

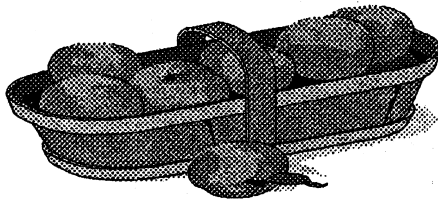
Preheat oven to 350°.

Combine the following:

- 1/2 C grated carrots (raw)
- 1/2 C finely chopped celery
- 2 Tbs. chopped onion
- 1 Tbs. Chopped parsley
- 1 Tbs. chopped green pepper
- 1 beaten egg
- 1 Tbs. oil
- 1/4 C tomato juice
- 1 C ground sunflower seeds
- 2 Tbs. wheat germ
- 1/2 tsp. salt
- 1/4 tsp. basil

Shape into patties and arrange in an oiled shallow baking dish. Bake until brown on top, turn, brown other side - approx. 15 minutes. Serves 3-4. You might experiment with other herbs and vegetables. Enjoy!

Linda Quint
MG Trainee



➤ Do you have an abundance of fruit and don't have time to bottle or can it? Then, why not dry the fruit?

Tomatoes, grapes, figs, peaches, whatever you are harvesting taste great dried. Cut the fruit very thin. Cover it to keep the insects out and put in the sun for a week or so. Air movement aids in the drying process. Hot air blowers or a dehydrator may be used, but here is the method I use:

Place the fruit on window screens and stack the screens one on top of another. Set the whole thing on boards placed on saw horses. Use a blow dryer and position it so that it blows warm air over the fruit and you have the same idea a dehydrator uses.

Remember, grapes turn to raisins, figs can be dried whole, remove the pits from peaches, and thinly slice the tomatoes. Squash, thinly cut and dried makes great tasting chips!

If you like, you can make fruit leather. Use a regular blender to mix ripe, good quality fruit with honey. Do not add water. Spread the mixture on waxed paper to dry. In three or four days you will have great tasting fruit leather that everyone enjoys!

Barry R. Bishop
Master Gardener/Staff Writer

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Barry R. Bishop
Carolyn Gruenhagen
Elizabeth Riordon
Virginia Westphal

A handwritten signature in cursive script that reads "Robert E. Call".

Robert E. Call, Extension
Agent-Horticulture

A Transplanted Gardener . . .

When I found out that I was relocating to the Southwest desert, my first thought was—there goes my gardening. Happily, I can say this is far from the truth as my horizons as a gardener have only expanded since I arrived ten months ago. The first plant I fell in love with was the *Leucophyllum* species, better known as Texas Ranger or Barometer Bush, which refers to the flowers it produces after a summer rain. Thanks to breeding and cultivar selections, there is a wide range of plants to choose from.

L. frutescens, a native of Texas and Mexico, is the original and largest of the species, a slow growing evergreen plant that can reach 8 feet high and 6 feet wide. It has soft, silver-gray leaves with long, one inch flowers that range from rose to deep purple. Other cultivars include 'Green Cloud' which has green foliage and larger flowers; 'White Cloud' has leaves that are light silver and produces large white flowers; 'Compactum' is a smaller version of Texas Ranger and grows only to about 4 feet high and as wide; and 'Sierra Bouquet' is a lovely plant with silver leaves and very fragrant lavender flowers. I recently picked up a cultivar named 'Rio Bravo'. It's not listed in any of my resource books, but it appears to be a cross between *L. frutescens* and *L. laevigatum*. The green leaves are larger and denser than *L. laevigatum* and it

has the build of a *L. frutescens*. It just started blooming tiny, light colored lilac flowers.

L. laevigatum or Chihuahuan-sage, grows more open and loose than most other *Leucophyllums*. An evergreen shrub that reaches 4 feet high and about 5 feet wide, the green leaves are closely attached to the spreading branches and during the blooming season has bluish lavender flowers.

L. candidum is a low mounding shrub reaching a height and width of 3 feet. It is densely covered with 1/2 inch silvery leaves with deep violet bell shaped flowers, thus commonly known as 'Violet Silverleaf'. 'Silver Cloud' has light silver foliage while 'Thunder Cloud' is more compact and has intense, deep purple flowers.

Leucophyllums are a must-have in every water efficient garden. Planted together in masses they are quite beautiful with their different textures and colors. Plant from containers at any time in well draining, native soil in full sun. Irrigate until established, but do not overwater as it will die out. After it is established it will only need supplemental irrigation every few weeks in hot weather. It may drop some leaves during extreme drought, but when the rains begin it becomes full and lush and produces an abundance of flowers. Texas Rangers are very tolerant of dry, adverse, hot, windy conditions. They adapt by storing water in their leaves and the silver foliage reflects sunlight. It needs hot

weather and humidity to trigger blooming, is hardy to 5° F., free of most pests and diseases, and requires little maintenance. Texas Rangers may be pruned, sheared, or left natural and can be used as hedges, windblocks, screens, and specimen plants. Pruning is best done in the spring before the flower buds develop or in the fall after blooming is finished. Propagation is done by cuttings or seeds.

Cheri Melton
MG Trainee

MG Conference in Phoenix

The Southwestern Low Desert Gardening and Landscaping Conference, *Growing Through Knowledge*, will be held at the Arizona Biltmore Resort and Conference Center in Phoenix, August 11 - 13. Keynote speakers include Jim Wilson, co-host of *The Victory Garden* and author of many books, Alex Shigo, Ph.D., renowned plant pathologist and tree expert, and our own Rob Call, clarifying many of the myths that have been associated with gardening. Call Joyce at the Sierra Vista Cooperative Extension Office for information. It's not too late to register!



August Reminders!

- Fertilize
- Keep pulling weeds
- Watch for nutrient deficiencies, sunburn, salt burn, overwatering, insects

Volunteers Needed!

For those who need to fulfill their Master Gardener volunteer commitment there are many free spots on the calendar to staff the Sierra Vista Master Gardener Office. Now that the Border Volunteer Corp. has finished their service, the office can be staffed in the morning or afternoon. Come in and sign up so you can complete your service hours and become a Master Gardener instead of a Master Gardener Trainee! You learn a lot from the clientele you interact with. As always, Rob Call will staff the office on Wednesday.

The next High Desert Gardening & Landscaping Conference planning meeting will be held August 16 at 4:30 pm at the U of A Sierra Vista Campus. Many Master Gardener and Master Gardener Trainee volunteers are needed to make our third annual conference bigger and better than last year. There are lots of committees to serve on and your help is needed. Plan on attending!

Picnic Planned!

The Annual Master Gardener Picnic will be held on September 20th, beginning at 5:00 pm. We have reserved Ramada #1 at Veterans Park on Fry Blvd. in Sierra Vista. This is a great time to see old friends and make new ones. We will have a speaker and pot luck dinner. We ask that you bring your own dishes, tableware, and beverage of your choice. Bring your family and friends and dishes made from things you have grown, if possible, to share. Mark your calendar now! Hope to see you all there on September 20!

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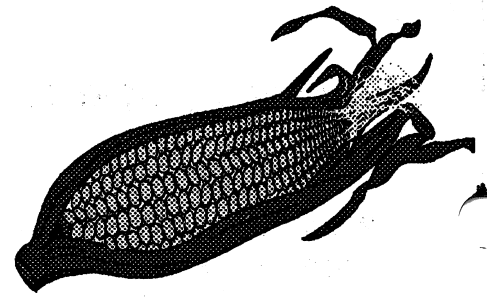
GARDENERS KNOW THE BEST DIRT!



Habitat for Humanity Calling for Plant Starts

Habitat For Humanity - Sierra Vista Area, Inc. needs your help. They will have the first Habitat For Humanity - Sierra Vista Area, Inc. Christmas Bazaar in mid-October, 1995. The proceeds of this event will benefit the second Habitat home to be built in Sierra Vista. Plant starts are needed for the Green Thumb table that will be featured at the Bazaar.

As you pinch off or divide your plants for your own new starts in the next couple of months, please make just a few extra to donate for this First Annual Habitat For Humanity Christmas Bazaar. If you can donate some plant starts, call Margaret at 378-6966. Delivery location or pick-up prior to the event will be provided.



Fresh Produce!

Southeastern Arizona boasts the state's largest assortment of direct-sales farms. Whether you buy them from a roadside stand or pick them yourself, the diversity of fruits, nuts, and vegetables rivals any supermarket. A free brochure listing producers from which you may purchase produce is available from the Willcox Chamber of Commerce. Send a self-addressed stamped envelope (at least 6" x 9" and 55 cents postage) to them at 1500 North Circle I Road, Willcox, AZ 85643 (tell. 520-384-2272) or stop by the Cooperative Extension offices in either Willcox or Sierra Vista for a copy.

The Agent's Observations

QUESTION: What are the red fuzzy bugs that are climbing on my lawn? They have white markings on their backs and eight legs from 1/8th to nearly a 1/2 inch long. Do they harm my ornamental plants?

ANSWER: These "bugs" are really giant red velvet mites. They are not bugs but rather arachnids or members of the spider family which have four pairs of legs, two body parts, no antenna, and piercing, sucking mouth parts. These are the largest spider mites in our area. Most spider mites are quite small and a hand lens is needed to even see and identify them.

Control: The giant red velvet mite is a predator and feeds on other arthropods. Adults and nymphs also prey on termites. You can destroy them by stepping on them or spraying with insecticidal soap.

QUESTION: I have two things growing on my lawn. One is a black material that feels greasy when I touch it. It is on the ground and also on the blades of grass. The other material is orange-white in color and is moist to the touch but dries out and is chalky the next day. Any ideas of what these things are?

ANSWER: Did you change your oil over your lawn? If not then the black substance is a slime mold that is dormant in the soil until large amounts of

moisture fall on the ground. The environmental conditions are then right for this organism to reproduce and migrate. The other material is a spore mat of a fungus that is in the soil. Again when environmental conditions are right the fungal organism, which lives in the soil, will send up a reproductive structure to spread spores there by reproducing.

Control: There is nothing that needs to be done to control these organisms. They were in the soil all along and have just put up reproductive structures. As the ground and air dry out they will disappear only to reappear when the environmental conditions are right.

QUESTION: My compost pile was doing very well, but after the recent rains we have had it really smells bad. What happened and what can I do about it?

ANSWER: Your compost pile is too wet and therefore has very little if any air available to the organisms that break down organic matter in it. Anaerobic respiration or fermentation has taken over and is causing the bad smells.

Control: Turn over the compost pile to get more air introduced into it. This will allow normal decomposition of the organic matter. Try and keep the compost pile as moist as a well rung-out sponge throughout the pile. In the desert the outside of the pile dries out quickly. Re-

wet the surface every couple of days as needed.

QUESTION: My tomatoes have cracks around the stem end and black sunken tissue on the blossom end. What is wrong?

ANSWER: Cracking around the stem is caused by high temperatures and watering practices. However, the cracking is genetic. There are varieties that do not crack. The "Mountain" series, including "Mountain Pride" and "Mountain Delight" from North Carolina do not crack. The other problem is called blossom end rot. It is a physiological condition that arises because of varying moisture in the soil. The plant cannot transport enough calcium to meet the demand in forming cell walls even though there is plenty in the soil. Most nutrients are carried in water to uptake sites on the root hairs. Sometimes a secondary fungus like sooty mold will colonize the tissue causing a black fungal growth. Other plants like squash, pepper, chili, and melons can have blossom end rot also.

Control: Water consistently and deeply and apply mulch to keep soil moisture consistent. Early fruit have more blossom end rot problems that fruit produced later, so be patient. The fruit is still edible just cut out the bad parts.

Robert E. Call
Extension Agent, Horticulture

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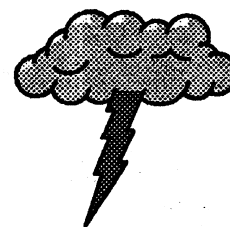
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Huachuca Means *Thunder!*

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Van Stetler
Master Gardener



I could clearly smell the rain
And I watched as the thunderheads gathered
But the rains fell in the mountains,
Not on my little garden in the valley below.

The Indians, the buffalo
And the beaver are long gone.*
Like moist misty memories
The tall grass prairie of thunder.

The cattle over-grazed and ate the virgin grasses,
The rains then came and eroded the thick sod . . .
Vanished like a rainbow . . .
Tall grass prairie of thunder.

"Man meant to you no harm
But his horses and cattle had to eat
And these changes must come,
Like Russian Thistle (tumbleweed) and Mesquite."

In 1540, the river, San Pedro
Was one mile wide where beaver
And Sonoran otters could hide.
In the cool tall grass prairie of thunder.

And now it rains mostly in the mountains,
But on the plateau mostly in memory of:
The cool tall grasses
On the prairies of thunder.

All the while the rain clouds thin and disperse
Leaving little to no rain
On my garden in the valley,
Where tall grass and buffalo once stood.

As Coronado described:
"Tall climax grasses that were luxuriant
Enough to hide a man on horseback."
The cool tall grass prairie
Beneath the Mountains of Thunder!

*Beaver may be reintroduced back into the San Pedro ecological system, but the buffalo may never return as the native grazing grasses are now too sparse to support the herds that once flourished in days of yore.