**Free Manure**

V-Bar-V has a huge supply of manure and its free!!! There are 4-5 semi loads available. For pick up info, call Bopper at 928 821-3299 to make arrangements for pick up and directions to the ranch. We have a loader available. No delivery. Dave Shaffer, Director V-V Ranch.

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**Drought is on everyone’s mind.** How to water properly is a skill to be learned. Grab yourself a glass of water before you start reading. You’ll get thirsty.

How much water and how often is not the entire story. A number of factors—soil texture, weather, season of the year, directional exposure and the ages and types of the plants—all determine how much and how often your plants need water.

Clay soil absorbs water slowly and drains slowly, too. Clay remains moist longer. Sandy soil absorbs water quickly and drains fast. Loam soil absorbs water fairly quickly and drains well but not too fast. Absorption patterns vary, too, but water moves mainly DOWNWARD. Side spreading of water occurs most in clay soil and least in sandy soil, so you have to water for a longer period of time in clay soil to get deeper. With clay you will be watering longer but less often. To improve absorption and drainage in clay and make sandy soil hold moisture better, add...
organic matter such as mulch, compost or manure.

Water-conserving plants—XERISCAPE PLANTS—are adapted to low humidity and drought. They need deep soaking less often. Regular garden plants are adapted to moist soil and high humidity. ALL YOUNG PLANTS—even XERISCAPE PLANTS—need more frequent watering until they become established, at least a year.

Knowing root-zone depth is the key to well-grown plants. So you can apply enough water to moisten the ENTIRE ROOT SYSTEM, encouraging roots to grow deeper throughout the area instead of short shallow roots near the surface. Deeper roots have access to moisture held deep in the soil, thus letting the plant go longer between watering before stress or wilting occurs.

Too much water is as harmful as too little. Roots need air as well as water and the roots absorb both from the spaces between soil particles. If the soil is kept too wet, the water displaces the air and the plant can’t breath. This suffocates the roots, allowing fungi to grow, causing rot.

To check how far water is penetrating your soil, water the area for a set amount of time, say 30 minutes, wait 24 hours, then dig a test hole for moisture. A metal rod or a long screwdriver can act as a soil probe, moving into moist soil easily, but stopping when it hits dry soil. You will then be able to tell how deep your water is going. Now, to get scientific, there are 7.5 gallons of water in a cubic foot of water. One cubic foot of water (about 8 gallons) will cover 12 square feet of surface area (that is, a 2 by 6 foot plot of garden) with one inch of water. In sand, this penetrates to 12” deep, in good garden loam, this penetrates to 7” deep and in clay soil, this penetrates to 4” deep.

In other words, it would take 24 gallons of water applied to a 2 foot by 6 foot garden area to penetrate clay soil to a depth of 12 inches. To penetrate to a depth of 24 inches, you need 48 gallons, and to a depth of 3 feet for a big tree you would need 72 gallons of water. However, for a really big tree you would be needing to moisten an area much bigger than 2 feet by 6 feet and thus using more water.

One gallon of water will hydrate one cubic foot of loam soil to “field capacity.” Field capacity is a term that means that no more water can be taken into the soil without dripping out into the deeper soil. Water moves down through the soil by progressively wetting soil particles. Once a particle has acquired its clinging film of water, every additional drop becomes free to move down and wet other particles.

Gardeners are lucky if the water they apply is reaching 50% of the trees’ roots when they water because we can’t see into the soil. Most of the trees’ roots are in the top 2 to 3 feet of soil. (Diagram 1)
The dimension of the average tree’s root zone is from 1.5 to 4 times the width of the tree. (For example if the canopy of the tree is 10, then the roots go out at least 15 feet from the trunk.) In other words, water should be applied to the drip line area and outward, not by the trunk or under the canopy. (Diagram 3)

**Rule of Thumb # 1**

How to test your soil to see if you need to water:
When soil is dry in the morning (dawn) 1 inch down—water your flowers
When soil is dry in the morning (dawn) 2 inches down—water your shrubs
When soil is dry in the morning (dawn) 3 inches down—water your trees

or Rule of Thumb # 2

If the top 3 to 4 inches of soil is dry, you probably need to water.

A small watering basin around a shrub or tree will encourage roots to remain in a small spread. Enlarge your basin as the tree grows; you may need to add multiple emitters or increase the size of your emitter flow.

In hot, dry, windy times, plants use water so fast that shallow-rooted ones cannot absorb water from the soil fast enough to prevent wilting.

2003 VERDE VALLEY HOME & BUSINESS SHOW

Thanks to our volunteers who played such an important role in this event. This was our first opportunity to be a part of this event and it was very successful. The Home & Business Show was held in Cottonwood at the Mingus Union High School on March 15th & 16th. We had a great response from the public attending the event and we have been asked to participate again next year. Next year the event will include Cottonwood, Camp Verde and Sedona, a much larger show.

I would like to acknowledge Lindsay Schramm for all of her efforts in the workshops that she developed, Compost Tea 101 and Saving Seeds.

Our exhibit was staffed by the following volunteers: Kitty Schlueter, Judie Bennett, Rosh Preuss, Brenda Pakay and Evelyn Becker on Saturday. Lindsay Schramm presented both workshops on Saturday. Sunday our staff included Lindsay Schramm, Laura James, Jane Davie, & Lisa Spear. Lindsay Schramm presented the Compost Tea 101 workshop on Sunday also.

Each of these events that we participate in take a lot of thought, work and effort. We could not do this without the expertise and support of our volunteers. Thank you all again for all of your help.

Beverly Emerson
Volunteer Coordinator
Garden Sculpture

Over the years I've come to enjoy some of the more eclectic gardens I've seen. You know the ones I'm talking about. People have found interesting objects they use as yard art, or taken bits and pieces of things to create interesting shapes. I have one a few blocks from where I live that I walk by frequently. He has bunches of gourds hanging from the fence. There is the framework of an old fishing net that has been fashioned into a bird feeder with horns included. The skull with the large inflated snake going through the eye sockets is an interesting tidbit also. While I can just see some people reading this in horror, his jumble of items mixed in with a variety of plants works as a garden space. Birds seem to enjoy it quite a bit too. There's hardly been a time where there hasn't been a flurry of birds when I walk by. While most of the gardeners I know wouldn't want such unusual pieces in their garden, I think sculpture can create some real interest in your yard. There is a simple way for you to let your artistic spirit roam and create fun focal points for your garden.

You will need:

- 100-grit sandpaper or #2 steel wool
- Acrylic varnish or shellac
- Raw umber tint
- Work gloves
- Denatured alcohol

1. Flatten the flashing before tracing the template onto the metal surface. It comes in a roll and tends to not want to unroll if left on its own.
2. While wearing gloves for protection, carefully cut out your shape
3. File sharp edges or bend them under, then use hammer and nail and screwdriver Anything strong enough to create creases in the metal to create extra features like eyes, scales, feathers etc.
4. Place board underneath to protect work surface.
5. Spray the metal with primer and allow to dry completely.
6. Allow paint to dry, then lightly sand surface to age the piece.
7. Add a couple of drops of raw umber tint to the varnish and apply over entire surface This

Aluminum flashing—
Aluminum flashing comes in a variety of widths but the widest I've seen is about 12 inches.

Template drawing—
Draw on a piece of paper or card stock your figure, use your imagination, but the drawing needs to be the size you want the sculpture, but make sure it fits on the flashing.

Pencil

Shears
File
Hammer and nail, screwdriver
Wooden board
Spray metal primer
Acrylic paints
Sponges, brushes

Use your imagination
gives the sculpture a rich look. Tints can be found at some hardware stores or specialty wood shops. If you can’t find them you can just varnish the item.

8. Finally, spritz with denatured alcohol.

The sculpture can be affixed to a pole or a hole made to hang it in your garden.

This information came from the Website www.dyinet.com They have all sorts of interesting home-improvement projects to do.

Gardening Dull? NEVER!!

This special offer is for all you exciting and excited gardeners—a field trip with other avid Master Gardeners to the Arboretum in Flagstaff for their 18th annual Horticultural Fair coming on Saturday, June 21, 2003. Everyone is invited. Come aboard the Master Master Gardener Van or drive yourself. There will be exhibits, tours, information tables and a Plant Sale where you can find those elusive natives available only once a year at this sale. Lots to see and do with lots to learn. Come one, come all! Please call Pattie Conrad to reserve your seat on the van or to get the vital information you need. Call (928) 778-4810 evenings best. See you there!!

We have a huge supply of cow manure at the V-V Ranch. It is available to anyone who has a need for it. We have 4-5 semi loads available. For pick up info, call Bopper at 928 821-3299 to make arrangements for pick up and directions to the ranch. We have a loader available. No delivery. Dave Shaffer, Director V-V Ranch.

GOURD CRAFTING CLASS

DATE CHANGE: May 10, Prescott, 10am-3pm

The classes will include all your materials including a gourd. I will cover the various materials that can be used, weaving techniques, woodburning, cleaning and finishing.

There is a $25.00 charge for the class to cover the cost of materials. Please send check and contact information to:

Nora Graf
P.O. Box 3652
Camp Verde, AZ 86322

If you have questions email to: mesquite2@hotmail.com or call (928) 567-6703.
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The Yavapai County Cooperative Extension Web Site has a Forest Health Page that focuses primarily on bark beetles. The major change is the addition of a Frequently Asked Questions (FAQ) Page. This page will be a dynamic, interactive source of bark beetle information. Please take a look, tell others, submit questions, etc. I will make every attempt to keep it current and be responsive.

The Forest Health Page will continue to be prominent on the Yavapai County Cooperative Extension Home Page at http://ag.arizona.edu/yavapal/.

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The "Arizona Master Gardener Manual" is now on-line. Check out http://ag.arizona.edu/pubs/garden/mg/

NOTE FROM THE EDIT OR:
Let me know about your garden, the types of seeds you planted, interesting articles you found—anything of gardening interest. Send to: Nora Graf
P.O. Box 3652
Camp Verde, AZ 86322

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