

# Yavapai Gardens

Feb 2000

Master Gardener Newsletter

## Lamb's-ears *Stachys byzantina*

Soft, silvery gray foliage characterizes this ground cover. Not only is it soft to the eye but it is soft to the touch also. Children enjoy stroking it's velvety surface—adults do too. The silvery leaves provide nice contrast to the green of most other plants.

Lamb's-ears work well in our dry climate. Give these plants a dry soil and they will reward you with a carpet of silver velvet. They spread by stems that either tunnel underground or grow on top. Because of this, they make a good ground cover—but they can grow in areas they are not wanted. Fortunately, they can be easily controlled. Just snip off the stems that grow above ground. You will need a shovel to take care of the underground stems.

In the garden Lamb's-ears makes a good border plant. They only grow to about eight inches high. They work well as an informal carpet, creeping to surround

other plants and creating a nice counterpoint to more colorful garden residents. The plant works well as a transition between a lawn and the garden or to mark the edges of a path. Its preference for dryer soils can help fill in difficult spots in the garden. It would do well near concrete, which heats up in the sun and dries out the soil along its edges. Even on the south side of the house where the extra heat that builds up creates problems for many plants, Lamb's ears can help fill in the area.

Lamb's-ears can generally be found in most garden centers. Plant just a few the first season and by digging up the new plants that develop you can spread it around even more or share with friends. It is also easy to start from seeds. Start seeds about the same time as tomatoes; plant after the last frost. Keep the area weeded; while they spread easily, they cannot compete well with harder plants like some of our weeds and bermuda grass. In colder areas, (Zone 5,) mulch in the

### Arizona Pecan & Wine Festival

Camp Verde Community Center

February 10



Come taste Arizona at it's best. Celebrate the harvest of local grown Pecans and enjoy a fine selection of wines from local Arizona wineries. Enter 40 pecans from your trees to be judged by the U of A extension professor, Dr. Kilby. Learn about

proper care and planting to increase production in pecans and grapes. Call the extension office or Camp Verde Parks & Recreation office (520)567-0535 for more information.

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winter. In Prescott, they will freeze then recover nicely with some occasional watering in the winter.

While they can handle light shade, they do best in full sun. Plant new seedlings or plants about six inches apart and keep watered. They are shallow rooted and will need careful watering in the beginning but if you have well-drained soil they should thrive. Mulching will help keep weed growth down, giving the young plants a good start without any competition.

Each spring, clean up the plants by removing the dead leaves. This is a hand job as you don't want to break off the new growth. Don't use a rake. During the growing season some of the older leaves will start to yellow. If you want to remove them, just pinch them off at the base.

Lamb's-ears develop flower stalks that are about 18 inches tall. (There is a variety that has no flowers.) If you prefer the groundcover look, just snip the stalks off below the leaves or you can leave them to flower and remove the stalks later.

Enjoy the soft plants; invite family and friends over to pet the lovely creatures.



## February Calendar

Time to start pruning trees. If you need help, pick up information at the Cooperative Extension office or attend one of the pruning demonstrations scheduled this month.

Apply dormant oil to trees if you have had pest problems in the past.

Continue to water trees, perennials and shrubs. We haven't had any rain to speak of so far this winter and they need water.

Get those seed orders out. For those in the warmer areas of the County, time for planting the early spring flowers and vegetables is just around the corner.

Now is the time to plant bare-root plants.



## Free Seeds!

I have a lot of seeds that people have given me over the last year that I will not be able to use. (They are not old seeds, but for this year's garden) If you are interested in any of them please call me at (520)567-6703 and leave a name and phone number on the answering machine and I will call you back or email me at [mesquite2@hotmail.com](mailto:mesquite2@hotmail.com) with your request. At the moment I have:

- 1 pkt of Red Velvet Okra
- 3 pkt of Crimson Sweet Watermelon
- 2 pkt of African Daisies
- 1 pkt of Serrano Chilis
- 1 pkt of Jalapeno peppers
- 2 pkts of Viva Italia roma-type tomatoes
- 1 pkt of Better Boy tomatoes
- 2 pkts of Early White Vienna Kohlrabi
- 1 pkt of Burpless hybrid Cucumbers

A large pkt of Lentil seeds which I will break up into smaller packets

I also have mixed large gourd seeds and seeds from my favorite giant squash

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# Giants of the Earth

While we don't hear too much about giants around here, there is an entire subculture of gardeners out there creating the monstrosities known as giant vegetables. Most of you have probably heard of the giant pumpkin contest. They breached the 1000 lb. barrier a couple of years ago.

But have you heard of giant tomatoes, leeks, corn or beets, among others? Well, they are all out there. I've been known to grow fairly large squash and it's rather entertaining to see how big they will grow, but I leave it up to nature to determine the final size; I don't do anything special to achieve it. Some gardeners make this their mission. So here are a few tips if you would like to amaze your friends this season.

Genetics plays a big part in the size. Start with seeds that normally attain a large size. You need the genetics behind you to start with. No matter what you do a Connecticut Field or Small Sugar pumpkin is not going to achieve greatness. (Source list is at the end of this article. In the pumpkin category, the winner is Dill's Atlantic Giant. This variety is the winner every year.

The second thing you are going to need is space. Giant vegetables are big. For pumpkins you should have a space at least 30 feet by 30 feet per plant. (Yes, that is feet!) Obviously, for plants like corn, sunflowers or onions you need less but always plan enough space.

Organic matter—lots of it—is a must. Manure and compost are more important than chemi-

cal fertilizers. Prepare your soil well in advance with the addition of massive quantities of organic matter. To prepare for spring, start incorporating organic matter into the soil in the fall. If you use manure, it should be spread on early enough to

allow it to compost before planting. You can't have enough organic matter.

Start plants as early as possible inside so they are ready for transplanting as soon as the weather warms. For pumpkins and other squashes, space one plant in a minimum of 30 by



30 foot area. More space is better if you have it.

Now the hard work begins. The plants must be carefully monitored to stop insect problems. When flowers start to bloom, they should be hand pollinated to ensure the best possible pollination. As the plant grows you may need to move the vines around to keep track of them and keep them in their assigned area. Once the plant sets fruit, start keeping track of the circumference of each new fruit. As soon as one starts to lag in growth, remove it, so eventually you end up with one fruit per plant.

Spray the plant with fish fertilizer periodically and water, water, water. These huge plants need lots of water. In our climate, it might be best to have some sort of timed irrigation system to maintain even moisture over the growing season. I read where one gardener watered his plants with 300 gallons of water every two days through the

main part of the growing season. (This was in an area that received very little summer rain.) Then again, don't overwater. Most of these plants will drown with overwatering.

One of the problems with giant vegetables in our area is the hot summer sun. This can slow



d o w n growth and cause cracking and splitting. Ashade cover is probably a must with most of these plants. They recommend using a plywood roof with shade cloth on the sunny sides. Even if the vegetable cracks, you

can slow down the growth and poultice the injury .

So are you ready to start growing giant vegetables? If you are not ready to create the next world class pumpkin, there are other easier plants to try. Try for the tallest sunflower or the biggest ear of corn. Watermelon might be a better choice, though what does one do with a 300 lb watermelon. I'm not sure, unless you host the entire neighborhood for a summer eating festival. If space is a consideration, try growing giant root crops. This is quite popular in England. How about a six pound onion or a five pound carrot. I think our niche may be in the tomato category, surely someone out there can grow an eight pound tomato or a plant longer than 53 feet.

For those that want to try tomatoes, start with holes two feet by two, six feet apart. Fill them with compost, manure, peat moss, vermiculite and perlite mixed with equal parts of good garden soil. Start the plants early and transplant after the last frost. Allow the plants to set only three fruit; when they reach the size of half dollars, remove the two smallest ones. As it grows

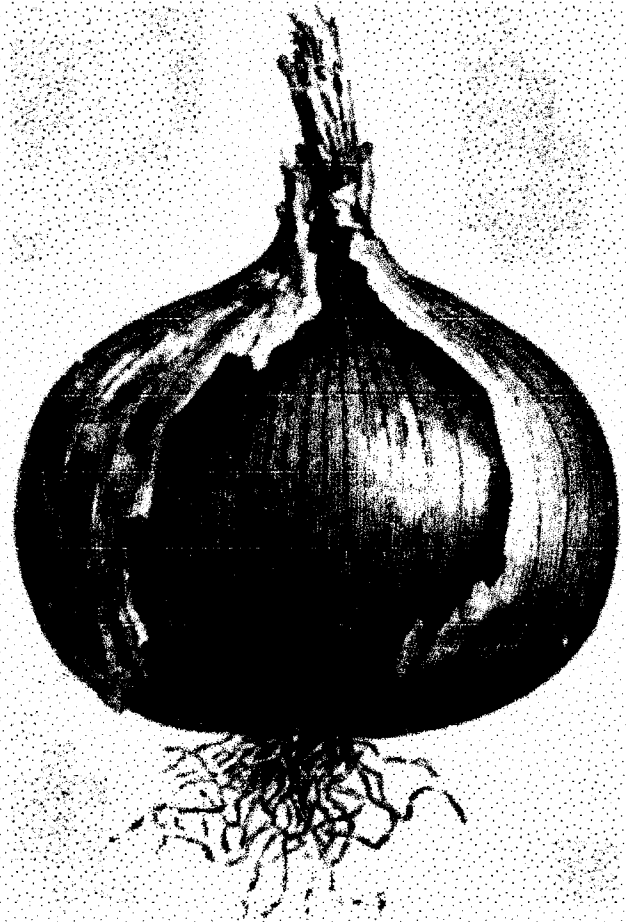
larger you will need to do something to hold the weight. A pantyhose sling is an excellent way to do this. Foliar feed periodically and water evenly throughout the summer.

Just remember that, if you go to all this trouble, you will also have to have a fall picnic and invite all the Master Gardeners out to enjoy your harvest.

### Seed sources

Thompson & Morgan, Inc.  
P.O. Box 1308  
Jackson, NJ 08527-0308  
[www.thompson-morgan.com](http://www.thompson-morgan.com)

Gurney's Seed  
110 Capital St.  
Yankton, SD 57079



Howard Dill Enterprises  
RR #1, Windsor, NS  
Canada B0N 2T0  
<http://www.howarddill.com>

Stokes Seeds, Inc.  
Bo 548  
Buffalo, NY 14240

Southern Exposure Seed Exchange  
P.O. Box 170  
Earlsville, VA 22936

Tomato Growers Supply Co  
P.O. Box 2237  
Fort Meyers, FL 33902

A source of giant seeds on the web is [www.bullnet.co.uk/shops/hydro/seeds.htm](http://www.bullnet.co.uk/shops/hydro/seeds.htm)

There were not many websites concerning giant vegetables but the best was probably the Australian Giant Pumpkin and Vegetable Society at [www.backyardgardener.com/aus.html](http://www.backyardgardener.com/aus.html)

*Varieties and 1994 records (latest info I have unless noted)*

Dill's Atlantic Giant Pumpkin—1014 lbs (1999 record)

Carolina Cross Watermelon—262 lbs

Show King Green Winter Squash—821 lbs.

Kingsize Marrow (aka BL2) Zucchini—108 lbs

North Carolina Giant Cantaloupe—62 lbs

Beacon Onion—6 lbs+

Kelsae Sweet Giant onion—11 lbs 2 oz

Jumbo (aka BL5) Carrot—? (The record carrot as of 1998 is 158 inches long, variety unknown)

Giant Winter Kohlrabi—27 lbs.

Mexican Giant Corn—31 foot stalk, 15 inch ear

Giant Tall Corn—over 16 foot stalk

Mammoth Russian Sunflower—21 foot stem, 26 inch diameter head

Hercules (aka BL7) Cabbage—124 lbs

Burpees Delicious Tomato—7lbs 12 oz

Sweet 100 Tomato—53 feet long, 28 feet tall vine

Other possibilities for giant tomatoes are Brandywine, Giant Belgium, German Johnson, Bragger, Abraham Lincoln, Parks OG50 (Whopper Improved) and Magnum (aka BL8)

## Spring Plant Sales

### Boyce Thompson Arboretum

Mar 16-April 1 8am-5pm— Horticulturists will be on hand to answer questions and lead tours of the Demonstration garden each Saturday and Sunday at 1:30 p.m.

### Tohono Chul Botanical Garden

Tucson, March 17 & 18. A variety of programs will be held over the weekend. 7366 North Paseo del Norte. (520)575-8468

## Announcements

February 17 & 18, 2000, The High Desert Gardening Conference, Sierra Vista, AZ, Lakeside Activity Center, Fort Huachuca.

Yavapai Rose Society Meeting, February 19, 2:00 PM at the First Christian Church, 1230 Willow Creek Road, Prescott. We will have two videos, How to Plant Your New Rose Bush and How to Prune Many Types of Roses, by Sam Trivitt, Consulting Rosarian and past President of the Pacific Southwest District. There will be a Consulting Rosarian Q & A period. Guests are welcome and there is no charge. For more information call Bob or Nancy at 771-9300, or Dave at 778-5507.

Cottonwood Organic Gardening Club meets at the Cottonwood-Verde Valley Fairgrounds on the second Wednesday of each month at 1:30 p.m.

### Master Gardener website

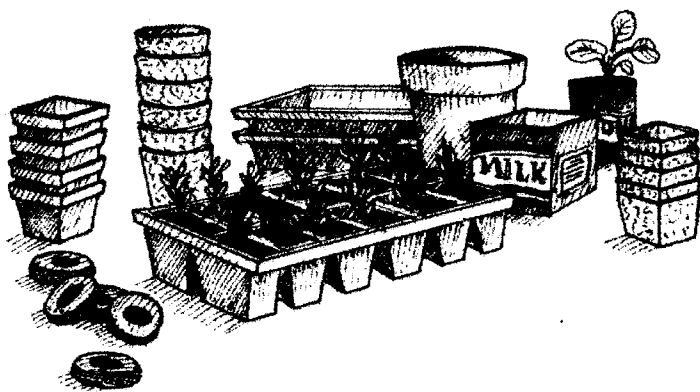
<http://ag.arizona.edu/yavapai>><http://ag.arizona.edu/yavapai/>

Southwest Tree Seedling Program is a place to pick up cheap drought-tolerant and Native plants. They are small (seedlings) but the price is right. You also have to buy large quantities. You can pick up an order form at Fort Verde State Park or call 1-800-426-0958 to get an application, or check out their website

@Greenwoodnursery.com Click on the Southwest plants page; your order can also be placed on the web.

# Seed Starting, A Quick Review

Every spring nearly every magazine (newsletter) or newspaper has an article out on seedstarting. Well I'm going to do it again. Since most of you have been sitting around doing not much of anything (in the garden, although you should be putting in your bare root trees by now) I thought I'd use this article to jumpstart the gardening season. I love starting seeds. There's something about putting those tiny little dots in soil and watching them spring forth into a plant. No



matter how many times I do it, it is magical. If you haven't tried it yet, I highly recommend it. Yes, I know you can go down to the local garden center and pick up six-packs and gallon plants and just toss them in the ground. But there is something special about gently placing a plant you have grow from seed into its outdoor home. Pick up a packet of seeds and start something this spring. Besides, you have more choices with seeds; just look at all those catalogs arriving in the mail.

With few exceptions, seeds are self-contained generators of new life. (Orchid seeds are an exception.) They contain everything needed to start a new plant. The key to getting a seed to start this new plant is to get it to break dormancy. With some seeds this is very easy—others need some manipulation. I'm going to talk about the easy ones. Those that you can just open the top of the seed packet and toss them out.

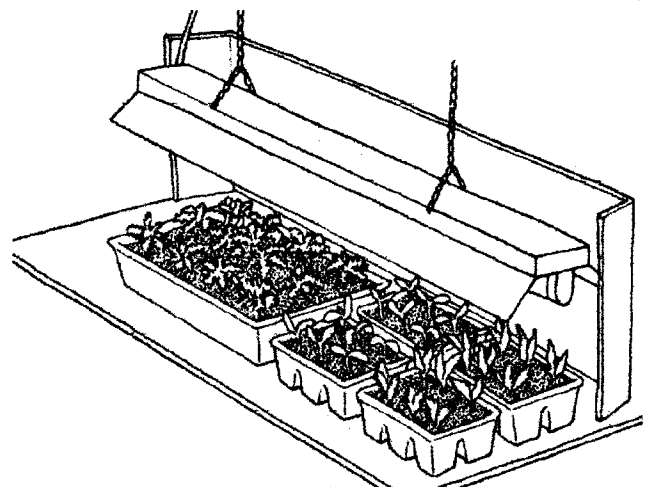
Start with a good growth medium. Seed starting mix should be finer than a regular pot-

ting soil but any potting soil can work. It should also be low in nutrients. High mineral levels can harm seedlings. A sterile soilless mix is your best choice, as it is free of pests and bacteria. You can purchase a seed starting mix, although I frequently have problems finding anything but regular potting mix in garden centers. A homemade mix can be made but I do recommend sifting it to remove the larger particles. With small seeds the finer the mix is the easier to cover the seeds without burying them with large hunks that could prevent their germination.

A note about sterilization: Unless you are starting with fresh product out of the bag, it is a good idea to sterilize your mix before planting. This will kill any pathogens present. The easiest way is in the oven. Bake the mix for 30 minutes at 450°F. Be prepared for a pungent odor that may fill the house. Another method (although not "scientifically tested") is to build a fire and place a sheet of galvanized tin over it and "cook" the mix. (Sheets of tin can be purchased at most hardware stores or companies that put in air duct systems in homes.

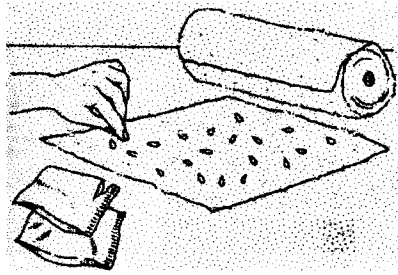
## A. Soilless Seed Mix

- 3 parts peat or peat substitute
- 1 part fine bark
- 1 part vermiculite



To each 8 gallons add 1 1/4 oz of slow-release fertilizer & 1 1/4 oz dolomitic limestone.

Equal parts of peat moss, vermiculite and perlite. Once the seeds sprout in this mix, you will need to feed with a diluted fertilizer mix.



There are a variety of other products out there for starting seeds and plants. One is the compressed peat pot, which expands as it

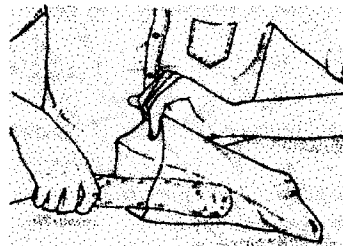
absorbs water. These are good for plants that are not fond of being transplanted or put out large quantities of roots quickly. I use them for squashes, gourds and melons. Inert media are gaining popularity in the nursery industry for some plants. These include straight perlite, water-retentive gels,

rockwools (both as loose fibers and blocks) and florists foam. (If you look at your Christmas poinsettia, it might have a block of foam around the stem. This was the material the poinsettia cutting was first started in.) You can even start

seeds on paper towels wrapped in plastic.

I'm going to start with the paper towel method first. This is a good way to start a lot of seeds in a small space.

Simply take a damp paper towel, sprinkle seeds over the towel, either roll or fold up with the seeds in the center and put in a plastic bag and leave the end open slightly.



Put in a warm place and keep the paper towel moist. Don't forget to label the bags. In short order, the seeds will send out roots. At this point GENTLY!!! move the seedlings into a container and put in a sunny area. Water and fertilize with a very dilute fertilizer solution.

Starting seeds directly in the container is just as easy. Fill your containers, making sure

the soil has been completely wetted before planting the seeds. Peat moss is extremely reluctant to take up water quickly once it has dried and you could easily float your seeds away if you try to



water when the mix is dry. You can mix with water in a tub or bucket, stirring or mixing with your hand to get it to absorb water faster or put it into the containers dry and put them in a tray that has been filled with water. They generally will have absorbed enough water overnight. Once you have the mix wet, sprinkle the seeds over the top. The rule of thumb is to cover the seed with enough soil to equal the diameter of the seed. So, with a lettuce seed or some of those tiny flower seeds, you just need a thin skiff of soil. With corn or beans you will need to cover with a 1/4 inch of soil or more. Compress surface slightly with your fingers or back of spoon. The seeds need to have good contact with the soil. Cover with plastic wrap or some sort of clear cover to help retain moisture. To keep from disturbing the seeds, it's best to water from the bottom. Put in a warm location. Most seeds will sprout at around 70°F. Seeds generally don't need light to germinate but as soon as anything green breaks the surface, move it to a location where it can get light. Seedlings need lots of light to keep from getting leggy.

Most of the common plants we grow can use these methods to get them started. Some plants have special requirements to break their dormancy. Check the back of the seed packet first; it will usually tell you any special requirements. The most common one is to put the seeds in the freezer or refrigerator; but others may require a physical treatment to break a tough coating. Don't let those things scare you. Empty those windowsills and use them to start your spring seeds.

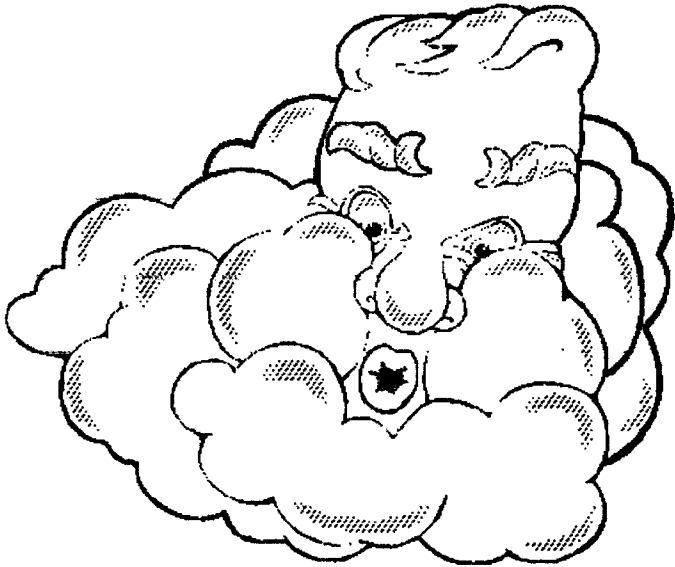
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# Cold Temperatures and Plant Growth

By: Jeff Schalau, County Director, Agent, Agriculture & Natural Resources

When temperatures drop in winter, plant growth and metabolism changes in many ways. Some changes are directly related to the increase in the viscosity of water as it approaches freezing.



Other changes are highly complex, involve many processes, and are still poorly understood. In this column, we will explore some ways that plants respond to cold temperature and how these relate to horticultural practices. I do this at some risk of boring people to tears, but it is good basic information.

Many annual and crop plants simply will not survive the cold temperatures (32 degrees F and below) we experience during winter. Many of us have planted tomatoes in April only to have a late freeze wipe them out. Seeds of many plants simply will not germinate until the environment reaches a certain minimum temperature. Other seeds need to be exposed to cold temperatures for a given time before they will germinate. These data are documented by experiments and recommendations should be provided when purchased seed is purchased from a reputable source.



Cold hardiness is determined genetically within plants. Intolerance of cold temperatures is a major factor limiting native plant distributions. Poorly adapted plants do not develop cold hardiness and cannot acclimatize fast enough to survive early cold weather. Other poorly adapted plants come out of dormancy too early, begin growing and are killed by low temperatures. This is one of many reasons to landscape using native plants.

Perennial plants have adaptations that allow them to survive cold temperatures. Woody plants undergo physical and physiological changes that prepare them for winter. This process is known as acclimation. Shorter day lengths trigger this process in most deciduous plants. Deciduous plants form buds with many bud scales to protect the tender tissue below.



At the cellular level, plant cell sap contains many dissolved compounds: sugars, salts, proteins, etc. This concentrated solution lowers the freezing point of the plant tissues. In other words, the more "stuff" dissolved in the cell sap, the harder it is to freeze it. When freezing temperatures come, properly acclimated plants will form ice crystals in the intercellular spaces (between cells). As the temperature drops further, water moves out of the cell membrane to the intercellular spaces. Here, the cell sap has an even higher concentration of dissolved compounds. Plant tissue damage often occurs when the temperature drops so fast that the ice crystals form faster than the cell sap can migrate to the intercellular spaces. This is the type of injury that is often seen on the southwest side of fruit tree trunks.



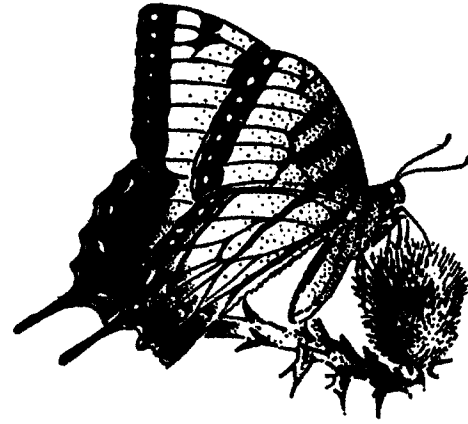


Cold injury to conifers (cone-bearing evergreens) is most often seen as shoot desiccation. Unlike deciduous trees, conifers continue to photosynthesize through the winter. Photosynthesis requires a steady supply of water. Water becomes more viscous when it is near freezing and therefore moves more slowly. Under these conditions, roots may not be able to absorb water fast enough to replace that lost to transpiration during cold, dry winter days. This is not likely to occur given the mild climate of the Verde Valley. However, this should remind you to continue watering your evergreen trees and shrubs during the winter months.



ter becomes is near freezing more slowly. Under these conditions, roots may not be able to absorb water fast enough to replace that lost to transpiration during cold, dry winter days. This is not likely to occur given the mild climate of the Verde Valley. However, this should remind you to continue watering your evergreen trees and shrubs during the winter months.

To avoid cold injury, keep trees well cared for so they can acclimate properly. During winter, deep water all woody plants monthly (twice per month for evergreens). Valued specimens or fruit trees can be covered to conserve heat reradiated from the soil surface at night. Overhead sprinklers can also be used to prevent frost damage to buds of deciduous fruit trees during spring frosts. Keep on winter watering.



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

**NOTE FROM THE EDITOR:**

Let me know about your garden, the types of seeds you planted, interesting articles you found-anything of gardening interest. Send to: Nora Graf

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