Desert Willows (*Chilopsis linearis*) have long, narrow leaves that are reminiscent of a willow tree, yet this isn’t a willow at all. Rather, it is a close relative of the catalpa tree, and a member of the trumpet vine family (*Bignoniaceae*), which also includes the genus *Tecoma*. Desert Willow grows as a deciduous large shrub or small tree that can reach 25 feet in height and 20 feet in width. From May through October colorful, lightly scented white, burgundy, or pink trumpet-shaped flowers appear luring hummingbirds into the landscape. Plants drop leaves in late fall following the first hard frost, yet they are cold hardy to 0°F. Papery pods hang decoratively and release seeds to hungry birds throughout the winter season. The natural form of this tree is multi-trunked or you can maintain a single trunk by pruning the lowest limbs in spring just as leaves emerge. Little maintenance is required for this tree. Fallen leaves and seedpods will blend into a coarse groundcover, eliminating the need to rake or remove them. Adaptable to most soils as long as drainage is good, Desert Willow prefers full sun but will tolerate partial shade. Established plants are considered drought-tolerant, requiring only deep, infrequent irrigations. This plant primarily occupies dry washes, intermittent streams, and other watercourses of the deserts and mountain foothills between 1,500 and 5,000 feet in elevation throughout much of the southwestern United States and into Mexico. It is classed as a phreatophyte, and is an indicator that during part of the year water is not too far below the surface. *(Continued on page 3)*
**Cover Crops as a Companion**

Cover crops are grasses, legumes or small grains grown between regular crop periods for the purpose of protecting and improving the soil. The most common cover crops are fall-seeded cereals, such as rye or wheat, and fall-seeded annual ryegrass. Cereals like rye or wheat are the most popular cover crops for a number of reasons. They are easy to establish, fast growing; and seed is relatively inexpensive. Legumes, on the other hand, do not provide cover as rapidly, but they do supply some nitrogen to the soil. Weigh the relative importance and desired outcome in choosing the right cover.

**UNCE Orchard Pruning Classes**

Bob Morris will be in Nevada only for a couple of weeks before he goes back to Afghanistan. He and the Volunteers at the UNCE Orchard are going to do a one-day pruning event on Dec 22. They are asking for a $5 donation from those who can afford it. Bring your pruning shears, both hand shears and loppers.

**Upcoming Volunteer Opportunities:**
- Mesquite Heritage Garden
- Fair Garden Planting
- Newsletter article or pictures
- Orchard Pruning Classes

**15 Minute Classes to be offered on the Hour** (9am, 10am, 11am, 12pm)
- How to Sharpen and Adjust Your Shears
- How to Remove Large Limbs Using the 1-2-3 Method
- Basics of Pruning Cuts, How to Make Them and What Happens to the Tree

**Hour-Long Classes on Different Categories of Fruit Trees**
- 9 am Peaches and Nectarines
- 10am Apricots, Plums and The Stone Fruits (Like Pluots)
- 11am Apples, Pears, Quince and the Pome Fruits
- 12am Miscellaneous Fruit Trees (Pomegranates, Persimmon and Others)

**Grape Pruning Classes** 10am, 11am and 12

**Holiday Gift Ideas**

1. Bird feeder
2. Spice drying rack
3. Unique garden markers
4. Garden hat
5. Hand tools
6. Rubber garden boots
7. Bare root tree
8. Garden art
9. Bonsai plant
10. Watering can
11. Homemade wreath
12. Cactus garden in a pot
13. Outdoor thermometer
14. Personalized stepping stone
15. Bird house
16. Watering wand
17. Garden lighting
18. Sprouting jar and seeds
19. Wheatgrass garden kit
20. Garden gnome
**Desert Favorite - Continued from page 1**

Easily propagated from seed, Desert Willow can also be grown vegetatively from cuttings and is a fast grower in urban landscapes. Individuals have been selected from the wild, cross pollinated with other specimens, cloned, and marketed with characteristics such as specific flower color or growth habit. Some of the newer varieties are "Rio Salado," "Lucretia Hamilton," "Warren Jones," and "Lois Adams." Russian hybridizers from Uzbekistan crossed the catalpa (Catalpa bignonioides) with the Desert Willow, which resulted in the Chitalpa (Chitalpa tashkentensis), a tree that produces no seeds. If you're looking for a specific flower color, shop at local nurseries when the trees are in bloom. Desert Willow trees propagated from seed can vary in their flower production and color intensity. Named cultivars that are propagated vegetatively will be consistent in these characteristics. Desert Willows are easy to grow and are not susceptible to pests or diseases. Planted in groups, the Desert Willow can be used as a screen or windbreak. The strong yet flexible wood of Desert Willow was used by Native Americans to craft their hunting bows. The wood has also been used by the Pima to construct houses, thatch roofs, and in the making of baskets to store mesquite beans, acorns and other foods. The fibrous bark was used to make nets and fabrics. It is important to wildlife because it provides nesting sites and cover. Animals such as deer and birds also consume the leaves, fruit and the flower's nectar. Birds eat the seeds, and the nectar is used by bees for honey. It also provides shelter for nesting birds. Desert tortoises use the flowers in their diet as you can see in the picture on page 1 of our two, Speedy and Shelly, enjoying a flower salad. By including one of these trees in your landscape, you can have color and fragrance, attract native birds and other wildlife, and have shade in places where it's needed.

This concludes a year of Desert Favorite. All plants featured are planted in my yard in Logandale, NV. This year we have looked at four trees, four succulents, and four shrubs. Hopefully these articles have educated you and helped in your landscape plantings. Any suggestions or comments sent to me at imn2plants@aol.com would be welcomed. MERRY CHRISTMAS!

**December Planting**

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<tr>
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<td>Chard</td>
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<td>Turnips</td>
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Minimum soil temperature must be consistent for all required days to germination

**Veggies by the Season**

Veggies by the Season is a series of year round, month-by-month gardening classes designed to educate people on producing timely vegetables in their backyard gardens.

**Winter**

Dec. 12 – Vegetable seeds and plants
Dec. 19 – Keyhole Garden
Jan. 09 – Season Extension
Jan. 23 – Bare Root Fruit and Nut Trees
Feb. 13 – Plant Grown Regulators and Tomato Plants
Feb. 27 Pruning and Tool Care

$5.00 each or $25 for all

For more information call Denise at 702-397-2604 x 4

Or visit the website! http://www.unce.unr.edu/news/article.asp?ID=1719
Notes from Desert Green Conference 2012: MULCH
Dr. Jim Downe

- Tree litter is the best mulch.
- Organic matter will change the biologic, chemical and physical properties of the soil.
- Organic matter added to the soil has a big role in controlling pathological fungi, i.e. phytophthora.
- Organic mulch will add carbon to the soil.
- Organic mulch on a new installation of trees will reduce irrigation needs. Less water evaporates from exposed soil with mulch on top. Once the tree is established with a significant crown, mulch does not have a WATER SAVING role.

- Study on Eucalyptus:
  Eucalyptus is allelopathic. The question was: would a ground up mulch of Eucalyptus litter have an inhibitory effect on germination, or a toxic effect on seedlings?
  Flats of grasses were planted with various species of Eucalyptus mulch. Seeds planted in the Eucalyptus known to be most toxic showed symptoms of poor health. The study was repeated in the field, using the Eucalyptus species that had the most severe and the most benign effects in the flats. In the field they performed exactly the same. Conclusion: Something different is happening in the soil.

- How much mulch to use: 4” will suppress 99% weeds. Put down 5-6” because it will compact.

- Penetration of water through the soil: A tensiometer placed 6” under surface showed a much faster movement of water through the soil with mulch that had been in place for 2-3 years. The mulch is breaking down and improving the soil texture, slowly, allowing better water movement.

- Nitrogen IS NOT LOST from the underlying soil when you use organic mulch. After one year, you can test for Nitrogen, and there will be an increase in the soil 6” below.

- pH is improved with an organic mulch.
- The more mulch, the more nutrient gain in the soil.
- Not all organic matter is appropriate. Animal waste will have high salt content.
• Definition of MULCH: material put ON THE SURFACE.

• Organic matter provides energy for microbes. For much plant material, 2-3 years may be needed to break down the mulch. Some material can persist for 100’s of years or more.

• Fungi are the major biomass in the soil.

• Mulch will have an effect on about 1” of soil each year.

• On un-mulched trees: the soil 6” below had no detectable organisms.

• Disease control: wood-chip fungi that digest cellulose produce a lot of enzymes. These enzymes help to control phytophthora, and other root rot pathogens.

• Gypsum Mulch serves to add calcium to the soil. In most cases our soils have a lot of calcium. In a lab test, desert soils are never short of calcium. Gypsum has been used when there is sodium abundance, and in order to dislodge the sodium from its strong attachment to soil particles, we flood the area with calcium and then leach the sodium. Downer says that a lot of the calcium in the soil is mineralized and not available. He thinks you can never have too much calcium because much of it will bind and not get into solution. Gypsum will supply a small, but soluble, amount of calcium which will help to control pathogenic phytophthora. Calcium reduces the ability of zoospores to swim. They can’t get to the rhizosphere.

• Mycorrhizal affiliations: mulches promote these root / fungi associations. Many require mulch for them to occur. Mycorrhizae excrete a polymer that “glues” soil particles together, making aggregates that provide better texture and better water movement.

• Hyphae: the extensions of the fungi do not actually penetrate the cell membrane of the root cell. They poke into the cell like pushing your finger into a balloon. There are so many of these hyphae poking that they create a barrier around the cell and protect it from bacteria.

• TREES NEED THEIR OWN LEAF, NEEDLE AND BRANCH LITTER!
  Don’t remove all the organic matter from the tree - it contains what the tree needs!
What do I do with all these leaves?

**MOW**

A few passes with the lawn mower will chop leaves into pieces small enough that most will fall between the blades of grass; they will decay over winter, improving the soil. This works best with a thin layer of dry leaves; it won’t work with pine needles. Read on if your leaf pile is deep!

**COMPOST**

Add them to your compost for a good dose of carbon rich “brown” material to go with the “green” material (grass clippings or veggies from the kitchen.) Or just pile them a corner of the yard if you have space for that and turn the pile occasionally. They may decompose faster if they are shredded with the lawn mower first, but that is not a requirement. Either way will have a good soil conditioner with some nutrients.

**DIG**

If you have a vegetable garden, just turn them in for the winter. Several inches of leaves will add organic matter which helps the soil retain moisture.

**MULCH**

Mother nature uses fallen leaves as mulch under trees or shrubs – we should, too. Just rake them off the lawn and into beds and borders. The leaves that fall will decompose and the very nutrients that the trees used will be recycled back. And while the leaves are there as mulch, they will insulate the soil, retain moisture and provide some habitat as well. Did you know that many birds feed in leaf litter? That some butterflies wait out the winter in leaf litter as eggs, pupae or adult? That leaf litter provides food and shelter for lots of critters? We should not throw this away!