Desert Favorite  By Master Gardener Andrea Meckley

Specimens of the Golden Barrel (Echinocactus grusonii) and Fire Barrel cactus (Ferocactus cylindraceus subsp. Cylindraceus) are standards for cactus gardens and southwest landscapes. Designers often use Golden Barrels to provide intriguing texture, dramatic patterns (when used in numbers) and bright yellow color year-round. The slow growing Golden can form a 2-3’ high by 2-3’ wide low round cactus. Growing from a single rounded ribbed column or trunk, the Golden has a vivid green body heavily ribbed with areoles that have sharp golden-yellow spines. Younger Golden Barrels have spines that are long, straight, or slightly curved, with various shades of yellow or, occasionally, white. Bright yellow 1-2” flowers bloom in summer around the crown of the plant, but only after the plant reaches about 12” in diameter. The Golden is hardy to 10º F and will grow in unimproved desert soils, but adding a small amount of mulch when planting will encourage a strong root system. Supplement with water in the Mojave Desert because our natural rainfall is less than the natural rainfall the plants receive in their native Chihuahuan Desert in Central Mexico. Despite being one of the most popular cacti in cultivation the plant is now endangered in the wild. This is reflected in the price when purchasing one. Sometimes a Golden Barrel will randomly form a “cluster” which is a genetic anomaly in the plant growth that produces offsets around the base, eventually leading to large clusters containing dozens of individuals (pictured below). A group of varying sizes of these impressive plants makes a dramatic look.

Fire Barrel cacti are also known as Desert Barrel cactus, Mojave Barrel cactus or Red Barrel cactus. More commonly they are called Compass Barrel because they tend to lean south towards the sun with age.

(Continued on page 3)
**Spring 2013 MG Training Program**

<table>
<thead>
<tr>
<th>When:</th>
<th>March 11 through April 26</th>
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</thead>
<tbody>
<tr>
<td>MWF 8:30 a.m. - 12:30 p.m.</td>
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<tr>
<td>Where:</td>
<td>University of Nevada Cooperative Extension</td>
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<tr>
<td></td>
<td>1897 N Moapa Valley Blvd, Logandale, NV 89021</td>
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<tr>
<td>Cost:</td>
<td>$150.00 - Includes all materials and snacks</td>
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<tr>
<td>Sign-up:</td>
<td>Contact Denise Stoesser at 397-2604</td>
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<td><a href="http://www.unce.unr.edu/programs/sites/mastergardener/southern/">www.unce.unr.edu/programs/sites/mastergardener/southern/</a></td>
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</tbody>
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### Grape Pruning Class at the Orchard

On Saturday, March 2, 2013, there will be wine and table grape pruning and propagation classes at the Master Gardener Orchard at 4600 Horse Drive, North Las Vegas (just east of Decatur).

A $5.00 donation is requested for the morning. This includes free cuttings. You may choose to attend one, two or all three sessions for one donation.

9:00 a.m. instruction will focus on pruning wine grapes
10:00 a.m. instruction will be on pruning table grapes
11:00 a.m. instruction will deal with propagation and grafting

Call the MG Help Line at 257-5555 if you need directions to the Orchard.

### March Reminders

1. Inspect sprinkler system.
2. Resume watering outdoor cactus.
3. Control weeds now with a pre-emergent weed killer.
4. Plant summer bulbs.
5. Aerate lawns.
6. Plant cactus this month.
7. Solarize empty plots.
8. Prune shrubs for summer bloom.
10. Start a new compost pile.
11. Plant globe artichokes this month.
12. Mulch around trees before it gets hot outside.
14. Shape ornamental shrubs.
15. Remove suckers growing below the graft this month.
16. Sprout seeds in a jar for fresh greens every day.
17. Remember to set your clocks forward on March 10.

### Companion Planting

Nurse cropping is another version of companion planting where you can quickly grow a crop in an unused area next to another crop that has a longer growing cycle. Nurse crops reduce the incidence of weeds, prevent erosion, and prevent excessive sunlight from reaching tender seedlings. I do this with broccoli and lettuce. By the time broccoli gets large enough, the lettuce below will benefit from the shading of the large waxy leaves. This extends the growing season of lettuce and prevents bolting. It’s just another way of space efficiency and symbiosis.
You know you’re a Master Gardener if you sneak home a 7 foot Japanese Maple and wonder if your spouse will notice.

Desert Favorite - Continued from page 1

The genus name comes from the Latin ferox (fierce), commonly applied to very spiny plants. The larger spines keep away thirsty desert creatures, and the smaller spines help prevent water loss and scorching by reflecting away some of the intense desert sunlight. Like other ferocactus, Ferocactus cylindraceus are barrel shaped when young, but grow to be quite tall and cylindrical shaped. The spines of the Fire Barrel are highly variable in color, length, thickness, and shape. Spine color ranges from deep red to yellow to pink to white and everything in between. After a rain the color of the spines on barrel cactus is striking. Yellow to orange flowers tinged with red occur in a ring on top of the plant and appear in May through June. Pineapple shaped yellow fruit form after flowering. One of the slowest growing cacti it can eventually reach 10’ high by 24” wide at maturity. This Mojave Desert native plant normally grows solitarily on steep rocky cliffs, desert scrub, washes, and canyon walls where not much else can grow. Hardy to 20º F, this heat and sun tolerant plant can withstand some snow.

Both Golden and Compass Barrels do best where the soil is well drained in a landscape or in a container. Maintenance is not necessary on these plants. The seeds of Barrel cactus are edible. Gather them in late summer and they can be ground into an oily paste which is edible, and can be put into piñole, tortillas, or eaten raw. The young flowers are edible boiled and the older flowers are mashed for a drink. The spines have been used as phonograph needles, fishhooks, awls, needles, and for tattooing. The cactus was also used as a cooking pot. The Indians would cut off the top, scoop out the pulp, and put hot stones and food in the cavity. I will make a reminder here that collection of native plants in the wild without proper permits is illegal. Both of these cacti are eye-catching in any season and a classic plant for our southwest landscapes.

March Planting

<table>
<thead>
<tr>
<th>Artichoke</th>
<th>Eggplant</th>
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<tbody>
<tr>
<td>Asparagus</td>
<td>Kale</td>
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<tr>
<td>Beans, Lima</td>
<td>Kohlrabi</td>
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<tr>
<td>Beans, Pinto</td>
<td>Jicama</td>
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<tr>
<td>Beans, Snap</td>
<td>Mint</td>
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<td>Beans, Soy</td>
<td>Onions, green</td>
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<tr>
<td>Carrot</td>
<td>Oregano</td>
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<tr>
<td>Corn</td>
<td>Peas</td>
</tr>
<tr>
<td>Cucumbers</td>
<td>Peanuts</td>
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<td>Potatoes</td>
<td>Peppers</td>
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<tr>
<td>Peppers</td>
<td>Radish</td>
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<tr>
<td>Radish</td>
<td>Sage</td>
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<tr>
<td>Sage</td>
<td>Spinach</td>
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<tr>
<td>Spinach</td>
<td>Squash, summer</td>
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<tr>
<td>Squash, summer</td>
<td>Sunflower</td>
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<tr>
<td>Sunflower</td>
<td>Tomatillo</td>
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<tr>
<td>Tomatillo</td>
<td>Tomato</td>
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Tomatoes 101

- Tomatoes are a fruit and a perennial.
- They may be staked, caged, trellised or allowed to spread or run on the ground.
- Bees have nothing to do with pollination or fruit setting. Tomatoes are wind pollinated.

**Plant Growing**

- For early tomatoes seed should be started the last week of December or the first of January.
- Seedlings are then potted up into three- or four-inch pots.
- Night temperature is lowered to about 50°F for 7-10 days just after the first true leaves have formed; more abundant early flowering and fruit setting will result.
- Preference is for the varieties Celebrity, Champion, Early Girl and the so called heat tolerant Sunbeam, Sun Leaper and Sun Bright greenhouse types. All are red, large sized and globed shaped (round), have small green cores with a minimum of cracking and are free from blossom end rot. Yellow pear tomatoes do exceptionally well throughout our hot summers.

**Transplanting**

- Planting in the garden or field should be around March 15.
- Purchase transplants about 10 days before transplanting outdoors.
- Take the pots out of the tray to spread out the plants so their leaves don’t touch plant to plant.
- Hold them in a protected, sunny area for 10 days to two weeks to “harden off.”
- A tomato plant before field transplanting should be as wide as it is tall.
- They should be transplanted just before the appearance of the first flower buds.
- It is suggested that 10-12 pounds of a granular fertilizer high in phosphorus (11-52-0) per 100 feet of row be tilled into the soil before planting or transplanting.
- Set the transplants a foot apart in north-south rows on the east or northeast side of a house, barn or wall, using clothes line stretched between iron stakes spaced 10 feet apart for support.
- Set about an inch or two below the soil level for wind protection.
- Water with an all soluble starter solution high in phosphorus, one ounce per gallon of water.
- Use hot caps for an earlier start and protection from both wind and frost. Also, Walls of Water® are effective for the same reasons but are expensive and labor intensive. However, they can be used year after year.

**Fruit Setting and Ripening**

- Fruit setting is determined by night temperatures 60 - 70°F.
- Mid-April to mid-May and again mid-September to mid-October
- Ideal fruit ripening is 60 - 75°F.
- It takes about 45 days during hot weather for fruit to ripen after it sets.

**Cultural Practices**

- Before plants set fruit keep on the dry side and water only with an all-soluble fertilizer high in phosphorus and with some nitrogen (12-61-0).
During fruit setting and fruit development, periodically add the all-soluble fertilizer (12-61-0). When and how much is according to visual observation of the vigor of the plants.

When tomato plants begin to set fruit, the water and fertilizer requirements are greatly increased.

The extent and frequency of watering depends on the soil type, the temperature, wind velocity and the stage of plant development.

Keep the soil moist but not waterlogged. Tomatoes respond to good drainage.

**Pests and Diseases**

- Blossom-end rot and cracking, common problems in these Valleys, usually are a result of inadequate or irregular watering during the early stages of fruit development, immediately following fruit set. However, too much potassium and not enough calcium could be the problem, too. Have your soil tested; we have an abundance of potassium in our soil and if you add more it could be too much.
- Tomatoes may be frequented by the tomato hornworm which will quickly devastate both fruit and foliage if allowed to multiply.
- They can be controlled by hand picking in the early morning when they can be seen or with the use of the non-toxic Bacillus thurengensis (BT) formulations such as Dipel® or with other bacterial insecticides, one known as Bulls Eye™.
- White fly can, on occasion, become a problem because they thrive under hot-dry conditions. Keep a yellow sticky trap posted near your tomato plants and check regularly for unwanted pests.

**Tricks to help speed up the process**

- Cytokinin, as kinetin, provides biological grow power to promote flowering, increase blossom set, and increase fruit development and yield.
- Gibberellic acid, a naturally occurring plant growth hormone, helps fruit-setting properties for tomatoes.
- Hormonal sprays are not effective for setting fruit if night temperatures are excessively high, as they are through July, August and mid-September. Only when they become 70ºF or lower does this occur.

**Tips**

- Electric toothbrushes have been found to increase pollination when used on the buds.
- Protect from the wind!
- Use a misting system periodically to raise humidity, aid pollination and soften the tomatoes skin.
- Pass up overgrown transplants. When buying tomato seedlings, beware of lush green starts with poor root systems. They will languish for weeks before growing.
- Use mulch! No portion of soil around a tomato should be exposed. Reflective mulch is the best. It will reflect light back onto the plant, keep critters away, and help regulate the temperature of the soil.
- Foliar feeding with liquid kelp extract will help relieve tomato plants of summer heat stress and make them stronger and more insect and disease resistant.
To pinch or not to pinch, that is the question.
Pruning tomato plant suckers

What exactly is a tomato plant sucker?
A tomato plant sucker is the little side shoots which develop in the notch that is formed between the main stem of the tomato plant and its branches.

What do tomato plant suckers do?
The short answer is that they compete for nutrients – hence the name sucker. If a sucker is left alone it will form another second main stem which will produce more branches. More branches means more flowers, tomatoes, and yes even more suckers of their very own.

If they produce more tomatoes why prune (pinch off) suckers?
The nutrient competition from the suckers will produce small tomatoes on the plant. The plant will also become unruly and extremely top heavy which will require additional support due to the added weight caused by increased production. The main stems can eventually break if the weight becomes too cumbersome.

Advice:
Some swear by the method of pinching off all suckers to produce tomatoes that are very large in size. To balance out plant health and plant yield, it is best to leave a few tomato suckers. For increased yields allow 2-4 suckers to grow into secondary stems. Pinch off the rest of the suckers that develop to create a stable and healthy plant.