



High on the Desert Cochise County Master Gardener Newsletter

Vol. 25, No. 2 February 2014

The University of Arizona and U.S. Department of Agriculture Cooperating

The Virtual Gardener—San Marzano Tomatoes

Some of my favorite television shows are on the Food Network, and some of my Food Network heroes are stars such as Mario Batali, Giada De Laurentiis, and Rachael Ray. The spicy tomato-based Italian sauces prepared by these chefs all have one thing in common. They call exclusively for San Marzano tomatoes. For a long time I thought “San Marzano” was just the brand name of the tomatoes that come in a can with a signature red and white label. Then I did a little research on the Web and found how wrong I was!

According to [Wikipedia](#), San Marzano tomatoes, like their more common cousins, the Romas, are an heirloom variety of plum tomato. Plum, or paste, tomatoes have been bred especially to have fewer seeds and denser flesh to make them more suitable for canning and processing into pastes. San Marzanos are indeterminate red tomatoes with elongated fruits averaging about four ounces in weight. They resemble Romas, which are actually a cross between a San Marzano and a couple of other tomato varieties.

Although Italy and tomatoes seem to go together like the proverbial horse and carriage, tomatoes did not arrive in Italy until the 16th century, brought there from the New World by returning Spanish Conquistadors. An Italian botanist, Pietro Andrea Mattioli, named them “pomi d’oro” or “golden apples,” which has since been contracted into the modern Italian word for tomato, “pomodoro.” If you’re really interested in learning more about this subject, there’s an entire book devoted to it—[*Pomodoro!: A History of the Tomato in Italy*](#).

The Wikipedia article cited above perpetuates what is now considered a marketing myth that the first San Marzano seed came to Campania, Italy in 1770 as a gift from the Viceroy of Peru to the Kingdom of Naples and was planted near the present town of San Marzano sul del Sarno near the base of Mount Vesuvius. A less fanciful, but more factual, story (found [here](#)) is that

(Continued on Page 2)

Inside this issue:

Cuttings 'N' Clippings	2
A Few Tips on Seed Saving	3
February Reminders	3
Another Look at Golden Eye	4
High Desert Conference	5
Scholarship Application	5
Ask a Master Gardener	5



COLLEGE OF AGRICULTURE
AND LIFE SCIENCES
COOPERATIVE EXTENSION
Cochise County

Cochise County Cooperative Extension

www.ag.arizona.edu/cochise/mg/

1140 N. Colombo, Sierra Vista, AZ 85635
(520) 458-8278, Ext. 2141

450 S. Haskell, Willcox, AZ 85643
(520) 384-3594

(Continued from page 1)

the San Marzano variety was actually created in the early 1900s by cross breeding three existing varieties already being grown in the area.

According to the [president](#) of a consortium of Italian tomato growers, the Cosorzio San Marzano, the “San Marzano” tomatoes in the red and white labeled can referred to above are fakes! They are grown in New Jersey, and genuine San Marzano tomatoes can only come from the San Marzano area in Campania, Italy. Their tins must bear the words “Pomodoro San Marzano dell’Agro Sarnese Nocerino D.O.P.” and a seven digit number “N° XXXXXXX” on the label. Not only that, but genuine San Marzanos only come in two forms: peeled whole or filets, never pureed, chopped, crushed, diced, or organic. *Caveat emptor!*

So, if you can’t find or afford real canned San Marzano tomatoes, how about growing them yourself? If you would like to try your hand at growing your own this summer, the web pages cited below have detailed information on [seed varieties](#) and [growing techniques](#). A Google search for San Marzano seed will yield a long list of vendors selling the seeds.

From what I read there, growing San Marzanos is no different from growing any other variety of indeterminate tomato, although a number of gardeners have complained that the tomatoes they grew from San Marzano seed did not live up to the hype. One problem may be the seed varieties that are available to buy in the United States. The tomatoes grown in Italy are heirlooms that come from seeds that have been carefully selected for generations



and are unlikely to be found here. The second problem may be the environment. The area around the base of Mount Vesuvius where the “genuine” San Marzanos are grown has a unique Mediterranean climate and soils derived from Vesuvian andesitic lava flows, a combination that is unlikely to be duplicated in southeastern Arizona.

An aside: If you would like to take a pleasant virtual drive around the town of San Marzano and surrounding areas on Google maps, click [here](#), zoom in, and go to Street View. The price is right and you won’t have to worry about sharing the road with Italian drivers.

Until next time, happy surfing!

Gary Gruenhagen, Master Gardener
virtualgardener@cox.net

Cuttings ‘N’ Clippings

✿ CCMGA will hold its next meeting on **Thursday, February 6**, in the Public Meeting Room in Groth Hall at UASV, from **5:00—7:00 p.m.** Mr. Richard Cayer, Operations Manager for the City of Sierra Vista, Department of Public Works will be speaking with us about ***Gardening with Biosolids Compost***. There’s a lot of good, interesting news about this product now being manufactured at the City’s Environmental Operations Park Compost Facility. Come listen to Mr. Cayer educate us on this compost product that so many of us are anxious to use in our gardens this spring. As always, the public is welcome

✿ The next Water Wise talk will be **Saturday, February 1, 9-11:00 a.m. *Prune for Plant Health and Vigor***. Keep your plants healthy by knowing how and what to correctly prune. Bring pruning tools to sharpen. **This is an outside demonstration so please dress accordingly.** The presenter is Bill Cook, Program Coordinator, UA Cochise County Cooperative Extension. Location: University of Arizona Sierra Vista, 1140 N. Colombo Ave, Sierra Vista, AZ.

For information call (520) 458-8278, Ext 2141, or contact Joyce at:

jwilliam@ag.arizona.edu

You can visit Water Wise at:

waterwise.arizona.edu

A Few Tips on Saving Seeds

Saving seed is becoming more and more popular. There are a number of reasons why this is so. First, it saves money. While the expense of a few packets of seed isn't large, nonetheless every penny counts. Second, it's fun and satisfying to plant seed that is truly yours; being self sufficient is rewarding. Saving seed, of course, helps preserve genetic diversity.

For me, the best reason of all to save seed is to be able to select and gradually adapt a variety that does well in my backyard—something that's better suited to my climate and soil. I've only been gardening for a few years, but already I've noticed that there can be significant variation in purchased seeds. For instance, one of my favorite tomato varieties is 'Japanese Black Trifele', a pear-shaped "black" tomato. Seed I purchased from one supplier one year yielded a significantly different 'JBT' than seed purchased the next year from a different supplier. Those from the second supplier were larger, shaped somewhat differently, and had much less tendency to crack than those from the first supplier.

Now, it is certainly true that year to year differences in the weather and other factors are a large influence, but my observations lead me to believe that the seed source itself is important, too. This makes logical sense, after all, it's how we have come to have so many varieties of virtually every plant species. Consider that the thousands of tomato varieties are all descended from one or a few common ancestors. The same thing is true of peppers, cole crops, corn, and on and on. Saving seed from the varieties that do

well in your yard, however you choose to define "well" (bigger, juicier, more insect resistant, *etc.*) from year to year can help you over time to have a garden more in tune with your desires.

Beware, though. Saving seed isn't simply a matter of going into the garden and collecting some seeds. There are a number of factors to consider. For instance, let's say you want to save some squash seed. You might think that's just a matter of picking the biggest, or maybe the tastiest, squash and saving seed from it. Not so! Squash, like many plants, is produced on a plant that has both male and female flowers. Bees and other pollinators transfer pollen from male to female flowers and the female flower doesn't care whether or not the pollen came from its own plant or from the totally different squash variety next to it. Heck, the pollen may even have come from your neighbor's squash plant. So, the squash that you selected may actually contain hybridized seed. Remember, the squash itself is not yet a hybrid. Indeed, squash (which is the fruit of the plant) is actually a part of the female plant. It's basically an ovary. The only part of the plant that contains genetic material from both male and female is the seed itself. The bottom line is that you have no idea what squash from that seed will look like since you only know which plant was the "mom."

Here's another example that shows why seed saving isn't necessarily intuitive. Suppose you plant some vegetable variety early in the spring. After most of the seed has germinated, along comes a late frost that wipes out everything that has sprouted. The few seeds that didn't yet germinate

finally come up and yield whatever it is that they yield. Any seed that you save from these plants may well have a tendency for slow germination, since slow germination is the only reason that these plants lived. That may or may not be a problem, but it's an example of why you need to put some thought into the seed you select.

Seed saving, as the above examples illustrate, isn't necessarily straightforward. There is a lot to consider and much of it is subtle. The subject is certainly more involved than what can be covered in a short article like this. I recommend two books to consult should you be interested in saving your own seed. These books, which I've recommended in prior articles, are *Seed to Seed* by Suzanne Ashworth and *Breed Your Own Vegetable Varieties* by Carol Deppe. Both books will provide insight into what you need to do in order to be a good seed saver. Both are also available at the Sierra Vista Public Library.

Happy gardening!

Bill Schulze, Master Gardener
billwithccmga@gmail.com

February Reminders

- ◆ Winter prune
- ◆ Prune roses
- ◆ Cold-moist stratify seeds
- ◆ Plant bare-root trees
- ◆ Prepare spring planting beds
- ◆ Clean and repair drip irrigation systems
- ◆ Finalize spring garden plans
- ◆ Keep watering!

Another Look at Annual Goldeneye (*Viguiera annua*)

Following Angel Rutherford's article on Arizona Goldeneye (also known as Annual Goldeneye) in the **November issue**, comments were sent in to the Master Gardener Ask a Question web resource. The comments were from a rancher in the San Raphael Valley regarding the plant in its natural setting and were centered on the concern for encouraging its growth.

Annual Goldeneye is a native plant occurring in the grasslands of Southeastern Arizona, as well as several other regions in the state. While no one disputes the fact that during favorable years the plant puts on a beautiful display of yellow across the landscape, there are some concerns on the part of livestock producers and rangeland managers when it comes to an abundance of Annual Goldeneye. Annual Goldeneye has been reported as poisonous by many sources. Most of these report that the cause of poisoning is unknown, but the symptoms point to either cyanide or nitrate poisoning. Cattle are the only class of livestock affected. In general, large quantities of the plant must be eaten to cause losses. However, in some instances only a small amount ingested can be lethal. Most poisoning tends to occur in the fall when Annual Goldeneye growth is at its peak. Poisoning can also occur when other forage, such as grasses, are scarce.

Research in New Mexico during the late 1980's narrowed down the possible source of poisoning. Both plants grown in a greenhouse and in the field were analyzed and tested negative for cyanide, soluble oxalates, alkaloids, and nitro compounds. They



did test positive for accumulating toxic levels of nitrate. In the field, plants in areas of high livestock concentration (watering tanks, holding pens, salt licks, etc.) tested high in nitrates, while plants in areas with low livestock concentration tested with less than toxic amounts of nitrate. The thought is that these areas of high livestock concentration also have high amounts of fecal matter. The fertilizing effect of the manure translates to increased amounts of nitrogen which are taken up by the plants and transformed to nitrate. The nitrate is then converted to nitrite in the rumen (one of the four stomachs in cattle). The nitrite attaches to hemoglobin cells and essentially does not allow the blood cells to transport oxygen to the body. Animals die from lack of oxygen.

During times of possible nitrate poisoning, ranchers do have possible management options. They can move livestock to pastures without Annual Goldeneye, if available. Keeping the rangeland in good condition with a good grass cover is another management tool. However, in some years the Goldeneye will be abundant due to climatic conditions

regardless of the range management situation.

As with many landscape plants, what looks good in the garden, may take on another look out on the range. As the rancher stated in his comments regarding the November article, "...the Arizona Goldeneye is indeed a show stopper visually...I have taken gorgeous photos of its display and can appreciate both aspects but conscious understanding of what keeps our precious grassland environment vital requires knowing both sides of the story."

Sources:

- Alison, C. 1991. *Livestock-Poisoning Plants of New Mexico Rangelands*. New Mexico State University Cooperative Extension Service Circular 531
- Coronado RC&D. *Poisonous Plants of Southeastern Arizona*
- Parker, K.F. 1972. *An Illustrated Guide to Arizona Weeds*. The University of Arizona Press
- Schumtz, E.M., Freeman, B.N., and R.E. Reed. 1968. *Livestock-Poisoning Plants of Arizona*. The University of Arizona Press
- Williams, M.C. 1989. *Accumulation of nitrate by annual goldeneye and showy goldeneye*. *Journal of Range Management*, Vol. 42, No. 3, pp. 196-198

Kim McReynolds, UA Area Extension Agent, Natural Resources



Cochise County Master
Gardener Newsletter Editor
Carolyn Gruenhagen

High on the Desert

The 21st annual Cochise County Master Gardeners Association's High Desert Gardening & Landscaping Conference will be held on March 13 and 14, 2014 in the Student Union Building on the Sierra Vista campus of Cochise College. This conference is the longest running Master Gardener Conference in the state of Arizona. As always, the conference features interesting and informative speakers, plus we've added some hands-on gardening workshops. For the \$100 registration fee (\$120 after March 8), you'll be provided a continental breakfast and a full lunch both days, receive a nice gift bag, have a chance at some great door prizes (the prizes are given away, not raffled!), AND have the opportunity to listen to and learn from a wide variety of horticulture experts. We'll also have a number of top notch vendors with products and information related to all things gardening.

Conference information, including the Conference registration form, is available here: <http://cals.arizona.edu/cochise/mg/events.htm>

Bill Schulze, Master Gardener



High Desert Gardening & Landscaping Conference Scholarship Application

The Cochise County Master Gardeners Association (CCMGA) is awarding up to three full scholarships to the 2014 High Desert Gardening & Landscaping Conference to be held at Cochise Community College, Sierra Vista, AZ, March 13 and 14, 2014.

Applicants are invited to submit an essay on one of the following topics:

- Gardening for food production**
- Landscaping with native plants**
- Environmental stewardship**

Essays must meet the following criteria:

1. 750 to 1,000 words in length.
2. Represent original scholarship and be suitable for publication. All references and authorities cited must be properly attributed.
3. Please submit as an attachment (plain text format) to an e-mail to:

ccmgasecretary@gmail.com

Subject: Conference Scholarship

4. Entries must be received no later than close of business on February 10, 2014. Entries will be judged by a committee of Master Gardeners appointed by the President of CCMGA. The awardees will be notified no later than February 25, 2014.

By submitting your entry you understand that it becomes the sole property of Cochise County Master Gardeners Association and may be published in the Cochise County Master Gardener Newsletter*.

*The Cochise County Master Gardener Newsletter is a publication of the University of Arizona Cooperative Extension.

Ask a Master Gardener

Cochise County Master Gardeners are available to answer your gardening questions either by telephone call to the Cooperative Extension Office or on-line on our web site at:

<http://ag.arizona.edu/cochise/mg/question.htm>

The following comes from our web site's Cochise County Gardening Calendar: <http://ag.arizona.edu/cochise/mg/gardencalendar.htm#February>

January marks the arrival of bare-root plants in the nurseries. Many plants available are fruit and shade

trees, roses, grapes, and cane fruits. Why buy bare-root? One reason is that it is cost effective. Savings can be up to 70% buying bare-root over container plants. Also, there is a much wider variety of plants to select from in bare-root season.

When buying bare-root, the nursery will have the plants "heeled" into some type of loose, moist material such as sand or sawdust. Check the roots, they should be fresh and plump. Try to time it so planting occurs within two days after purchase. It's a good idea to soak the roots, trimming any broken roots, for a few hours up to 48 hours in water be-

(Continued on page 6)

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Jeffrey C. Silvertooth, Associate Dean & Director, Economic Development & Extension, College of Agriculture and Life Sciences, The University of Arizona. The University of Arizona is an equal opportunity, affirmative action institution. The University does not discriminate on the basis of race, color, religion, sex, national origin, age, disability, veteran status, or sexual orientation in its programs and activities.

The information given herein is supplied with the understanding that no discrimination is intended and no endorsement by Cooperative Extension is implied.

Any products, services, or organizations that are mentioned, shown, or indirectly implied in this publication do not imply endorsement by the University of Arizona.

(Continued from page 5)

fore planting. A root stimulator product may be added to the water. If planting will not occur within two days, place the roots in moist sand, sawdust, or mulch until planting time. Do not let the roots dry out and protect them from frost.

Dig the hole large enough to accommodate the roots. Place the plant into the hole ensuring that, if it is a grafted plant, the graft bud sits slightly above the soil level. Backfill with the native soil that was dug out. Soil amendments are not necessary and no fertilizers should be added to the soil or hole. Make a ridge of soil around the hole to form a watering basin

and water to remove any air pockets. Do not compact the soil by tamping down on it with the foot. Cover the area with at least three inches of mulch, being careful not to place it up against the trunk.

Studies have shown that it is not necessary to prune the branches back by one-third to compensate for the small root mass. In fact, it could retard the growth as branch tips contains high levels of auxins which promote growth. Bare-root plants are in the dormant stage and do not require large amounts of water as this could promote root rot. Check the soil every few days with a soil probe and water when the top three to five inches of the soil is dry.

A soil probe is simply a long metal rod, 24 to 30 inches long, that is pushed into the soil and pulled out. Soil will stick to the rod where it is wet, very much like sticking a toothpick into a cake to see if it's done baking. Usually, when the rod hits dry soil it will not penetrate any further. So the depth of how far down a soil probe can be pushed into the ground is a good indicator of soil moisture depth. After watering, the probe can be used to check whether irrigation has reached the proper root depth. A soil probe is an effective tool to help assist the gardener to determine the watering needs of various landscape plants to include the vegetable garden and lawns.

Cochise County Master Gardeners Association in conjunction with The University of Arizona Cooperative Extension presents . . .

I



The 21st Annual High Desert Gardening & Landscaping Conference

High on the Desert



March 13 & 14, 2014
Cochise Community College
Sierra Vista, Arizona

[Register here](#)

An educational experience for everyone with an interest in gardening. For information contact U of A Cooperative Extension 1140 N. Colombo Sierra Vista, AZ (520) 458-8278, Ext. 2141. www.ag.arizona.edu/cochise/mp/
A registration fee is required. The fee is \$65.00 for one day or \$100.00 for two days, which includes breakfast and lunch both days.