



Master Gardener Newsletter

New Mexico State University
Cooperative Extension Service
US Department of Agriculture
College of Agriculture & Home Economics

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Autumn King Seedless Grapes: Big and Luscious

Plump, sweet and delicious Autumn King seedless grapes may soon become a favorite fresh-fruit snack for fall. This new, light-green — technically known as “white” — grape from Agricultural Research Service plant geneticists in California is firm, juicy and ready to harvest in late October.

That’s about the time the U.S. harvest of another white seedless grape, summer-time classic Thompson Seedless, is winding down. What’s more, Autumn King stays firm and sweet in cold storage, meaning that it may be available through late December.

The attractive, amply-sized grape is larger than Thompson Seedless, according to ARS horticulturist David W. Ramming, who developed the grape over nearly a decade of research and testing. He worked in collaboration with plant technician Ronald L. Tarailo. Both are with the agency’s San Joaquin Valley Agricultural Sciences Center near Parlier, California.

Autumn King, patented by the scientists and licensed to the industry-sponsored California Table Grape Commission, Fresno, was made available for the first time last year for grapevine nurseries to sublicense. So far, sublicensees have — in all— grown more than 100,000 young

Autumn King grapevines for planting in central California’s commercial vineyards, where most of the nation’s fresh-market grapes are grown. Fruit from these vines may begin showing up in supermarket produce sections within two to three years.

Autumn King joins the series of superior white, red and blue-black fresh-market and raisin grapes that the expert Parlier team has developed. Some of those grapes — though not Autumn King— got their start in life from a laboratory technique called embryo rescue. Ramming was the first to successfully apply, and refine, the technique specifically for breeding seedless grapes.

Plant physiologist Richard L. Emershad of Ramming’s group carries out the procedure. He carefully excises undersized, otherwise-doomed embryos that result when two seedless grapes parent a new seedless offspring. Then he nurtures embryos on a gel of special nutrients until they form a plant that’s ready for the greenhouse and, later, the vineyard.



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SPECIAL POINTS OF INTEREST

Master
Gardener
Meeting
Wednesday
January 17,
2007



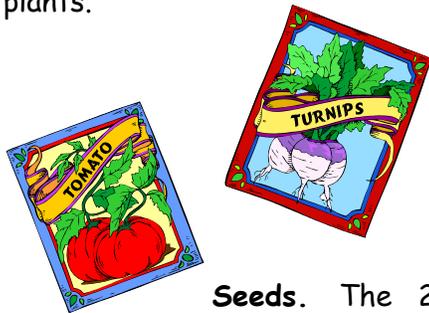
GARDEN CALENDER

JANUARY 2007



Bare-Root Plants.

Plant as soon as you find them. This is your most economical way to buy plants, but your planting window is shorter than containerized plants. Nurseries will be getting these plants in this month. Usually, fruit trees, berry plants, roses, perennial flowers, and some woody plants.



Seeds. The 2007 season seed packets should be in the nurseries now, if not it will be shortly. Many on-line catalogs are available now to look at new varieties of vegetables and flowers. Find some new varieties that you want to trial and let others know about your results.

Manage Weeds. Many cool season weeds have already emerged, but there are many more to come in the next couple of months. If we get any more moisture, the weeds will take us over. Whether you fight them organically or not, the key is to kill them before they set seed. It is much easier to get rid of small weeds than it is large weeds! Hand-pull or hoe them out. Call for chemical recommendations.

Apply Dormant Oil.

After pruning, spray deciduous fruit and flowering trees and roses with horticultural oil (dormant oil). This oil spray helps to smother insects and their eggs. For plants with disease problems, add either lime sulfur or fixed copper into the oil. Spray entire plant to where it is dripping off

Dormant Season

Pruning.

Remove all deadwood, crossing branches, winter/storm damaged limbs and twiggy growth. Different fruit trees require different techniques. Consult a good pruning reference book before you proceed. Don't prune spring blooming shrubs now.



Winter Irrigation.

Be sure that plants receive some kind of moisture during the winter season. Dry plants are more easily damaged. Be careful to drain hoses and other watering devices to prevent freeze damage.



HAPPY BIRTHDAY!!

January 2

Lynn Moseley

January 10

Ruth Harwell

January 18

Colette Bullock

January 26

Ruth Omick

January 28

Charles Deems

January 28

Bonnie Votaw

January 29

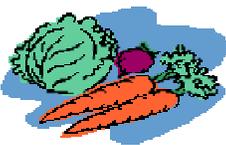
Jeanine Castillo

January 30

SEEDS OF CHANCE

THE SELFERS AND THE OUTCROSSERS

It's snowing seed catalogs - a veritable blizzard at this time of year offering unlimited potential for spring. These piles of catalogs remind me of the seed diversity in our modern culture. Where, what to select from this unlimited supply is a question each gardener needs to answer. Where, what dreams to explore, what novelty to introduce, what cultivars to give space to in a limited garden, is the quandary of each winter. Choices unlimited are as close as the World Wide Web, and with seeds delivered direct to the door - easy temptations for my dreams of spring.



But what if new seeds only arrived with the occasional traveling stranger, or came carried by hand from other gardeners or farmers? What if the seeds I need came only from my own plantings? How then would I approach the promises of spring? It was not too long ago, that each garden was mostly its own genetic reservoir, and each farmer exploited the best plants to supply future seeds. Nor was it long ago that new varieties arrived smuggled in cuffs, hems and hatbands.

What do I need to know in order to return to the seed systems of yesterday? What knowledge and commitment is required to become my own genetic reservoir - to use the best of my own plants to reseed garden beds? And how would I change my planting, harvest and renewal to fill both the table and garden, today and tomorrow?

This is where we need to know the difference between Selfers and Outcrossers - between flowers that pollinate themselves and those dependent on pollen from others. This single difference in flower proclivity may determine what plants you save seed from, how you plant them and how you garden around them.

The Selfers, or those that are mostly self-pollinating, are the easiest to manage. Beans, fava

beans, cowpeas, peas, lettuce, potatoes, sweet potatoes, garlic and tomatoes (with some exceptions,) are the common Selfers in a kitchen garden. Peas, lettuce, beans, fava beans, cowpeas and tomatoes have a flower structure that eliminates or severely reduces cross-pollination. Therefore, you can be plant them closely and harvest seeds that are mostly true to type. With garlic, there is never any cross-pollination as the entire group has sexually dysfunctional flowers and potato seed rarely reproduces true to type.

All the other plants grown in kitchen gardens are Outcrossers (mostly) that have spacing, timing and population size requirements for producing vigorous, true to type seed. For example, all squash varieties of one species (there are four common species) will cross-pollinate with others of the same species, but will not with other species (alas, again there are exceptions). So they must be isolated by space, time, or physical restrictions and hand pollinated. All radishes will cross-pollinate (I know from experience), and the mustard family is particularly complex in their sexual practices - with some that are both Selfers and Outcrossers. All of the onions will cross-pollinate, but will not cross with leeks. (Top-setting onions may be an exception)



An additional complication with saving seed of Outcrossers is their tendency toward inbreeding depression, which occurs when closely related plants reproduce with each other. It is particularly prevalent in small populations of plants as found in kitchen gardens. Generally, a population of 100 plants is recommended to avoid this detrimental influence of recessive genes. Fortunately, not all Outcrossers are susceptible, and there are ways to work around the problem. So, growing both food and seeds from these Outcrossers complicates the planning and management of the kitchen garden, and forces the gardener to make choices about which seeds to save and which to purchase each year.

In addition, the seed gardener needs to know how to harvest, clean, test and store seeds. Fortunately,

much has been written about the hows of seed handling for all of the common kitchen garden plants, such as the following example for saving tomato seed:

Saving Tomato Seeds

If you plan to save seeds from your tomato plants, make sure you have open pollinated varieties. There are many hybrids available today as both seed and seedling plants, which will not produce true to type from saved seeds.

There are at least 18 seed transferred tomato diseases. Do not select fruit that are miss shaped, or show evidence of diseases, and do not select from plants that show diseases. Do not save seed from fruit that has fallen to the ground. (I personally do not save seed from late blooming plants or from late season fruit.) Most tomatoes are self-pollinating, except for the "potato leaf" varieties, like Brandywines, that can cross out with other varieties. It is advisable to isolate the "potato leaf" varieties by at least 50-100 feet for seed saving. It is also advisable to grow a minimum of six plants in order to avoid saving seed plants that are off types or not true to that variety.

Soaking the seeds in water until a skim of mold begins to form on the water surface is advisable, but do not let it go beyond 72 hours. The slight fermentation kills some seed transferred diseases and removes or reduces substances that inhibit seed germination. Rinse the seeds well with fresh water and dry on a screen surface or in a fine mesh or nylon bag. Drying them on paper or fabric causes them to stick to the surface. Stir occasionally while drying to prevent the seeds from sticking together. Do not dry seeds in direct sun or at temperatures above 95 degrees F. Store in a cool dry place and they will retain viability for at least three years.

till next month,

Darrol Shillingburg

Doña Ana Extension Master Gardener

(available at: www.darrolshillingburg.com/GardenSite/MasterGardener.html)

Additional source of information:

[Seed to Seed: Seed Saving and Growing Techniques for Vegetable Gardeners](#) by Suzanne Ashworth, Kent Whealy

NOFA (Northeast Organic Farming Association) Handbook series - [The Wisdom of Plant Heritage: Organic Seed Production and Saving](#) by Bryan Connolly with contributing editor.



HELLO — It is now time for you to take a break from shopping and eating. Go to www.xeriscapenm.com and join those who have registered for the March 8-9, 2007 Conference! We appreciate all of you who have registered early and now encourage more to sign up. Still a few places left for the Speaker Reception./Dinner. You know you will be there come March 8—so sign up now!! Thank you.

Scott Varner, Executive Director

Xeriscape Council of NM

scott@xeriscapenm.com

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POME, SWEET POME: EXPANDING THE NATIONAL QUINCE COLLECTION

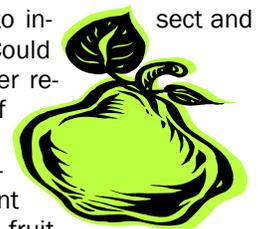
Once a staple of American orchards, today the quince tree grows on fewer than 200 commercial acres in the United States. But this bright-yellow, fuzzy cousin of pears and apples is getting a boost from Agricultural Research Service (ARS) scientists in Corvallis, Oregon.

Recent foreign acquisitions have expanded the quince collection at the ARS National Clonal Germplasm Repository (NCGR) in Corvallis. Now scientists there are examining the characteristics and genetic makeup of these cultivars for desirable agricultural traits, such as resistance to fire blight.

The NCGR collection is extremely diverse. It includes more than 100 clones, including 41 edible varieties, 22 rootstock varieties and two extremely rare quince-pear hybrids. Researchers hope the genetic diversity of the collection will reveal positive traits such as disease resistance and cold-hardiness.

Historically, the quince tree's susceptibility to insect and disease threats has limited its cultivation. Could these new accessions hold the key to greater resistance? It's possible. And the diversity of the NCGR quince collection increases the likelihood that researchers will discover beneficial gene, according to Joseph Postman, plant pathologist and curator of the NCGR pome fruit collection.

In the past, researchers have observed variations in susceptibility to fungal leaf spot diseases within the quince collection. If they discover differences in fire blight susceptibility within these newly acquired cultivars, scientists could selectively breed the trees for greater resistance. Quince plays an important role in pear production because it is one of the only reliable dwarfing rootstocks available for grafting to pears. Dwarfing reduces maintenance and harvesting difficulties, and encourages earlier fruit production.





CHANGES IN THE EXPORT BANANAS BUSINESS



In last month's article on Genetic Diversity I mentioned the current threat to Cavendish bananas caused by black leaf streak and the loss of native disease resistant varieties. I have since then discovered encouraging examples of small and large plantations shifting to organic growing practices that reduce the environmental and human health damage caused by excessive pesticide use. In addition, some organic growers are instituting fair trade practices that improve the living conditions and general health of plantation workers.

Obviously, sustainability is possible if we are willing to pay a few pennies more for a banana and support those growers dedicated to fair trade

practices. In some cases, buying organic alone does not get enough of the money to growers to improve their way of living. The exception is Chiquita Organic Bananas as they have instituted both organic and fair trade practices.

Resources:

Bent Business - Ode Magazine Archive <http://www.odemagazine.com/article.php?aID=3633>)

Bananas produced with respect for people and the environment - they do exist. But they are hard to find in Latin America, in the middle of rampant exploitation and excessive use of chemical pesticides. Ode sent Marco Visscher to Ecuador, the world's largest banana exporter. He learned who is paying the price for cheap bananas - and discovered a more 'tasteful' alternative.

Top Banana - Ode Magazine, Dec. 2006

<http://www.odemagazine.com/news.php?nID=1006&PHPSESSID=4ebe95f876f7b820899f146ff345b52c>

When Dave McLaughlin, senior director of environmental affairs for Chiquita, sat down to talk with representatives of the Rainforest Alliance, he did so in secret.

Genetic Diversity

<http://www.darrolshillingburg.com/GardenSite/GeneticDiversity.html>

For your convenience, links to these references are available at: <http://www.darrolshillingburg.com/GardenSite/MasterGardener.html>

Darrol Shillingburg

Doña Ana County Extension Master Gardener

HIGH DESERT GARDENING CONFERENCE TO BE HELD FEBRUARY 15 AND 16

The Cochise County Master Gardeners present the 14th Annual High on the Desert Gardening & Landscaping Conference, to be held at The Palms, Sierra Vista, Arizona. With over 20 sessions to choose from the conference benefits all gardeners, novice and seasoned. Sessions will examine the unique opportunities and challenges that gardening in the southwest has to offer. The High on the Desert Vendors are open to the public. Discover low water plants and succulents, rainwater harvesting barrels, desert gardening books, artwork, tools & supplies, information booths and much more! Vendors hours are 7:30 am through 5:00pm.

The High Desert Registration Form is now on line at <http://ag.arizona.edu/cochise/mg/pdf/07regis.pdf>. For conference information please call: (520) 458-8278 or visit our web site at: www.ag.arizona.edu/cochise/mg/

Rosemarie Burke & Cheri Melton

Master Gardeners, Publicity Chairpersons



ARS Seeks Partner for New Environmentally Friendly Fertilizer

The Agricultural Research Service (ARS) is seeking a company to license a new, environmentally friendly, slow-release fertilizer for lawns, turf and other crops.

This new fertilizer technology can significantly reduce the potential for leaching of nutrients into groundwater, streams and rivers by as much 97 percent for phosphorus and 84 percent for nitrates in greenhouse studies.

Slow-release fertilizers currently on the market typically work by applying a sulfur or polymer coating to fertilizer granules. The coating wears away slowly, delaying the release of fertilizer. But once the coat is gone, the remaining fertilizer becomes available in a fast cascade.

In contrast, the ARS slow-release system is based on ion exchange mechanisms that more closely mimic natural soil processes, which gives the new technology a more consistent release over time.

ARS is seeking a cooperative business partner to license the technol-

ogy and develop it into commercial products—especially one for use on lawns and turf, which tend to be major contributors to nutrient runoff and leaching.

The fertilizer system also can be used on almost any crop and could be customized to the specific needs of a drop throughout its life cycle, according to co-developers Robert E. Sojka, director of the ARS Northwest Irrigation and Soils Research Laboratory in Kimberly Idaho, and former ARS soil microbiologist James A. Entry.

For further details about the new technology, please visit: <http://ars.usda.gov/research/patents/patents.htm?serialnum=11504401>

For ARS licensing information, visit: <http://ars.usda.gov/business/docs.htm?docid=768>



CACTUS AND SUCCULENTS CRASSULA

Crassula is commonly called jade plant, silver solar plant, Chinese rubber plant, scarlet paint brush, string-of-buttons among others. These easy to grow succulent house plants belong to a large family of almost 300 species, mostly natives of southern Africa.

Crassulas grow best if given bright light year round, but filtered sunlight and indirect light, such as that reflected from a white wall, is sufficient to keep them healthy. A combination of equal parts of sharp sand and commercial potting soil is a good mixture for all crassulas. These succulents require temperatures between 68 to 72 degrees during the days and 50-55 degrees at night. During their growth period in spring and summer, keep the soil moist at all times by watering liberally, so water runs out of the pot into the saucer. Empty the saucer after watering so roots do not rot. Feed weekly in spring and summer with a solution of high phosphorus fertilizer. Repot when necessary at any season. Crassulas like to be crowded in their pots. Propagate at any time from stem or leaf cuttings. Outdoors, crassulas will grow in Zone 10.

From: Time Life Cacti and Succulents.

FACTS ABOUT ANTS . . .



Ants lay a scent trail of pheromones to lead other ants from the nest to a food source. Ants release other pheromones with a distinctive smell to warn nestmates of danger.

Leaf-cutter ants bring pieces of leaves back to their nests

to fertilize gardens of fungi.

Ants use their antennae for hearing, smelling, touching and tasting.

Ant nestmates share their food through mouth-to-mouth regur-



gitation.

Ants have lived on earth for more than 100 million years, according to dated fossils preserved in amber.

All worker ants—the vast majority of any ant colony—are female, not male.

From: Joey Green's Gardening Magic

From the Desk of

Happy New Year to everyone. I am sure everyone is ready to get going into this New Year with the DAC Master Gardener Program. We hope to have an active year with lots of events planned. Our first monthly meeting is January 17, at the DAC Office starting at 9:00 am. For the new Interns, this meeting counts as an activity towards your educational hours, but also helps you to get to know your fellow MG's and what the program as a whole is doing. We usually have a MG Newsletter meeting prior to the start of the meeting. This is for people either writing for the newsletter or those who would like to write an article. Articles are turned in at this time.

This month only, just after the meeting, we will be having a MG Hotline Training for the new interns and other interested members. We have moved the Hotline Room to the first office in the hall, just past the secretaries. I think we will have a little more room and a lot less confusion and distraction in the new location. Please work to keep this site clean and nice.

We had an excellent awards and graduation ceremony for those who missed the day. We will have your graduation and awards materials at the monthly meeting for those who were unable to attend. Franklin and Desiree Simon did an excellent job helping set-up and clean the facility for us. Thank you very much. Barbara Arispe and MaryVee Cammack helped with table decorations and the desserts. Thanks to all that helped out. I know I missed a few by name. Congratulations to all our award recipients and graduates.

Some of you may know that our newly hired agent has resigned, and we will be looking for new agent to fill that position. In the mean time, my time will be spread between several ongoing projects, administrative duties, attendance at some regional conferences, and working with the MG program. I will be in and out of the office a lot this month and next. I am balancing a lot of balls right now plus looking at retiring this year or next.

The Cochise County Landscape and Gardening Conference are scheduled for February 15 & 16 in Sierra Vista, AZ. The Think Trees conference in Albuquerque is January 25 & 26. The NM Organic Conference is February 16 & 17 in Albuquerque. For more information on these conferences, contact Barbara or myself.

Horticulturally yours,

John M. White

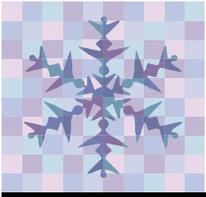
Dona Ana County Extension Director

County Extension Agent – Horticulture, Agronomy, 4-H and Adult

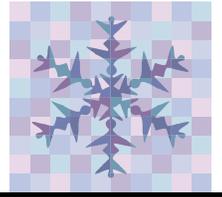


If you are an individual with a disability who is in need of an auxiliary aid or service to participate in an Extension activity, please contact John M. White at 505-6649 at least two weeks prior to the event.

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January 2007



Sun

Mon

Tue

Wed

Thu

Fri

Sat

<p>SIGN UP FOR THE MASTER GARDENER HOTLINE!</p> <p>HAPPY NEW YEAR!!!</p>	1	<p>2 MG Telephone Hotline</p> <p>9 am to 1 pm Extension Office</p> <p>George Rushing Darrol Shillingburg</p>	3	4	<p>5 MG Telephone Hotline</p> <p>9 am to 1 pm Extension Office</p> <p>Desiree Simon Franklin Simon</p>	6
<p>7</p> 	8	<p>9 MG Telephone Hotline</p> <p>9 am to 1 pm Extension Office</p> <p>Ann Shine-Ring Yvonne Kinn</p>	10	11	<p>12 MG Telephone Hotline</p> <p>9 am to 1 pm Extension Office</p> <p>Desiree Simon Franklin Simon Linda Fredrickson</p>	13
<p>14</p> 	15	<p>16 MG Telephone Hotline</p> <p>9 am to 1 pm Extension Office</p> <p>Lynn Moseley Dee Davis</p>	<p>17 MG Newsletter Meeting 8:00–9:00 am</p> <p>MONTHLY MEETING 9:00–11:00 am</p> <p>John M. White</p>	18	<p>19 MG Telephone Hotline</p> <p>9 am to 1 pm Extension Office</p> <p>MaryVee Cammack</p>	20
<p>21</p> 	22	<p>23 MG Telephone Hotline</p> <p>9 am to 1 pm Extension Office</p> <p>MaryVee Cammack Yvonne Kinn</p>	24	<p>25 Think Trees Conference</p> <p>Albuquerque, NM</p> <p>All Day Event</p> <p>John M. White</p>	<p>26 MG Telephone Hotline</p> <p>9 am to 1 pm Extension Office</p> <p>Kathi Barit MaryVee Cammack</p> <p>Think Trees Conference Albuquerque, NM</p>	27
<p>28</p> 	29	<p>30 MG Telephone Hotline</p> <p>9 am to 1 pm Extension Office</p> <p>Lynn Moseley</p>	31		