



# Master Gardener Newsletter

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

Dona Ana County Office  
530 North Church Street  
Las Cruces, NM 88001

Phone: (505) 525-6649 Fax: (505) 525-6652

## TROPICAL TRAITS FOR TEMPERATE BEANS

Dry common beans — favorites like pinto, kidney, navy, red, black and snap — are grown mostly in the north-central and western regions of the United States. But thousands of miles away, Agricultural Research Service (ARS) geneticist Timothy Porch is working to make good beans even better.

Porch conducts research at the Tropical Agriculture Research Station in Mayaguez, Puerto Rico. He is looking for ways to reduce heat stress in common beans (*Phaseolus vulgaris*) grown in the continental United States by breeding heat-tolerant varieties.

Most common beans are adapted to relatively cool climates. But in the United States, common beans are cultivated at average temperatures that can exceed 86 degrees Fahrenheit during the day. These hot summers can hinder the reproductive development of bean crops, which in turn results in smaller potential yields.

However, tropical varieties of *Phaseolus* contain a much greater range of genetic diversity than the types commercially cultivated in the United States, and may carry

traits that protect against heat stress. Porch is trying to bolster U.S. beans with high-temperature adaptations and other producer-friendly traits, such as drought tolerance and disease resistance.

In his search to find novel genetic traits, Porch has worked with two major germplasm centers: the International center for Tropical Agriculture in California, Colombia and the ARS Western Regional Plant Introduction Station at Pullman, Washington.

Porch's research will support plant breeder's efforts to develop new bean varieties to meet market demands, increase yields and lower consumer costs. Producers will also be better positioned to respond to possible challenges in the future from emerging diseases and climate change.

Read more about the research in the November/December 2007 issue of Agricultural Research magazine, online at: <http://www.ars.usda.gov/is/AR/archive/nov07/beans1107.htm>

ARS is the US Department of Agriculture's chief scientific research agency.

Volume 9 Number 2

February, 2008

### Inside this issue:

Veggie Soybeans About to Get Even Sweeter	2
February Garden Tips By Dixie LaRock	3
Levels of Difficulty Growing Food Plants By Darrol Shillingburg	4
Winter Gardening Update By Dee Davis	5
Master Gardener Profile: Tom Packard By Ann Palormo	5
Master Gardener Matters February	6
Calendar of Events	7
March Calendar of Events	8

Master Gardener Meetings

Wednesday

February 20, 2008

March 19, 2008

See you there !!!

## VEGGIE SOYBEANS ABOUT TO GET EVEN SWEETER

Sweeter edamame soybean varieties for organic farmers are being developed by Virginia State University (VSU) and Agricultural Research Service (ARS) scientists.

Tadesse Mebrahtu, a plant breeder with VSU in Petersburg, VA, is developing new varieties of this large- green vegetable soybean in cooperation with Thomas E. Devine, a geneticist with the ARS Sustainable Agricultural Systems Laboratory, Beltsville, Md.

Mebrahtu and Devine have found five types of vegetable soybeans with higher-than-usual levels of sugar. Mebrahtu and his VSU colleagues do the hybridization and chemical analyses for sucrose and total sugar content.

These five types serve as the parent lines for new lines of edamame.

Edamame have large beans that are harvested when still green. They are boiled and slipped out of their pods and added to everything from salads to succotash, including mixed and stir-fried vegetables, soups, and casseroles. They are an increasingly popular health food in this country and standard fare in Asian countries.

On Devine's part, the search for sweeter edamame varieties for organic farmers stemmed from his more than two decades of breeding giant soybean plants for livestock forage.

ARS is the US Department of Agriculture's chief scientific research agency.



## TREE SEEDLINGS AVAILABLE TO LANDOWNERS

Santa Fe: The Forestry Division of the New Mexico Energy, Minerals and Natural Resources Department reports its tree seedling sales are continuing at a swift pace. Since December, State Forestry has sold approximately 64,000 trees in 46 species through its Conservation Seedling Program. Seedlings are available to landowners who own at least one acre of land in New Mexico and who agree to use the trees for conservation purposes including erosion control, wildlife habitat, reforestation, riparian restoration, windbreak establishment, Christmas tree plantations and various other conservation needs.

All proceeds are re-invested into the long-running program.

"The continued growth of our seedling conservation program is thanks to improvements to our on-line ordering and the quality of the trees we distribute," says Conservation Seedling Program Manager Carol Bada. "We're also seeing an increase because New Mexico residents are taking an active role in land management and conservation."

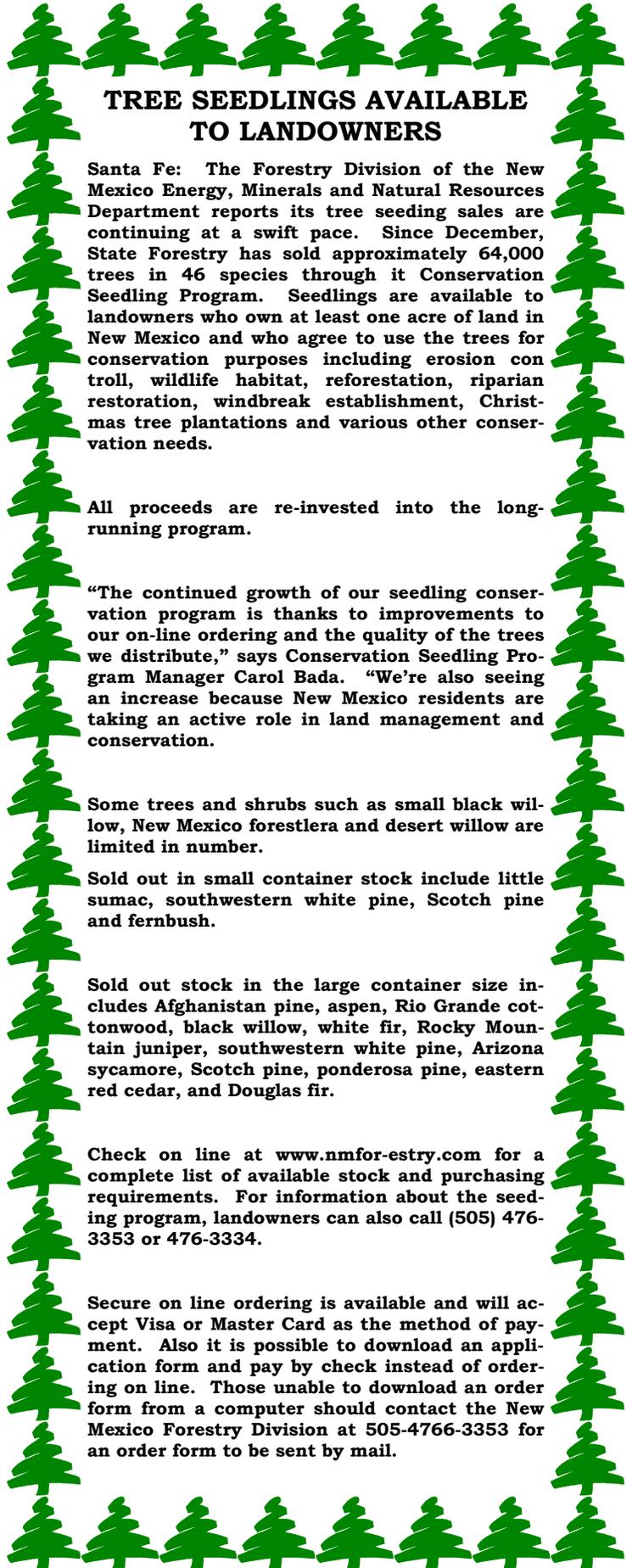
Some trees and shrubs such as small black willow, New Mexico forestiera and desert willow are limited in number.

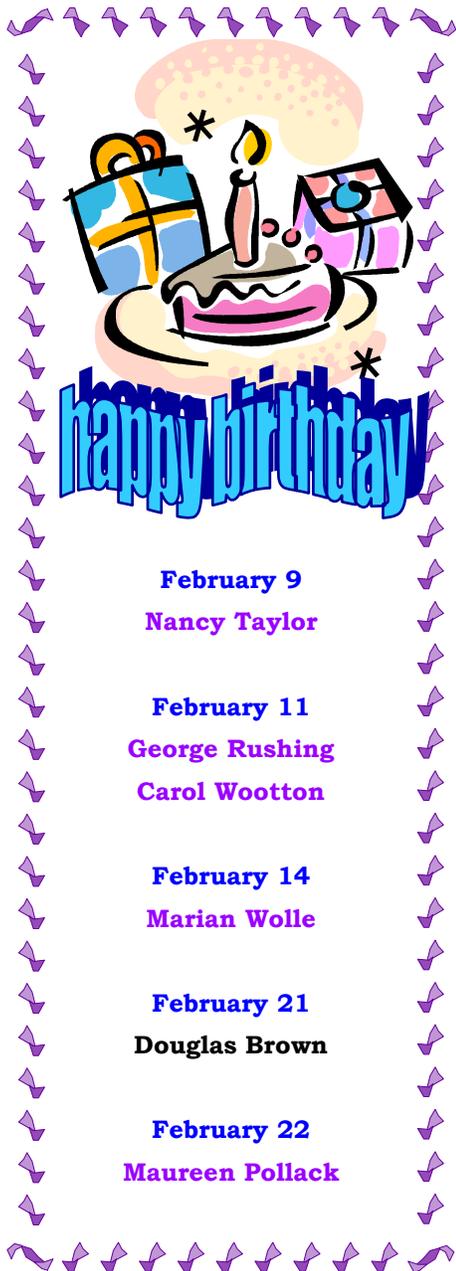
Sold out in small container stock include little sumac, southwestern white pine, Scotch pine and fernbush.

Sold out stock in the large container size includes Afghanistan pine, aspen, Rio Grande cottonwood, black willow, white fir, Rocky Mountain juniper, southwestern white pine, Arizona sycamore, Scotch pine, ponderosa pine, eastern red cedar, and Douglas fir.

Check on line at [www.nmfor-estry.com](http://www.nmfor-estry.com) for a complete list of available stock and purchasing requirements. For information about the seedling program, landowners can also call (505) 476-3353 or 476-3334.

Secure on line ordering is available and will accept Visa or Master Card as the method of payment. Also it is possible to download an application form and pay by check instead of ordering on line. Those unable to download an order form from a computer should contact the New Mexico Forestry Division at 505-4766-3353 for an order form to be sent by mail.





**February 9**

**Nancy Taylor**

**February 11**

**George Rushing**

**Carol Wootton**

**February 14**

**Marian Wolle**

**February 21**

**Douglas Brown**

**February 22**

**Maureen Pollack**

## FEBRUARY GARDEN TIPS

By Dixie La Rock

### It's Time To:

February is typically a transition month; the worst of winter is over, theoretically. Finish up last month's chores and cool season planting. Add to your list the following:

#### Trees and Shrubs

Plant bare root trees, shrubs, blackberries, and roses

Prune bush roses on Valentine's Day. Wait until after spring bloom to prune climbers.

#### Flowers and Bedding Plants

Sow seeds of perennial and hardy annual wildflowers such as columbine, penstemon, dianthus, candytuft, larkspur, pansies, stock, and Johnny jump-ups. Later in the month check nurseries for transplants of these and other favorites.

Start caladium tubers indoors for transplant later.

#### Vegetables

Plant perennial crops such as asparagus, horseradish, and rhubarb. Also plant beets, cabbage, broccoli, cauliflower, collard greens, mustard greens, and Irish potatoes.

Plant parsley, rosemary, and other hardy herbs this month.

#### Lawns

If your cool season turf is dense, remove browned leaf tissue by moving, then fertilize using a complete product with a 3-1-2 ration such as 15-5-10. Apply 1 lb N/1000 ft<sup>3</sup>,

If necessary, apply a pre-emergent herbicide to control warm season weeds. Follow label directions carefully.

#### Miscellaneous

Rake up fallen leaves and clean up perennial beds to discourage disease and insect problems later in the year.

Add the leaves and grass clippings to the compost pile.

Harvest pecans and pick up fallen fruit again to prevent pest damage

Begin removing extra mulch applied to insulate delicate plants but be prepared with a sheet or towel in case temperatures dip too low.

Keep everything well watered. Spring winds are brutal. Foundation plants, turf, and ornamentals all need extra .

**Q:** Most soil recipes call for perlite, vermiculite or both. What are they and what's the difference between them?

**A:** Perlite and vermiculite are both minerals that are processed at high temperature to make them explode into small, lightweight, puffy pieces.

They share many traits that make them valuable components in a growing medium. Their size and shape make channels for the flow of air and water, helping to aerate the soil and providing drainage. They also prevent the growing medium from drying out too quickly because they hold on to water. But they do it differently and that difference is important. Perlite holds water only on its surface, vermiculite absorbs water, as much as 16 times its weight, making it a much wetter growing medium.

# Levels of Difficulty Growing Food Plants

Gardeners tend to treat all food plants as though they have the same nutritional requirements, when in fact; they fall into three broad groups with light, medium and heavy nutritional needs. This grouping is determined by the degree of inbreeding and refinement required to develop different varieties and by timing and seasonality. Gardeners that can sort food plants into groups organized by the difficulties in growing them, increase their success at consistently putting food on the table.

The chart below ranks members of the cabbage family according to growing difficulty and levels of soil nutrition needed to grow them successfully. Broccoli is rated both moderate and difficult to grow depending on seasonality. Here, the “window of opportunity” for planting broccoli in spring is very small, but in fall, the only caution is having adequate soil nutrients to accommodate broccoli’s rather small root system.



Root growth studies show that food plant varieties that are genetically closer to their wild ancestors have root systems that are far more capable of foraging for moisture and nutrients. As a result, they require less concentrated soil nutrition and if given adequate root room, by not crowding them, can produce food with less irrigation.

Root development in Kohlrabi and Kale are about the same and demonstrate the ability of their wild ancestors to mine the soil. In contrast, Cauliflower has a limited root system in relationship to above ground growth and requires careful feeding and irrigation to produce quality food. Broccoli has a root system similar to Cauliflower,

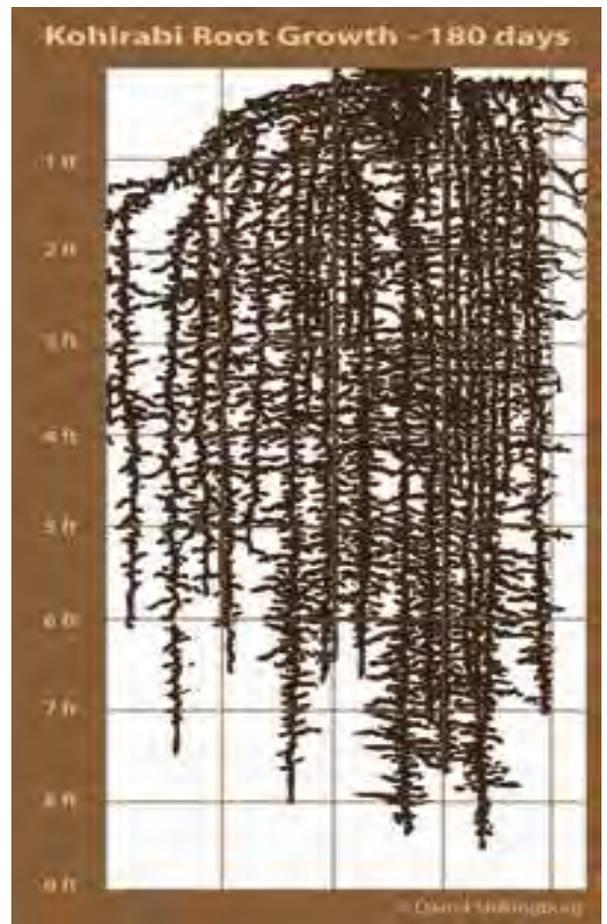
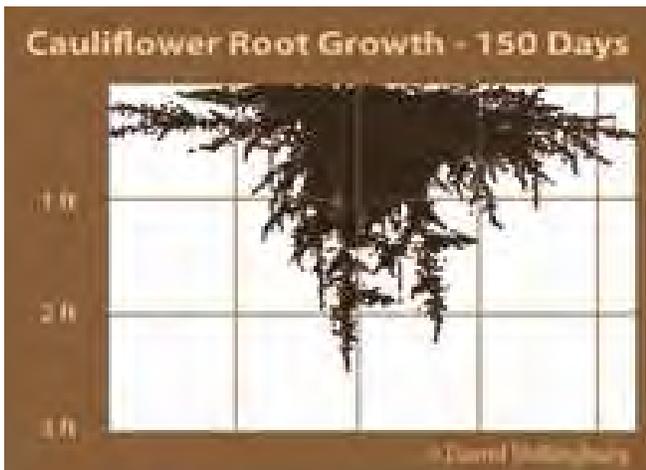
but is more tolerant of clay soils.

When growing the more refined food plants there are reasons to select high quality hybrid seed over heirlooms and traditional open pollinated varieties, or searching for heirlooms that still retain their original vigor. (subject for a different article)

till next time,

Darrol Shillingburg

Dona Ana Extension Master Gardener





## WINTER GARDENING UPDATE

By Dee Davis

One of the reasons I'm so crazy about winter gardening is that there are few leaf-chewing insects to deal with – but there are some.

Flea beetles have taken a liking to my Copenhagen Market cabbage, which is now heading up beautifully. I've noticed shotgun-sized holes that prompted me to bring out the *Safer's 3-in-1 Garden Spray*. Although the adults die off in June or early July, larvae continue feeding on roots, pupate in the soil, and can winter over. Obviously, some adults are enjoying the protected space of my garden. They aren't an extreme problem, but would be if the cabbage was a seedling. I've accepted these annoying insects as part of the garden landscape, but I'm still going to continue to keep the population under control.

One beautiful thing about growing cabbage in the winter is that I don't worry about cabbageworm. If those annoying white butterflies were flying around, then I'd be looking at large, ragged holes in the leaves and would have to watch for larvae. Again, another advantage to gardening when it's cold!

The Red Winter Kale (another brassica) is something flea beetles might like; but, so far, they haven't touched mine. The kale is growing in another garden area, which may not have been affected by flea beetles. Nevertheless, I'm going to keep a watchful eye on this.

I've seen leafminer damage. They could affect the beet patch, but so far the only evidence of their visitations is on the Chinese mustard. At this stage of growth, leafminers are only bothersome, but they would definitely destroy seedlings. I don't spray the Chinese mustard because my way of controlling these pests is harvesting leaves of this plant almost daily.

What I don't have to worry about are the leeks or garlic because these are problem-free vegetables. Both, by the way, are doing nicely at this time.

Until the weather begins warming up, I don't have to look for evidences of aphids, cutworms, leafhoppers, Mexican bean beetles, squash bugs, or any other pest population that is part of Mother Nature's balancing act. How grateful I am for the reprieve!

## Master Gardener Profile: Tom Packard Finds a New Home in the Desert

By Ann Palomo

Tom Packard has lived in Dona Ana County since 2002 in the Talavera area behind "A" Mountain. Prior to that, he was gardening in North Conway, NH, quite a contrast to the climate found here.

"I have 2.5 acres of desert," Packard says. "It is hard to get things to grow because of the effects of wind, rabbits and pack rats." Tom enrolled in the Master Gardener program in the fall of 2006 to learn more about drought tolerant plants. He enjoys growing cacti, succulents, desert shrubs, roses, orchids and flowering house plants. One thing he has learned is that "sharing hay and corn with rabbits doesn't stop them from eating anything new that you have planted."

"Some of my most peaceful times have been spent in greenhouses," he says. "I hope to have one of my own someday."

Packard is now retired after a 40 year career as a pediatrician. He spent 10 years in a multi-specialty group, 15 years in sole practice and 15 years doing traveling pediatrics. He held licenses in nine different states and practiced in seven of them: Washington, Arizona, Georgia, North Carolina, Maine, New Mexico and New Hampshire. That program brought him to New Mexico and Las Cruces. He worked with First Step Pediatrics and private practitioners Jennifer Lichtenfels and Eileen Brown.

He is an active volunteer with the Unitarian Universalist Church, Chihuahuan Desert Nature Park, Southwest Environmental Center and Native Plant Society as well as the Master Gardeners. He also enjoys hiking and reading as well as attending Aggie volleyball and basketball games. Recently divorced after 40 years of marriage, he is the father of three grown daughters.



# Master Gardener Matters

We had a busy January meeting getting all caught up on paperwork and starting off the new year. Most of the interns came to the meeting and it was great to see the new faces as well as the familiar. Rafa Realivasquez, our Ag Agent, introduced himself and offered assistance to the program whenever it is needed. One familiar face was notably absent – John 's. However, he has agreed to be our educational speaker in February, so we 'll see him then. Karim Martinez is the interim county director and she plans on seeing us in February also. She was in Santa Fe lobbying this past week and could not attend our January meeting.

Barb Sallach will be sending out the general emails to all master gardeners now as Terri is busy in her last semester of graduate school. Everyone should have received an email as a test so if you haven 't, make sure you email Barb at [bsallach@nmsu.edu](mailto:bsallach@nmsu.edu). Ann Shine-Ring and Marian Wolle will continue to call those of you without emails to keep you updated.

There was a very successful hotline training for the interns on Jan. 9 by Linda Fredrickson and Barbara Arispe. Several members were interested in a refresher course and so one will be offered in the next month. Watch your emails for the time and date.

Carol Koenig is always interested in having more writers for the newsletter. Please contact her ( [carolkoenig@zianet.com](mailto:carolkoenig@zianet.com) ) if you 'd like to write an article or have ideas for a monthly column.

Doug Brown reports that donated supplies were delivered to La Union Elementary and that NMSU has promised more donations. Doug will also contact the schools in Las Cruces to see what we can do to help them in their gardening. If you 're interested in helping at the school gardens, please contact him ( [drphysic@juno.com](mailto:drphysic@juno.com) ) .

The Farmer 's Market booth continues to be successful and popular so we are going to expand it to two weekends per month and possibly more in the future. There are some times still available on March 8. If you are interested, contact Barb Sallach.

CoCoRaHS has a new coordinator in southern NM. Carol Standridge is replacing Alberta Morgan. There will be beginner and advanced weather training workshops in March or April. You are encouraged to attend the training whether or not you become a volunteer severe weather spotter. To sign up for the class ( es ), contact Alberta ( [mitzisami@yahoo.com](mailto:mitzisami@yahoo.com) ). Volunteers who do not receive Nolan Doesken's bi-monthly message "The Catch", should send their e-mail address and station information to CoCoRaHS Headquarters care of [zach@cocorahs.org](mailto:zach@cocorahs.org).

We 've started three new committees. Educational Programs will find us speakers for our meetings; Finance/Budget will help us get organized so we can use our money appropriately, and Local Garden Expo will get started on planning for our garden expo that will be open to the public. If you are interested in serving on any of these committees, please contact either Barb Sallach or Juliet Williams ( [jwx2@earthlink.net](mailto:jwx2@earthlink.net) ) .

Our plant sale has been set for April 12 at the Farmer 's Market. Now is a great time to start dividing all those houseplants or garden perennials, potting up those pesky extra plants that have taken over your garden, or starting seeds. If you need help with digging, etc., just let Barb Sallach know. Plastic pots and potting soil can be obtained for you if needed. The MGs will need to provide most of the plants at the sale as the nurseries do not usually have much to discard at that time of year.

There are several conferences in February and early March including "High On the Desert " in Sierra Vista, AZ, Feb. 15 – 16; in Albuquerque, the Xeriscape Conference & Expo is February 21 -24, the National Fiery Food and BBQ Conference is Feb. 28 – Mar 2, and the 2008 NM Organic Farming Conference is Feb. 29 – March 1; and in Las Cruces the Pecan Conference is March 2 – 4.

As you can tell, February will be a busy month for master gardeners. We hope you can attend our next meeting on February 20.

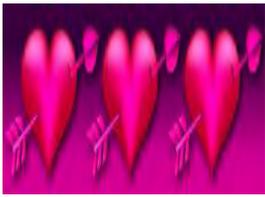
Sincerely,

Barb Sallach ( [bsallach@nmsu.edu](mailto:bsallach@nmsu.edu) ) and Juliet Williams ( [jwx2@earthlink.net](mailto:jwx2@earthlink.net) )



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 the Extension Office at 505-6649 at least two weeks prior to the event.

New Mexico State University is an equal opportunity/affirmative action employer and educator. NMSU and the US Department of Agriculture Cooperating.



# February 2008



Sun	Mon	Tue	Wed	Thu	Fri	Sat
	<p><b>Pecan Conference And Pecan Food Fantasy</b></p> <p><b>Is coming up!</b></p> <p><b>March 2-4, 2008</b></p> <p><b>Mark your Calendar!</b></p>				<p><b>1 MG</b></p> <p>Telephone Hotline Extension Office 9 am to 1 pm Suzi Jones Alberta Morgan</p> <p>Mastering Organic Certification Workshop Extension Office</p>	<b>2</b>
<b>3</b>	<p><b>4</b></p> <p><b>Chile Conference All Day</b> Encanto Hotel Las Cruces, NM</p> 	<p><b>5 MG</b></p> <p>Telephone Hotline Extension Office 9 am to 1 pm Mary Reisenauer(In) Joan Lane</p> <p><b>Chile Conference All Day</b> Encanto Hotel Las Cruces, NM</p>	<b>6</b>	<b>7</b>	<p><b>8 MG</b></p> <p>Telephone Hotline Extension Office 9 am to 1 pm</p> <p>Delfi Mondragon(In) Anne Shine-Ring</p>	<p><b>9</b></p> <p>Farmer's Market Plant Sale</p> <p>Barbara Sallach</p>
<p><b>10</b></p> 	<b>11</b>	<p><b>12 MG</b></p> <p>Telephone Hotline Extension Office 9 am to 1 pm</p> <p>Karen Gray (In) Mary Thompson</p>	<b>13</b>	<p><b>14</b></p> 	<p><b>15 MG</b></p> <p>Telephone Hotline Extension Office 9 am to 1 pm Pamela Crane (In) Sharon Poindexter</p> <p>High Desert Conference Sierra Vista, AZ</p>	<p><b>16</b></p> <p>High Desert Conference Sierra Vista, AZ</p>
<b>17</b>	<p><b>18</b></p> <p>Extension Office <b>CLOSED</b> For President's Day</p>	<p><b>19 MG</b></p> <p>Telephone Hotline Extension Office 9 am to 1 pm</p> <p>Katrin Sumpter(In) Linda Fredrickson</p>	<p><b>20</b></p> <p><b>Master Gardener Meeting</b></p> <p>9 am to 11 am</p> <p>Extension Office</p>	<p><b>21</b></p> <p><b>Xeriscape Conference</b></p> 	<p><b>22 MG</b></p> <p>Telephone Hotline Extension Office 9 am to 1 pm Melissa Choate (In)</p> <p><b>Xeriscape Conference</b></p>	<p><b>23</b></p> <p><b>Xeriscape Conference Expo</b></p>
<p><b>24</b></p> <p><b>Xeriscape Conference Expo</b></p>	<b>25</b>	<p><b>26 MG</b></p> <p>Telephone Hotline Extension Office 9 am to 1 pm</p> <p>Lauren Bishop (In) Joann Embury</p>	<b>27</b>	<p><b>28</b></p> <p><b>National Fiery Food &amp; BBQ Conference</b> Albuquerque, NM</p>	<p><b>29 MG</b></p> <p>Telephone Hotline Extension Office 9 am to 1 pm Paul Hutchins Mary Thompson National Fiery Food &amp; BBQ Conference Albuquerque, NM 2008 NM Organic Farming Conference Albuquerque, NM</p>	<p><b>National Fiery Food &amp; BBQ Conference</b> Albuquerque, NM Through March 2</p> <p><b>2008 NM Organic Farming Conference</b> Albuquerque, NM Through March 1</p>

# March 2008

Sun	Mon	Tue	Wed	Thu	Fri	Sat	
						1	
							
2	3	<b>4<sup>MG</sup></b> Telephone Hotline  Extension Office 9 am to 1 pm Katrin Sumpter (In) Joann Embury OPEN	5	6	<b>7<sup>MG</sup></b> Telephone Hotline  Extension Office 9 am to 1 pm Lauren Bishop (In) Alberta Morgan OPEN	8 Farmer's Market Plant Sale Barbara Sallach	
9	10	<b>11<sup>MG</sup></b> Telephone Hotline  Extension Office 9 am to 1 pm Pamela Crane (In) Joan Lane OPEN	12	13	<b>14<sup>MG</sup></b> Telephone Hotline  Extension Office 9 am to 1 pm Paul Hutchins(In) Ann Shine-Ring OPEN	15	
16	17 	<b>18<sup>MG</sup></b> Telephone Hotline  Extension Office 9 am to 1 pm Karen Gray (In) OPEN OPEN	<b>19<sup>MG</sup></b> <b>MONTHLY MEETING</b>  Extension Office 9 am to 11 am	20	<b>21<sup>MG</sup></b> Telephone Hotline  Extension Office 9 am to 1 pm Carolyn Standridge OPEN OPEN	22	
23 	24	<b>25<sup>MG</sup></b> Telephone Hotline  Extension Office 9 am to 1 pm Janet Brydon (In) OPEN OPEN	26	27	<b>28<sup>MG</sup></b> Telephone Hotline  Extension Office 9 am to 1 pm Ina Goldberg (In) Sharon Poindexter OPEN	29	
30	31						