Bare root plants should be planted by Feb 15.

Website of Interest:
www.eXtension.org

eXtension is an interactive learning environment delivering the best, most researched knowledge from the smartest land-grant university minds across America.
eXtension connects knowledge consumers with knowledge providers—experts who know their subject matter inside out.

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Volume 1, Issue 4 February 2012

Desert Favorite By Master Gardener Andrea Meckley

Our February Favorite is the She-Oak or Horsetail Tree (Casuarina equisetifolia). This evergreen tree is hard to beat for the southern Nevada area. Wispy, thin, green branches look like long pine needles, yet no needle drop occurs as with most pine trees. Delightful, little, cone-like fruit forms in fall for a nice winter embellishment. She-Oak has a single trunk with an open crown and requires little pruning, if any. In addition, you can leave the lower branches on for a nice full look. Primarily from Australia, the She-Oak was introduced to the United States in the late 1800s. It is tolerant of many tough conditions: wind, heat, salinity, and dry or wet soil does not alter its growth or vigor. Fast growing, the tree can reach 40’-60’ tall with a canopy of 20’ wide. She-Oak is a useful plant in the landscape as a shade tree, windbreak or screen plant. The wood from the She-Oak is a favorite among wood carvers and turners, because of its pretty reddish color. The tree in the photo is one I purchased from Trees on Wheels four years ago. It sat in the pot for a year and then was planted in native Logandale, Nevada sandy soil. It is located in full sun and irrigated with a drip line. My She-Oak gives me a nice vista from the bedroom window year round.
Companion Planting:

~ For sweet-tasting carrots your soil must have sufficient lime, humus, and potash. Too much nitrogen will cause poor flavor, as will a long period of hot weather.

~ Onions, leeks, and herbs such as rosemary, wormwood, and sage act as repellents to the carrot fly, whose maggot or larva often attacks the rootlets of young plants.

Black salsify, sometimes called oyster plant, also is effective in repelling the carrot fly. Use as a mixed crop.

UNCE launches Beginner Farmers & Ranchers program

University of Nevada Cooperative Extension will launch a Beginning Farmers & Rancher’s program with a series of two-day workshops covering everything from field crops to producing locally grown meat. The program will be a combination of classroom instruction and field trips to show participants the practical applications of the in-class studies. A part of each workshop will be hands-on help in developing useful business practices that help farmers become more profitable.

Workshops in 2012 will focus on three areas, including:

• Field Crops: Old vs. New. Locations: Lovelock (March 15-16) and Fallon (Sept. 27-28)

• Processing and Selling Locally Grown Meat Products. Locations: Logandale (April 26-27) and Gardnerville (Aug. 16-17)

• So You Want to be a Produce Farmer? Locations: Las Vegas (June 7-8) and Reno (to be announced).

For more information about the program, contact Mineral County Extension Educator Staci Emm at 775-945-3444. Look for details about registering for the 2012 workshops in early 2012 at www.unce.unr.edu.

New UNCE publications online

- New Weed Threats for Clark and Southern Nye Counties — FS-11-17
- Turfgrasses for Urban Mojave Desert Landscapes — FS-11-52
- Lawn Establishment in the Mojave Desert — FS-11-54
- Is it Time to Use a Pesticide? — FS-11-58
- What to Consider Before Using “Bare-ground” Herbicides — FS-11-59
- Using Preemergence Herbicides for Weed Control in the Home Landscape — FS-11-67
- Moapa Valley Youth Perceptions of Community Issues — SP-11-08

Garden Grant Watch


Upcoming Opportunities:

- Master Gardener Help-line
- Master Gardener Meeting Feb. 1
- Chain Saw needed! Call 702-397-2604
- Newsletter article or pictures
- Beginning Farmers & Rancher’s program
- Grow Your Own!
“You know you’re a Master Gardener if you carry pruners, baggies, bottled water and paper towels in your vehicle, just in case the opportunity for a “cutting” arises.”

**February Planting**

<table>
<thead>
<tr>
<th>Artichoke</th>
<th>Corn</th>
<th>Peas</th>
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</thead>
<tbody>
<tr>
<td>Asparagus</td>
<td>Dill</td>
<td>Radish</td>
</tr>
<tr>
<td>Basil</td>
<td>Endive</td>
<td>Sage</td>
</tr>
<tr>
<td>Beets</td>
<td>Fennel</td>
<td>Spinach</td>
</tr>
<tr>
<td>Bok Choy</td>
<td>Kale</td>
<td>Squash, Summer</td>
</tr>
<tr>
<td>Brussels sprouts</td>
<td>Kohlrabi</td>
<td>Sunflower</td>
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<tr>
<td>Cabbage</td>
<td>Lettuce</td>
<td>Swiss Chard</td>
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<tr>
<td>Carrot</td>
<td>Leek</td>
<td>Tomatillo</td>
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<tr>
<td>Collard Greens</td>
<td>Onion, Sets &amp; Green</td>
<td>Tomatoes</td>
</tr>
<tr>
<td>Corn</td>
<td>Parsley</td>
<td>Thyme</td>
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</tbody>
</table>

**Upside-down Herb Garden**

**Tools and materials**
- 2L soda bottle
- Duct tape
- Razor or scissors
- Hole puncher
- Thick twine or thin rope or chain

1. Use razor to cut off bottom third of soda bottle.
2. Wrap duct tape around the bottom part of the soda bottle. Make sure that half of the duct tape is on the bottle and half is above it.
3. Cut slits about 2-3” apart in the duct tape and fold over.
4. Punch two holes about halfway down the duct tape. Cut two more on the opposite side.
5. Cut string and thread through two of the holes form the outside in. Do the same on the other side.

If you are looking to maximize planting space, plant an herb in the top of the bottle as well as one hanging out the bottom. Marigolds would be good for the top, as they are tough, pretty, and they attract beneficial insects.

**Grow Your Own!**
Grow your own is a series of back-to-basic gardening classes to help you produce great harvests in Nevada.

These classes will be offered via video conferencing at the Logandale Cooperative Extension office.

**Save the Dates!**
~2012 Schedule~

**Spring:** Wednesdays, Feb. 8 through March 28, 6-8 p.m.
**Summer:** Mondays, July 9 through Aug. 27, 2-4 p.m.

Visit the website! [growyourownnevada.com](http://growyourownnevada.com)
The Flowers of Tomorrow are the Seeds of Today
By Denise Stoesser

Hybrid seeds

Hybrid seed is seed produced by cross-pollinated plants. In hybrid seed production, the crosses are distinctive and precise. To produce hybrid seed, elite inbred varieties with well documented and consistent phenotypes are crossed and the resulting hybrid seed is gathered.

The development of hybrid seeds enabled the beginning of the commercial seed market. Farmers were convinced to buy new hybrid seed each season, replacing the traditional practice of farm-saved seed. Hybrid vigor can improve uniformity, disease resistance, yields, color, and so forth. Today, hybrid seed production is prevalent in home gardening and agriculture.

While these hybrids can sometimes taste better, most have been developed for commercial traits such as, holding saleable color and flavor for long periods, ease of shipping and for the simultaneous ripening of entire fields of a vegetable to enable mechanical harvesting.

Monsanto has gone one step further with its development of hybrids. They developed the ‘Terminator Gene,’ which renders the seed produced in a farmer’s field sterile. This forces the grower to purchase new seed for each new crop. (http://filebox.vt.edu/cals/cses/chagedor/terminator.html)

Another hybrid seed is called ‘Trait-specific Genetic Use Restriction Technology,’ or T-Gurt. T-Gurt seeds are genetically modified to produce specific traits, such as tolerance to salt or drought. If a farmer wished to activate the trait in one type of T-Gurt, he would have to spray the seed with a proprietary chemical. The seed will still germinate without the chemical, but it would not have the modified characteristics. (http://www.cbd.int/agro/gurts.shtml)

Anyone can select and eventually stabilize their own seed or even hybridize new plants, but plant and seed companies have recently begun patenting their crosses so that only they have the right to reproduce the hybrids they have developed.

Genetically Modified Seeds

Hybrids should not be confused with genetically modified seeds, or GMs, which have been genetically altered using molecular genetic techniques such as gene cloning and protein engineering. Plants like rice that has the pesticide Bacillus thuringiensis engineered into its genetic makeup to make it resistant to certain pests are GM crops. Bacillus thuringiensis is a natural pesticide, but it would never naturally find its way into rice seed.
The world population has topped 6 billion people and is predicted to double in the next 50 years. Ensuring an adequate food supply for this booming population is going to be a major challenge in the years to come. GM foods promise to meet this need by developing crops that are pests and disease resistant, herbicide, cold, drought and salinity tolerant, and genetically engineered to contain additional vitamins and minerals. In addition, not all GM plants are grown as crops. Soil and groundwater pollution continues to be a problem in all parts of the world. Plants such as poplar trees have been genetically engineered to clean up heavy metal pollution from contaminated soil. (http://www.csa.com/discoveryguides/gmfood/overview.php)

According to the Department of Agriculture, there are over 40 plant varieties that have completed all of the federal requirements for commercialization (http://www.fas.usda.gov/itp/biotech/Qs_As.asp). However, once genetically modified crops are released into the environment, it is virtually impossible to ever contain or recall them. Seeds are easily carried by the wind, birds, and insects into adjacent fields. Pollen from genetically modified crops ends up cross-pollinating with natural crops and wild relatives. In fact, once a strain of genetically modified crops becomes widespread enough, the natural strains can actually be bred into extinction.

Open pollinated non-hybrid seeds

Open-pollinated non-hybrid varieties, sometimes referred to as heirloom seeds, are the traditional varieties which have been grown and selected for their desirable traits for ages. These varieties are hardier and have more flexibility than hybrid varieties. Breeders cannot manipulate complex characteristics, such as flavor, as easily as they can size and shape. These seeds mutate and adapt to the local ecosystem, as opposed to modern hybrids, which are static. The disadvantage, open-pollinated vegetables are not uniform and do not grow as large as hybrids. For these reasons, heirloom seeds are not used in modern large-scale agriculture.

The push toward hybridization and GM foods is becoming irreversible. Hybrid food sources are patented and owned by the patent-holders. In fact, it is a form of patent-infringement to collect and plant seeds from many hybrid varieties. Securing the nation’s food supply against the invasion of GM and over-hybridization of foods is coming down to us, the backyard gardeners. Put simply, the future of the world’s food supply rests in open pollinated non-hybrid seeds. The long-term storage of heirloom seed varieties is not only a logical alternative to keeping the food chain free from control, it is becoming a geo-strategic imperative for counter-balancing the move toward globalization of the world’s food supply.
A note from Denise

Three Good Reasons to Save Seeds

1. TO RETAIN CONTROL OF OUR FOOD SUPPLY. Control of seed is key to control of our food supply. By saving seeds you retain that lifeline. Over the past two generations, the seed industry has done almost no work to maintain, improve, or develop open-pollinated varieties that will come true from seed.

2. TO HELP PRESERVE OUR RIGHT TO SAVE SEEDS. The seed industry continues to place more and more restrictions on farmers’ and gardeners’ rights to save seed. Variety patenting, licensing agreements and other restrictions are industry tools wrest control of the seed from commons and keep it for itself.

3. TO INCREASE OUR AVAILABLE OPTIONS. Contrary to industry claims, patenting has not encouraged creative plant breeding. Instead, it has reduced cooperation among plant breeders and restricted availability of germ plasm and plant varieties.

Look Before You Reap

- Avoid saving seed from hybrids, which usually do not produce true offspring from seed.
- Save seed only from strong, healthy specimens that display desired traits. Observation is key to successful seed saving. Pull up, or rogue, any plants that are not true to the plant characteristics.
- Label your plants at every stage from seedling to dying and finished seed.
- Save seed from as many plants as possible. With self-pollinating plants, a minimum of 6 to 10 plants is necessary to maintain a wide genetic representation; 25 is even better. Seed saved from just one self-pollinating plant will grow well, but you may be losing some background genetic material.
- Cross-pollinating plants rely on large populations to sustain their integrity. A minimum of 16 plants is adequate for some, although many need at least 64. Fewer numbers of cross-pollinating plants compound the presence of deleterious, or unexpectedly harmful, genes. This can cause inbreeding depression, resulting in weak, stunted, low-vigor plants.