

Hello Master Gardeners!

All gardeners understand the truth in this quote. And our concerns about weather are often especially keen in winter when our gardens are at the mercy of such harsh conditions.

But there is still work that can be done in the garden, even in January and February, to protect our plants from the elements. Winter watering, mulch, bark protection and anti-desiccants are just a few.

While it's cold and dreary outside, it's also a great time to attend a horticulture program and add to your gardening knowledge.



"Weather means more when you have a garden. There's nothing like listening to a shower and thinking how it is soaking in around your green beans."

Marcelena Cox

Beginning January 10th, the Creating A Horticulture Paradise program series begins in Burt & Washington Counties. We have a great line-up of topics for this year. Hope to see you soon!

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Upcoming Horticulture Programs

Creating A Horticulture Paradise Program Series- Part I

January 10- Vegetable Gardening With Vine Crops

January 17- Butterfly Gardening

January 24- Pine Tree Selection: What's Good, What's Not

January 31- Large Fruit Production

February 7- Herbs

Location & Time:

2:30-4:30 p.m. at First National Bank Northeast, Tekamah, NE

7:00-9:00 p.m. at Arbor Park Middle School, Blair, NE

Cost: Free

Call to register:

Burt County, (402) 374-2930

Washington County, (402) 426-9455

Program Series- Part II

February 21- Success With Seeds

February 28- Run For The Roses

March 7- Rain Gardens

March 14- Pollinating Insects In Your Garden

March 21- Rethinking Shelterbelts

Location & Time:

2:30-4:30 p.m. at Cuming County Courthouse, West Point NE

7:00-9:00 p.m. at UNL Extension Office, Fremont, NE

Cost: Free

Call to register:

Cuming County, (402) 372-6006

Dodge County, (402) 727-2775

For more information:

<http://hortparadise.unl.edu>

Acreege Insights- Rural Living Clinics

January 14- Wildlife Enhancement: Planting for Wildlife

February 18- Growing Fruit Trees

March 18- Vegetable Gardening

Location: UNL Extension in Dodge County, Fremont, NE

Time: 9:00-11:00 a.m.

Cost: \$5.00 for Master Gardeners

Program descriptions and additional information available at:

<http://acreege.unl.edu>

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From The Garden To The Table

Lemon Curd

By Nancy Lindblad

Here's a lemon recipe that could be useful when you need a quick dessert or a filling for a white cake. The prices on lemons this time of the year are good and this tart custard stores in the refrigerator for up to two months.

1 cup sugar
1 T. finely shredded lemon peel
1 cup lemon juice (5 large lemons)
3 T. firm butter cut up
3 large eggs, slightly beaten

Mix sugar, lemon peel and lemon juice in heavy 1 ½ quart saucepan with wire whisk.

Stir in butter and eggs. Cook over medium heat about 8 minutes, stirring constantly, until mixture thickens and coats back of spoon. (Do not boil.) Immediately pour into one pint container or 2 one cup containers.

Store covered in refrigerator up to 2 months.



Lemon Verbena Pound Cake

Reprinted from *Epicurious*,
<http://www.epicurious.com>

For cake

1 cup cake flour (not self-rising)
1/2 t. baking powder
1/4 t. salt
3 T. finely chopped lemon verbena
1 T. freshly grated lemon zest
1/2 cup unsalted butter, softened
1 cup granulated sugar
3 large eggs
3/4 t. vanilla
2 T. milk
2 T. fresh lemon juice

For glaze

1/2 cup plus 1 T. powdered sugar
1 T. fresh lemon juice
Accompaniment: strawberries

Make cake: Preheat oven to 325°F. Butter and flour a 1-quart bundt pan, knocking out excess flour.

In a bowl whisk together flour, baking powder, salt, verbena (or zest), and zest. In another bowl with an electric mixer beat butter and sugar

until light and fluffy. Beat in eggs, 1 at a time, beating well after each addition, and beat in vanilla. Beat in half of flour mixture. Beat in milk and lemon juice and beat in remaining flour mixture until just combined.

Spoon batter into pan, smoothing top, and bake in middle of oven 45 to 55 minutes, or until golden brown on top and a tester comes out clean. Cool cake in pan on a rack 15 minutes and invert onto rack to cool completely.

Make glaze while cake is cooling:

In a small bowl whisk powdered sugar, a little at a time, into lemon juice until smooth and thick.

When cake is completely cooled, drizzle glaze over cake and let it drip down sides. Cake may be made 1 day ahead and chilled, covered.

Serve cake at room temperature with strawberries.

Going & Growing Newsletter Contributors:

Rich Apking
Sarah Browning
Shelly Burhman
Betty Hamata
Nancy Lindblad
Bonnie Parrish
Mary Svoboda
Lorraine Urban

Lemony Herbs

By Bonnie Parrish

One of the most outstanding things about raising herbs is enjoying the fragrances, and one of my favorite fragrances is lemon. Any time I can combine lemon with another flavor in cooking, I take advantage.

Lemon can bring out the best in almost any food. Combining lemon-flavored herbs to a dish or recipe, adds the flavor without adding the sour bite that you get from adding fresh lemons.

Most lemon herbs (except lemon thyme), prefer light, dry soil and grow best in fairly rich, well-drained soil that's kept moderately moist. Most benefit from an occasional to frequent branch-tip pruning to encourage more leaf production, that not only indulges you, but does the plant a favor.

LEMON VERBENA is a woody shrub that is considered a tender perennial. The plant has narrow, rough-textured leaves and star-like pale purple to white flowers. The plant grows 3-5' tall in cooler climates and 10-15' tall in frost-free regions of the South.

The graceful plant can be used in borders, kitchen gardens, or grown in containers to be brought in the house to over-winter. Lemon verbena is hardly only to USDA Zone 8, although the roots can remain hardy down to 20° F degrees – sometimes lower- if heavily mulched and grown in a protected area.

Lemon verbena has the most intense lemon flavor of all the lemony herbs. The leaves can be chopped and added to fruit salad, muffin batter, soft cheeses, or stir-fry. It brightens the taste of poultry or fish. When I make

sun tea, I always add leaves from lemon verbena or lemon balm along with mint leaves. It makes a wonderful flavorful iced tea that is cooling and refreshing.

LEMON GRASS is a tender perennial that does well in containers, either outdoors or as a houseplant. The dense grass forms clumps of lime green to bluish-green leaves that are somewhat coarse.

Lemon grass does best in full sun and prefers full sun and rich, well-drained soil with ample moisture during the growing season. Begin harvesting stems when about ½-inch thick.

Lemon grass is a standard in Asian cooking. Prepare leaves as with leeks by stripping off the outer leaves and chopping the inner stalks and tender leaves. Lemon grass is a great addition to lemonade, or the tougher outer leaves can be chopped and added to tea.

LEMON BALM is a hardy perennial that grows to about 2-3' high. The plant has small oval-shaped green leaves and white flowers in summer.

It can be used in the front of borders, to frame path edges or mixed in container plantings. It is hardy to USDA Zone 4.

Lemon balm grows in average, well-drained moist soil in full sun to partial shade, however, it is a member of the mint family and can have a tendency to spread in fertile soil. Removing the flowers before they set seed will help keep the plant in bounds.

Add chopped leaves to soups, stews, salads, poultry and fish dishes. Thread

leaves with vegetables on kabobs, stuff fish or poultry, or cut a pocket in lamb or pork to stuff with fresh sprigs before grilling.

LEMON THYME is a spreading, low-mounding plant that grows 6-12" high. Lemon thyme thrives in light sandy to gritty soil that retains moisture, but will tolerate clay soil that has been enriched. Full sun to light shade is preferred where summers are hot. The plant should be pruned lightly after flowering to help keep compact.

Strip fresh leaves from stems and sprinkle over grilled fish or chicken, buttered corn on the cob, green beans, white bean salad with zucchini, or toss with potatoes before roasting.

LEMON BASIL is an annual that grows 2-3' high. Stems are soft and the pale green leaves are small compared to sweet basil. "Mrs. Burns" is the most robust, with larger leaves than the standard lemon basil.

Plant in a location where you can brush against the plant to release its fragrance. Sow seed in full sun and rich, moderately moist, well-drained soil in the spring after danger of frost has passed and the soil has reached 50° F degrees.

Prolong leaf production by pinching out flower spikes as they form.

Lemon basil makes an especially tasty pesto, or add to soups, stews, or vegetables before serving. Use on pizza, in sandwiches, over pasta or to dress up desserts. Also adds an excellent flavor to marinades and dressings.

Feeding Birds

By Shelly Burhman

Bird feeding isn't just a winter activity. Even in spring, food is still scarce for birds. Temperatures are still usually too cool for many insects, and fruit eating birds won't see their favorites until much later in the year.

Suet is a high protein food that is loved and eaten by many birds from chickadees, to woodpeckers.

Suet is simply meat fat that has been melted or rendered. You can buy ready made suet cakes and wire holders almost anywhere. Or you can make your own.

The easiest home-made suet feeder is the mesh bag that onions come in. Just drop in the suet, tie off the bag and hang outside.

Other feeder ideas include:

- Coat a pinecone with peanut butter or suet, and roll it in birdseed and use a ribbon or yarn to hang it from a

branch or tree.

- Prepare your suet by melting it then add nuts, berries, chunks of fruit, or all of the above. Just mix well and pour into muffin tins lined with muffin papers. Freeze. Remove from the freezer and place in your feeder as needed.

- Or try a suet log. Just drill 1- 1 1/2" diameter holes all over the log. Suet can be packed in these holes. Perches are not necessary but you can drill small holes just below the larger suet holes and insert dowels into these holes and secure with wood glue. Hang the log by screwing a large eye bolt in one end and use sturdy rope or chain and suspend the log.

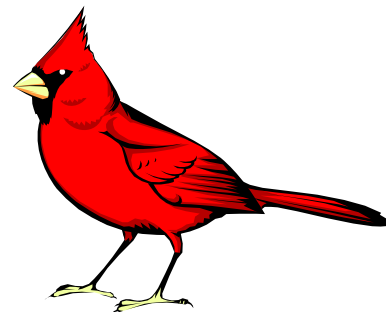
If you hate the weeds and sprouts that grow below your feeders, you can sterilize your seed before putting it out. Sterilizing the seed does not alter the attractiveness nor does it alter the nutritional value of the seed.

Take a gallon of seed, place it in a paper bag and heat it in the microwave

on high for 5 minutes. In a conventional oven, pour seed on a flat baking sheet and heat it for 30 minutes at 300°F degrees.

Don't forget water! If you don't have a water source nearby, add water! Water is a magnet for most birds. Just make sure the water is clean and fresh and not frozen. There are a variety of bird bath heaters available at a variety of prices.

I have listed several types of seeds and the birds that favor them. This information came from: UNL NebGuide G669, Backyard Wildlife: Feeding Birds. Pick up a copy at your local UNL Extension office.



American Goldfinch	Niger thistle seeds, broken sunflower hearts, oil-type sunflower seeds.
Northern Cardinal	Sunflower seeds of all types, safflower, cracked corn, millet, other seeds, unsalted nutmeats, raisins.
Black-capped Chickadee	Oil-type sunflower seeds, cracked unsalted nutmeats, safflower, suet.
Dark-eyed Junco	Red or white proso millet, finely cracked corn, oil-type sunflower seed, unsalted nutmeats.
Grosbeaks	Sunflower seeds of all types, safflower, and cracked corn.
Mourning Dove	Oil-type sunflower seeds, white and red proso millet, safflower, cracked corn, wheat, milo, other seeds.
Native Sparrows	Red or white proso millet, oil-type sunflower seeds, cracked corn, some safflower.
Woodpeckers	Suet, unsalted nutmeats, sunflower seeds, cracked corn.

Clematis: Pruning

By Lorraine Urban

When I bought my first *Clematis* about 15 years ago the choices were few. I now have between 45 and 50 of the many *Clematis* varieties readily available to gardeners.

One of the things I most like about these plants is that Mother Nature has made them naturally hardy and needing little attention, but pruning *Clematis* is one of the things I take the time to do.

Pruning produces more vigorous growth and healthier plants, and it keeps them from out-growing the space I had planned for them. Here are some basic pruning rules for *Clematis*.

Those plants started this past summer need to be pruned in late winter, around February, to about 1 foot above the ground level...just above the lowest pair of buds. If you “forgot” to do that to the *Clematis* you started in 2004, you should do it this year to encourage more stems to grow.

For established plants, experts group them into three groups for maintenance purposes according to when they flower.

Group 1 are those that flower very early (late winter to late spring), such as *C. alpina*, *C. armandii*, *C. cirrhosa*, *C. macropetala*, and *C. paniculata*.

These plants only need pruning to cut away dead and diseased parts or to keep them in bounds, as needed. The time to do this is shortly after the plant is done flowering.

Group 2 are those *Clematis* that produce two flushes of flowers – in early summer (June) on last year’s growth and again in late summer (August-September) on this year’s growth.

Many of the popular large-flowered varieties offered in local nurseries and nursery catalogs are in this group, such as ‘The President’, ‘Nelly Moser’, ‘General Sikorski’, ‘John Warren’, ‘Liberation’, ‘Henryi’ and ‘Mrs. N. Thompson’.

Plants in this group do not require hard pruning. Cut out all dead stems and, starting from the top of the plant and working downward, cut out the parts of the plant that are growing where you don’t want them. This should be done after the first flowering.

Group 3 are those *Clematis* that bloom in mid to late summer or that bloom ALL summer...*C. x jackmanii*, ‘Hagley Hybrid’, ‘Gipsy Queen’, ‘Bill McKenzie’, and the *C. viticella* group. These plants need to be pruned hard in late winter or early spring (February-March).

An easy way to do this is to start at the bottom of each stem and work upward to the first pair of swelling buds. Cut the stem just above those buds.

Some cultivars can be pruned **either as Group 2 or Group 3**. If the tag accompanying your plant doesn’t tell you which pruning group your plant is in, then consulting your local library or bookstore – or locating information on the Internet can help solve that problem.

It is helpful to know what cultivar(s) you have, but sometimes you don’t. You may have moved to a house with an already established garden that contains a *Clematis* having purple 5-6” flowers that begins blooming in mid-May and seems to be done about mid to late June. Or sometimes, the plants you buy are not what you get.

Even if you never identify the cultivar, what you observe about the plant can lead you to the proper pruning time and method.

Most *Clematis* vines eventually need pruning, but one pruning method and time of year does not work for all types. Knowing when and how to prune can help insure long-lived, vigorous flowering plants that will be assets to your gardens.

Nebraska Statewide
Arboretum

Rare & Native Plant Sale

NSA Greenhouse on East
Campus in Lincoln, NE
Saturday, June 10th
10:00 a.m.– 3:00 p.m.



Crop Rotation For Gardeners

By Rich Apking

Rotation is a system by which vegetable crops are grown on different areas of the garden in consecutive years.

The main reason for rotating crops is to prevent buildup of soil-borne pests and diseases specific to one plant family.

If the same type of crop is grown every year in the same soil, its pests and diseases increase rapidly in number and often become a serious problem. In the absence of their host-pests, fungal spores or bacteria-specific to one plant family, gradually die out.

Various types of tomato leaf spot diseases, potato and tomato nematode, clubroot (which attacks almost all types of Brassicas) and onion white rot are some of the common garden problems

that may be alleviated by rotating crops.

Other benefits stem from rotating vegetables as well. Some crops, potatoes for example, blanket the soil so well that they smother most weeds. It is useful to follow them with crops that are difficult to weed, such as onions.

Vegetables in the Legume family fix nitrogen in the soil by means of nodules on their roots and make it available for the next crop. Therefore, nitrogen-hungry crops such as Brassicas, potatoes, or spinach could follow Legumes.

Several vegetables, including perennials like rhubarb, and many salad plants do not fall into a large rotation group. However, salad plants stay in the ground for only a short time and are therefore useful for intercropping or to

fill temporary gaps in vegetable beds. As with the other vegetables, they should not be grown in the same patch of ground year after year. Perennial vegetables are best grown in a permanent bed of their own and so are not rotated.

Rotation is a sensible practice, and gardeners should try to build it into their garden plans. At least follow a crop of one vegetable type with a vegetable from another group, although experts recommend a minimum rotation schedule of three years. If space is available, five years is even better.

Draw up a list of the main vegetables that you want to grow, with a rough indication of the quantities required. List the various beds in the vegetable garden. Group vegetables by plant families, such as all Brassicas or all Leg-

(Continued on page 12)

Vegetable Families	
Asteraceae (Sunflower)	Lettuce
Apiaceae (Carrot)	Carrot, celery, parsley, parsnip
Brassica (Cabbage)	Bok choy, broccoli, Brussels sprout, cabbage, cauliflower, kale, kohlrabi, radish, rutabaga, turnip
Chenopodeaceae (Goosefoot)	Beet, spinach, Swiss chard
Convolvulaceae (Morning glory)	Sweet potato
Cucurbitaceae (Marrow)	Cucumber, melon, pumpkin, summer & winter squash
Gramineae (Grass)	Sweet corn
Leguminosae (Bean)	Beans, peas
Liliaceae (Lily)	Asparagus, garlic, leek, onion
Malvaceae (Mallow)	Okra
Polygonaceae (Knotweed)	Rhubarb
Solanaceae (Nightshade)	Eggplant, pepper, potato, tomato

Whiteflies— A Pest for All Seasons

By Mary Svoboda

Whiteflies begin life as minute, virtually invisible eggs arranged in a semicircle on the underside of leaves. After five to seven days these eggs hatch into nymphs. Nymphs are light green, flat and oval-shaped with a fringe of short, white waxy filaments radiating from the border of the body.



After hatching, nymphs move a short distance on the undersides of leaves looking for a feeding site. This is called the 'crawler stage.' Once the active crawlers settle down to feed they molt and become stationary nymphs.

After two to three weeks of feeding, nymphs enter a pupal stage before emerging as adults. Pupae are similar in appearance to nymphs, but have a few waxy filaments on their back.

Adults emerge from the pupae and in four days begin laying eggs. Adult whiteflies are small, 1/16 inch long, white-winged insects that disperse in clouds when disturbed.

Many generations of whitefly occur each summer, and all stages of development may be present at the same time on one plant.

Adults suck sap from the leaves of houseplants, flowers, vegetables and even weeds. The leaves of infested plants

may turn yellow, become twisted or stunted, wither and drop prematurely.

Whiteflies excrete a sticky, sugary exudate called honeydew. When populations are high, honeydew production is copious. A black fungus, called Sooty mold, often grows on the honeydew, blackening leaf or fruit surfaces, blocking out light and interfering with photosynthesis.

Specific damage from whiteflies include the silvering of squash leaves, irregular ripening of tomato, white stalk in broccoli and cauliflower, light root in carrots, and white stem in poinsettia. Crops that support large numbers of whiteflies include cucumber, squash, melon, tomato, eggplant, soybean, okra, bean, poinsettia, hibiscus, verbena, garden mum, gerbera daisy, fuschsia, geranium, ferns, peppers, and sage.

Whiteflies cannot overwinter outdoors in our latitude, but can survive the winter in greenhouses and homes. There have been reports of entire greenhouses of poinsettias wiped out by this pest.

Whiteflies are very difficult to control with insecticides. Repeated applications may make the situation worse by selecting strains of whitefly that are resistant to pesticides.

If an insecticide spray is required, insecticidal soap or oil is recommended. These will provide partial control of immature whiteflies, but do less harm to natural enemies of the whitefly.

Whiteflies spend most of their lives on the undersides of leaves, so spraying both the upper and undersides of the leaves is essential to control. Repeat applications will be necessary and should be made as often as recommended on the pesticide label.

Biological agents, including predatory insects like bigeyed bugs and lacewing larvae can assist in whitefly control. Plus, several tiny wasps parasitize whitefly larvae. So it is important to preserve natural enemies by avoiding broad spectrum insecticides. However, at present natural enemies alone will not control damaging populations of whitefly.

To begin control in your garden, destroy heavily infested plant parts by pruning out infested branches or discarding infested plants before the insects can spread. If infestations become very serious, you may wish to replace heavily infested plants with other plants less susceptible to whitefly attack.

Also, remove alternate weed hosts which harbor this pest, including pigweed, ground cherry, and field bindweed.

Tear out and dispose of seasonal vegetables as soon as the harvest is over. Old plants can be a source of future infestations.

When I discovered whiteflies in my zucchini patch last summer, I should have just pulled it all out, but I thought I could control these pests. I sprayed with every available insecticide, every soap and other concoctions.

They multiplied copiously and spread to the entire garden, including eggplant, tomatoes, beans, peas, and herbs. The more I sprayed, the more there were of them.

I did have a good outcome with a topiary hibiscus which was losing its leaves rapidly. I brought it into the house and used a systemic insecticide and it has sprouted all new healthy leaves. Likewise, I had similar success with another hibiscus, fuschsia and geraniums. I hope they don't come back again next year!

Winter Protection For Broadleaf Evergreens

By Nancy Lindblad

Have you noticed in spring, nurseries and other plant sellers have large areas of spectacular blooming rhododendrons to tempt homeowners with instant spring color? I've often wondered how many of these lovely plants go off to their new spot and then are forgotten when the blooms fade. I suspect these poor plants languish from lack of care and do not live to see another season.

In this neck of the woods, broadleaf evergreens include rhododendrons and holly. Winter protection for both is the same, although rhododendrons are slightly more likely to suffer from wind and winter sun due to the size of their leaves.

Broadleaf evergreens are subject to winter leaf scorch, which occurs when moisture is lost through the leaves more quickly than it can be replaced by the roots. Dry or frozen soil has very little available water for plant roots to pull up. In winter, the leaves of broadleaf evergreen plants lose water much more quickly than the bare stems of deciduous plants, particularly under windy conditions. Unfortunately, this often results in leaf scorch. A mulch of chopped leaves or mini-bark, 3 inches deep, will help keep soil moisture more constant throughout the year.

At planting, choosing a good site for your rhododendron is the most important step to insure health and hardiness. Always plant rhododendrons where they will get protection from wind and winter sun.

Buildings, slopes and evergreen shrubs & trees serve a dual purpose; they provide a background for the showy rhododendrons when in bloom, and serve as a windbreak throughout the year. In some cases a well placed fence can serve as a

windbreak and an architectural feature as well.

Before planting, look at the site you have selected to see if it is subject to intense winter sun. Note where your deciduous trees are planted and imagine- when the leaves fall and the sun turns to the south-how winter sunlight will affect the planting area. A spot with dappled shade in summer- ideal for rhododendrons- could be drenched with winter sunlight.

This was the case in my garden and for years we put up burlap fences and shields to protect rhododendron leaves from burning in winter. The burlap fence served as a windbreak as well.

Rhododendrons can do well in eastern Nebraska if some winter shade is provided. Ideally it needs to be broken shade that does not decrease light intensity too much. Rhododendrons don't bloom well without adequate light. Placing plants on the north side of a house or a large tree will give full light from the north, which is less intense than southern exposures, and some sun during the early morning or late afternoon.

Rhododendrons have a shallow root ball so it is necessary to maintain adequate moisture in the soil without waterlogging, even in winter. At planting, paying attention to soil drainage will prevent problems later. Plants standing in constantly wet soil during winter are prone to root rot.

In winter, keep the shallow root system of rhododendrons in mind and provide adequate water when conditions are windy and dry with little snow cover. The leaves on rhododendrons are quite expressive. They wilt when they need moisture and during cold weather the leaves curl inward and droop - a natural

protective response to the cold and wind.

Piling snow around the base of plants will provide moisture to their root systems as it melts, but be sure that deicing products with salt have not been used. Winter watering during warm periods is also very beneficial to your broadleaf evergreens.

Products called anti-desiccants can also be applied to help restrict moisture loss through leaf evaporation during winter. Two of the most common products, 'Drawx' and 'Wilt-Pruf', are sprayed onto the foliage once a month throughout winter and provide a waxy coating to leaf surfaces, slowing down water loss through the leaves.

Winters in eastern Nebraska, at least where we live, have gotten progressively warmer over the years. I have noticed that winter protection for most things is not as vital for survival as it was when we first moved to Blair back in the early 1960's.

We have stopped putting up the burlap fence and the mature rhododendrons have adapted to winter sun better than I expected. When the rhododendron and azalea border was new I remember years when the frost got the PJM rhododendron buds and years when there were very few blossoms on some of the other big leafed rhododendron varieties. Now the weather seems to have moderated and the blossoms never fail.

Of course, new plantings require more care and attention, and wind screens and good mulching can reward you with healthier plants come spring.

University of Nebraska- Lincoln Extension implies no endorsement of products listed in this newsletter, or non-endorsement of products not listed.

Be A Smart Seed Shopper

By Lorraine Urban

By the time you read this article, you'll be poring over the seed catalogs that your mail person seems to bring several of each day. I have a basket I keep handy that's just for seed and nursery catalogs, and it's much more interesting to look at them than to watch TV.



Generally speaking, seeds are a whole lot cheaper than plants, but I'm learning that ordering a lot of seeds that I never plant is sort of a "penny-wise and pound-foolish" proposition.

First, I look for the seeds I want. If they are available in several catalogs, which is often the case, I then look at the price per packet and the number of seeds in the packet. The number of seeds can be important both in the price I'll pay for the packet and for my gardening plans.

For a lot of my gardening years I assumed that all seed packages had about the same number of seeds; they looked about the same size in all of the stores that sold them. Not so.

Here's an specific example of what I mean: In one catalog a package of 450

seeds of "Buttercrunch Lettuce" is offered for \$2.49; in another one the same lettuce can be purchased in a 'Sampler' size packet containing ½ gram – approximately 400 seeds – for \$1.70. Yet another catalog will sell me 500 of those same seeds for \$.75. Or I can get 1700 of them for \$2.45 from a fourth source.

If I order, I also must consider the cost of Shipping & Handling. I may find "Buttercrunch Lettuce" at a local garden store, where there's no S & H, but I have to count the gas it takes to go to the store.

Since all of these possibilities offer several times the number of seeds that I need, I'll probably pick the "500 seeds for \$.75" as the best deal for me...and see if I can find a friend to share with, one who might have had to make the same kind of decision when buying radish seeds.

Which brings me to another way to have fun and save money, a seed exchange. Contact other "gardening friends," and decide ahead of time who's buying which seeds.

When the seeds arrive, divide them into smaller packets, being sure to label and date each packet and add the seed source (Burpee, The Fragrant Path, Pinetree Garden, etc.).

Set a time and place for getting together...at someone's home where the coffee pot's handy, or at a local restaurant where no has to "clean." I sug-

gest keeping the number small (no more than 4 or 5) and the date early in the year (March).

BE OBSERVANT. Notice if seeds don't germinate well. Refer to the seed source and decide whether it's a place to use again or to avoid.

After a couple of years of doing this, I've got my favorites, and I only use the other catalogs and stores if I can't find what I want from one of my favorites.

One of the most important things the "smart seed shopper" does is to throw away the seeds not used by the end of the year...with very few exceptions-which could be the topic of another article.

Mark your calendars

Spring Affair Plant Sale

April 22

9:00 a.m.-4:00 p.m.

Nebraska State Fair Park

Lincoln, NE

402/472-2679

Sponsored By:

Nebraska Statewide Arboretum

Nebraska State Fair Park &
Arboretum

UNL Botanical Garden &
Arboretum

Bulbs As Houseplants

By Betty Hamata



The term "bulb" is used by most people to refer to plants that have underground, fleshy storage structures. Only some of these plants actually have true bulbs, others grow from corms, tubers, tuberous stems, etc. Flowering or decorative plants grown from bulbs and bulb-like structures have very specific care requirements that must be followed for them to grow, thrive and hopefully bloom again.

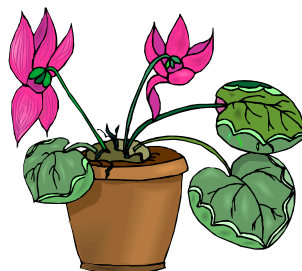
Amaryllis is a beautiful plant with large flowers and strap-like leaves, and is usually available from October through December. It grows from a large bulb and should be potted with 1/3 of the bulb above the soil. If a container did not come with your bulb, choose one that is no larger than 4" wider than your bulb, but is heavy enough to support this, sometimes top-heavy, plant.

After potting, place it in a bright location and water sparingly until the flower stalk emerges to avoid rotting the bulb. Once the flower stalk has emerged water regularly; wetting the soil completely then allowing it to dry thoroughly between waterings. Amaryllis should flower in about eight weeks after potting, and the stem may need staking.

After flowering, cut off the flower stalk, place the plant in bright light and continue watering. The foliage will live for several months and should be allowed to do so- so that the plant replenishes its stores of carbohydrates, allowing it to bloom again.

In fall, withhold water and allow the foliage to dieback. The bulb should be allowed to rest for two months in a cool place, 40-45° F degrees, and can be left in the pot during this period. After two months, restart the process outlined above.

Cyclamen will bloom for 2-4 months with each blossom lasting 2-3 weeks. Very bright light is necessary for buds to develop and bloom. Once in



flower, cool nights, 50-60° F degrees, will prolong blooms.

Never allow the plants to dry out. Water thoroughly when the soil surface becomes dry to the touch. Avoid watering at the plant crown to prevent rotting of the tuber.

Water from the base of the pot and allow the water to be drawn up through the soil. Allow the plant to drain for five minutes to ensure it never sits in water.

Bud blasting or aborting as well as yellowing leaves result from hot and

dry conditions, lack of water or insufficient light.

After flowering stops, gradually reduce watering and allow the leaves to die down. When all top growth is gone dig up the tuber, clean off all the soil and store it in a plastic bag with dry peat moss or vermiculite. Allow the tuber to rest under cool, 50° F degrees, temperatures.

In May or June, replant the tuber in fresh potting soil. The tuber should be halfway out of the soil medium to prevent crown rot. Place in a well-lit location. Water adequately and feed about twice a month with a complete liquid fertilizer. Second year plants will have smaller flowers, but more of them!

Gloxinias have large, velvety, bell-shaped blossoms that will last for 2-4 weeks. Gloxinias need bright, indirect light for new buds to develop and open. They also prefer warm temperatures- ideal daytime temperature, 75° F degrees, and nighttime, 65° F degrees or warmer.

Gloxinias should never be allowed to dry out, even slightly. Water them thoroughly when just the soil surface begins to feel dry, but avoid wetting the foliage. Allow the plant to drain for five minutes to ensure it never sits in water.

After flowering, gloxinias die back and require a period of dormancy, so gradually reduce watering and allow the foliage to dieback. After all foliage is dead, store the plant in its pot with

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Bulbs As Houseplants

(Continued from page 10)

dry soil and continuous darkness for 2-4 months.

Repot the tuberous stem at soil level, with the 'hollow' part on top, water sparingly and return to light. Fertilize and begin watering regularly as soon as new growth appears. Flowering should begin in about 3 months. New plants can also be started from leaf cuttings.



Oxalis or Shamrock plant requires indirect or bright-diffused light, but will tolerate fairly low light conditions. It also prefers cool temperatures and moist soil.

Drench soil thoroughly when watering then allow the soil to become moderately dry before watering again. Fertilize weekly with a complete fertilizer.

After blooming, decrease watering and allow the foliage to die back naturally. Allow the plant to rest for 3-4 weeks. Most indoor Oxalis will require dormant periods 2-3 times per year.

Oxalis grows from a true bulb. Repot and divide overgrown plants at the end of a dormant period, then resume watering and fertilizer.

Poinsettias reign supreme as the most popular holiday gift plant. Depending on several cultural factors, your poinsettias will do one of two things after the plant blooms- hold onto its leaves or drop its leaves. If the poinsettia holds onto its leaves after the holidays, treat it like any houseplant. Place it in a sunny location and apply a water soluble, complete, blooming-plant fertilizer once every two weeks.

If the plant loses its leaves, place it in a cool location where it still can get some light, such as on a basement window ledge and let the soil dry out. Do not allow it to get so dry at any time that the stems start to shrivel. Avoid setting the plant in places where the temperature rises above 60° F degrees; an average temperature of 50- 55° F degrees is best. Allow the plant to rest until spring before encourage new foliage growth.

In late April or early May, prepare resting poinsettias for re-growth by cutting their stems back to about 3-5 inches above the soil. When more than one plant is in the same pot, re-plant the poinsettias into individual containers. Use a commercially available soil-less potting mix.

After repotting, place your plant in a location with bright light and warm temperatures, 65-75° F degrees. Water your plant whenever the soil begins to dry. When new shoots are about 1 inch long, apply a complete, blooming-plant fertilizer. Continue to fertilize plants throughout the summer at intervals of seven to 10 days.

As soon as night temperatures reach a minimum of 60° F degrees, the plant

can be set outside. Place it in a shady location for two to three weeks to allow for acclimatization and to prevent leaf sunscald. Because an above ground container will dry out quickly, you may prefer to sink the pot into the soil in a sunny location with well-drained soil. Turn the pot every few weeks to break off any roots that might be growing through the drainage holes.

Pruning helps to shape poinsettias into attractive, compact forms. To prevent your plant from getting too tall, pinch off or prune growing tips when they are about 4-6 inches long, removing 1-2 inches at a time. The last pruning or pinching, before encouraging the plant to rebloom, should take place around late August.

In fall, when night temperatures dip below 55- 60° F degrees, move poinsettias indoors to a sunny location. Beginning September 25, the plants need darkness from 5 p.m. until 8 a.m. daily and night temperatures of 60-65 degrees.

Light from any lamps will prevent normal flowering of an uncovered poinsettia. To arrange dark conditions, put a cardboard box or other device over the plant. Once the plant begins to show color in the bracts, around late November, you can discontinue the long-night treatment and prepare to enjoy your poinsettia during the coming holidays.



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Crop Rotations for Gardeners

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umes, with a miscellaneous category for vegetables not in a main group.

Make a chart with a column for each month of the year. For every vegetable on your list fill in the months during which it will be in the ground.

Remember that this period will be shortened by raising plants in containers for transplanting later and lengthened by the use of some form of row cover early or later in the season.

Some crops such as parsnips and cabbage are sown once a year but with others, such as lettuces and radishes, repeat sowings provide a more continuous supply during the growing season.

Allocate each bed to a different rotation group of vegetables, and write in

the most important crop that each bed will grow. Refer to your month-by-month chart, and indicate a suitable crop to precede or follow it.

For example if Brussels sprouts are cleared in mid-spring, they may be followed by carrots, lettuces, or peas.

Most of your garden will support two crops a year. Use this basic plan to rotate crops in subsequent years.

Consider the overall plan as a rough guide only; many factors, in particular weather, have a direct bearing on the success and failure of crops. The key to success lies as much in flexibility as in strict adherence to the plan.

Keeping detailed records of your planting is an invaluable guide to improving performance in future seasons.

Happy Gardening!

New Master Gardener Training

March 2-30
9:00 a.m. - 4:00 p.m.

Invite friends or family who might be interested in participating.

Information and an application can be found at <http://hortparadise.unl.edu/mastergardener/mgprogram.htm>

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