



J&L Garden Center

The All Season Gift
and Garden Center

620 North 500 West Bountiful, Utah 292-0421

The Gardening Newsletter

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Fall Gardening

The fall season, with its equal days and nights, changes many things. It is the turning point in the growing habits in both plant and insect life. Many plants will put on a new growth spurt just before their fall dormancy. Don't be surprised if you see a few brand new leaves on your Japanese Maple, Quaking Aspen, Maples, or other shade trees (especially if they were "heat stressed" this summer). Occasionally we will also see some trees bloom in the fall. Enjoy the white flowers on your flowering pear tree, if it happens to bloom this fall, the tree will be just fine next spring.



Chewing insects gorge themselves before winter arrives. Insect damage is very apparent in the fall. Grasshoppers, beetles, and other insects may need to be controlled in your garden this fall. Watch for slug and snail activity; these pests do not die in the winter like grasshoppers do. Slugs and snails just hibernate until spring, so don't give up controlling them.

Because of the changes in the plant's growth habits, you may need to adjust your gardening habits this fall, to get your yard ready for winter. **Listed below is just a short checklist of a few changes to make this fall.**

- * Reduce water to trees and shrubs but do not let them dry out completely. Too much water, too late in the fall, is bad for trees because it keeps them growing too late into the fall.

- * Be sure to water evergreen plants more frequently than deciduous plants. Water plants occasionally until the ground freezes solid or until it snows. Evergreen plants need more water in the winter than deciduous plants because they keep their leaves all winter. Most winter injury is caused by dehydration.

- * Dig and store vegetables and flowers before the winter frosts arrive.

- * Remove dead flower & vegetable plants from the garden and cultivate the soil. Fall is the best time of the year to add manure and compost to the gardens.

- * Divide and transplant perennial flowers.

- * Trim trees and shrubs before the winter snow damages them. You can trim most plants lightly in the fall.

- * Fertilize your lawn with a slow release fertilizer. Fall is also an excellent time to aerate your lawn. If you need to power rake your lawn do it in the fall rather than in the spring.

- * Do not fertilize roses, shrubs, or trees in the fall; at least until after they have gone dormant. You do not want to stimulate excessive new growth in the fall.

- * Move houseplants inside before the frost. Make sure you do not take any unwanted houseguests inside with the plants! Be sure to spray your plants before taking them inside.

- * Kill weeds! The best time of the year to control morning glory, clover, oxalis, and many other weeds is in the fall.

- * Remove weeds from the garden. If you let weeds mature and produce their seeds in the fall you will have weed seeds for the next seven years.

- * Do not be alarmed if your yews, junipers, pines, and arborvitae plants shed their inner needles. This is natural each fall, the needles will turn yellow and then drop off the branch.

- * This is not a complete list. This list will vary from year to year. Make your own list of what needs to be done in your yard this fall and stop by if you have questions.

J&L's Pumpkin Growing Contest

Pumpkin Growers, be sure to mark the following dates on your calendar and plan to attend **J&L's Largest Pumpkin Contest**. Every entry receives a ribbon, and, all pumpkins over 30 lbs will also receive a prize.

Thur to Sat Oct. 24 -26 Pumpkin Registration
Monday October 28 Judge Pumpkins
Mon to Thur Oct 28 -31 Pick Up Pumpkin & Prize

Pumpkins were not always the traditional Halloween decoration. In Ireland, where Halloween began, the first Jack-O'-lanterns weren't made from pumpkins. They were carved from potatoes, rutabagas, turnips, and beets.

An old Irish legend tells of a man called Stingy Jack. He was too mean to get into heaven and had played too many tricks on the devil to go to hell. So when Jack died, he was doomed to walk the earth carrying a lantern carved out of a turnip with a lump of coal burning inside. Stingy Jack became known as the Jack-of-the-Lantern or Jack-O'-Lantern.

From this legend came the Irish tradition of placing Jack-O'-Lanterns in windows or by doors. The Jack-O'-Lanterns were meant to scare away Stingy Jack and all the other spirits that wander around on Halloween. It wasn't until the Irish immigrants came to the United States that pumpkins were used for Jack-O'-Lanterns. Can you imagine trying to carve a rutabaga or a turnip?

You Are Invited

J&L's Christmas Open House
Friday & Saturday November 22 & 23

Come and see our great selection of Christmas Decorations, Supplies and Gifts. Our Garden Center will be transformed into a Christmas Wonderland. We have a full line of **Hofert** Indoor and Outdoor Lights, **Barthelmess** (formally known as

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Barcana) Artificial Christmas trees, and many more exciting brands of decorations. We will have many decorated trees helping you see different ways you can decorate your own trees.

Fall Lawn Care

October is usually a good time to fertilize your lawn. However, because of the shortage of water, you may want to postpone your fall fertilization until November. Fertilizer stimulates grass to grow faster, which in turn makes the lawn require more water. A fertilized lawn will struggle and turn brown faster than a neglected lawn if a consistent source of water is not available when the weather is hot. Fertilize your lawn with **J&L Fall & Winter Lawn Food** as soon as the temperature drops and water is available; when mother nature starts supplying the water for you - rain or snow.



Mow those Leaves

Trees are dropping their leaves and it is important to prevent a heavy layer of leaves from building up on your lawn before winter. A heavy layer of tree leaves will shade the grass and can smother and kill grass this fall. In addition, leaf cover stimulates a winter lawn disease called snow mold. The easiest way to dispose of leaves is to simply mow them, bag them, and use them as compost in your gardens. Continue to mow your lawn at 1.5" to 2" long until the last time you mow your lawn for the year: then cut it short.

Lawn Weed Control

Lawn weeds are still growing right now. **Morgro Weedit II** is a good spray to kill most weeds in the lawn including spurge, dandelions, oxalis, morning glory, and clover. **Morgro Weedit II** will also kill flowers, shrubs and trees so be very careful when you spray. **Morgro Weedit II** will not kill any 'grassy weeds'; just the 'broadleaf weeds'. It is very hard to control the grassy weeds (crabgrass, foxtail grass, barnyard grass, etc.) this time of year. If you have any of these types of grassy weeds just pull as many as possible and apply a crabgrass weed preventer next spring.



Morning Glory Control

Wild morning glory is also known as field bindweed, devil gut, creeping jenny and several other names not used in polite circles. Do not confuse wild morning glory with the annual morning glory vines that are easily controlled and bloom beautifully all summer. Wild morning glory grows in almost every part of the world and is one of nature's most smothering, persistent plants with roots penetrating the soil to a depth of more than ten feet. In addition to its tenacious perennial nature, seeds are produced each year that may germinate over a 20 year period. Yes, wild morning glory is a tough problem in your yard, but you can do several things to battle the invader.

Mechanical Controls: Pull it out regularly. Cover the ground with weedcloth or black plastic and pull the plants that grow around the edges or push through the mesh.

Chemical Controls: Spray with **Weedit II**, **Compleet**, **Finale**, or **Roundup**. Timing is critical to control this weed.

Spray wild morning glory this fall while it is still actively growing. The more foliage that is present, the more effectively the chemical will be absorbed and translocated throughout the

plant. Sprays applied in the fall, after the first frost that kills your tomatoes and cucumbers, are particularly effective. Morning glory starts moving sugars from the leaves back into the root system in the fall, so, with a fall spray you can get more of the herbicide into the root system.

A single application will greatly reduce wild morning glory infestation, but you will probably not eradicate the weed with just one application. Some young morning glory plants may arise from roots that aren't completely killed. Seeds may also germinate and grow. Regular patrols of your yard during the summer will give you the chance to remove these young plants before they have a chance to mature and become a real problem. We have a morning glory control handout available. Please stop by to pick one up.

Don't Give Up Now

As fall fades into winter, yards and gardens are cleaned up and plants go dormant.

What about the insect pests? Where do they go? Many insects will be protected and will be ready to reappear next season unless you spend a little extra time eliminating them this fall. Many common insect pests actually overwinter in plant debris left in the garden, so it pays to clean the garden at the end of the season. For example, cabbageworms spend the winter in their pupa stage in plant debris left in the garden. Cucumber beetles overwinter as adult beetles in the same debris. The tomato hornworm also spends the winter as a pupa in plant debris. Lawn grubs safely rest as larvae in the soil just below the frostline. Rotovating the soil helps to kill many of these pests.



Other nuisance insects (boxelder bugs, snails, centipedes, earwigs, millipedes) overwinter in sheltered areas such as under plastic or weedcloth left in the gardens, in the siding of your house, or in a pile of firewood. These insects may also become active during the warm spells of winter.

Some caterpillars overwinter on the actual tree they eat during the summer. Eggs are deposited in the cracks in the bark or in the crotches of branches, ready to hatch next spring. Aphids also deposit their eggs in these same areas. You may see a willow branch completely engulfed with large black aphids this fall or an apple tree completely covered with the cottony covering of the woolly apple aphid.

Spend some time this fall controlling these pests and you may save yourself some time and money next spring. Spray the trunk of all the trees you know that have these insects. Dormant oil is a safe organic insecticide that effectively kills both larvae and eggs, if applied at the right time. Nothing kills eggs that are completely ready for the winter weather but if you spray before the eggs are ready for winter, or just as the eggs are starting to hatch in the spring, you can have some pretty good control.

Most borers that attack trees and shrubs spend the winter as larvae inside the host tree. They spend much of the warm weather, during the winter, tunneling around inside the tree. Controlling borers this time of year is very difficult. You have to inject your borer spray inside the hole or tunnel with a trigger sprayer or a syringe.

Don't quit pulling weeds from your garden. Weeds produce enough seeds in the fall to supply you with enough weed seeds for the next seven years. Hand pull, hoe, cultivate or apply weed preventers right up to frost.

Fall Rose Care

Don't fertilize roses in the fall. Roses need time to "harden off" before winter arrives. Roses growing too fast in the fall have new, "soft" growth. The soft growth is prone to winter injury while the older, "hard" growth will tolerate the winter weather. Reduce the amount of water you apply to your roses, again to help them "harden off" before winter arrives. Don't pick rose flowers any more this fall. Let the blossoms mature into rose hips. Hip formation also helps the rose bush to "harden off" for winter.

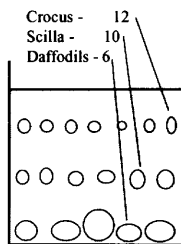


Prune your rose canes (except climbing roses and shrub roses) down to three or four feet high after the leaves completely freeze this winter. The only reason to prune roses in the fall is to prevent the snow from breaking the canes. Wait until spring to do your major rose pruning and shaping. In the spring, after the danger of frost is past, prune your roses to 14" to 20" tall.

Mulch your roses to protect the roots from severely cold temperatures. Let the ground and the roots freeze lightly, to become dormant, before covering them. The best way to mulch roses is to pile leaves, Soil Pep, Small Bark, or garden soil, four to six inches deep around each bush. Don't use grass clippings to mulch roses. Grass clippings can create a fungus problem that can kill your rose bushes during the winter.

Layering Bulbs

Most beginning gardeners plant a few bulbs here and there throughout their yard. After the initial delight of the blooming flowers they are left to stare at bare spots as they wait for the foliage to die back. Another way to enjoy a longer season of flowers is to layer them. Plant them in and around perennials; you get to enjoy a succession of flowers. The layering method also allows you to plant larger number of bulbs because the bulbs are stacked in the same hole.



1. Dig a hole the size of a dinner plate, 10 to 12 inches across and 8 to 10 inches deep. You can also make larger clusters if you have the space.

2. Mix well-rotted compost and bonemeal with the soil because you will not be able to add compost again for many years.

3. Place 6 daffodils in the bottom of the hole with a single Crown Imperial Fritillaria in the center.

4. Cover the bulbs with 2 inches of soil.

5. Arrange 10 to 12 scilla sibirica or scilla campanulata and cover these bulbs with 2 more inches of soil.

6. Scatter 12 or more crocus, snowdrops, or puschikinia about 2 inches below the soil line and cover them with soil. Don't worry, the lower bulbs will not have any trouble growing around the bulbs above them.

7. Gently water the bulbs long enough so water can reach the bulbs clear down at the bottom of the hole.

8. Try a different combination of bulbs in several areas throughout the yard.

Try: A mixture of 12 early, mid-season, and late tulips in the bottom of the hole with an Allium Giganteum in the center.

Try: Dutch Iris, Hyacinths or miniature daffodils in the middle layer.

Try: Anemone, Miniature Iris, or Grape hyacinths in the top layer of bulbs.

9. Use these layers of bulbs in and around your perennial flowers

so you do not have to disturb them when planting your annual flowers. Hostas, Astilbes, and Coral bells all grow well among flower bulbs.

Tulips

Although individual tulip bulbs only bloom for a week or two, you can enjoy blooming tulips from April through May if you plant several different varieties. With the proper planning your tulip garden can be fun and exciting for 8 to 12 weeks each spring.



There are so many kinds of tulips, how do you know which ones to choose? They vary by color, blooming time, height, and flower form. The **Royal Horticultural Society** and the **Dutch Flowerbulb Industry** have classified tulips into 13 different categories. Some categories are based on genetic heritage and some are based on flower form. It is a flawed system and some tulips could fit into two or three different categories, but at least it standardizes terminology.

1. Emperor Tulips (fosteriana tulips). These are among the first tulips to bloom each spring. They are relatively short stemmed tulips. They sometimes bloom while snow is still on the ground or they may be covered by an inevitable late spring snow storm.

2. Kaufmanniana Tulips (rock garden tulips). These tulips are very short stemmed varieties. They usually grow 4" to 6" tall and have full sized blossoms. They usually bloom when the crocus are blooming in the yard.

3. Greigii Tulips. These tulips are very short stemmed tulips similar to the Kaufmanniana. Most greigii tulips are mid season bloomers. They have mottled foliage and large flowers. These too are rock garden tulips.

4. Single Early Tulips. These tulips are medium height varieties that bloom after the Emperor Tulips but before the Darwin and Triumph varieties.

5. Triumph Tulips. These varieties have the broadest range of colors. They have many soft shades, bicolor varieties and vivid bright colors. These tulips are medium height. They usually grow 14" to 18" tall. They are mid to late bloomers.

6. Darwin Hybrid. These tulips are the most popular and versatile varieties. They have strong, vibrant colors. The bulbs are large and hardy and will perennialize for several years without having to dig them, where the conditions are right. These varieties are mid to late season bloomers. They grow quite tall, usually 20" to 24" tall.

7. Single Late Tulips. These tulips are tall, late blooming varieties. These varieties are valuable in making the transition from early bulb gardens to the summer flower gardens. They often overlap the planting time of summer annuals.

8. Double Tulips (Double early and Double Late). These tulips are double petaled types similar to their single blooming cousin. They grow tall and will bloom during the same time as the Single Early and Single Late varieties. They are often called *Peony Flowering Tulips* because the blossoms resemble peony blossoms.



9. Lily-Flowering Tulips. These tulips have strongly pointed flower tips. There are not many colors but the blossoms add variety to the garden. These tulips often bloom late.

10. Parrot Tulips. These tulips are floral freaks that have been popular for years. The feathery petals add an informal look to the bulb garden. Parrot tulips along with many of the other specialty (unusual varieties) are not very long-lived in the garden. Several types of specialty tulips seem to fade away after several years in the garden, unless they are fertilized heavily each year, and divided frequently.

11. Bouquet Tulips. These tulips produce several flowers on each stem. The blossoms are a little smaller than other varieties but it makes up by having more flowers per bulb.

12. Species Tulips. These tulips are non-hybrid tulips. The flow-

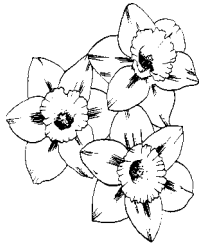
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ers are often small and the stems are usually short; up to 9" tall. These tulips naturalize extremely well and are great in areas where they can be mass planted.

13. Fringed Tulips. These tulips are similar to parrot tulips in that they are floral freaks. They have normal tulip shaped buds but the tips are very frilly and lacy. They are usually tall growing and are mid-season to late-blooming. There are only two or three different colors available in the fringed varieties.

Daffodil Facts

Daffodils are native to the Mediterranean area. They were grown by the Egyptians and Greeks. Daffodils were brought into the English gardens in the 1500s. By the 1600s about 50 cultivars of daffodils were commonly grown. By the early 1800s about 400 cultivars were available. Between the 1800s and the early 1900s another 1,000 cultivars were developed. From the early to mid 1900s about 6,000 more cultivars were hybridized. Today we have more than 24,000 different cultivars to choose from, if you can find them all. Many of these cultivars have only slight differences and the common daffodil grower would not notice any difference. Just like tulips, the **American Daffodil Society** and the **Royal Horticultural Society** have created several different classifications of daffodils.



- 1. Trumpet** - The center cup is as long or longer than the petals.
- 2. Large Cup** - The center cup is about the same size or up to 1/3 larger than the petals.
- 3. Small Cup** - The center cup is about the same size or smaller than the petals.
- 4. Double** - The center cup has multiple layers and there are multiple rows of petals.
- 5. Triandrus** - The flower cup hangs and the petals sweep back.
- 6. Cyclamineus** - The petals sweep back.
- 7. Jonquilla** - The center is a very small cup. They have very fragrant flowers.
- 8. Tazetta, Poetaz** - The flowers have very small cups. They are bunch-flowering and fragrant.
- 9. Poeticus** - The flowers have white petals, small "eyes", late blooming, and they are usually fragrant.

Naturalizing Bulbs

Once you've nestled those tulip and daffodil bulbs in their proper holes and patted earth on top you can rest happily knowing their flowers will appear each spring for years to come. This dependable blooming habit - called naturalizing - occurs with other bulbs too.



Puschkinia start blooming very close to the earth in early spring, then as the weather gets warmer, they shoot up to their full height of 6 inches. The clusters of striped blue-and-white blossoms stay in flower for a month or more then quickly fade without leaving a mess. Plant them above early daffodils so the two varieties bloom together.

Scilla sibirica have small blue bells. They prefer shade and these bulbs will even thrive under other plants.

Muscari - Grape Hyacinth are perhaps the most vigorous of the spring blooming bulbs. The little blue flowers pop up in groundcover areas, flower gardens and even in the lawn.

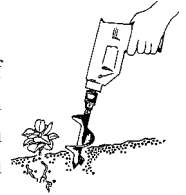
Galanthus often called snowdrops, are the first of the bulbs that bloom in wintertime undeterred by onslaught of snow and ice. Their frosty white bells emerge close to the earth on short 3" to 4" stems. To enjoy their sweet scent bring a bunch inside where the warm air will release their perfume.

Species Tulip are some of the longest lived of all tulips. Species tulips are the ancestors of our hybrid tulips that we plant. They multiply rapidly and naturalize easily.

Species Crocus just like species tulips, are the best long-lived crocus to plant if you want them to naturalize. They are the ancestors of our hybrid crocus. They do not have as large of blossoms but they multiply more rapidly.

Bulb Augers

Bulb augers help take the chore out of planting bulbs and flowers. Bulb augers can also make planting petunias and marigolds fun and easy next spring. Using a bulb auger you can plant up to 300 bulbs in one hour. We have two different styles of bulb augers available for rent or purchase. One style is for digging holes while standing up. The other style lets you dig your holes while you are on your knees. Both styles work great. The main problem with bulb augers is once you start you won't be able to stop. You may have to plant more flowers than you thought.



Bulb Questions

1. Q. Why can't I plant tulip bulbs in the Spring?

A. Spring-flowering bulbs must be planted in the fall because they need a long cool period to stimulate the blooming process. Most tulips (and many other bulb varieties) need at least 6 to 8 weeks of cold weather before they will bloom properly.

2. Q. It's February and I forgot to plant my bulbs. Do I save them until next year?

A. **NO!** If the bulbs are plump and firm plant them now, even if you have to plant them into pots and put them outside in a shed. Bulbs are not seeds, they will not store and they will dry out and die if not planted. Chances are you may still get some results even if you plant them late.

3. Q. What should I do if the weather warms early and then gets cold again?

A. Nothing. Tulips and other bulbs are tough. They can usually take whatever mother nature dishes out. A short freeze won't do any lasting damage to young shoots and buds, though it may "burn" blossoms that have already opened. An unseasonably warm spell may cause bulbs to bloom earlier than anticipated, but in most cases no damage will occur, unless you damage the plants by covering them with mulch or you break the plants by covering them with a blanket.

4. Q. How do I keep animals from digging up bulbs?

A. Some animals are not attracted to the bulb but they love the smell of **Bone Meal** you used to fertilize the bulbs. Fido is sure you just buried a bone for him to find and eat! If you have animals (dogs, raccoons, squirrels, etc.) that may be a problem you may want to fertilize your bulbs with a commercial fertilizer instead of an organic fertilizer to eliminate the odor factor.

The only sure way of keeping unwanted animals from digging up your bulbs is to physically cover them with a screen or wire mesh. Some gardeners will leave the wire mesh in the soil and let the bulbs grow up through it. Other gardeners have found that removing the screen or wire mesh after the ground has settled or just before the bulbs begin to grow in the spring is just as effective as leaving the wire mesh permanently. Most animals won't dig up the bulbs after the ground hardens.

5. Q. Should I fertilize bulbs?

A. If you are planting bulbs for only one year's bloom: **NO**. If you want the bulbs to perennialize and bloom for many years: **YES**. Fertilize your bulbs when you plant them with a slow release bulb food such as **Bone Meal** or **Dutch Bulb Food**. Fertilize each spring,

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just as the shoots are appearing, with a balanced Vegetable & Flower Fertilizer such as either **6-10-4** or **16-16-8**.

6. Q. What should I do after the flowers fade next spring?

A. Wait until the blossom fade and "Dead Head" the plants. (Remove the flower head so it will not produce seeds.) Do not remove the leaves until the bulb has had a chance to reproduce the food reserves within the bulb (six to eight weeks). If you remove the leaves too soon your bulbs will not bloom very well, if at all, next spring. Fight the urge to trim back or contain the leaves during the die-back phase. Don't bunch, tie or cut off the leaves during this period. Dealing with the fading foliage is one of those things that lovers of spring bulbs must learn to deal with. The only management tip is to camouflage the leaves; plant other flowers around them so they are not as noticeable.

7. Q. When should I plant my bulbs?

A. While it is best to buy your bulbs when the best selection is available (September), it is not always good to plant them that soon. Wait until the ground temperature drops below 60 degrees F to plant bulbs (October). Be sure to plant your bulbs at least six weeks before the ground freezes hard, so the bulb has time to start rooting in the fall. The key is to plant in the fall to have blooms in the spring. Even if you forget and plant late, your bulbs will spring into action and try to start rooting. Bulbs are pre-programmed to grow and will do their best no matter how late you plant them.

8. Q. Why should I plant bulbs in clusters?

A. Groups of flowers are more eye appealing than individual "soldiers marching single file". To create a greater color impact in the garden, plant clusters of the same color bulbs together in blocks. Try planting your bulbs in a triangular pattern in the garden with the point of the triangle towards the front of the garden to make the garden appear more full. Plant bulbs 4" to 8" apart within the clusters and plant your clusters 2' to 4' apart in the garden. Stop by and pick up a *Free Bulb Planting Guide* to give you more ideas about planting and growing tulips in your yard.



Fall Pruning

Fall is a good time to get your yard into shape for winter and spring. Trim your "summer flowering" shrubs now (mock orange, potentilla, spiraea, etc.) but don't trim your "spring flowering" shrubs (forsythia, quince, lilac, etc.) until after they bloom next spring. If you prune your "spring flowering" shrubs now you will remove most of the flower buds for next spring. Remember, don't prune roses this time of year, wait until April.



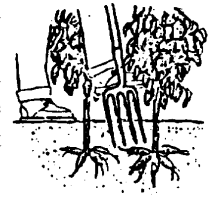
You can prune shade trees this fall, after the leaves drop. Maples, birch, willows and many other shade trees respond well to fall pruning. Many shade trees bleed if you prune them too late in the spring. Don't prune fruit trees heavily in the fall unless you absolutely have to. The best time to prune fruit trees is early in the spring, just before they start to grow (anytime after January). Be sure to give all of your hedges and upright junipers one last trimming for the year. This final touch up makes a big difference on how they will look all winter.

Dividing Perennials

One of the joys of a perennial garden is watching the plants grow and fill the spaces allotted to them. However, perennial flowers can out grow their assigned areas quickly unless they are moved and divided periodically. Most perennial flowers do

not know when to stop growing; you need to make that determination for them.

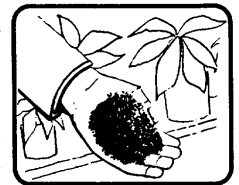
Dividing perennial flowers is not a bad thing for the plant. In fact, many plants are invigorated by dividing them regularly. Don't be afraid of breaking roots, stems, or plants as you divide them. This is a necessary evil when dealing with strong rooted plants. Don't be afraid of throwing away extra plants, or unwanted plants, or giving extra plants to neighbors. The hardy perennial flowers will take over and dominate the weaker varieties, if you don't do some refereeing. Sometimes you may need to remove an entire plant.



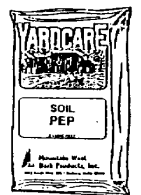
Divide spring and summer blooming perennials in the fall, as soon as the temperatures begin to moderate. Divide fall blooming perennials either in the spring or after they finish blooming in the fall, if there is still several weeks of good weather before the ground freezes hard. Divide perennials as often as the plant overtakes its assigned area. You may need to divide your shasta daisy or coreopsis every two or three years. Phlox, Astilbe, and daylilies may only need to be divided every 5 to 6 years. Peonies only need to be divided every 10 to 15 years.

Good Soil Cures Many Gardening Problems

The soil condition is the most important part of gardening. Without the proper soil conditions gardening can be a chore for you, and your plants will just not respond and grow the way you want them to grow. Remember, **Garden Soil is not Dirt**. Dirt is the stuff you wash out of your clothes after working in the yard. Garden Soil is a complex mixture of minerals, air, water, organic matter, microbes, and other critters. Soil is full of life and deserves your attention. With good soil, gardening will be more fun. The soil will be easier to plant in, cultivate, and it will be easier to grow your plants. Perfect soil is hard to come by in most home gardens and may take a little extra effort to achieve. The best way to improve your garden soil is by adding **Organic Materials** every year, and, the best time to apply **Organic Materials** is in the fall; not in the spring. Mix as much manure, compost, soil pep, or other organic materials (within reason) as you can afford. You will be amazed each spring how much better your soil is than it was the previous year. Many garden soils will take four, six, or even 10 years to completely change but you will notice an improvement each year. We have an excellent handout on soils and mulches. Please stop by and pick up your free copy.



Two of the best mulches to add to your garden this fall are **Soil Pep** and **Nutri Mulch**. Nutri Mulch is a mulch composted from a mixture of turkey manure and wood shavings. **Soil Pep** is composted bark without manure.



Composting Tips

Composting is an excellent way to make your own organic materials from your gardens. However, many gardeners experience a few problems with their compost piles. Composting is pretty simple once you learn how. We have a composting handout available so stop by to pick one up.



What can be composted:

Leaves, Cornstalks, Straw, Hay, Grass Clippings, Chipped wood, Wood ash (wet), Weeds, Manure, Fruits, Vegetables, Coffee grounds, Tea bags, and most organic products in the yard.

What cannot be composted:

Charcoal and Coal ash, Large quantities of Pet Manure, Treated lumber, Large branches, Diseased plants, Mature weeds (with seeds), Weeds that spread through runners (morning glory, quack grass, bermuda grass), Meat, Bones, Dairy products, Salad dressing, Cooking oil, Peanut butter, Grease, and other Animal products.

Composting Problems

1. **Problem** Strong odor
Solution Turn the compost pile more frequently.
2. **Problem** Too Wet
Solution Add dry grass or straw. Turn compost.
3. **Problem** Not composting but wet.
Solution Add grass clippings, Compost Maker, or Nitrogen. Turn compost more frequently.
4. **Problem** Not composting and dry.
Solution Add more water or Compost Maker.
5. **Problem** Ammonia Smell
Solution Add dry leaves, straw or sawdust. Turn compost more frequently.



Chemical Spills

Accidents are a part of life. It is important to know what to do if you accidentally spill a pesticide. Listed below are the steps we teach our employees to follow if there is a chemical spill at our garden center.

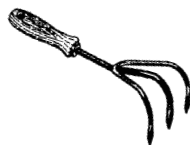
1. Isolate the area. Keep everyone away.
2. Ventilate the area. Open doors, windows, etc.
3. Make sure there is no immediate danger. (fire, electrical shock, contamination, etc.)
4. Administer First Aid to the injured party.
 - a. Flush eyes with water for 15 minutes.
 - b. Wash affected areas with soap & water.
 - c. Remove contaminated clothes & wash.
 - d. Get injured person to a doctor.
5. Call someone that knows how to take care of the spill. (Manager/Parent/Responsible Adult/ 911)
6. Put on Rubber Gloves & Boots.
7. Absorb the spill with an absorbent. Do not ever apply water at this stage; it may activate the chemical and cause unwanted fumes or other problems. (We use sawdust but any other absorbent material will work.)
8. Dispose of absorbent safely and properly.
9. Scrub area with concentrated detergent and water.
10. Wash gloves, clothing, shoes and **Wash Hands**.



Controlling Pests -without Pesticides

If you would rather not use chemicals in your vegetable garden you can still control weeds, diseases, and insects by other means.

The primary means of controlling weeds, without chemicals, is mechanical - good old-fashioned weeding. Remove weeds with a hoe or tiller while they are still small and before they can compete with vegetable plants for water, nutrients, and light. Never let weeds go to seed in the garden. Some weeds can produce thousands of seeds from one plant. Controlling weeds can also help control insects and diseases. Many insects and diseases over-



winter in weeds, as well as in flowers and in vegetable plants left in the garden during the winter. Remove, compost, or rototill old vegetable and flower plants into the soil as soon as possible after frost.

Other nonchemical methods of pest control include using mulches, preventing plant stress, rotating crops, maintaining good air circulation, timing your planting, furrow irrigation, and general sanitation.

Need more alternatives? You can use barriers, repellents, traps, baits and beneficial insects. Natural pesticides, such as soap, water, oil, sulphur, and copper can also play a part in controlling some insects. Keep in mind that despite these methods, some pests can still get out of control. Then you have to choose between using chemical controls or losing yield and quality. You may have to plant a double crop of plants: half for you and the other half for the insects and diseases.

Fall Sprays

Winter is almost here, but not quite. You may still have a few insect and disease problems you will need to spray this fall. If you have any of these problems in your yard stop by so we can tell you how to control them.



Powdery Mildew - Spray any plant that has the tell-tale sign of powdery mildew; the dreaded white powder. This disease overwinters on bark and in fallen leaves. Remove and compost all leaves infected with this disease.

Coryneum Blight - Spray peach and nectarine trees with copper as soon as the leaves drop off this fall. This is becoming a fairly common disease. Remove and compost the fallen leaves and fruit. You may need to spray the tree again next spring as well.

Aspen Leafspot - Spray quaking aspen trees as soon as the leaves drop off this fall. Remove and compost all the fallen leaves. This disease is spread by infected leaves.

Euonymus & Lilac Blight - Spray lilacs and burning bush that showed small, stunted, yellowish leaves this summer. Spray them with copper as soon as the leaves drop off this fall. Repeat the same spray before the leaves form in the spring.

Boxelder Bugs - These pests are a nuisance all fall, winter and spring. They are not harmful to your home and they are hard to control. If you can kill them before they reach your house you will have much less trouble killing them. They are very difficult to control on or around the house.

Mosquitoes - Depending on the weather, spray your entire yard, bushes and trees, with Malathion just as the sun sets. You may need to spray every three or four days until the temperature gets cool enough to kill the mosquitoes naturally.

Slugs & Snails - The best control for slugs & snails is using bait rather than spraying. **Persistence is the key**, don't quit trying to kill these pests until the ground is frozen and the pests have gone into hibernation for the winter.

Spidermites - Spray badly infected plants (Alberta Spruce, potentilla, roses, raspberry, etc.) with a **Dormant oil** as soon as the temperature will stay below 70 degrees. The oil puts a long lasting coat on the plants that smothers eggs. Repeat the spray in the spring just as the plants begin to grow.

Aphids - These little insects range in colors from clear to black and from green to red to yellow. Aphids begin to cluster on tree trunks and in shrubs during the fall. They suck as much sap from the plant as possible to prepare for winter. Spray each plant thoroughly if you see aphids on it, especially willow and poplar trees. A good **Dormant Oil Spray** controls these pests.

Spiders - Spray the outside of your house with **Conquest**, especially around windows and doors to prevent these pests from entering

your home. Once spiders are inside the house you can either use a **Spider Trap** or an indoor **Spider and Roach Spray** to try to keep them under control.

Winter Plant Care

Some plants are much more winter hardy than others. We sell many plants that thrive in Oregon without any winter care but will struggle and die if not properly protected in Utah. Many plants that are not supposed to survive in this area will grow and flourish if they receive the correct winter care. Some plants in one area of the yard may need much more protection than the exact same plant in another area of the same yard. Sometimes it isn't just the cold temperatures that cause the problems. Sometimes it is the fluctuations in temperature or water, and the plant's current condition that cause the injury.

The first step to protect your plants in the winter is to keep your plants healthy during the spring, summer and fall. A healthy plant will endure much more winter stress than a struggling plant can.

Most frost injury doesn't occur during the winter, it actually occurs in the late-fall and in the early-spring. Early frosts in the fall can injure plants that are not quite ready for winter. Keeping plants too wet or giving them too much fertilizer in the fall can prevent plants from getting ready for winter. Late frosts in the spring damage plants that think spring arrived a week or two earlier. A magnolia, for example, planted on the south side of a house enjoys the warmth and protection from the house and may start to bloom and leaf out earlier than it would have if it was planted on the east side of the same house. This early growing time may actually kill the tree while it would have been just fine in another location.

Perennial plants are often damaged by soil heaving. Alternating freezing and thawing of the soil pushes shallow plant roots out of the soil, or breaks the roots off from the main plant. Chrysanthemums, delphiniums, and strawberries are susceptible to this type of winter injury. A layer of compost or bark helps prevent soil heaving.

Few plants in containers can survive winter without some winter protection. Some pots may crack or break if left outside for the winter, exposing plant roots to the air. Most plants in pots that die in the winter die from the lack of water, not from the cold. You need to remember that all roots need water year round and if mother nature does not provide it with snowfall you will have to water them occasionally. A pot in a sunny spot will need water more often than a pot in the shade. Sometimes the best way to protect plants in pots during the winter is to move the pots inside a shed, to set the pots in a shady place right next to the house, or to actually bury the entire pot in the garden for the winter.

Bark on some trees may split and crack on the south or west side of the trunk. This cracking is caused by the freezing and thawing cycles of winter. The tree gets sunburned much like an ice fisherman or a skier does. The tree cannot move into the shade so it freezes at night and sunburns during the day. Thin barked trees such as peaches, cherries, lindens, birch and maples are often damaged in this manner. Either paint the trunks white, to reflect the sun, or wrap the tree trunks with tree wrap in the winter.

Most winter injury is caused when the plant runs out of



water during the winter. Broadleaf evergreens such as boxwood, holly, euonymus, and rhododendrons, continue to use, and lose, water through their leaves during the winter. If the ground is frozen and the plant's roots cannot replace this water loss, the leaves turn brown and die. Southern or western exposures and windy conditions aggravate this problem. A layer of mulch can help prevent this type of winter injury along with coating the leaves with an antidesiccant such as **Wilt Pruf**.



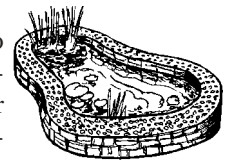
Occasionally the conditions are such that plants can actually die because the temperature gets too cold for that type of plant in our climate zone. In 1990 many euonymus plants, cherry trees, flowering plum trees, along with many other types of plants throughout the valley died because the temperature was -20 for an entire week. Although this type of frost damage does kill entire plants on occasion, the usual damage from extreme cold weather is the lack of flowers the next spring. For example, lilacs and forsythia may not bloom after a very cold winter because their flower buds are the first part of the plant that is killed in cold weather.

As you can see there are many aspects of winter plant care that should be addressed in your yard. The plants rely on you for the necessary water and winter protection to help them grow and bloom successfully.



Pond Care Tips

If you take a few minutes this fall to winterize your pond properly you can enjoy it again next spring. Stop feeding your fish when the water temperature drops below 50 degrees. Fish will survive the winter without food. Excess food in the pond will create bacteria that could kill your fish. Clean all the leaves and other organic materials that accumulate in the pond; to prevent a buildup of bacteria in the water. Remove any tender pond plants and set the winter hardy plants in the bottom of the pond for the winter, be sure to remove any dead leaves.



Do not let your pond's surface completely freeze. Oxygen must be able to get into the water and carbon dioxide must be able to escape. You can use a pond heater or run a small pump to keep the surface from freezing completely. Styrofoam blocks or rubber balls can also help prevent the entire surface from freezing. Remove the styrofoam or the ball in the morning and replace it in the evening. If the water surface should freeze solid do not break it with a hammer. The shock waves may kill the fish. Set a pan of boiling water on the ice so it can melt a hole in the ice.

If your pond is less than eighteen inches deep, the water will probably freeze solid and your fish will die no matter what you try. However, with the proper care your pond can be fun and enjoyable for years to come.

Household Accidental Invaders

It is once again the time when insects inadvertently enter homes and buildings from the surrounding landscape. Common accidental invaders include boxelder bugs, multicolored beetles, spiders, millipedes, and elm leaf beetles.



Accidental invaders are generally harm- *continued on page 8*

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less to people and property. They do not feed on people, pets, houseplants, stored products, or furnishings. They do not sting and they do not carry disease. Accidental invaders cannot reproduce indoors. They are nuisances just by their presence, especially when they occur in large numbers.

The preferred control for accidental invaders is prevention; stop them before they enter the house. Typical pest-proofing activities include using tight-fitting doors and windows; sealing openings and cracks around pipes, wires, windows, doors, chimneys, and foundations; repairing or replacing window screens; and keeping siding, eaves, and soffits in good repair.

Insecticide barriers can supplement pest-proofing and may have to be applied on a regular basis. Homeowners may spray **Permethrin** -sold as *Eight or Conquest*, **Sevin**, or **Diazinon** around your home's exterior.

Treat the southern and western sides of your home, where insects are most common. Apply the insecticide according to label directions to the siding, foundation, windowsills, and door thresholds. Spray the lawn and shrubs several feet from the building as well. Insecticides must be applied before insects begin to enter buildings to be effective.

Direct application of an insecticide to clusters of insects outside on the siding and foundation may also reduce the outdoor population and limit the number that will get into the house. Begin spraying as the insects congregate in late fall and repeat as necessary. You can also use a soapy water spray (5 tablespoons of liquid detergent per gallon of water). The soap solution kills only the bugs sprayed. It has no residual effect and does not prevent others from coming to the site.

Remove insects that have already entered the home with a dustpan or vacuum. A household insect spray such as **Ortho Ant Stop** or **Raid** provides some relief but it is not a long-term solution to the problem. Aerosol sprays do not control any concealed pests. Insects that showup inside a home later in the winter and spring all entered the building the previous fall. They did not reproduce indoors they just hibernated for a while. Be sure to keep your vacuum handy to get rid of these unwanted household pests.

Household Ants

Have you ever noticed a crumb from yesterday's sandwich sprouting legs and moving across the kitchen counter? What was yesterday's crumb is now a feast for an army of ants. Ants usually take regular routes to and from their nest and their food by establishing a chemical scent trail. Instead of leaving bread crumbs to find their way back home, they leave a smell behind to find their way back to the bread crumbs.

Ants can be common pests in homes. Damage from ants varies. Most ants are primarily just a nuisance; they cause little damage. However, carpenter ants can weaken wooden structures. Unlike termites, ants nest in wood but they do not eat the wood. Ants have a wide range of nesting habits and food preferences. Some ants build nests in soil producing characteristic mounds while other ants nest in homes behind moldings, baseboards, countertops and even in potted plants. Still others, like carpenter ants, nest in decaying wood. Most indoor ants do not cause any structural damage to buildings.

Not all ants found outdoors become pests indoors. Outdoors, ants are important in aerating the soil and in seed dispersal of many wildflowers. Outdoor ant colonies generally do



not require control.

Inside, ants become a nuisance. They like to eat sweets, fats, starches, grains, and other foods - including meat. That's why they hang out in the kitchen. They may be nesting either inside or outside so spraying a pesticide on the occasional ant foraging for food is only a temporary fix. However, spraying ant crawl ways, tunnels, and the ant hill may help eliminate the problem. Both Diazinon and Permethrin pesticides provide a safe chemical control for ants if used correctly. Two other excellent indoor sprays are **Bioganic Crawling Insect Killer** and **Concern Citrus Home Pest Control**. These two products are not chemicals and they do not leave a chemical residue. In fact, **Bioganic Crawling Insect Killer** has a strong clove smell that is quite pleasant and **Concern Citrus Home Pest Control** has a pleasant citrus odor.

Ant traps and baits can also be effective. Put the traps under the sink, in the food closets, or behind the drawers in your kitchen. The best control for ants is to eliminate their food source and to keep a vacuum or a broom handy.

Deer Controls

Fences - Cages - Repellants - Deer Proof Plants

Have you ever watched out your back window as a Doe and her two fawns saunter into your garden? They are so cute, the kids would love to watch them walk through the yard. They look so sweet; they wouldn't hurt anything. You watch as one of the fawns takes a bite of the lamb's ear growing on the edge of the garden: hasn't he learned that deer do not like plants with fuzzy leaves? Lamb's ear was on the list of plants deer will not eat. The other fawn takes one bite out of your prize pumpkin and then strolls over to look at the bright red tomato. Meanwhile, the doe devours all of your pretty pansies, pulling each plant out by the roots as she gulps them down. Now all of a sudden these cute deer are not as welcome as they were a minute ago. Part of you wants to run for a camera while another part of you wants to look for the shotgun.

Unfortunately there is not a good solution to the deer problem. The only 100% control is to use physical barriers such as seven to eight foot tall fences around the yard or cages around each plant. Some gardeners have used chicken wire, shade cloth, burlap, or nylon netting to build cages.

Dozens of repellents have been tried by inventive and very desperate gardeners. They all work, for a short time, but deer get accustomed to them. The trick therefore is to switch repellents occasionally. Some of the more common repellents we have heard about are:

Motion sensors activating a light, a sprinkler, or a loud radio - be careful or your neighbors might not be neighborly very long. **Dogs** are good at way to keep deer out, if the dog is fairly large, noisy, and has free rein of the yard. **Blood Meal** and **Milorganite** are two fertilizers that have an odor deer do not like, sprinkle them lightly around the yard every week or two. **Human Hair**, **Chunks of Soap**, **Fabric Softener Sheets**, **Garlic Spray**, **Eggs and Water Spray**, or **Cayenne Pepper** are household repellents that tend to repel deer. Several commercial repellents are also available such as "**Hot Pepper Wax**", "**Not Tonight Deer**", "**Deer Away**", "**Ropel**", "**Coyote**" or "**Wolf**" **Predator Urine**, or "**This 1 Works**".

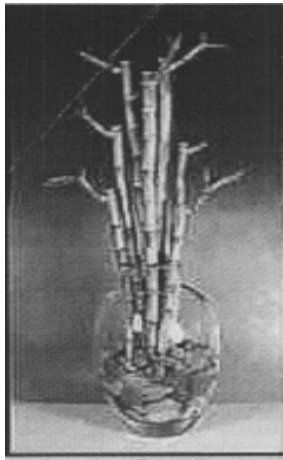


Another possible choice to control deer is to use

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J&L's Coupon of the Month

Free
One
3" Long
Lucky Bamboo
Shoot.



Buy More
Lucky Bamboo
Shoots
25% Off.
Any size stalks.

Coupon expires November 30, 2002

Selection is limited to plants in stock.

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"Deer-Proof" plants, but don't get your hopes up. The Utah Division of Wildlife, Sunset Western Garden Encyclopedia, and several other publications list plants that deer will not eat. The problem is that deer cannot read and many of the plants on those lists have been munched on by deer in this area. Deer will try eating most anything at least once, even if they don't like it and decide to spit it out.

Lucky Bamboo *Dracaena sanderana*

The Chinese say that Lucky Bamboo will bring good fortune to your home or business. In Asia, it is given as a gift to those starting a new business, or to someone moving into a new home, or to anyone at any time of celebration. Since Lucky Bamboo requires no natural light it is especially nice in a home or office; in an area where no other plants can grow. It is very easy to grow and will live for many years.



Unlike its name, Lucky Bamboo is not a bamboo at all; it just looks like bamboo. Lucky bamboo is actually a dracena, (*Dracaena sanderana*). Lucky bamboo is a stick that will grow only a few inches of roots and sprouts. It will not grow branches or produce new shoots.

Curly. Many lucky bamboo have fancy curls or waves. They do not grow that way naturally. Farmers have to lay the stocks on a table in a hot house. They cover three sides to keep them dark. One side has bright light. The plant naturally grows toward the light and then the farmer rotates the stock to make it curl. It takes as long as a year to produce a complete curl.

Care. Keep your lucky Bamboo in 1"-3" of water, just enough to cover the roots. There is no need to transplant it into soil. This is not a winter hardy bamboo, so, it will not survive if you plant it in the garden. Add water to the container as needed and wash out the container as needed. Do not fertilize. Keep your lucky bamboo in temperatures from 45 to 90 degrees.

Light. Lucky Bamboo does not need natural light. In fact, it prefers to be out of direct sun. The stalks of the Lucky Bamboo will not grow any longer but they can get thicker over time. The leaves on the top of the stock will grow upwards. The more area the roots have to grow (the bigger the container), the faster and longer the leaves will grow, but the stock will still remain the same length.

Ancient Chinese tradition has it that the number of lucky bamboo stalks in a container have different meanings and bring different beneficial factors into your life.

Three Stalks: Bring happiness, wealth and longevity.

Five stalks: Represents the five different parts of life from which wealth spurs.

Six stalks: Bring prosperity and favorable conditions.

Seven stalks: Good health.

Eight stalks: Grow and thrive.

Ten stalks: Complete and perfect.

Twentyone stalks: Offer a very powerful all-purpose blessing.

Everyone would love to receive good luck and beautiful decorations for the home or office. Lucky bamboo is the perfect gift, it represents good luck and it is extremely easy to care for.

Green manure:

Green manure is not just fresh manure and does not come from green cows. In fact, it's not manure at all. It is a special crop grown for the specific purpose of improving the soil. Green manure is also known as a cover crop.

Green manure is grown for two reasons. **1.** To hold soil in place while the soil lies fallow. **2.** To add nutrients and organic material to the soil. This is supplied in the form of decaying leaves and roots when the crop is tilled under.

Not just any old plants will do. The best green manure plants have sturdy root systems for holding soil in place, lush top growth that's high in water content and breaks down rapidly, and most important, the plants do not have a tendency not to

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reappear as weeds once they are tilled under.

Legumes such as clover, field peas, alfalfa, and vetch are good examples. These crops are readily killed by cultivation, and once tilled under, they add nitrogen to the soil. Other green manure crops are rye, oats, wheat, buckwheat, barley, mustard, and millet.

Most home gardeners don't have fallow fields, except in the winter. So, in a home garden, a green manure crop must be sown in the fall after crops are harvested. For this reason, home gardeners usually choose winter rye grass (annual rye grass) which is a coarse grass that grows for several weeks before winter sets in, and then reappears the following spring. Two weeks before planting your garden till it under to decompose. **Warning:** Not all of the annual rye grass seed may germinate in the fall so you may have a few unwanted grasses appearing in your garden throughout the summer and fall. These unwanted grasses are easy to control but you must be diligent.

The value of green manure crops in maintaining soil health has been known for years, but the practice in home gardens has only recently caught on. For years it was considered a radical, organic-gardening idea that held little appeal for weekend gardeners because of the heavy labor involved in tilling and the unwanted plants showing up as weeds among the desired flowers and vegetables. The advent of the portable roto-tiller has changed all that. It is now a simple matter to plant a green manure crop in the fall and till it under in the spring.

That's a lot easier that trying to find a green cow.

Dig Summer Bulbs Now

The most common summer flowering bulbs are not really bulbs at all, they are tubers (begonias, dahlias), corms (gladiolus), and rhizomes (cannas).

Gladiolus, dahlias, begonias, and cannas, are too tender to be left in the soil through the winter. After the leaves freeze and die, dig the 'bulbs' carefully. Wash each bulb thoroughly, divide it if necessary, then dust it with **Bulb Dust** before storing.

Store your bulbs in cardboard boxes rather than in plastic bags so they can 'breathe'. Glads need to be kept dry in storage but begonias, dahlias and cannas should be kept moist during the winter. Peatmoss or vermiculite is good to store bulbs in; it helps to control both the moisture and the temperature. Check your bulbs during the winter.

If the bulbs are too dry add a little water. Keep your bulbs cool but do not let them freeze. Store your bulbs between 35 to 40 degrees.

If your gladiolus did not bloom well, or, if the leaves turned brown before the blossoms finished blooming, soak the bulbs in hot water (112 to 120 degrees) mixed with **Safer's Insecticidal soap** for 30 minutes. This temperature will kill the **Gladiola Thrips**, a tiny insect that causes the flowers to die prematurely. Do not soak the bulbs in water over 120 degrees or you will kill the bulb.



Winter Chemical Storage

Your chemical storage area should be secure from unwanted visitors, both human and animals. Good lighting and ventilation are important to consider. Proper ventilation can prevent volatile chemicals from contaminating other materials in storage. Store flammable products outside living areas and away from ignition sources. Keep chemicals and fertilizers cool and dry. Extreme temperature variations can cause unwanted problems such as frozen, ruptured containers, or hot, volatile gases. Too much humidity or moisture may cause paper bags and metal containers to disintegrate prematurely. Do not store bags of fertilizer directly on the floor as it can absorb moisture. Wet fertilizer turns into hard bricks making it unusable.

Finally, store all chemicals in their original containers that have legible labels. Do not ever transfer chemicals into an empty food container. Do not use an empty pesticide container to store food or water, even if the container has been thoroughly washed. Do not store pesticides near food, medicine, or cleaning materials.

One way to minimize pesticide storage problems is to plan ahead and buy fertilizers and pesticides one season at a time. The small containers that seemed "expensive" in the spring may actually be the "best buy" in the fall.

Store Tools Properly

You probably thought your gardening chores were behind you; not quite. Don't forget to tuck away your gardening tools for the winter. Too often we forget to prepare our tools and equipment for the winter. A little attention now will be rewarded with years of good service from your gardening tools.

Change the oil in all your power tools before storing them for winter. Scrape off all the matted grass or dirt to prevent rust from forming. Either drain all the gasoline from the tank or add a fuel stabilizer such as **Briggs & Strattons' Gas Additive** to keep the gas fresh and to keep the carburetor from plugging, especially in two cycle motors (weedeaters and chainsaws). This little step could save you a trip to the mechanic next spring. Lubricate all the moving parts and sharpen the blades.

Use your old lawnmower oil to clean and oil your shovels, rakes, hoes, loppers, and many other gardening tools. Fill a bucket with clean sand and put your old lawnmower oil in the sand. Once you get enough oil in the sand the sand does a great job of cleaning and oiling the tools. Just scrape off most of the dirt and push your tool into the sand. After a day or two remove the tool, wipe off the sand and oil, and your tool will be ready for use or for winter storage.

Does your rake or hoe fall out of its handle socket while you are using it? This can be very frustrating when you are trying to do your yardwork. When a tool falls out of its handle it does not mean the tool is junk, broken, or that the tool needs to be replaced. It simply means the handle has dried out and the wood has shrunk inside the metal ferrule. You can make the wood swell again by soaking the handle in water. However, your handle will just dry out and the head will fall off again when the water evaporates. Instead of soaking your tool in water, fill the metal ferrule with either linseed oil or motor oil (recycled lawnmower oil works great). Set the tool upright so the oil will soak into the wood instead of running all over the handle and floor. Keep adding oil in the ferrule as long as the wood will soak it up. You may need to add a little oil every

week or two. The more oil the handle absorbs the better. The head will stay on its handle longer and your tools will not break as easy. A "dried out" handle is much weaker than a handle soaked in oil.

Drain the water from your garden hoses and sprinklers and hang them up to dry before putting them away for storage. Hoses left outdoors during the winter are likely to crack and split, especially if they still have water inside.

Storing Chemicals

If you store your garden products and chemicals properly they will keep their strength and will do their job next year. Many liquids may freeze and break their containers if they are left outside. Other liquid chemicals, especially weed killers such as Roundup and Finale, are damaged by frost. Once weed killers freeze they become inactive and will not kill weeds. Dry fertilizers and dusts are not affected by the frost but they may absorb water. They may become hard and unusable if not stored properly.

Store all your chemicals in a locked closet where children cannot play with them. Make sure the temperature will stay above freezing during the winter and not get too hot during the summer. Never store fertilizers on a cement floor where they can absorb water. Store fertilizers on a shelf or on something to keep them off the floor.

Houseplant TLC

Just because winter is here doesn't mean you have to stop gardening. Now's the time to give your houseplants a little extra attention, some TLC.

Sunlight - Light patterns change with each season. Leaves falling from the trees and the natural shift of the earth can affect the way the sun fills up a room. So, as the season change, you need to make sure your houseplants continue to receive a sufficient amount of sunlight.

If you have a plant placed on a windowsill that was shady in the summer but is now sunny since the leaves fell, you may have to move it. Watch for bleached areas on the leaves - that means your plant is getting too much light. On the other hand, if you see thin, leggy growth, that means your plant isn't getting enough light.

Temperature - Avoid placing plants near direct sources of hot or cold drafts. A sudden change of temperature from doors, windows, heat ducts, fireplaces or even TV's can hurt houseplants. If your plants have wilting or brown-tipped leaves, there may be a temperature problem.

Watering - Over watering is a common problem with houseplants. Be sure to water each plant according to its needs rather than your schedule. Too much water encourages root rot which can cause lower leaves to turn yellow then die, among other problems.

Fertilizing - While a plant is most active during the growing season, monthly fertilizing is necessary. As houseplant growth slows in winter, cut fertilizing down to every other month.

Changing Leaf Colors

The process of leaves changing color and falling off a tree is an actual growth process. The plant uses energy to complete the process. A healthy plant drops its leaves; a dead tree doesn't lose its leaves unless they are physically removed (wind, shaking).

During the growing season, leaves appear green because the plant is producing abundant quantities of chlorophyll. As the amount of daylight decreases in autumn, chlorophyll production slows down and then stops completely, enabling the carotenoids and anthocyanin pigments to appear. Moisture and temperature also influence how fast the color change and how brilliant the change will be. Colors are their brightest when warm fall days are accompanied with very cool nights (below 45 degrees but above freezing). An early fall, with adequate moisture conditions, stimulates brilliant red and purple color changes. The yellow and brown colors will always be brilliant no matter what the weather is but the reds and purples will vary. Watch the mountains, some years the colors are brilliant. Other years the colors seem to fade fast. The temperature and moisture determines how long the colors stay vivid. The cooler and wetter the longer the colors remain brilliant.

One of the more popular types of plants that adds to the fall color landscape are the perennial ornamental grasses. They add a distinct appearance to the garden. The tall green leaves often turn golden yellow or brown in the fall. They move gracefully in the fall breezes. Grasses can be useful in many ways so don't cut down the dead blades of grass until early next spring. Grasses attract and feed winter wildlife. The birds, as well as squirrels, mice and other rodents, love the abundant seeds they produce. Birds also like to hide in the cover tall grasses afford in the yard. You can enjoy the added beauty of ornamental grasses in your yard this winter.

Predator Urines

In the wild, the relationship between predator and prey defines the daily routine of every animal alive. The predator stalks its prey to satisfy its most basic need for food and the prey seeks to avoid the predator at all costs to ensure its own survival. It is the law of the wild. In this life and death game of hide and seek, the scent of urine is often the only warning a prey has that a predator is nearby. This scent of predator urine triggers a primal reaction in the prey. For centuries hunters have used animal urines to manipulate the movement of prey in such a way as to improve their chances for hunting success. Based upon these traditional uses the "**Leg Up Company**" has developed 100% Predator Urines as deception scents to deceive animals into believing a predator is very close by. These urines effectively camouflage human scent and deceive prey by creating the illusion that the predator is active in the immediate area. Wild animals instinctively react to the perceived threat of danger. By using the urine to mark a perimeter like these predators do in the wild you are able to replicate the predator/prey response in each animal.

We have four predator urines available; **Wolf**, **Coyote**, **Bobcat**, and **Fox**. The predator urines come in an eight ounce bottle. Simply apply the urine to the cotton in a dispenser and place these dispensers in several areas in your yard. We have not had any personal experience with this method of deer repellent, but the company told us that they have had very good success in several parts

Fall Planting

Q. Is Fall a good time to plant?

A. Fall is usually the best time of the year to plant trees and shrubs. Fall plantings will: **1.** Give your plants a headstart for spring. **2.** Demand less care because of cooler weather. **3.** Provide more pleasant working conditions.

Q. When does "Fall Planting" start?

A. "Fall Planting" begins as soon as the air begins to cool and the days begin to shorten: plants decrease their rate of growth. Experienced nurserymen refer to this as the time when plants "harden off." When you feel that fall "nip in the air," it's a great time to plant!

Q. Do plant leaves stop functioning in the fall?

A. Leaf color may change slightly and the leaves may harden, but they continue to make and store food for the root system. When leaves finally change to their fall color, the food manufacturing process ends.

Q. How does the weather change affect planting?

A. Cooler weather means plants need less water. Newly planted trees and shrubs will have less transplant shock and will need less care later in the year.

Q. What kind of plants can I plant in the fall?

A. Most trees, shrubs, perennial flowers, grasses and roses are easily planted in the fall, as long as weather conditions are right.

Q. How late in the fall can I plant?

A. It depends on the plant. Some trees, like Dogwoods, Magnolias, and other tender trees should not be planted after October because they need to establish new roots before temperatures drop too far. Broad-leaved evergreens should also be planted early in the fall. Most other hardy, woody, ornamental plants may be planted until the ground freezes.

Q. What about planting Perennial Flowers?

A. Perennial flowers are usually best planted and/or divided in the fall, before the ground starts to freeze. Don't resist planting them in the fall just because they happen to be out of bloom. They will have beautiful flowers next year!

of the country. Listed below are the types of urine to use for the common nuisance animals.

Coyote urine repels Deer, Rabbits, Raccoons, Skunks, and Squirrels, and many other Rodents.

Fox urine repels Moles, Mice, Rabbits, and many other Rodents.

Bobcat urine repels Moles Mice, Muskrat, and many other rodents.

Wolf urine repels Moose, Mule Deer, Bear.

Take your pick depending on what animals are bothering your yard. Please let us know about your success or failure.

The Fall Leaf Drop Phenomenon

Every fall deciduous trees and shrubs go through that transition period where their leaves turn from green to beautiful shades of yellow, red, orange, crimson and other colors. These fabulous fall colors look even more beautiful when set against or amongst the dark green foliage of pine and spruce. To most folks, this is just the changing of the Fall leaves seasons with a couple of colorful weeks before 'Old Man Winter' sets in. But, what really causes these leaves to turn color and then drop off the trees?

Actually, it is a combination of naturally occurring chemical substances in the plants and the plants environment. These chemical substances, known as plant hormones, regulate the plants growth and development and they regulate when the plant is to grow and when the plant is not to grow. There are five groups of these hormones, three of which promote plant growth and two of which inhibit plant growth. The three growth promoters are auxins, gibberellins and cytokinins. The two growth inhibitors are ethylene and abscisic acid. Now, all we have to know about these hormones is that when the levels of growth promoters are higher than the levels of growth inhibitors, the plant is actively growing. When levels of growth inhibitors are higher than levels of growth promoting hormones, growth of the plant slows and stops.

Day length (photoperiod) and temperature regulate when these hormones become active in the plant. In the spring, as the day length becomes longer and the temperatures begin to warm, growth promoters reach higher levels in the plant - which starts the plant actively growing. In autumn, the day length becomes shorter and the temperatures cooler, causing the growth inhibitors to reach higher levels than growth promoters in the plant. Ethylene and abscisic acid reach levels that override the growth promoters, causing the plant to go dormant.

Once the growth inhibitors reach higher levels than growth promoters, chlorophyll, the green pigment in plants, is lost. Other pigments then become more obvious in the leaves color. The yellow and orange pigments are called carotenoids and are quite obvious in trees and shrubs like poplars, green ash, chokecherry, birch, larch, currants. Another pigment called anthocyanin is responsible for the reddish colors in the leaves of trees and shrubs such as dogwoods, bearberry, some maples, Shubert chokecherry, cotoneaster, Virginia creeper, mountain ash and burning bush, for example.

The levels of ethylene and abscisic acid continue to build up as the days shorten and temperatures get cooler. At the base of the leaves petiole (leaf stalk) which is fastened to the twig or stem of the tree, a bump or thicker part of the petiole develops due to the build up of ethylene and abscisic acid. This bump is known as the abscission layer. Abscisic acid was named because of its association with leaf, flower and fruit abscission (to cut or fall off) of plants. You may notice this bump on the end of an apple stalk and other fruit also. As the chemicals build up in this abscission layer, the cells become softened and the leaf or fruit finally breaks away and falls to the ground. Immediately after leaf fall, a corky tissue develops, closing the wound on the stem side of the abscission layer. This healing layer of corky tissue forms the leaf scar on the twig. This leaf scar is

located at a node, directly below a leaf bud.

If you look closely at the twigs on your trees and shrubs now that the leaves have fallen, you will notice that next springs leaf and flower buds (flower buds only on spring flowering plants) have all ready developed. The smaller buds are the leaf buds and the larger buds are the flower buds. These tiny, highly compressed leaves and flower buds are covered with scale-like structures called bud scales. These overlapping bud scales protect the delicate leaves and flower buds from the harsh winter climate, they are called dormant buds. These highly compressed leaf and flower buds grow very quickly in the spring because they have all ready been formed. This is why lilacs and forsythia can have such beautiful large flowers so early in the spring.

Winter Care Of Houseplants

Just as we slow down as the days shorten, so do our tropical house plants. In order to keep your house plants happy and healthy through the Fall and Winter, here's a few pointers to keep in mind.

When bringing plants inside after spending the summer on the porch or patio, it's good practice to spray your plants with an all-purpose insecticide, such as **Schultz Houseplant and Garden Insect Spray**. It is best to spray plants at least twice - at one week intervals, to make sure you have kill all of your unwanted guests. If you find you have insects crawling out of the soil, sprinkle a little **Systemic Insecticide Granules** on top of the soil and that should take care of those creepy crawlers.

Try to place your plants in light conditions similar to those outside. They will go through a short acclimation period as your home is much darker than the outside. Don't place a plant that has been in the direct sunlight into a dark corner. Don't be afraid to prune your plants. Tropicals like the hibiscus or bougainvilleas can really take quite a haircut! Pruning also allows your blooming plants to take a short rest after their profuse blooming through the summer.

Remember that the water and fertilizer requirements for your plants will be reduced through the winter and you will have to readjust your schedule. A plant that needed watering once a week outside may need only to be watered once every two weeks when inside. When winter really sets in and you turn your furnace on, it will affect the amount of water your plant requires; dryer, warmer air means the plant will dry out more quickly. One of the biggest "killers" of house plants is over-watering. While you should check your plants once a week, they won't necessarily need water every week. To increase the humidity for your plant, group them together or place them on trays with gravel and water. Misting is helpful but the effects are short term. Turning on a humidifier, especially if you have ferns, is most beneficial. Fertilize your plants once a month instead of every two weeks.

Get in the habit of turning your plants (rotate the pot half a turn) to prevent them from becoming one-sided or leaning toward the light. Ficus trees are notorious for being lush and full on one side and flat and skimpy on the other if they are not rotated once every couple of weeks.

Hopefully, these tips will help your house plants thrive this winter and help to convince you that you too can be a successful indoor gardener.