



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 Lawn Care

Fall is a good time to fertilize your lawn. Fertilize your lawn with a slow release fertilizer such as **J&L Fall & Winter Lawn Food**. Another excellent slow releasing lawn fertilizer is **Dr. Earth Organic Lawn Fertilizer**. This fertilizer provides many beneficial bacteria that help your lawn overcome many problems. It is extremely helpful in preventing lawn diseases. If you have problems with any of the spring or summer lawn diseases, this is the fertilizer that you should apply both fall and spring.



Do not let leaves lay on your lawn very long. Leaves shade the grass and can kill the lawn during the winter. In addition, leaves left on lawns too long stimulate a lawn disease known as snow mold. One of the easiest ways to dispose of these unwanted leaves is to simply mow them, bag them, and use them as compost in your gardens. Mow your lawn 1.5" to 2" long until your lawn stops growing. Once the lawn stops growing for the winter, mow your lawn as short as you can.

Many lawn weeds are still growing right now. **Bonide Weed Beater** is a good spray to kill most weeds in the lawn, including dandelions, morning glory, and clover. **Weed Beater** will not kill any 'grassy weeds' - just the 'broadleaf weeds'. If you have any of the grassy weeds just pull as many as possible this fall and apply **Crabgrass & Spurge Control** next spring to kill them as they germinate.

Christmas Open House

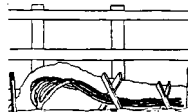
**Thursday, Friday, & Saturday
November 10, 11, & 12**



Come and see our great selection of Christmas Decorations, Supplies and Gifts. Our Garden Center will be transformed into a Christmas Wonderland by Halloween. We have a full line of Indoor and Outdoor Christmas Lights, Artificial Christmas Trees, Garlands, Wreaths, and many more exciting Christmas decorations. We also have many decorated trees which can help you see different ways you can decorate your own trees. Our fresh wreaths and trees will arrive the day after Thanksgiving. All of our Christmas decorations, trees, and supplies will be on a special sale during those three days.

Fall Rose Care

Fortunately, we do not have to do as much to protect rose bushes in our area as the gardeners in colder climates have to do in their climates. In some areas, gardeners actually have to tip their roses over and bury them in trenches, to protect them from winter injury. In this area we only need to follow a few simple procedures, and hope that we don't have an extremely cold winter.



A. 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. This 'soft' growth is prone to winter injury while the older, 'hard' growth will tolerate the winter weather. **B. Reduce the amount of water** you apply to your roses in the fall, again to help them 'harden off' before winter arrives. **C. Don't pick rose flowers** after Oct 1. Let the blossoms mature into rose hips. Hip formation helps the rose bush to 'harden off' for winter. **D. Only prune your rose canes** down to three or four feet high after the leaves completely freeze this winter. The only reason you need to prune roses in the fall is to prevent the snow from breaking the canes. Don't prune climbing roses or shrub roses. **E. Wait until spring to do major rose pruning.** In the spring, after the danger of frost is past, prune your bush roses to 14" to 20" tall. **F. Mulch your roses to protect the roots** from severely cold temperatures. Let the ground freeze lightly before covering them. Cover rose bushes with six inches of leaves, soil pep, bark, or garden soil on each bush. Don't use grass clippings to mulch roses. Grass clippings can create a fungus problem that can damage your rose bushes.

Fall Vegetable Garden Care

Are you still harvesting peas, broccoli, carrots, onions, cabbage, or lettuce? You can have an excellent fall harvest of many different vegetables, if you plan your planting schedule correctly next summer. Peas are one of the easiest fall veggies.



Watch the weather. If there is a threat of frost, try to cover your tender vegetable plants with a frost blanket, or harvest your vegetables before the frost. Peppers, cucumbers, squash, tomatoes, and many other vegetables are damaged even by a light frost. If you cover your plants at night you can often extend your harvest season by several weeks.

Tomatoes need an average daily temperature of 65F and a nighttime temperature above 57F to ripen. If temperatures are staying below this, pick all the fruit that have begun to change color, from the dark green stage to the pink stage. Take them inside to finish ripening. The dark green, immature tomatoes will not ripen, they will just rot.

Cure pumpkins and winter squash at temperatures between 70 and 80F for two weeks after harvest, then store them between 55 to 60F for winter use. Unfortunately, summer squash does not store very well so you have to eat them fairly soon after picking. We have a more detailed guide available about harvesting and storing vegetables. Please stop by and pick up "*Harvest Tips*" or download a copy from our website.

Planting Pansies In The Fall

More and more gardeners are realizing that the



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best time to plant pansies is in the fall, not in the spring. Pansies love the cold weather. They grow and bloom all fall and winter, until the weather gets extremely cold. As soon as the weather warms in the spring, pansies will start to bloom again and will look great until the temperature starts to get hot in the summer.

Pansies are considered biennials or short-lived perennials. Because of their temperature requirements, it is best to treat them as a 'cold-season annual flower'. This means that is best to plant them in the fall and then remove them in the summer, when they start to decline. Try planting pansies in gardens that you normally use for 'hot-weather annuals'. Plant pansies a little farther apart this fall so there is room to plant annual flowers in between them next spring. As the pansy plants become leggy, and decline during the summer, the hot weather annuals will take over and you can simply remove the pansy plants as needed.

Pansies are hybrids and breeders are always coming up with more color combinations and markings. Pansies do not have to be 'dead headed' to keep them blooming. However, pinching back pansy plants, after they bloom, helps to keep the plants more compact and bushy, and it does help stimulate more blossoms. While you are pinching back pansies be sure to keep a jar of water handy to fill with the flowers. Pansies make charming bouquets so you don't have to just waste the flowers. You can make the flowers last even longer if you will change the water daily, and make fresh cuts on the stems when you change the water.

Pansies also grow great in containers, as long as the pot is big enough not to freeze solid during the winter. You can move the containers from area to area during the winter, as the winter temperatures dictate.

Pansies are heavy feeders, they need a lot of fertilizer to keep them blooming their best. Fertilize them every two or three weeks with **Blooming & Rooting Fertilizer** when you first plant them in the fall. Start fertilizing them again next spring, at least once every three or four weeks, until they start to decline in the heat of summer. Once the temperature reaches 90 degrees nothing will help keep your pansies blooming. They will start to struggle and many plants give up and die.

Don't Give Up Now

Don't quit pulling weeds from your garden. Many weeds germinate readily in the fall. One of the first weeds that people ask us about in the spring is *mouse-eared chickweed*. This weed germinates in the fall, grows during the winter, and produces blue flowers and seeds early in the spring. It is much easier to kill it in the fall, as it is just starting to grow, than trying to kill it in the spring, when it is mature and producing seeds. Weeds can produce enough seeds, in the fall, to supply you with plenty of seeds that may continue to germinate for many years to come. Seeds can be dormant 10 to 20 years in the soil and still germinate.

Hand pull, hoe, cultivate, or apply weed preventers now. An application of **Casoron, Preen, Eptam, or Treflan** this fall will help prevent a wide variety of weeds from germinating in your garden this fall, and may help prevent a weed problem next spring. The type of weed preventer you apply depends on the type of plants you want to grow in that garden. Stop by for a copy of our 'Weed Prevention' handout, or download a copy from our website.

Morning Glory Control

Wild morning glory is also known as field bindweed and devil gut. 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 persistent plants, with roots penetrating to a depth of more than ten feet. It also produces seeds that may germinate over a 20 year period. Wild morning glory is a tough problem in your yard, but you can control it if you have the persistence.



Chemical controls such as **WeedBeater, Killzall, or Roundup** will kill this weed, but timing is critical. Spray wild morning glory this fall as soon as the night temperature drops below 40F, but while it is still growing. The more leaves that are present when you spray, the more effectively the chemical can be absorbed and translocated throughout the plant. Spraying after the first frost, the one that kills your tomatoes and cucumbers, is the best time of the entire year to kill morning glory. After the first frost, morning glory starts going dormant by moving sugars from the leaves back into the root system for winter storage. By spraying in the fall, you can get more of the herbicide down deep into the root system and actually kill it.

Although a single application of one of these weed killers will greatly reduce your morning glory infestation, you will probably not eradicate the weed with just one application, or even in one year. Young morning glory plants may arise in the spring from roots that weren't completely killed in the fall. Seeds may also continue to germinate. Regular cultivation of your gardens 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 more detailed morning glory control handout available. Please stop by to pick up a copy of 'Morning Glory Control' or download a copy from our website.

Fall Pruning

Don't prune plants too severely just before winter. Pruning stimulates growth. New growth, just before winter, makes many tender plants less hardy for winter. Also, many plants store food in their leaves. If you remove too much of these food reserves the plants may be damaged during the winter.



However, fall is a good time to get your yard into shape for winter and spring by doing some minor pruning. Trim your 'summer flowering' shrubs (such as mock orange, potentilla, spiraea, etc.) after the leaves drop off this fall. Don't trim your 'spring flowering' shrubs (such as forsythia, quince, lilac, etc.) until after they finish blooming next spring. If you prune your 'spring flowering' shrubs in the fall, you will remove most of the flower buds for next spring and lose the flowers. **Remember, don't prune roses this time of year, wait until April.**

You can prune some shade trees this fall, after the leaves drop. Maples, birches, willows and many other shade trees respond well to fall pruning because they 'bleed sap' if you prune them in the spring. Don't prune fruit trees in the fall unless you absolutely have to. Wait to prune fruit trees in March or April. Also, wait to prune your 'early-flowering' trees until after they finish blooming in the spring, so you can enjoy their blossoms before you remove the unwanted branches.

You can give all of your hedges, topiary plants, and upright junipers one last light trimming for the year. This final touch up can make a big difference how they will look during the winter and next Spring.

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 and dust it with **Bulb Dust** before storing. Divide your bulbs next spring as you take them out of winter storage to plant them.

Store your bulbs in wooden or cardboard boxes rather than in plastic bags so they can 'breathe'. Glads need to be kept dry in storage. Begonias, dahlias and cannas should be kept moist during the winter. Peatmoss or vermiculite are good to store bulbs in because they help 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.

Winterizing Your Sprinkler System

It is very important to winterize your sprinkler system before the freezing temperatures arrive. Winterizing your sprinkler system means that you need to remove water from all pipes, heads, and valves. Any water left in the sprinkler system will freeze and can cause serious damage to your system. It can also create a major headache when the water is turned back into the system the following spring. The best time to prevent frost damage is before the ground freezes solid and while the weather is still comfortable to work in. The irrigation water system - Weber Water - is turned off on October 15. You should winterize your system anytime after that date. Homeowners, who use culinary water for their sprinkler systems, should turn their water off about that same time. Be sure to winterize your sprinkler system as soon as possible after the water is shut off, so you don't forget.

New Home Landscaping

The topics of good *soil health* and proper *soil conditions* are becoming more and more important. As home gardeners begin to improve their gardens and properly take care of their plants, they need to keep these two topics in mind. Without good soil health, and without the proper soil conditions, gardening will not be easy nor will it be enjoyable. Gardening will become a chore and will produce many undesirable and often disastrous results. Take time to improve these two gardening situations before you start gardening and you will have much better success.



New home landscaping is often a major undertaking with very poor soil health and terrible soil conditions. Poor soil health is usually the result of extensive excavating and intensive grading. Much of the native topsoil is removed at the beginning of the construction project and is replaced with subsoil after the construction is finished. During the excavation and grading process most of the organic material in the soil is lost and all of the beneficial bacterial and fungi are destroyed. In addition, the soil is usually heavily compacted during all of these processes.

By the time you, the homeowner, take possession of the new home, the soil is often in a state of extreme compaction. The soil probably has very poor soil structure and texture. And perhaps worst, the soil is usually lacking - in any sense, of any kind, of any natural cycle, or a 'living soil'.

Quite often the new homeowner's first strategy of starting the landscape is to dig a hole, put in a plant, and hope the plant can survive in this new, hostile environment.

Unless the soil structure is modified and improved, and the soil is inoculated with the beneficial microbial complexes that stimulate an efficient relationship between the soil and plant roots, the plants will often just barely survive. Sometimes the plant may just give up and die while trying to grow new roots in this hostile environment.

Feed your garden soil - not just your plants. Your garden's soil condition is the most important part of gardening success. Some of the insect and disease problems your plants may struggle with during the summer can be prevented just by making sure your soil is well prepared before you plant them.

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. Perfect soil is hard to come by in most home gardens. It will take a little extra effort to obtain this type of soil. The best way to start improving your garden soil is by adding **Organic Materials** - every year. The best time to apply **Organic Materials** is in the fall, not in the spring. Mix as much Bumper Crop, 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 may take four, six, or even 10 years to completely change, but you will notice an improvement each year.

In addition to 'mulch', good soil needs beneficial microbes for plants to utilize. One of the best microbes is a fungus known as **Mycorrhizae**. The term mycorrhizae means 'fungus roots' and is the name given to a class of soil fungus that live in a symbiotic relationship with plant roots. The fungus grow both inside the roots (endo mycorrhizae) and on the outside of the roots (ecto mycorrhizae). These fungi gather water and nutrients that benefit the host plant. The host plant responds and helps spread the fungi further into the soil as the roots expand, grow, and develop.



For example, phosphorus, one of the major plant nutrients, is often locked up within the soil in such a way that the plants have a hard time absorbing and utilizing it. Mycorrhizal fungi are able to extract this nutrient from the soil and make it available for the plant to use. In return, the plants provide essential carbohydrates, through the process of photosynthesis, that the mycorrhizae need to survive.

Mycorrhizae afford the plants the ability to live in harsh environments that may be deficient in water or nutrients. The use of mycorrhizal fungus has been used for many years in forestry management. New tree seedlings are inoculated with mycorrhizae and planted in locations where the plant is wholly dependant on the fertility that is available in the native soil, and only the water that is provided by natural rainfall.

Most native soils contain some forms of mycorrhizal fungi. However, soil compaction, erosion, and other forms of topsoil

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removal reduce the native populations. It is very beneficial to add mycorrhizae back into the soil while you are planting new shrubs, flowers, and vegetables. Most plants, 90% of all plants, take advantage of the special relationship that these beneficial fungi have with their root systems. Mycorrhizae create a bridge between the plant root system and the surrounding natural soil. However, there are limits to what a mycorrhizal inoculant can do for a plant through its roots and associated soil. Mycorrhizal fungi should be considered as only one of many useful and available tools to help promote the re-establishment of the natural 'microbial soil systems' in sites where the soil has been severely disturbed.

We have an excellent handout about improving soils and adding mulches called '**Garden Soil**'. We also have a handout about '**Dr. Earth Organic Fertilizers**'. This fertilizer contains mycorrhizae and seven other forms of beneficial bacteria. Please stop by and pick up a copy, or download them from our website.

Peach Tree Care

The peach tree borer often takes the rap for more than its fair share of trouble. Most of the time when you see sap on the trunk of a peach tree you automatically assume the tree has a borer. You are right, but only some of the time. Two other problems that can cause sap to ooze out of the trunk of stone fruits are **Bacterial Canker** and **Coryneum Blight**, both of which need to be treated differently than peach tree borer. Bacterial canker, sometimes known as Gummosis, produces sunken, dark lesions that allow sap to ooze from the affected area. Coryneum Blight is also known as shot hole fungus because the disease makes small "BB" holes in the leaves, as if someone shot the tree with a shotgun. This disease was extremely active this past spring and summer because of the warm, wet, spring weather. Both of these diseases can kill your trees if you do not treat them. Remove any dry sap and spray the entire tree with **Copper Fungicide** as soon as 90% of the leaves drop off. It is very important that you treat this problem this fall and not wait until spring. You may also need to treat your trees again next spring just before they leaf out. After the trees leaf out next spring, watch the weather. If the weather is warm and rainy, be sure to spray them every two weeks during the rainy period with Daconil fungicide. Don't use Copper fungicide once the leaves form in the spring. We have a handout giving more details about this disease.



Pine Tree Care

We recommend that you do not fertilize deciduous trees and shrubs in the fall. However, if you have a pine tree, or a spruce tree, that appears to be under stress, go ahead and fertilize it with a tree or shrub fertilizer that contains iron, such as **Dr. Earth All Purpose Fertilizer**. Fall fertilizer does not stimulate new growth, or harm pine trees, the same way it can damage deciduous plants.

Be sure to water your pine trees occasionally during the fall, at least until the snow begins to fall. Evergreen plants need more water and a little more attention than deciduous plants.

Fall is the best time to move plants. Transplant deciduous plants when they are dormant; after they drop their leaves. Pine trees and shrubs can be transplanted a little earlier than deciduous plants; but it is still a good rule of thumb to wait until leaves drop off surrounding deciduous plants before moving pine trees.



Pine Tree - Fall Needle Drop

Each September and October we receive many calls from gardeners concerned about the lower and inner needles of their pine trees turning yellow and brown. Do not be alarmed if your pine trees, yews, junipers, and arborvitae plants shed their innermost needles. This is natural each fall; the inside needles will turn yellow and then drop off the branch. More needles will turn yellow and drop off a plant after a stressful summer than after a normal summer. Don't be too surprised if a lot of needles turn yellow and drop off your plants this fall because of the hot summer weather.

Contrary to the name 'evergreen', these trees do not keep their needles indefinitely. Pine trees only keep an individual needle for two or three years. After that time period the tree stops feeding that needle and the needle dies and falls off the tree. Each spring a pine tree grows a new set of needles and each fall the tree sheds its oldest set of needles. Some years a pine tree may shed two sets of old needles making the needle drop even more evident. Needle drop in newly planted trees, and in trees under stress, is more noticeable than in the older and larger trees. However, all pine trees lose some of their needles each fall, including Austrian Pine, Scotch Pine, Mugho Pine, Blue Spruce, Alberta Spruce, Junipers, and Yews.

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 outgrow 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 decision 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 the 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 are 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.

Fall Sprays

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

Euonymus & Lilac Blight - Spray lilacs and burning bushes that showed small, stunted, yellowish leaves this summer. Spray them with copper as soon as 90% of the leaves drop off this fall. Repeat the same spray just before the leaves emerge in the spring.

Peach & Nectarine -Coryneum Blight - Spray them with cop-



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per as soon as the leaves drop off this fall. Repeat the same spray just before the leaves emerge in the spring.

Boxelder Bugs - These pests are a nuisance all fall, winter and spring. They are not harmful to your home. They are hard to control so if you can kill them before they reach your house you will have much less trouble controlling them. **Eight** is the best spray we have found to kill these pests. Spray the foundation every two or three weeks this fall and winter.

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

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

Aphids - These little insects vary 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. Aphids are particularly noticeable on apple trees and willow trees in the fall. If your apple tree looks like it is covered with cotton, look closely. You will see a tiny aphid that is covered with a cottony material. This aphid is called the *Woolly Apple Aphid*. Spray the plant thoroughly, with **Dormant Oil Spray**, to control these pests. Don't wait until spring.

Spiders - Spray the outside of your house with **Eight**, 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.

Plant Hardiness in Winter

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. Why are some plants able to survive cold winter temperatures and others do not?

Sometimes it isn't the cold temperatures that cause the problems. Our native plants are acclimatized and synchronized to our local climate. They respond to the day length and temperature signals each fall to prepare for winter. If plants are brought in from other climates and do not have time to acclimatize to our growing conditions they may be damaged during the winter weather. They may not form the hardy dormant buds in time for the sub-zero weather.

Sometimes it is the fluctuation in temperature, water condition, or the plant's current condition, that causes the injury. We live in a **FREEZE-THAW-FREEZE-THAW** area in which the weather conditions change frequently. The first step to protect your plants, in the winter, is to keep your plants as healthy as possible 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 actually occur during the winter, it 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 may 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. It 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.

Very few plants in containers can survive the winter without some winter protection. Some pots may break if left outside for the winter. This exposes plant roots to the air, which is deadly to roots. Most plants that die in pots during the winter, die from the lack of water, not from the cold. You need to remember that all roots need water - year round. If mother nature does not provide it with snowfall then you will have to water them occasionally. A pot in a sunny spot will need water more often than a pot in the shade. You can shovel snow into the pots to help provide the necessary moisture. 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.

Winter Tree Care

Bark splitting is a fairly common problem on many trees. Bark splitting is often caused either by environmental or physical factors. Newly planted trees, fruit trees, and thin barked trees (locust, redbud, kwanzan cherry) are especially prone to splitting bark. Bark splits are not always immediately fatal to the tree, but they can be an entry point for many disease organisms that will kill them over time.

Bark splitting is usually caused by large temperature changes between day and night, especially during the late-fall and early-spring. The frost freezes water within the trunk causing a vertical split in the bark. Excessive fall growth is another major cause of this type of injury. Fertilizing trees late in the fall, or keeping trees too wet late in the fall, may promote a late surge of growth that could actually harm them rather than benefiting the tree. Nice warm January temperatures, after a cold December, also create conditions that may cause the bark to split.

The best ways to prevent splitting bark is to fertilize trees in the early spring instead of the fall. Keep trees moist until they drop their leaves and then stop watering them, except for the newly planted trees. Wrap the trunk of susceptible trees (especially young trees) with tree wrap, or paint the trunks with white paint.

If your trees already have a split in the bark, the best way to help the tree recover is to make sure the wound has clean, smooth edges. Use a sharp knife to remove all loose bark but do not make the wound worse by removing healthy bark. Do not cover the wound with any type of paint or tar; leave the wound open. A healthy tree should create a callus over the edges quickly and the tree will eventually cover the split. An unhealthy tree will struggle and eventually die. It is often better to remove an unhealthy tree and start over, rather than try to save it.

Sunscald is another type of injury that can kill a tree during the winter. This injury is deadly both to thin barked and to newly planted trees. Sunscald is caused by the same conditions that cause bark splitting. Too much water, too much fertilizer, or warm weather in December or January can make the trees susceptible to sunburn. Sunlight reflects off the snow and 'burns' the bark (similar to a person that is ice fishing getting sunburned). The bark then freezes at night. These freeze - thaw cycles can kill the bark and can slowly kill the tree. Sunscald can also be caused by severely pruning a tree at the wrong time of year. Removing



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leaves that shade other branches can allow the sun to damage the tender tissue that is not used to direct sunlight.

You can prevent sunscald by wrapping the trunk, or by painting the trunk white, in the fall. If you drive past a peach orchard during the winter you will notice that many of the trunks have been painted white to prevent this type of injury.

Plant Dehydration

Most winter injury is caused when the plant runs out of water (inside the plant) during the winter. Broadleaf evergreens such as boxwood, holly, euonymus, and rhododendrons, continue both to use and to lose water through their leaves during the winter. Winter daytime temperatures can be 60 to 70F in sunny areas. This temperature may cause evergreen leaves to release water. If the ground is frozen and the plant's roots cannot replace this water loss, the leaves will turn brown and die. Southern or western exposures, or windy conditions, can aggravate this problem. A layer of mulch around the roots can help prevent this type of winter injury. Coating the leaves with an antidesiccant spray such as **Wilt Pruf** can also help winter dehydration. Wilt Pruf is a wax that coats the leaves and prevents water loss through the leaf pores.



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 out 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. Styrafoam blocks or rubber balls can also help prevent the entire surface from freezing. Remove the styrafoam 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 proper care your pond can be fun and enjoyable for years to come.

Plant Tulips with a Bulb Auger

Bulb augers help take the chore out of planting bulbs and flowers. Bulb augers can also make planting petunias, marigolds, and tomatoes easy next spring. By 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 and for 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.



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. However, another way to enjoy a longer season of flowers is to layer them. Plant them in and around other bulbs and perennials, that way you can enjoy a succession of flowers. Layering also allows you to plant a larger number of bulbs because you can stack bulbs 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 compost and bonemeal with the soil. 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 an inch or two of soil.

5. Arrange 6 or 8 tulip bulbs and cover these bulbs with 2 more inches of soil.

6. Scatter 12 or more crocus, snowdrops, or muscari 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 that are 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.

9. Use these layers of bulbs in and around your perennial flowers so you do not have to disturb the bulbs when planting your annual flowers. Hostas, Astilbes, and Coral Bells all grow well among flower bulbs.



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 by wind or 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 will occur 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 from year to year. Watch the mountains, some years the colors are brilliant, other years the colors seem to fade fast. The temperature and moisture conditions determine how long the colors stay vivid. The cooler and wetter the conditions are, the longer the colors will remain brilliant.

Some of the most popular shrubs that have a pretty fall color are: **Burning Bush, Goldflame Spiraea, Limemound Spiraea, Crimson Pygmy Barberry, Glennora Seedless Grape**

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Vines, Blueberry Plants, Virginia Creeper, Boston Ivy, and Heavenly Bamboo.

Some pretty trees with a brilliant fall color are: **Flowering Pear, Flowering Cherry, Red Sunset Maple, Amur Maple, October Glory Maple, Red Oak, and Scrub Oak.**

If your plant doesn't change color like it is supposed to, try changing a few of its growing conditions. Make sure the plant is healthy and not in an extremely hot location. Make sure the plant has adequate soil moisture. Try making the soil pH a little more acidic by adding sulphur to the soil next spring. For a more detailed information sheet about this growth process, please download a copy of our '**Falling Leaves**' handout.

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 and in areas where no other plants can grow. It is very easy to grow and it can 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.

Curls. Many lucky bamboo have fancy curls or waves. They do not grow that way naturally. 'Lucky Bamboo Farmers' have to lay the stalks 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. 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 stalk 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.

Twenty-one 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.

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 seasons 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

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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 TVs 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 according to your schedule. Too much water encourages root rot which can cause lower leaves to turn yellow then die, among other problems. Remember that the water requirements for your plants are lower in the winter. A plant that needed watering once a week during the summer may need only to be watered once every two weeks during the winter.

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.

When bringing plants inside, after spending the summer on the porch or patio, it's a good practice to spray your plants with an all-purpose insecticide, such as **Schultz Houseplant Insect Spray**. It is best to spray all the plants at least twice - at one week intervals, to make sure you have killed 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. You can also cover



the soil with a layer of fine gravel to help eliminate many insect pests that come with the soil. Sometimes this layer of gravel is the only way to solve the nagging fungus gnat problems that plague everyone during the winter.

Try to place your plants in light conditions similar to those outside. They will go through a short acclimation period because the inside of 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. Houseplants like the hibiscus, ivy, philodendrons, and 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.

When winter really sets in and you turn your furnace on, it will affect the amount of water your plant requires. Drier, warmer air means the plant will dry out more quickly. While you should check your plants once a week, they won't necessarily need water every week. To increase the humidity for your plants, 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 very beneficial.

Get in the habit of turning your plants weekly (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.

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.

Firewood Insects

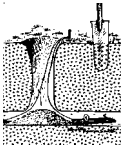


Firewood is a common item harvested in the mountains and brought home to use during the winter. Along with the firewood, you are probably bringing a few unwanted pests with you. Most of these insects will not be a problem, such as ants, spiders, and some beetles. These insects are a nuisance, but they do not bother your plants or your house. However, some insects brought from the mountains can be very devastating to the trees in your yard. Bark beetles and borers may find trees in your yard or neighborhood delicious and will take up residence in those trees.

To prevent bringing the bark beetles home with you be sure to only harvest 2 to 3 year old firewood. Do not bring the fresh firewood home. Many harmful insects live in the living trees, and in the trees that have recently died. These insects are probably what killed the tree. If you do bring infested wood home, try to burn it before the insects have time to develop enough to leave the wood. If you cannot burn it soon enough, you can tarp the wood pile and spray a chemical on the wood to kill the insects. Chemical sprays may produce toxic fumes, if you burn the wood before the chemical dissipates. Be sure your fireplace will handle these types of fumes before burning the treated wood.

Gopher Problems

Gophers, voles and other rodents are problems every year, especially in the fall and winter. Gophers are active all winter and can do a considerable amount of damage without gardeners even knowing about it - until it is too late. Gophers are solitary animals. They only congregate during the mating season. The rest of the year they tend to live by themselves. One gopher can burrow up to 800 feet of tunnels, usually 12 to 18 inches below the soil surface.



Four ways are available to control these pests. **1. Repellants.** Repellants do not get rid of the pest, they just make them go to your neighbor's yard. Two types of gopher repellants are available, one made out of garlic and the other made out of castor oil. **2. Traps.** If you use a gopher trap be sure to attach a wire to the trap so the gopher doesn't just pull the trap away. **3. Gopher Gasser.** As long as the rodent is in the vicinity of ignition, the gas can travel through the tunnels and kill the rodent. **4. Poison Bait.** The problem with bait is putting the bait where the gopher can find it and eat it. You can open the exit hole and put the bait down into the main tunnel or you can get a special bait dispenser that makes it easy to put the bait right down into the tunnel without having to dig through the exit hole. We have a bait station, made out of PVC pipe, that seems to work well in attracting gophers and rats. It provides a perfect location to place the bait out of reach of dogs and cats. The bait station keeps the bait out of the weather, and it provides a perfect place for the rodent to find its last dinner. None of these methods are 100% foolproof (gopher proof) but with persistence, you can get rid of your gopher pest.



Rhododendron & Azalea Care

The Wasatch Front is a "Freeze - Thaw - Freeze - Thaw" area. Many Rhododendron's leaves naturally curl and droop at 20 degrees, to reduce the surface area and to conserve water. When the temperature rises above 20 degrees the leaves uncurl (be-



come turgid) and need to take water from the soil to replenish that which was lost. Rhododendrons actually use a considerable amount of water during the winter, especially those varieties with large leaves.

Some winters provide adequate water with rain and snow melt. However, most winters we need to provide additional water at least once or twice, usually in January. Azaleas are not as susceptible to winter dehydration (winter kill) because many of them drop their leaves each fall. The evergreen azalea varieties may also shed some leaves in order to survive.

Winter preparation begins early-fall. Start withholding water (just like roses) mid-September to help the plants "harden off" for winter. Your objective is to slow the rate of growth and to increase the carbohydrate content of the sap, which helps prevent the sap from freezing. Water your rhododendrons well after the ground begins to freeze but before the ground is frozen solid (early-December). After the soil is completely frozen, cover your plants with six to ten inches of mulch (leaves, soil pep, straw, etc.). If you apply this mulch before the ground is frozen you are not helping the plant harden off, and you may cause more problems for your plants. Mulching helps minimize water loss and helps prevent the shallow root system from freezing as hard during the cold winter weather.

If extra water is required during the winter, water your plants when the mulch isn't frozen and when the plants can absorb water. Watering in sub-freezing temperatures will not help. Brown leaf margins in the spring is a sign that your plant did not get enough water during the winter. One of the best ways to water a plant in the winter is to **CAREFULLY** shovel snow under or around your plants. This provides water when the plant really needs it, not just when you want to give it to them. Add more snow as the snow melts. One other way to prevent water loss during the winter is to spray your plant's leaves with **Wilt Prufe** before the temperature gets real cold. Spray your plants early-December when the temperature is above freezing and will stay above freezing for several hours after application. Make sure your plant is not dry when you spray with **Wilt Prufe**. If the soil is dry, water your plants an hour or two before spraying them.

Don't Give Up Now

As fall fades into winter, yards and gardens should have been cleaned up and plants should have gone dormant. **What about the insect pests?** Most insects will be protected and will be ready to reappear next season. Many common insect pests actually overwinter in plant debris left in the garden, so it does pay to clean the garden at the end of the season. For example, cabbage-worms that may have infested your cabbage and broccoli plants during the summer spend the winter in the 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 a larvae in the soil just below the frostline in the soil. Rotovating the soil helps to kill all these pests.

Other nuisance insects (boxelder bugs, snails, centipedes, earwigs, millipedes) overwinter in sheltered areas such as under plastic 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 dur-



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ing 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 and eating the tree.

Spiders are Good Guys

Most spiders in your yard are beneficial. They trap and eat many insects that would otherwise love to cause problems for you, your flowers, shrubs and trees. Spiders effectively control flies, crickets, other spiders, dust mites within your house, and many house-plant pests. Spiders make a natural insect trap and as long as they stay outside it is to your benefit to leave them alone. Spiders may actually kill more insects than you can kill by spraying.



However, once a spider decides to invade your home it becomes a nuisance pest. Even a tiny little spider trapped in the bathtub can compel an otherwise self-assured person to scream for the nearest designated spider killer in the family to come and take care of the problem.

Most spiders inside your home are not dangerous, they are a nuisance. Two spiders are dangerous. The Black Widow spider and the Aggressive House Spider (Hobo Spider) are two spiders that can cause serious injury. The **Hobo Spider Elimination Kit** (a spider Trap) traps and kills all different kinds of spiders; not just the bad ones. This kit contains five pre-baited cards that attract and trap spiders. You can put spider traps in several different areas of your house to catch spiders; it is an excellent way to control the unwanted spiders in your home.

Most nuisance pests are very hard to control, such as boxelder bugs, flies, ants, and millipedes. Spiders are no different, they are hard to control. The best control for these nuisance pests is persistence. Chemical insecticides will kill any spiders that come in contact with the spray. However, there is usually not a very long residual effect to control these types of pests. If you can prevent these spiders from entering your house the control is much simpler. Make sure your screens are in good condition. Caulk around doors and windows. Spray the outside foundation of your house in the fall; spiders are looking for warmth and protection from the weather.

Once spiders and other insects enter your house control is a little harder. Regular applications of an insecticide inside your house may help to control some pests. **Ant, Roach & Spider Spray** is available in both an aerosol spray and a trigger spray. Use this type of spray around the baseboards and wall. An **Indoor Insect Fogger** is another fairly safe way to eliminate some of these unwanted pests. Vacuuming these unwanted pests is another safe way to



eliminate them. Perhaps one of the best ways to control these nuisance pests is to use a Trap. Many different types of traps are available and safe. They will trap many different types of insects for several months.

Next time you see a spider just repeat this sentence: "**Spiders are good guys. Spiders are good guys**".

Early Leaf Color

Each year we look forward to trees and shrubs turning color and standing out in the yard with their impressive display of colorful leaves. However, if the plant changes color too early it could be a warning sign that the plant is under unusual stress. A closer look at the plant might be warranted, especially if your plant started changing colors in August or early-September.



Weather conditions are a big factor that contributes to stress in plants. Soil conditions and watering schedules also influence the amount of stress a plant encounters. Leaf scorch is very noticeable this fall along with some trees turning color prematurely. Make sure to deep water trees once a month until winter, to help these trees survive the winter.

Early fall color can also be caused by root or trunk problems. **Root problems can include** cultivating too close to the plant, covering the drip line with too much soil, adding too much fertilizer or other chemicals in the soil. The most common problem is either too much or too little water. **Trunk problems can include** damage from lawnmowers or string trimmers, mouse or gopher damage, splitting bark from previous injuries, a string or wire tied around the trunk to hold it up straight, or even a string used to hold the burlap on the rootball when it was first planted.

Plant diseases also cause stress to plants that can make them turn color prematurely. A common problem for both burning bush and lilac plants is a blight disease. Many of these plants may be infected by this disease and may actually die if they are not treated. The best control for blight diseases is to spray the trunk and branches of both the infected and non-infected plants with **Copper Fungicide** as soon as 90% of the leaves have dropped off the plant. Spray the plant again with copper just before the leaves emerge in the spring.

Fertilize struggling plants heavily each spring with **Dr. Earth All Purpose Organic Fertilizer** before they start to grow. Spray the '*really stressed out plants*' every three to four weeks all next summer with **Schultz All Purpose Plant Food**. This fertilizer is liquid and provides a quick acting plant food that helps all struggling plants. It is absorbed both by the leaves and by the roots.

Do You Have A Sick Tree?

Now is the perfect time to check your Trees' Health. Do not worry about minor leaf problems associated with the hot summer weather. **Summer Leaf Scorch** is a common problem in the fall that will correct itself during the winter and spring.



Look for other problems, such as the lack of new growth or very small or yellow leaves. If your trees show these symptoms during the spring and summer, they could die in a few years unless you do something about it.

If your trees are not growing the way they are supposed to, you may need to help them. For example: Norway maple trees should be growing six to twelve inches per year; Elberta peach trees should grow nine to eighteen inches per year; Austrian

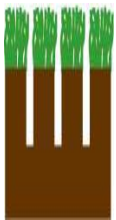
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pinus should grow six to twelve inches per year; Colorado blue spruce should grow six to twelve inches per year; and Fat Albert dwarf blue spruce should grow three to six inches per year. All trees should grow at least three or four inches every year to maintain good health and vigor.

The leaves should be 'normal' in both size and shape. And most important, the leaves should have the proper coloring, red leaves should be red, green leaves should be green, blue leaves should be blue, and yellow leaves should be yellow.



Fertilize any sick trees, either after the leaves drop this fall or before they start to leaf ou next spring, with **Dr. Earth All Purpose Plant Food**. Don't just put this fertilizer on the surface and let the rain or snow wash it in. Poke some holes ten to twelve inches deep all around the drip-line of the tree. Put one or two tablespoons of this fertilizer in each hole. Dr. Earth fertilizers contain special fungus and bacteria, in addition to a slow releasing fertilizer, that need to come in actual contact with the tree's roots. These microbes can really help stimulate new growth in sick trees.



This fertilizer also works great to keep healthy plants healthy.