



J&L Garden Center

The All Season Gift
and Garden Center

620 North 500 West Bountiful, Utah 292-0421

The Gardening Newsletter

www.JLGardenCenter.com

vol 18 issue 1

March - April 2005

March Gardening

Do you remember when your parents informed you, as a child, that you would have the "pleasure" of working in the yard? This usually meant pulling weeds or crawling along the back fence on your hands and knees clipping the grass by hand. You probably thought it was anything but "Fun"! Times have changed. Today we trim the grass with string trimmers and prevent weeds with chemicals and bark mulch. Your children and grandchildren are much more aware of the environment than we were. They know that they have a role in protecting and beautifying the earth.



Gardening is still America's #1 leisure activity. It can build strong family bonds, and you can show your children the satisfaction that comes from growing your own food or making your environment beautiful. There's nothing like savoring the fresh fruit from your own trees, or the corn from your own backyard. Nothing you buy from the store ever tastes so good. Teach your children to enjoy the garden now and you are teaching them something they can enjoy for a lifetime.

We have this newsletter posted on our website. The website version of this newsletter is in larger print so it might be easier to read. It also contains a few more articles that we could not fit in this printed version. If you would like to receive our gardening newsletter via E-mail, and to receive a few other flyers and promotions that we plan to send out during the coming year, please register for the E-mail version of the J&L Gardening Newsletter at www.JLGardenCenter.com. Last year we sent out a gardening tip about every week from March through December. We are using a local E-mail company named True North Business Development to format and E-mail our gardening tips and reminders. When you sign up for our gardening tip by E-mail, you will also have the option of signing up for other local businesses E-mail promotions if you wish to. You will not receive any 'spam' from this registration and you always have the option of un-registering for our E-mail tips and reminders at any time. True North Business Development has done an outstanding

job with this part of our advertising.

We also have our **2005 Garden Calendar available**. Stop by and pick up your free copy or download a copy from our website at www.JLGardenCenter.com.

New Rose Varieties

We have all the new 2005 AARS winning roses, along with several new roses from both **Jackson & Perkins** and **Weeks Rose Nursery**. The 2005 All American Rose Winners are: **About Face** (Golden-orange Grandiflora), **Elle** (Pink & Ivory Bi-color Hybrid Tea), and **Lady Elsie May** (Pink Shrub Rose).



Rose Care

Roses are good, drought resistant plants that grow well with minimal water, once they are established. Roses can grow and bloom if they are watered once a week, sometimes even just twice a month in cool weather. Many gardeners seem to think roses need to be watered every day, but they will bloom just fine all summer with just a minimal amount of water on a regular schedule.



Start pruning your roses as soon as they start to grow in the spring; usually mid-April. Continue trimming and shaping your roses all summer, to keep them blooming their best. Fertilize your roses with **J&L Rose & Flower Fertilizer with Systemic Insecticide** as soon as you prune them. Then fertilize them every two months until August 15 with this same fertilizer. This fertilizer will help your roses grow and bloom vigorously while keeping the pesky aphids and thrips under control. Also, spread one-third cup of **Magnesium Sulphate** (Epsom Salts) around each rose bush when you prune them and spread another third cup of epsom salts around each rose bush again about mid-July. Your roses will look beautiful all summer. Magnesium Sulphate is also great to use in all the flower and vegetable gardens. Put some Magnesium Sulphate around your petunias and marigolds and you'll see a big difference.



Climbing Roses

If your climbing roses are not blooming very well, don't give up, just be patient. Newly planted climbing roses have their own timetable. They do not grow and bloom like regular hybrid tea or floribunda roses. Many varieties of climbing roses (Climbing Queen Elizabeth, Peace, Louisiana, Royal Gold, etc.) only bloom on three year old canes. Some varieties (Climbing America, Dortmund, New Dawn, etc.) will bloom on both old and new canes so they start blooming sooner. Don't prune climbing roses like bush roses or they will not bloom like they are supposed to. If you have questions about your climbing roses stop by to talk to Diane or Barbra, they will be able answer your questions.

Eliminate Nuisance Fruit

Plums, crabapples, sweet gum gumballs, pine cones, maple whirlygigs and cottonwood's cotton can sometimes be reduced or eliminated. Obviously the best defense against unwanted, or nuisance fruit, dropping all over your lawn or the sidewalk is not to plant trees with nuisance fruit. However, many of us inherit trees that may be quality trees, most of the year, until their evil twin arrives and drops debris all over the lawn.



There are chemical sprays available to help eliminate nuisance fruit. However, these sprays have to be applied each year, and timing of the spray is crucial. The trick is *'the chemical must be applied during flowering and before fruit set'*. For most flowering trees there is a only a ten day to two week window of opportunity to make the application. (Yes, cottonwood trees have flowers -- that is where the fruit comes from.)

Since the key to success in controlling nuisance fruits is timing, now is the time to think about these applications and watch for the flowers to appear. This will ensure that you do not miss the window of opportunity for spraying this spring. A foliar spray of **Florel® Fruit Eliminator** can be used to reduce or eliminate undesirable fruit de-

Recipe for Good Garden Soil

For a quick fix of a 100 square foot area (10'x10') 8" deep use:

5 bags **Bumper Crop Mulch** It adds organic mulch, 'trace' nutrients, and mycorrhizae.

5 lbs **Ironite** to add iron to your soil

5 lbs **Dr. Earth #7 All Purpose Fertilizer**

5 lbs **Gypsum**. It adds sulphur and calcium to the soil and releases nutrients already in the soil.

5 lbs **Natural Guard Soil Activator**. It contains Humic Acid which organically activates the soil with humates.

Mix well into the soil, plant, and water thoroughly.

You will be pleased with the results.

velopment on many ornamental trees and shrubs such as crabapple, cottonwood, elm, ornamental pear, maple, oak, pine, sweetgum, and sycamore.

Florel® Fruit Eliminator eliminates much of the fruit without affecting leaf growth and color. It does not harm the tree, grass, or other woody plants around the trees that may have drift from the application. However, it is important that plants being treated are not under stress from drought, high temperature, disease, or other environmental conditions. Treating stressed plants can cause severe injury to the plant, such as defoliation or leaf scorching. **Florel** eliminates the fruit without causing premature flower drop so you will still get a spring flower show.

One problem is that many of the trees do not have showy flowers. For example, cottonwood and sweet gum trees are a little tricky since the flowers usually go unnoticed. However, many arborists have found that sprays are effective if applied just as new leaves begin to emerge on these trees.

Say, what type of mud is that?

Good gardeners recognize that soil is actually made up of a variety of materials, defined according to size. Sand particles are the largest of the three types of soil particles. When mixed with water, sand particles settle out of the suspension first. Silt particles come next and are medium sized. Clay particles are the smallest. Sand provides the best drainage in a garden but holds the least water and minerals. Clay holds the most water, but often ties up minerals so additional fertilizer may be required. Silty soils share characteristics of both sand and clay. A combination of all three of these soil particles make the best mud.

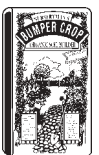


Feed Your Garden Soil - not just your plants

Your garden's soil condition is the single most important part of gardening success. Without the proper soil conditions, gardening can be a chore for you, and your plants will not respond and grow the way you want them to grow. Some of the insect and disease problems your plants struggle with during the summer can be prevented just by making sure your soil is well prepared before you plant them in it.

First, 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



continued from page 2

and it may take a little extra effort to achieve. The best way to improve 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. However, most gardeners forget to add **Organic Materials** in the fall, so it is important to add 'well-rotted' **Organic Materials** in the spring, so you do not injure tender plants. Mix as much well-rotted manure, Bumper Crop, Mushroom Compost, Soil Pep, or other organic materials (within reason) as you can afford. You will be amazed how much better your soil is this year than it was last year. Many garden soils may take four, six, or even ten years to completely change, but you will notice an improvement each year.

We have a new brand of fertilizer from the **Dr. Earth** fertilizer company that will also feed your soil. It contains seven different types of beneficial soil bacteria and mycorrhizae. These microbes will multiply once you add them to your soil and *you will be feeding both your soil and your plants at the same time.*

Dr. Earth Organic Fertilizers

Dr. Earth is a company that produces very effective organic fertilizers and incorporates many beneficial bacteria with their fertilizers. The organic fertilizers are derived from fish meal, cottonseed meal, alfalfa meal, fish bone meal, feather meal, soft rock phosphate, kelp meal, and potassium sulphate. With all these sources of fertilizer, the plants benefit greatly. Traditionally, organic fertilizers have been very slow to break down, and it took plants several weeks to start receiving any benefits from the fertilizer. The Dr. Earth company changed this slow process into a faster releasing fertilizer by adding beneficial bacteria to the fertilizer. These beneficial bacteria digest the natural ingredients and release the nutrients in a form that plants can absorb and start to utilize within just a few weeks. All of the **Dr. Earth** fertilizers include humic acid, seaweed extract, ecto & endo mycorrhizae, and seven strains of soil building microbes, all of which help improve the soil conditions and help make the plants more vigorous.



We have an excellent handout on soils and mulches. We also have a handout introducing our new line of **Dr. Earth** organic fertilizers. Please stop by and pick up your free copy, or download them from our website.

Organic Soil Amendments

We have several mulch products that we hope will help you with your gardening soil projects.

Bumper Crop is a natural, fortified soil amendment that is excellent for both vegetable and



flower gardens. It is pH balanced and contains long-lasting organic nutrients. This product contains Chicken Manure, Bat Guano, Worm Castings, Kelp Meal, Composted Bark products and Mycorrhizae, a beneficial bacteria. Bumper Crop will not burn any plants - new or old. It helps break up clay soil and helps increase the water holding capacity of sandy soils. It is also an excellent mulch to mix in soil when planting new shrubs. This mulch is much safer around plants than even Soil Pep or Nutri Mulch.



Black Forest Compost is great for mulching gardens, covering lawn seed, and for planting trees and shrubs. This product contains Chicken Manure, Bat Guano, Bark products, and is pH balanced so it will not burn any plants - new or old. Its long lasting ingredients help break up clay soil and improve drainage in compacted soils. It also helps increase the water holding capacity of sandy soils. It contains many of the same ingredients as Bumper Crop but it is a black compost instead of a brown compost. If you want to help darken your soil this is the right product to use. It is also used as a top dressing to improve the appearance of the soil.



Gardener's Choice Planting Mix is an all-purpose, all natural, all organic planting mix that improves porosity and promotes drainage in clay soil. This is a good planting mix that has been composted and pH balanced to prevent burning new roots. You can even plant directly into this mix without burning the plant's roots, although its most beneficial use is to help improve the surrounding soil. This product contains worm castings, bat guano, chicken manure, kelp meal, sand, and screened topsoil. Use this product instead of peatmoss or soil pep when you plant new flowers, trees or shrubs.

Acid Planting Mix is formulated for all acid loving plants. It contains all organic, long lasting ingredients that help improve soil porosity and drainage. Use this product when planting rhododendrons, azaleas, Japanese maples, daphne and other acid loving shrubs and trees - instead of peatmoss. This is a good mix of organic products that has been composted and pH adjusted to prevent burning new roots. You can use this product to amend soil in containers or to mix 50% in the soil around each plant, your acid loving plants will love it. *Use this instead of peatmoss.*

Cocoa Mulch is the hulls of cocoa beans. This product has been washed to remove theobromine (a chocolate product that can make dogs sick) so it is completely harmless to pets. Once applied to gardens, Cocoa Mulch releases a natural gum product



continued from page 3

which binds the shells into a porous mat that holds moisture in the soil, suppresses weed growth, and holds it in place through a minor windstorm (unfortunately not through a 100 mph east wind). Cocoa mulch is not meant for walkways, but is an excellent top dressing in gardens.

This product naturally deters slugs and snails, but it should not be used in shady areas where it will stay wet. If it is kept wet, it will decompose quickly and create an unsightly, harmless mold during the decomposition process. It does not decompose as quickly in hot and dry areas but you usually don't have a snail problem in the sunny areas either. Apply a new, fresh layer of Cocoa Mulch each spring to keep the mulch looking great, and to add a fresh fragrance of chocolate in your garden areas.

Utelite - Clay Soil Conditioner

Many garden soils lack the necessary physical structure to hold and move air and water for plant growth, especially clay soils. Most clay soils need additives that will hold water (like peatmoss) but that will allow water to drain (like sand). Adding peatmoss and sand to clay soils may just add to the problem rather than correct the problem; unless they are added in the proper amounts. Clay and sand mixed together may produce bricks. If you want to add sand you must add 'a lot of sand' to improve the soil. Peatmoss mixed with clay may produce a soil that stays too wet and cause even worse problems. The best way to fix a clay soil is to add lots of manure, compost, bumper crop, soil pep, or perlite to the garden, rather than adding peatmoss or plain sand.

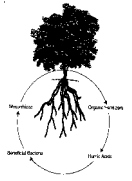
Another additive available to help improve clay soil is **Utelite, Clay Soil Conditioner**. Utelite is a porous, rock chip which acts as a permanent reservoir for both air and water. Utelite increases the water holding capacity of the soil and it also helps improve drainage within the soil. It does not decompose, like mulch, so it does not have to be added every year. We have Utelite available in bulk, making it an affordable way to improve your clay soil conditions.

Gypsum is a soil conditioner that helps improve clay soil by changing the chemical structure of the soil; it does not improve the physical structure. Gypsum helps improve all soils, not just clay soils. Gypsum adds calcium and sulphur to the soil, which allows plants to absorb and utilize fertilizers that are already in the soil, but were not previously available for plants to absorb. For more information about improving your garden soil please ask for a copy of our 'Garden Soil and Mulch' handout or download a copy from our website.



Mycorrhizae

The word mycorrhizae comes from two Greek words 'mykes', meaning fungus and 'rhiza', meaning root. Mycorrhizae are specialized fungi that establish symbiotic relationships with plant roots.



The mycorrhizal fungus penetrate plant root tissues and live in the soil surrounding the plant. The fungi capture and use nutrients from the soil, particularly nitrogen and phosphorus. They share these nutrients with the roots of the host plant. In return, the host plant provides many carbohydrates, sugars and other nutrients for the fungus to use in its growth and development. The plant also helps the fungi grow and move through the soil as its root system develops.

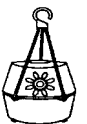
Mycorrhizae are good soil-binding agents. They tend to accumulate in the soil and remain in the soil for a long period of time. The fungi 'roots' are sticky and physically hold soil particles together. In addition, plant 'hair-roots' also secrete a similar, sticky substance. Between the two of these sticky substances, the soil particles are bound together to form semi-stable aggregates. These aggregates help make more air spaces in the soil, which allows roots to penetrate the soil faster, and helps make the soil more friable. **Bumper Crop®** contains mycorrhizae. All of the **Dr. Earth®** fertilizers contain mycorrhizae. In addition, we have mycorrhizae available in 1lb packages. If there is one product that will drastically change how your plant grows and develops, it is definitely this fungus. Try it and see how much different your plants will look in just a short time.

Organic Insect Control - Insect Traps

This year we have many different types of insect traps available. We have the standard **Fly Traps, Wasp Traps, Whitefly Traps, Coddling Moth Traps, Ant Traps, Snail Traps, and Pantry Pest Traps**. We also have several other traps available. We have a **Mosquito Trap, Fruit Fly Trap, Earwig Trap, Clothes Moth Trap**, and one called the '**Smart Trap**'. In the next issue of our newsletter we will have an article about how the mosquito trap works, it is very interesting information.



The **Smart Trap** contains two 60-day attractant cartridges that attract many different species of moths, hopefully before they lay their eggs. You have to use the **Smart Trap** to catch the moths before they lay eggs. Once the eggs have been laid, this trap will not protect your garden plants. Eggs produce caterpillars, which eat your plants. The **Smart Trap** only catches the moths, not the caterpillars.



Lady Bug Lure is a product that you can spray on flowers to attract lady bugs. This product emits the odor of a distressed plant - the odor that indicates a plant is overrun with aphids. Lady bugs converge on this plant in hopes of finding a quick meal. If you have bought lady bugs in the past and released them at night, like you are supposed to, you often notice that most of them fly away - to the distressed plants in your neighbor's yard. This year, spray **Lady Bug Lure** on several plants in your yard before you release your lady bugs. It will help to keep your lady bugs in your yard, and it may also attract the lady bugs that your neighbors are releasing in their yards.

Dormant Spray ... It's Important

Dormant spray is the single most important spray of the year because it prevents and kills more insects than any other single spray during the year. **Dormant Spray** means spraying your plants with an insecticide before the plants begin to grow; while they are still dormant. Dormant oil (not motor oil) can be sprayed alone, or it can be mixed with another insecticide such as **Malathion** or **Lime Sulfur**. All plants benefit from **Dormant Spray**, especially fruit trees, raspberries, roses and evergreens. Sometimes the only way to kill certain insects (pear psylla, juniper scale, spider mites) is with your dormant spray.



Wait to apply **Dormant Spray** until the buds of your plants begin to swell, but be sure to spray them before the buds completely open (usually early April). Thoroughly spray the upper trunk and branches. Do not spray the lower trunk because beneficial insects lay their eggs in this location.

Unfortunately, dormant spray does not kill all insects. You will have to spray later in the year as needed. For example, dormant spray will not kill the worms in apples, worms in cherries, peach tree borer, aspen borer, or root weevil. These insects live inside the tree or in the soil during the winter. Dormant spray only kills those insects it comes in contact with. We have an information sheet about using dormant spray. This sheet will further explain how to use this important spray. Please stop by and pick one up.

Fruit Tree Care

Besides pruning and dormant spraying your fruit trees, fertilizing them should be a high priority each spring. Fruit trees must be fertilized early each spring if they are to produce high quality fruit each year. Fruit trees need more fertilizer than shade trees or pine trees. They should be fertilized at least six weeks before they bloom, for



the best results. Do not fertilize fruit trees after June, or your trees may produce undesired growth later in the year. Young trees (up to 5 years old) benefit from the use of **Ross Fertilizer Stakes**. Older trees (more than 5 years old) benefit more from a good garden fertilizer, such as **Dr. Earth #7 All Purpose Fertilizer**, than from fertilizer stakes. Too much fertilizer can be just as bad for trees as not enough. Stop by and pick up a **Fertilizing Fruit Tree** handout, to help you decide how much fertilizer your trees really need. This handout is free, just ask for a copy.

Do not start watering your fruit trees, especially if they are in the lawn area, until the soil starts to dry out six to twelve inches deep. The roots of most trees can absorb the winter soil moisture for several months. The soil usually has plenty of moisture until May or June. Trees, in lawn areas, get plenty of lawn water and do not need any additional water until late-June or even July, when the soil moisture has been depleted. **Water your trees once a month during the summer**, in addition to any lawn water they may receive. When you water trees, try to get the water to soak into the ground twelve to twenty-four inches deep all around the dripline, not just right next to the trunk. Poke some holes twelve inches deep at regular intervals around the tree and let the water run for several minutes in each hole.

Lawn Care

Now is the time to start thinking about your lawn. Don't fertilize too early in the spring. Wait until the soil begins to warm before applying your first application of fertilizer. We suggest that you fertilize your lawn four times each year. **The four fertilizer steps we normally recommend are:**



- 1. Crabgrass Preventer** - mid-April to May
- 2. 21-7-7 Lawn Food** - late-May to June
- 3. Weed & Feed** - late-August to September
- 4. Fall & Winter Fertilizer** - October to November

We have a **4-Step lawn fertilizer package** which contains one bag of each of the above fertilizers. This package sells for **\$59.98** and it includes a free bag of either **Vegetable and Flower Fertilizer** or **Natural Guard Soil Activator** (Humic Acid). A healthy lawn is more resistant to diseases. It crowds out unwanted weeds better, it overcomes insect damage faster, and it withstands drought conditions easier.

Humic Acid

Humic acid is a natural, soil stimulant. It is processed from some of the most concentrated organic materials available. Humic acid is usually composed of 50% carbon, 40%



continued from page 5

oxygen, 5% hydrogen, 3% nitrogen, 1% phosphorous, and 1% sulphur. Most humic acid was formed when trees and vegetation underwent compaction, and heating, many thousands of years ago. Over the ages, this organic material was slowly carbonized and became coal. During this compaction process, many of the organic acids and esters contained within the vegetation, were squeezed out and formed a pool on top of the coal. This pool dried, aged, and became a layer known as shale. This layer of shale is the source of humate, which contains humic acid. Because of its vegetative origin, this material is very rich. It benefits all plants when incorporated into the soil.

Humic acid helps chelate many nutrients and helps bind them to soil particles. Chelated nutrients, that are attached to soil particles, are easier for plants to absorb and use. Magnesium, iron, calcium and many other 'trace elements' are just some of the nutrients that humic acid helps plants utilize more effectively. Humic acid helps the fertilizer, you apply, reach the plants easier. It also helps to release nutrients, already in the soil, that your plants have not been able to utilize. Add humic acid to the soil as you rototill your gardens in the spring. You can also spread humic acid on top of your lawn any time of the year. Humic acid is not a fertilizer, but your plants will react as if you just fertilized them. We have 20 lb bags of Humic Acid called **Natural Guard Soil Activator** and 50 lb bags called **Humate Soil Conditioner**.

Pansies and Primroses

Pansies and primroses are great flowers. They bloom early each spring, letting us know that spring is just around the corner. Pansies and primroses love cool areas, so they grow great in gardens used for begonias and impatiens. Pansies will bloom repeatedly from early spring until the temperature gets hot during the summer. Some gardeners have pansies bloom all summer. Primroses will grow and bloom for at least a month or two. You can extend their blooming time if you will take time to remove the old flowers as soon as they start to fade. A new set of flowers may begin to grow if you remove the old blossoms. Remember, pansies and primroses love cool areas, they do not like the hot, sunny areas. We have them both now - ready for planting in your yards.



A Simple Cold Frame

When you think of building a cold frame, you probably think of construction plans, 2x4s, a saw, a hammer and a bunch of nails. It's an intimidating project--especially if you're not much of a woodworker.

Jennifer Wright, from New Hampshire, has an easy

way to make a cold frame that requires no boards, nails, hammering or sawing. She makes hers out of hay bales and an old storm door. The first step is to gather your materials. You'll probably need about eight bales of hay. "The storm door may be in your shed, basement, or at the yard sale down the road," Jennifer says.

Find a sunny spot and arrange the bales to match the shape and size of the door. Place the door on top of the bales of hay. Place your seedlings, and overwintering perennials, inside the structure. Open and close the storm door as the weather changes.

"On very cold nights, cover the whole thing with an old sleeping bag, a tarp, or blanket. And don't forget to prop the door open on warm, sunny days so the plants won't cook," Jennifer says. "When you're done with the cold frame, take it apart and use the hay as mulch."

Seed Germinating Tips

Beet seeds are sometimes hard to germinate because they have a tough outer coat called a 'testa'. This coat has to be softened so water can penetrate, enabling the seeds to germinate. One way to help soften this coat is to soak the seeds in water overnight. After several hours of soaking, place the seeds between two pieces of paper and roll lightly with a rolling pin. You will be surprised how many more beet seeds actually germinate when you treat them this way.



Carrots, and other small seeds, are sometimes hard to germinate because the soil dries out too quickly and the seeds die before they can establish a root system that can absorb water. Try laying a 2 x 4, or other narrow piece of wood, over the top of your rows of seeds. The wood will retain moisture in the soil, absorb a little extra heat from the sun, and generally increase the germination rate of all your seeds. Leave the 2 x 4 covering the seeds for about one week, or until you peek under the board and see small white shoots starting to emerge from the ground.

Caution: Do not leave the 2 x 4 on the seeds too long or the plants will be deformed. One other excellent way to increase the germination of small seeds is to cover them with 1/2" of peatmoss or bumper crop after you plant them. These two mulches retain water and absorb heat that will help seeds germinate faster. You don't have to remember to remove it when the seeds start to germinate.

Garden Peas

What can taste better than fresh peas from the garden? Peas are one of the first vegetables to ripen in your garden and they are one of the



first rewards of the year for your efforts. Pea plants love the cool spring weather and should be planted as early in the spring as possible. Plant peas as soon as the soil dries out enough that you can cultivate it. If you plan ahead, you can roto till your gardens in the fall, so you don't have to wait so long in the spring to plant your peas. If you haven't planted your peas yet, plant them as soon as possible.

When you plant pea seeds early, or any other seeds, be sure to dust them with a fungicide because the soil is still pretty cold and damp. Seeds planted in a cold and wet soil may rot before they have a chance to germinate. You can also help your pea plants to be more productive by soaking the seeds in **Garden Inoculant** before you plant them. Garden Inoculant is a natural, nitrogen-fixing bacteria that helps the pea plants absorb nitrogen from the air and move it into the roots. Some of the best pea varieties are: **Little Marvel, Green Arrow, Early Frosty, Mr. Big, Sugar Sprint, Oregon Giant Snow Pea.**

Peas love warm companions. Why not grow two crops in the space of one and provide extra benefits for both? Plant peas and a warm-season crop together and reap the benefits from an extra harvest: Peas and tomatoes work well together.

Plant peas in a ring around the outside of tomato cages in early-spring. The peas will climb the wire. Transplant tomatoes into the cages as the weather allows. The peas will protect tomatoes from cool weather. The peas will fade away and leave behind an extra boost of nitrogen for the hungry tomatoes.

You can also train peas up a wooden A-frame, covered with a net. Interplant cucumbers between the peas when the weather warms. As the peas fade away, the cucumbers will be filling in the space, reaping the benefits of the nitrogen left by the peas.

Other veggies that you can plant at the same time you plant peas are: spinach, radishes, onions, parsnips, carrots, and lettuce. Stop by and pick up a seed planting guide for additional information about when to plant your gardens.

Broccoli

Broccoli is a cool season vegetable that may be grown early in the spring or late in the fall. Plant broccoli as soon as the soil is dry enough that you can roto-till the garden. If you roto-till in the fall you can plant broccoli as soon as the temperature will stay above 28° F. If you plant broccoli very early in the year, you can harvest broccoli at least a month or



two before the weather gets too hot in the summer.

Broccoli tastes best when it is harvested in cool conditions, between 60°-70° degrees. If the temperature gets too hot, broccoli will not be as sweet and it sometimes gets woody and bitter. Many gardeners want to buy broccoli plants in April or May, when they are also planting tomatoes and peppers. Although we may still have broccoli plants available that late in the season, you will not get a very good harvest and many insects will enjoy the fruits of your labors instead of you being able to enjoy the harvest.

Three insects are attracted to broccoli: Green Cabbage Worms; Cabbage Loopers, and Cabbage Aphids. All of these insects can be eliminated by boiling the broccoli and then skimming the insects from the water before eating the broccoli. However, if this doesn't sound too appealing, you can control the first two insects by dusting or spraying **BT** (*Bacillus thuringiensis*) which is sold as **Dipel®** or **Thuricide®**. **BT** is safe to use and can be applied up to the day of harvest. Aphids are a little more difficult to control. You can dust or spray with **Malathion®, Sevin®,** or **Eight®**. These insecticides will also control the worms and loopers but you have to wait several days before you can harvest after spraying with them.

Some of the best varieties of Broccoli to plant are: Packman (50 days) Green Comet (55 days) and Premium Crop (65 days). We have a more detailed fact sheet available about growing and harvesting broccoli. Stop by for a free copy of this handout.

Tulip Alert

Watch your tulips this spring, because the Deer certainly will be. Your tulips will be just about ready to bloom when one night they will suddenly disappear. To prevent deer from eating your tulips and pansies, you can physically cover them with netting, a frost blanket, or even with a sheet during the night. You can also try fertilizing them frequently with either **Blood Meal** or **Milorganite** fertilizer. These two fertilizers have an odor that deer don't like, and it will sometimes repel them. However, if they are hungry enough, the deer might not care about the smell and eat the plants anyway. Deer do not eat daffodils, hyacinths, or fritillaria, so you don't have to watch them as much.



Rain Water

Have you ever noticed how plants appear greener and brighter after a good rainstorm? It's not just because the dust and dirt got washed off. Rainwater is a clear, salt-free source of wa-



ter that contains many beneficial ingredients for plants. Rain can contain sulfur, potash, several other minerals, and even micro-organisms. All of these provide a boost to plant growth. During summer thundershowers, there can even be an added bonus when lightening converts atmospheric nitrogen into a nitrogen solution for plants to absorb and use. It is just like spraying them with a dose of **Schultz All Purpose Plant Fertilizer**.

Plants Improve Air Quality

One tree can remove 26 pounds of carbon dioxide from the atmosphere each year. This amount equals 11,000 miles of car emissions. Landscape plants, including shrubs and move smoke, dust, and other pollutants from the air. One study showed that one acre of trees has the ability to remove thirteen tons of particles and gases annually.



Why do **YOU** prune?

We prune to make plants more eye appealing, to correct potential problems, to keep plants healthy and strong, to encourage more blossoms, and to just make plants more beautiful. One of the most important jobs early in the spring is pruning. Pruning helps you keep your plants growing the way they should (or at least the way you think they should grow).



When do YOU prune? - The best time of year to prune is '**RIGHT NOW**', whatever time of year it is; especially if the plant has a problem. Preventative pruning and major pruning should be done early in the spring, while the plant is dormant. Minor pruning, shaping, and trimming can be done all summer as needed. Don't prune plants heavily in the fall, when plants are getting ready for winter. Wait until the plants actually go dormant before pruning them. '**When to prune**' depends, to a large extent, on why you are pruning.

Winter: Pruning during winter dormancy helps the tree produce a vigorous burst of new growth in the spring. The tree's framework is easy to see and major faults can be easily detected and repaired. Prune grapes in January or February. Prune fruit trees just before they start to grow in the spring. Prune summer flowering trees and shrubs (such as rose of sharon, potentilla, butterfly bush, golden rain tree, and hydrangeas) anytime before they start growing in the spring.

Spring Flowering Plants: If your main goal, for a spring flowering plant, is to have as many flowers as possible, be sure to wait until after it is finished blooming to prune it. Prune all your spring flowering trees and shrubs (such as lilac, forsythia, wisteria, bridlewreath, flowering

cherry, flowering pear, and quince) after they finish blooming - later in the spring or summer.

Summer: Pruning after the burst of new growth helps to slow down or '*dwarf*' a plant. You can control the suckers and branches you don't want to grow, without stimulating new branches to take their place. You can also reduce the number of leaves on the plant, which will also help slow down the plant's growth.

Fall: Fall pruning helps to prevent damage from heavy snowfalls. Fall pruning also helps eliminate unwanted insect and disease problems. Major fall pruning, however, should be kept to a minimum so as not to stimulate any new growth late in the year that could be prone to winter injury.

Winter: Some trees will bleed sap if they are pruned heavily in the spring. This sap loss is not usually harmful, but it may invite insect or disease problems. Prune trees that bleed either in the late-fall or during the winter. Maple trees, birch trees, beech trees, dogwood trees, willow trees, grapevines, and some flowering trees will bleed if you prune them in the spring.

How do YOU prune? - Always make clean cuts. Don't leave stubs or strings. Cut on a 45 degree angle. Cuts made too steep are weak. Cuts too flat do not allow water to drain away and may cause unwanted insect or disease problems. Pruning is an art, not a science. Even though there are correct principles and steps in pruning, there is not one best way to prune a tree or shrub. Unfortunately, trial and error is usually the best teacher. Pruning is one of the most important tasks a gardener must do. Many gardeners are reluctant to prune because they aren't sure how to prune or they are afraid of making a mistake and injuring their plants. Plants are usually very forgiving and will usually recover from incorrect pruning (the plants may take a few years but they usually recover).

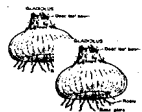
What do YOU prune? - Stand back and look at your tree or shrub. Ask yourself, "What should the plant look like?" and "What do I want the plant to look like?" Hopefully the answer to both of these questions is the same. Perhaps the most important step in pruning is learning how and just starting to do it. If you follow a few simple guidelines you will do fine and your trees will look great.

1. Start pruning the tree while it is still young. The cuts will be small and the tree will grow the way you want it to, right from the beginning.

2. Start with a visual inspection of the tree. Start at the top and work to the bottom. Remove defective parts such as dead, diseased, broken, narrow crotch, and hanging branches (except weeping trees) before you try to

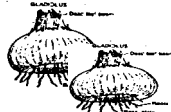
J&L's Coupon of the Month

Four Gladiolus Bulbs



for only
25¢

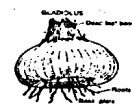
(for all 4 bulbs)



Buy More Gladiolus Bulbs

for only

25¢ each



with coupon - while supplies last
Regular 50¢ each

Choose From Several Colors and Varieties.

Selection limited to supply in stock. Coupon expires April 15, 2005 or while supply lasts. Limit 1 coupon per household.

continued from page 8

shape the tree. Stand back and look again. What has changed, does it look better or worse?

3. After removing defective parts, trim and shape your tree according to the type of tree it is. Remove crossing, parallel, vertical suckers, and branches growing too close together. Knowing what shape and what size your tree should be is helpful in determining how much to prune. If the plant is too dense, remove a few of the branches to 'open it up' but make sure the plant is uniform. If the plant is too tall or wide, trim some of the branches part way back, but keep the plant uniform. Stand back and look again. What has changed, does it look better or worse? Repeat this step until you are satisfied with the results.

4. Make clean cuts. Keep your tools sharp.

5. **Do not leave a stub** or cut too close to the trunk of the tree. This is the most important part of pruning.

6. No pruning can be just as bad for a plant as incorrect pruning.

7. Light pruning and the removal of defective branches can be done '**now**', whatever time of the year it happens to be.

8. Attend a pruning class and buy a good pruning book.

Weed Preventers for the Garden

Besides cultivating the soil and pulling the weeds, there are easier ways to keep weeds out of gardens. Many chemical weed preventers are available that are safe to use in both the vegetable and flower gardens. **Treflan®** is one of the most common weed preventing chemicals because it can be used safely around vegetable plants and in flower gardens. Treflan only kills seeds as they germinate, so it will not harm young seedlings. Treflan will not control roots growing from peren-



nial grasses or from plants that have already germinated. The best time to apply Treflan is after all your plants are planted and growing for at least a week. You can enjoy your garden, without very many weeds, for the rest of the summer. **Treflan is also sold as Prevent® and Preen®.**

Casoron® is another popular weed preventing chemical. It is much stronger, and prevents more weeds, than most other common weed preventers. Casoron is great to use around shrubs, trees, and along fence lines. Casoron prevents weeds up to nine months. It is much safer to use in home gardens than the soil sterilizers because it will not kill existing plants, it only kills emerging plants. Casoron cannot be used in the vegetable or flower gardens, but it is labeled to control weeds in shrub areas and around trees. Casoron can also be used in the raspberry patch and in the rose garden. Stop by to learn more about these labor-saving, weed-preventing chemicals. We have a hand-out available about many of the weed preventing chemicals.

Changing Pesticides

There is constant change in the chemical industry. It is hard for us to keep ahead of all the changes, so I am sure it is even more challenging for home gardeners to understand all of the changes. **Diazinon** is no longer available for purchase. If you still have it, use it until it is gone. It is still the best chemical available for controlling the worms in apples. **Malathion** is the chemical that we will be recommending this year for use on apples and pears. It doesn't last as long as Diazinon so you will have to spray more frequently. Listed below are a few of the other products available.

Neem Oil - This is not a new pesticide; we have been selling it for several years. It is bottled by the Green-



J&L Garden Center

The All Season Gift
And Garden Center

620 North 500 West Bountiful, Ut 84010
www.JLGardenCenter.com

PrSrt Std
U.S. Postage
PAID
Bountiful, Ut 84010
Permit No. 151

The Gardening Newsletter

continued from page 9

light company and sold as **Rose Defense, Fruit Nut & Vegetable Spray**, and **Powdery Mildew Killer**. Neem oil is an organic oil derived from the Neem Tree, grown in Australia. Neem oil smothers and kills many insects and diseases without having a toxic impact on humans. It also repels many insects for up to 2 weeks. It is safe to use within a few days of harvest on most vegetables and fruits. You have to be careful using it in hot weather because it may burn leaves. We have a more extensive handout explaining Neem Oil.

Eight - This is an organic insecticide that has many of the safer properties of an inorganic insecticide named **Sevin**. **Eight** contains *permethrin*. It is labeled for use on fruits, vegetables, flowers, shrubs and trees but it cannot be used on apple or pear trees for controlling codling moth - at least for now. **Eight** controls most insects, both good and bad. **Eight** does not have a long residual, making it a good choice for controlling most insects in the vegetable garden, especially close to harvest. **Eight** is a poison, even though it is classified as an organic insecticide, and must be treated accordingly. **Eight** is a good alternative to **Diazinon, Sevin, and Malathion**. Remember, **Eight** cannot be used to control insects in apple or pear trees.

Merit is a relatively new product for homeowners. Commercial applicators and farmers have been using this product for several years. It is safer than many of the older types of insecticides and does a very good job controlling many pests. **Merit** can be applied to most ornamental flowers, shrubs, trees and many vegetables. It is not labeled for home use on fruit trees. This chemical is found in **Bayer Rose & Flower Insect Killer, Bayer Lawn & Garden Multi-Insect Killer, Bayer Season-Long Grub Control, and Bayer Tree & Shrub Insect Control**.

Tempo, just like **Merit**, is a fairly new product for home use. It kills many insects that are hard to control and stays active up to 30 days. **Tempo** is strictly for use on ornamental plants and it is not registered for home use on any edible plants. This chemical can be found in **Bayer Rose & Flower Insect Killer**.

Stay Alert - Gardeners should never forget that pesticides designed to kill insects can be dangerous for people, as well. That's why it's so important to select garden chemicals carefully, apply them sparingly, and always read and follow all instructions to the letter. Even 'safe' or-



ganic pesticides can be fatal to humans if improperly used.

What to Spray? - When facing an insect infestation, some gardeners grab the nearest spray bottle. Two separate gardeners have told me that they wanted to kill some insects in their garden but grabbed a bottle of Weed B Gon by mistake. They meant to spray with Bug B Gon. Both products were in the same type of bottle and they just grabbed the wrong one. Both gardeners had to dig up their old plants and plant new ones. These gardeners were embarrassed by their mistake but I am sure many other people have made the same mistake. Be sure you know which pest you're dealing with and make sure the product you plan to use is effective on that particular pest. For example, insecticidal soaps are very safe to use but they may not get rid of the insect you are trying to control, such as fungus gnats or grasshoppers.

Also, check to make sure the product is safe to use on your particular plant. Even though insecticidal soaps are very safe, they may still damage delicate plants, such as African Violets. Other insecticides can be even more damaging to certain plants.

Borer Killers

We have a few insecticides that are still registered for borer controls. **Greenlight Borer Killer** contains **permethrin**. This product is safe to control borers in all fruit trees, and it can even be used to control some other insects on the same trees. Unfortunately, it is not labeled for use to control worms in apples and pears. **Fertilome Borer, Bagworm, Leafminer, & Tent Caterpillar Spray** contains **spinosad** and is also labeled to control borers in most plants. These two products are both organic insecticides, which means that you have to apply them more frequently than some of the older types of borer killers.

Orthene is available to control borers in pine trees, birch trees, ash trees, and other ornamental trees. It cannot be used on fruit trees. A new chemical manufactured by the Bayer Company, yes it is the same company that makes Bayer Aspirin, is called **Tree & Shrub Insect Control**. This is a systemic product that you just mix and pour around the base of the plant. The roots absorb this chemical and translocate it throughout the plant. This product can remain effective within the plant up to 12 months. It is labeled to control many types of borers and it is even extremely effective in controlling aphids way up in the tops of trees, without having to spray with a traditional insecticide. You can use **Tree & Shrub Insect Control** on all ornamental trees and shrubs but you cannot use it on very many edible plants. *You cannot use this chemical to*

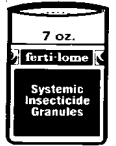


control peach tree borer.

If you still have **Dursban** or **Lindane** you can use them until they are gone, but you can no longer buy them. Keep in mind that one of the safest and best ways to get rid of any older, unwanted chemicals is to use them, according to the label recommendations, until they are gone.

Houseplant Care

One of the most common houseplant complaints during the winter months is a swarm of pesky flying insects around the houseplants. These flying insects are commonly known as Fungus Gnats. The fungus gnat larvae live in the soil of your houseplants. Fungus gnat larvae feed on organic materials within the soil. Unfortunately most of the organic matter is the plant's root system. Fungus gnat larvae do not eat large quantities of food, nor do they cause major damage to plants in a short period of time. However, they can kill plants if they are not controlled.



The flying insects are the adult fungus gnats. The adult fungus gnats do not bite or eat. They only live one week as adults before they die. Adult fungus gnats are more of a nuisance pest than anything else. When you water your plants or disturb the soil, a cloud of these flying insects fill the air, causing some aggravation because they find their way into your mouth and nose. Some fungus gnats settle around the dinner table, and some even find their way to other areas of the house. Since the adult fungus gnat's only function is to lay eggs, they are a nuisance, not a threat to your plants.

Aerosol houseplant sprays give instant control of the adults. However, spraying is a hard way to control them because a new generation of fungus gnat larvae hatches every five weeks. The best control for these pests is to kill the larvae in the soil. Put an insecticide into the soil of your plants. Sprinkle **Fertilome Systemic Insecticide Granules** on top of the soil and then water. This insecticide kills the larvae. It is also absorbed by the plant's roots and is translocated throughout the plant. The systemic insecticide will kill many other unwanted insects such as aphids and mealy bugs. Re-apply these systemic granules every six to eight weeks as needed. An organic method to control fungus gnats is to cover the soil of all your houseplants with fine gravel. Gravel prevents the fungus gnats from being able to move in and out of the soil. It also prevents the adults from laying eggs in the soil in the first place.

Now that winter is almost over you should start fertilizing your houseplants more frequently. Fertilize most of your houseplants every two weeks (instead of once a month during the win-



ter) with **Schultz All Purpose Fertilizer**.

Pine Tree and Shrub Care

Now is the time to fertilize all your trees and shrubs including pine trees and pine shrubs, before they start to grow this spring. Fertilize young trees and shrubs (one to five years old) with **Ross Evergreen Fertilizer Stakes**, use 2 to 5 stakes per tree. Fertilize older plants with **Dr. Earth #7 All-Purpose Fertilizer**. Watch your trees to see if they are getting enough, or too much, fertilizer. Your trees will tell you if they are getting the right amount of fertilizer by their rate of growth. If a tree is not getting enough fertilizer it will grow very slowly. Too much fertilizer will make a tree grow too fast. Too much fertilizer can be just as bad for the tree as not enough. Have you ever wondered why your dwarf mugho pines are not so dwarf? We didn't sell you the wrong plant, they just got too much fertilizer and they grew larger than they were supposed to. Fertilize pine trees and shrubs about half the amount you fertilize similar sized deciduous trees and shrubs.



Deer Problems

Giving advice about how to keep deer out of the yards is very tricky because all the remedies work sometimes, and sometimes none of them work at all. If you know what the deer's habits are, you can change the method you are using to keep them out of your yard. **Summer.** July-September Deer eat wild nuts and fruits. They often have enough wild food that they are not interested in your yard. **Fall.** Fall is breeding season and deer seem to visit gardens more frequently. Deer would rather eat tender plants until the frost changes their menu to woody plants. Deer repellents seem to work during this time because there is still enough wild food around for them to find to eat. **Winter.** From January to April deer need to eat five pounds of food each day. They will eat any plant they can find. Repellents do not seem to work very well during the winter. **Spring.** From April to June deer are giving birth. A Doe needs to eat 10 pounds of food each day. New wild growth is very prevalent so repellents may work this time of year, if you apply them often enough. The only sure way to keep deer out of the yard is with an eight foot fence around your entire yard. Some of the other, less obtrusive, prevention techniques we have heard of are:



Wooden Fences - Deer won't jump over something they cannot see through.

Double row of shorter fences - Deer won't jump over one fence if they see another fence 2 or 3 feet away.

Repellents - There are many different repellents on the market including, predator urines, egg white extracts, hot pepper, hair, bath soap, blood-meal, sewage sludge, and many more. Sometimes they work, sometimes they don't.



Deer resistant plants - Don't get your hopes up because deer will even eat these plants if there are not enough other plants nearby to satisfy their needs. Deer can't read the list of plants they are not supposed to like.

Cages and netting. The only sure way of keeping deer away from plants is to physically protect them. If you don't want to fence in your entire yard you can build a cage around individual plants.

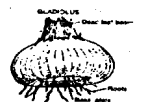
Another Tip. One gardener puts sharpened bamboo stakes in and around her flower gardens. As deer try to eat the plants the stakes poke them in the nose.



Unfortunately where there are deer, garden damage is going to be inevitable.

Gladiolus

Gladiolus bring beauty and color to gardens and flower beds throughout the summer. They are members of the Iris family and were first found growing among the tall grasses along riverbanks in Africa. The gladiolus have been hybridized over the years to produce the large flowers we have become accustomed to. Gladiolus blossoms start opening from the bottom and work their way up the stem, opening one or two at a time. The blossom period, of each blossom stem, can be two weeks long. They make great cut flowers and will remain beautiful in flower vases up to two full weeks, if you cut your flower stem when the first flower opens.



Early blooming varieties bloom about 90 days after planting, mid-season varieties 110 days and late blooming varieties bloom about 120 days after planting. Plant a few gladiolus bulbs (gladiolus bulbs are actually corms, not bulbs) every ten to fourteen days for about 10 weeks to space their bloom time for an extended period.

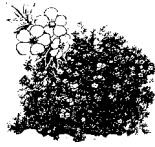
Plant gladiolus four to six inches deep (even deeper if you have a problem with them tipping over in the wind) and two to six inches apart. One tip that may help prevent glads from tipping over in the wind is to plant the corm on its side. The shoot will grow sideways for about an inch or two before it starts to grow upright. The roots will grow sideways for an inch or two before they start to grow down. This extra '*sideways growth*' helps stabilize the flower stems. You may still have to stake some of the

taller varieties to keep them growing upright.

Unfortunately, gladiolus are not hardy enough to be left in the garden during the winter. Be sure to pull up the corms and put them in storage before the ground begins to freeze in the fall. Be sure to use your coupon to buy four Gladiolus corms for a quarter. We also have a hand-out available with a little more information about growing Gladiolus.

Flowering Shrub Shape Up

To keep flowering shrubs looking their best you need to prune them. The best time to prune summer-flowering shrubs (potentilla, spiraea, weigela, roses) is in winter or early-spring, while they are still dormant. The best time to prune spring-flowering shrubs (lilac, forsythia, snowball, wisteria, quince, etc.) is after they finish blooming, in the early-summer.



Flowering shrubs that bloom on new wood can be pruned more severely than flowering shrubs that bloom on old wood. Forsythias, potentillas, spiraeas, privets, weigelas, and viburnums bloom on new wood and are easy to train and prune. Lilacs, climbing roses, wisteria vines, and rhododendrons bloom on older wood, be a little conservative when you prune these types of plants.

You will increase flowering wood and make more compact shrubs by pruning them every year or two. If you want a plant to grow large, don't cut it back as much, and don't prune it as often as the other shrubs you are trying to keep small. To keep large plants bushy, just let the plants grow a little taller each year. Don't let them grow uncontrollably fast. Cistena plum bushes can be very pretty, and bushy, if half of last year's growth is removed each spring. The plant will take a few extra years to get the size you want but the results will be more eye appealing.

One other tip: try to keep the tops of your shrubs a little narrower than the bottoms. By keeping the bottom a little wider than the top, sunlight can reach all the leaves and the plants will stay bushier at the bottom, instead of losing the bottom leaves. This is very critical when you are trying to keep a hedge uniformly bushy.

The easiest method of pruning many of the shorter flowering shrubs is to cut all the stems down to within a foot or two of the ground. You can cut the stems longer or shorter as needed, depending on the type of plant you are pruning and how tall you want it to be. Don't worry about where you make each individual cut, like you normally do when you prune trees. You may even want to remove some of the larger branches completely to the ground,

leaving the smaller branches to grow back in their place. New growth will emerge all along these cut stems, the plants will quickly rejuvenate, and the plants will start blooming at their normal time. Some spiraeas, potentillas, dwarf privet, and even the dwarf barberries respond well to this type of pruning. They can grow 18" to 36" after being trimmed this severely.

J&L Handouts



Many of the articles in our newsletters suggest that you stop by for a copy of a specific handout or download them from our website. Unfortunately, we are not able to go into a lot of detail in many of our newsletter articles so we end up writing a more detailed version of the article and making it into a handout. Our gardening newsletter is usually how we decide what new handouts we need to find. We do have many free handouts available in our store to help you with your specific gardening questions. We have all of our gardening handouts, as well as many of our previous newsletters, available for purchase on a CD. You can also download them all from our website. www.JLGardenCenter.com

Pruning Japanese Maples

This is a plant that does not require much pruning. Try to prune the younger growth, not the older branches. Pruning the older, larger branches will not stimulate new growth from those points. Your tree may start to look 'different'. Prune Japanese maples anytime from December to April. Light summer pruning can also be done from June to August. Try not to prune in September or October. Pruning in the late-fall may stimulate tender new growth that may be injured during the winter.

Top Mulches

Top mulches have several important roles in the garden. They are even more important in 'low-water-use conditions'. Some of the most common **Top-Mulches** include Bark Chips, Shredded Bark, Black Forest Compost, Soil Pep, Coconut Fiber, Grass Clippings, Newspaper, Weed Cloth, and Plastic sheeting. The key benefits are:

1. Retains soil moisture by reducing the amount of evaporation from the soil surface.
2. Protects the plant roots from heat, cold, drought.
3. Keeps the soil cooler.
4. Prevents germination of unwanted weed seeds.
5. Helps prevent erosion from wind, rain, sprinklers.
6. Adds a decorative top cover to your garden.

Crop Rotation

Crop rotation was first developed in the 1880's by George Washington Carver. George was born to slave parents and grew up on a farm. After attending high school and college he researched the problem farmers were having with decreasing cotton production in their fields. He developed a rotation schedule of planting peanuts one year and cotton the next. He then discovered over 325 different uses for the unwanted peanuts ranging from making cooking oil to printer's ink out of the peanuts.

Crop rotation is the practise of changing the type of crops growing in a garden each year. Farmers use crop rotation extensively in the management of their fields. Without crop rotation farmers would suffer heavy loses in their harvest. Home gardeners have a much harder time trying to rotate crops because of the limited amount of space and the types of plants desired. However, it is always a good idea not to plant the same type of crop in the same soil year after year. Both insects and diseases multiply in the soil and can greatly affect the productivity of the plants.

Crop rotation is the only practical way to control many soil borne diseases. Preventing diseases is more important than preventing insects because most insects can still be controlled effectively even if they become overpopulated. Many diseases, on the other hand, can not be controlled once the disease enters the plant. By the time some diseases are noticed it is usually too late to control them and the plant must be destroyed. Many soil diseases are particularly hard to chemically control. **Verticillium**, for example, is a soil disease that affects tomatoes. Because verticillium cannot be controlled chemically, plant breeders have developed varieties of tomatoes that are resistant to it. **Fusarium** and **Tobacco Mosaic Virus** are two other diseases that greatly affect tomatoes. When you buy tomato plants always look for the "V", "F", or "T" by the name. These letters indicate that tomato variety is resistant to those diseases. The Celebrity tomato, is "V,F,T" rated while the Moscow tomato is not resistant to any of these diseases. Diseases that may only be a small problem one year may become a major problem the following year if the conditions are right.

When planning your crop rotation schedule remember that you must plant different types of plants in the soil. You cannot just plant a different variety of squash in the same soil each year, you must plant something different. Listed below is a partial listing of plant groups. Rotate your crops between these groups and do not plant any of the same group of plants in the same soil year after year.

- A: Peas
- B. Corn, Beans

- C. Carrot, Onion, Beet
- D. Tomato, Potato, Pepper, Eggplant
- E. Cabbage, Cauliflowers, Broccoli, Radish
- F. Melons, Cantaloupes, Cucumbers, Squash

Flowers have the same problems as vegetables and need to be rotated just the same. Do not plant petunias and geraniums in the same spot year after year or you will notice the plants do not bloom as nicely, and the plants tend to die prematurely before the summer is over. Try something new and different each year, even if you '*only like petunias and geraniums*'.

Nice Trees for the Yard

Some of the most spectacular trees in the garden are from the *Acer palmatum* family - Japanese Maples. Some varieties have vivid spring foliage while others are more striking during the fall or winter. Some have yellow leaves, others have green leaves and still others have various shades of pink, red or purple leaves. Fall colors vary from yellow to orange to red. Starting in the early 1600's many Japanese gardeners started cultivating and breeding Japanese Maples. There are more than 300 different varieties or cultivars available today, ranging in size from 2' tall mature trees to 35' tall by 40' wide Japanese maples. The biggest challenge in using Japanese maples in the garden is choosing the one you like the best because there are so many types, colors, shapes, and rates of growth from which to choose.

Japanese maples are excellent trees for small spaces and for center pieces in a garden. Many varieties of Japanese maples are available. Some have green leaves while others have red leaves. With the proper care, Japanese maples are one of the best small trees for the yard. All Japanese maples prefer moist, well drained soil. They also like an acid soil - use plenty of **Gardeners Acid Planting Mix** when you first plant them. Fertilize Japanese maples every three or four weeks during the first summer with **Acid Plus** liquid fertilizer to help the roots grow as quickly as possible. After the first year, apply a little sulphur around the tree each spring, before the tree starts to grow. Fertilize with a **Rhododendron and Azalea Fertilizer** instead of normal garden fertilizer, to help keep Japanese Maples growing their best in this area.

Japanese maples are very cold hardy, they have their biggest struggle during hot, dry summers especially during the first summer. All Japanese maples will grow in full sun or partial shade, even the laceleaf varieties, if they are given the proper care and mother nature cooperates the first year.

We have a new handout describing many, many ex-

citing varieties of Japanese Maples. Some varieties are new while others are long-time, outstanding favorites.

October Glory & Red Sunset Maples

If you have Red Sunset Maple, October Glory Maple, Sugar Maple, or any of the other acid loving maple trees in your yard, you may notice that they sometimes struggle during the heat of summer. All of the acid loving trees such as magnolias, dogwood, and Japanese maples, respond well to a little extra, special care every spring, especially when they are young. Early in the spring, February or March, spread five pounds of gypsum inside the entire dripline of your trees and fertilize them with a **Rhododendron and Azalea Fertilizer**, instead of the regular tree and shrub fertilizer that you normally use for trees. Also, if the trees were particularly stressed out last summer, poke holes six to twelve inches deep about every two or three feet throughout the entire dripline of each tree. Put one tablespoon of **Master Nursery Iron Plus** in each of the holes. **Caution:** do not put too much iron in any one hole or you will have a lawn with dark green circles around each hole for the entire summer. Use one pound of iron for every two inches of diameter of the tree.

Rhododendrons

It is hard to resist trying to grow Rhododendrons in Utah, after all, they are one of the most spectacular blooming shrubs available. Rhododendrons are known for their spectacular flower clusters and handsome foliage in the garden. An important factor in growing rhododendrons in Utah is to protect them from drying winds both during the summer and the winter. Plant rhododendrons in areas that have light shade. Areas with morning sun, such as on the east or north side of the house are excellent. The soil should be light, have plenty of organic matter, and be **acidic**. Soil acidity should be within the range of 4.5 and 5.5. Most of the soils in Utah are alkaline (7.5 to 8). To help change the ph of the soil use plenty of **Acid Planting Mix** when you plant them. Use about 50% Acid Planting Mix and 50% soil when you plant them because this is the only time you can get mulch deep into the soil.

After the first year, apply aluminum sulphate or garden sulphur around each plant early in the spring, before the plants begin to grow. Fertilize them with **Rhododendron and Azalea Fertilizer** every two months from March until August. Do not fertilize them after August 15. Rhododendrons also benefit from **Iron Sulphate** during the summer to help them stay green.

Rhododendrons like to stay moist, but they do not

like to stay soggy-wet. Water them consistently and try to keep the humidity as high as possible. If your plants have struggled in the past, during the hot summer weather, you can spray them with **Wilt Prufe** to prevent problems. Spray them with Wilt Prufe in June, just before the hot, windy, summer weather arrives, so they don't dry out and look bad.

Don't be surprised if your rhododendrons have burnt leaves or dead branches in the spring; they probably dried out during the winter. Most rhododendrons that die in Utah actually dehydrate during the winter rather than die from the cold temperatures. The healthier the plant is as it goes into winter, the more likely the plant will be pretty the following spring. Don't be in a hurry to remove the plant or prune its branches. Let the plant leaf out and start to grow before you prune it. Once the plant starts to grow you can see what is alive and what is dead. Then carefully remove all of the dead wood.

Anytime your rhododendrons are struggling fertilize your plants with **Acid Plus** liquid fertilizer every three weeks, in addition to the regular fertilizer you normally apply. Hopefully your plants will respond to all your TLC and look great for many years to come.

Attracting dragonflies

Dragonflies are beautiful and they're beneficial as well. But you may have to build a pond to get these insects to take up residence in your garden. If you live near a lake or slow-moving stream, you will have a lot more visitors without having to build your own pond. Dragonflies prefer a large area and like to stay low to the ground. A birdbath or water saucer won't be enough: they need lots of space to swoop over the water as they catch their food.

Plants around the edge of the pond provide areas for the dragonflies to bask in the sun. They also make places for adult dragonflies to hide from their predators - birds, toads, frogs and snakes. Dragonflies feed on insects and other tiny critters. They lay their eggs in the water in late-spring or early-summer. *Nymphs*, wormlike immature dragonflies, hatch in about a week and then feed all summer, fall and winter on mosquito larvae, tiny hatchlings of fish and many other water insects. By the following spring, dragonfly nymphs crawl out of the water. They shed their skin and become adults with wings, ready to start flying and eating.