



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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Summer Gardening

We are excited about the coming summer gardening season. We have our website up and running and we are adding handouts to our website almost weekly. We are also advertising with a local E-mail company that is sending out our gardening tips on a weekly basis. We have had a good response from this service and we like this company because they do not send out junk E-mail. They send out information supplied by local businesses. You can choose which businesses you would like to receive information from and which companies you do. In fact, you can even un-subscribe if you decide you do not want to continue receiving the E-mail information. Please feel free to go to our website and sign up to start receiving our weekly gardening tip by E-mail. We plan to send out timely gardening tips and ideas all summer. www.JLGardenCenter.com



Water Restrictions

Even with all the media attention about conserving water there are still people that do not realize that they are wasting water. I have seen a commercial lawn that has been watered every night since the water was first turned on in April. I don't think that the property owners know the water is on. I doubt they ever shut the sprinkler timer off for the winter. The sprinkler timer probably turned the valve on every night all winter long. That is not an excuse - people should be more aware of their sprinkler systems and they should learn how to program their sprinkler timers so they can change the program as the weather conditions dictate. We should all be aware of our water needs, we should make sure our sprinklers are working correctly, adjust our sprinkler timers as needed - at least twice a month, and above all be aware of how we use water in our yards.



How much should you water? The answer isn't as simple as you might think. Before you can answer that question there are three other questions you must evaluate first.

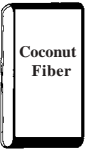
1. Do you know how much water you apply each time you water your lawn?
2. Are you applying the water to your lawn evenly?
3. Do you know when your lawn needs water?

A lawn requires one type of watering schedule, annual flowers and vegetables require another watering schedule, perennial flowers need a different water schedule, shrubs another, trees another, container gardens another, and so on. We have a handout, '*Residential Lawn Watering Guide for Davis County*', available to help you determine your lawn's watering needs. This handout was made available by the USU extension service. We also have handout '*How Much Should You Water*'

that will help you understand how much water you need in your yard. Stop by and pick up a copy of these two handouts.

Coconut Fiber

Coconut Fiber is just what its name implies, shredded coconut husks. The coconut plantations have found a solution to their biggest problem, how to get rid of the unwanted coconut shells. They grind the shells into fibers, compress them into bales, and then package them for a variety of uses including soil conditioners. Coconut fibers have a unique ability to absorb a large amount of water quickly and then slowly release the water over a long period of time. Coconut fiber is quite fibrous and takes several years to decompose; maintaining a spongy texture during this time.



Coconut fiber has many uses in the garden. It can be used in hanging baskets and in containers on the patio. It can be mixed into the garden soil to help loosen clay soil and to help maintain water in sandy soil. Coconut fiber can be used for almost any planting situation in the yard.

Coconut fiber is a little more expensive than peat moss but it lasts much longer in the soil, making it an excellent substitute for peatmoss. Coconut fiber is one way to help maintain a consistent moisture level in your soil.

Soil Moist®

Suppose you could plant tiny sponges in the soil to absorb water and then release it slowly as your plants need it. Sound Impossible? **Soil Moist®** crystals are a mineral that looks like salt crystals when they are dry. When they absorb water they act like a sponge, and look like pieces of gelatin. They slowly release their water as the soil around them dries out. **Soil Moist** is an excellent way to help keep containers moist. **Soil Moist** can also help to retain water in flower and vegetable gardens, and, if you are ambitious, you can aerate your lawn and put a few **Soil Moist** crystals down each of the holes to help keep your lawn moist; don't just broadcast the crystals on the top of your grass or you will be sorry. Your lawn will have a slippery gelatin covering that will not be pleasant to walk through.



Since **Soil Moist** crystals are a mineral they do not break down very quickly and will remain useful for several years. These same types of crystals are used in diapers and other products to absorb water quickly.

Excessive Water

Wilting leaves are not always the sign of the lack of water. The lack of healthy hair (feeder) roots (sometimes caused by root rot - too much water) also hinders the plant's ability to

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absorb water. A simple test to determine the cause of the problem is to completely soak a wilting plant. If the plant recovers fairly quickly and the leaves regain their normal appearance, it is very likely that the plant was dry. However, if the plant remains wilted, or if it takes a long time to recover, it is very likely that the plant is suffering the effects of too much water.

The biggest problem with root rot is that by the time you know you have a problem it is sometimes too late to save the plant. The best hope for the affected plant is to cut back on the water as much as the plant can tolerate. Do not just cut back on water completely, remember the plant does not have as many hair roots as it should. Stimulate the plant to start growing roots a little faster by fertilizing the plant with a liquid root starter fertilizer. Mix **Root Starter** 1/4 strength with water each time you water the plant. You can also spray this root starter solution on the plant's leaves once or twice a month until the plant either dies or it starts to recover.

Summer Lawn Care

Fertilize your lawn every six to eight weeks during the spring, summer, and fall. Try not to fertilize during July. Your lawn should grow slower during the heat of summer. Fertilizer stimulates growth, which is not good for the grass when it is really hot. Too much fertilizer also makes the lawn require extra water to keep it growing. This summer you may not be able to fertilize your lawn if the water restrictions are too severe. You can, if necessary, apply an Iron Supplement or Humic Acid to keep your lawn green if you do not want to fertilize this summer. It is usually better to under-fertilize a lawn in drought conditions than to over-fertilize it.

Do not forget to control the dandelions, clover, and oxalis before the heat of summer arrives. Spray them with **Morgro Weedit II**. You may need to spray the weeds again in 2 weeks to completely kill them. Be sure to mix a spreader-sticker with your weed spray because many leaves repel water. If the weed killer doesn't stick to the leaf long enough to be absorbed, the chemical will not kill the weed. Oxalis and violets are probably the hardest weeds to kill in the lawn, be persistent with them.

Be careful, broadleaf weed killers can also kill petunias, roses, grape vines, and many other trees and shrubs in your yard, or in your neighbor's yard. Spray on a calm day and when the temperature will stay below 85 degrees. Weed killers volatilize (evaporate) when the temperature is too warm and will then drift on to other plants and possibly kill them too.

Mowing Tips:

Mow your lawn when it is dry; not wet.

Wet grass tends to plug up your lawn mower. Besides the extra mess, mowing while the lawn is wet can create a compaction problem. Wet thatch and soil is easily compacted by your weight and by the weight of the lawn mower.

Mow in the cool part of the day. Besides helping to keep you cool, your lawn will recover quicker after being mowed if the soil is cool.

Mow regularly. Don't wait until your lawn looks like an alfalfa field to mow it. Letting the lawn grow to an excessive height and then removing most of the plant creates excessive stress within the plant and root system.



Mow grass at a longer height in the heat of summer. Mow your lawn about 1.5" during the spring and fall. Mow your lawn to about 2" or even 2.5" long during the heat of summer. Long grass provides extra shade for the roots system and it helps prevent as much water from evaporating.

Keep your mower sharp. A dull blade tends to whip the grass rather than cutting it. A dull brown tinge will appear a few days after mowing if the blade was not sharp.

Watering Tips

Water during the cool part of the day; either morning or evening. The lawn cannot use as much water efficiently during the hot weather, and, water evaporates much quicker during the heat of day. Do not water between 8 am and 6 pm because of water restrictions: you might get a ticket!

Water infrequently. Do not water every day, even during the heat of summer. Change how often you water as the temperature changes. You may only need to water once a week in April. You may need to water twice a week in May. You may need to water three times a week in June and July. You may only need to water twice a week in August and September. You may only need to water once a week in October. Watch the weather and change your watering schedule accordingly.

Water deeply. Grass roots do not seek for water, they will just grow in the areas that already have water available. Water long enough so water can penetrate 4" or 5" deep into the soil. If the water is just running off the lawn and down the gutter, or into your neighbor's yard, the extra watering time is not benefiting your lawn. You may need to aerate more frequently or water your lawn differently. Try watering half as long but two times on the day you normally water (do not water every day). Once the water starts to run off instead of penetrating into the soil, stop watering. Wait for two or three hours and then apply the rest of the needed water, so the water can be absorbed.

Thatch Problems?

Thatch is the organic layer between the soil line and the green blades of grass. Thatch naturally occurs in your lawn due to dead grass and from grass clippings. A small layer of thatch is beneficial. An extreme thatch buildup is detrimental and can cause several different problems including a breeding ground for insects and an excellent harbor for lawn diseases. Too much thatch can also repel water and stop your lawn from growing normally. Measure the layer of thatch in your lawn. If the layer is less than 1/4" thick your lawn is healthy. If the layer is 1/4" to 1/2" thick you need to watch your lawn closely. If the thatch layer is more than 1/2" thick you need to remove some of the thatch.

Traditionally, power raking the lawn has been the way to remove excess thatch. However, the **Natural Guard Company** has packaged an organic product called **Lawn & Garden Soil Activator** which helps remove thatch naturally. This product contains humic acid. Humic acid not only helps remove excessive thatch naturally but it also provides many microorganisms that helps the lawn to grow better and helps to improve the soil structure. Humic acid is an important part of the soil structure that you can apply any time of the year; spring, summer, or fall. Humic acid can also be used in flower and vegetable gardens to help improve the health of the soil. Please stop by and ask for a copy of the fact sheet about this product.



What is Humic Acid?

Humic Acid comes from the highly compressed and biodegraded remains of ancient plants and animals. Over millions of years, plant and animal remains were converted into complex organic molecules and minerals. When this material is applied to soils, it helps the soil to promote better plant growth and productivity - naturally. Humic acid helps chelate and improve the effects of many fertilizers. Humic acid also helps the soil retain the nutrients, which provides a "timed released" fertilizer, making plants healthier. Healthy plants are often less susceptible to insect and disease problems, a beneficial side effect.

Besides enhancing the capacity to hold and exchange mineral nutrients with plant roots, humic acid also promotes greater absorption and utilization of nutrients applied to foliage. Humic acid is totally organic and high in carbon. Humic acid can buffer chemicals or fertilizers, preventing phytotoxicity and "burn".

Good soil fertility is not the result of just adding chemical nutrients and organic materials to the soil. Instead, good soil fertility is the result of the correct combination of nutrients, organic matter, microbial activity, and other 'critters' living in the soil. Soil scientists report that good soil is alive, truly and literally alive. What's more, they contend that no amount of "plant food" will give the equivalent results of a fertile soil, without giving attention to the humus-forming and plant-supporting microbes. In essence, many experts are saying that "the plant eats what the microbes give it."

The Humic Acid in **Natural Guard's Garden Soil and Lawn Activator** can help restore your soil to a living system of energetic biological activity and help maintain your soil's natural cycle. Use this product in addition to your normal fertilizer, not in place of it.

Grubs, Webworms, Billbugs

White grubs, sod webworms and billbugs are three (or more) separate insects that invade the lawn. Confusion exists because they are all commonly called grubworms. Although the control is often the same for all three of these insects the time of application can be very different.



Sod webworms are the larvae of a small moth. The larvae are actually caterpillars and they feed on the leaf blades of the lawn. These caterpillars are fairly large and have a greenish appearance; they are easy to find. These pests are active in May and June so spring treatment is necessary. They occasionally re-appear in August, which means a summer treatment may be necessary as well.

Billbugs are the larvae of a small black beetle. This beetle has a long elephant-like snout. The larvae of the billbug are very small. They resemble a small white pebble except that they have a brownish head. These larvae are actively growing during the hot summer weather. They feed on the grass roots just below the surface. Treat for billbug problems mid-Summer (July).

White grubs are the larvae of various beetles. They are usually large and are easy to find. They feed on the roots of the lawn. They are active at different times of the summer, depending on that particular beetle species.

Lawn insect problems can vary from year to year. The only problem we seem to have every year is the billbug problem. Sod webworms and white grubs are not a regular problem but

they must be controlled when they do become a problem. Several chemicals are labeled for use to control these lawn insects. **Diazinon Granules** have been the most common chemical used to control lawn insects. Diazinon is still available this year. **Eight Lawn Insect Granules** are very effective in controlling most lawn insects. This product contains **Delta-methryn**, a synthetic pyrethrum that will be one of the products replacing diazinon. **Merit Granules** are another chemical that effectively controls lawn grubs. Merit is sold as **Bayer Season Long Grub Control**. It controls lawn grubs as they hatch and the product lasts for two or three months - all season. **Dylox Granules** are also excellent for grub control. Dylox kills grubs quickly and effectively. Choose the chemical that is best for your lawn's needs and be sure to apply it at the proper time.

New Items

A couple of new items worth mentioning are **Dr. T's Cobweb Eliminator** and **Dr. T's Snake-A-Way Repellent**. The cobweb eliminator is a non-staining natural oil that does not allow spiders to attach their web to the sprayed surface. It will actually repel spiders for up to three months. It is safe to use in homes, apartments, restaurants, boats, and any other place that spiders tend to make webs.



Snake-A-Way emits an odor and contains an ingredient that snakes do not like. This product somehow shuts down the snake's sensory perceptions making them uncomfortable and they go somewhere else. The manufacturer claims it repels all types of snakes, both poisonous and non-poisonous. It is safe to use around pools, homes, camp sites, wood piles and other areas snakes are likely to infest. We have a manufacturer's hand-out that has more information about this product.

Sucker-Stopper

Sucker-Stopper is a hormone made from the plant growth regulator NAA (naphthalene-acetate). This product is widely used in commercial agriculture to prevent suckers and as a thinning agent on fruit trees.

Sucker-Stopper can be used to prevent suckers and water sprouts on apples, pears, willows, maples, and woody ornamental plants. Unfortunately, the quaking aspen is not specifically listed on the label, but, the label does indicate it is effective on many 'woody ornamental trees' and shrubs. It is worth a try to control the aspen suckers in certain areas of the yard; just don't expect this product to stop all your aspen suckers throughout the yard!

Many trees produce suckers every spring. Even though you cut them back, the suckers continue to grow all summer long. After pruning, many trees will also send out suckers around the pruning wound. Apply **Sucker-Stopper** right after pruning to help prevent sucker formation. Thoroughly cover the primary cut and where any existing suckers have been removed. Be sure to treat the area before new suckers are three to five inches in length. The earlier you treat, the better this product works. Control should last about 3 months.

How Sweet Is Your Soil?

Soil pH is the measurement of how acidic or alkaline the soil is. The pH scale runs from 0 to 14. Numbers from 0 to 7 are acid, and from 7 to 14 are alkaline; 7 is considered neutral.

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Acid soil conditions are considered *sour* and alkaline soil conditions are considered *sweet*.

For Gardeners, soil pH is a number that really counts. Soil pH affects nutrient availability and microbial activity. Most plants grow best at a slightly acid to neutral pH (6.5 to 7), although certain plants have adapted to extreme pH environments both directions. **Note:** A soil pH of 6.5 is 10 times more acid than a soil pH of 6.6. As you can see, there is a big difference in the pH between a 6.5 soil and a 7.0 soil. That difference can be the determining factor of whether a plant lives or dies, especially for acid-loving plants in our area.

To lower the pH of an alkaline soil, add sulfur or gypsum. To raise the pH of an acid soil, add gypsum or lime. Organic materials are also very helpful influencing the pH of your soil, they tend to lower the soil pH. However, adding these products are temporary and cannot entirely counteract soil conditions in your yard. You need to add these products every year, or even several times each year, for many years in a row. We have a simple soil pH test kit available to help you check your soil pH. However, if you want a detailed or a more accurate soil analysis you need to send a soil sample to the USU extension service for testing. We have an excellent handout about Garden Soils that goes into more details about the soil pH. Please stop by for a free copy of this handout.

Chemical Recommendations

Eight Insect Spray contains permethrin, an organic insecticide. **Eight Insect Control** is labeled for use on fruit trees and vegetables, along with many other flowers, ornamental trees, and shrubs. This product kills insects quickly and may last up to four weeks for certain types of insects; it has even provided excellent control of boxelder bugs. **Eight Insect Control** is also available in a granular form for use on lawn insects.

Another spray is **Bonide Fruit Tree Spray**. This spray contains the traditional fruit tree sprays that have been used for years; Sevin, Malathion and Captan. This spray effectively kills insects and prevents diseases at the same time. The Bonide Company also bottles this same spray as **Bonide Rose RX**. This is a good combination of pesticides that helps prevent powdery mildew and kills many insects that feed on roses and flowers.

Neem Oil is another option for an organic way to control many insects and diseases. The **Greenlight Company** packages this product as **Rose Defense**, **Powdery Mildew Control**, and **Fruit and Vegetable Insect Control**. We have heard mixed reports of the effectiveness of Neem Oil. Some say it works great and others have not had much success, but it does seem to be worth a try to use this product. Neem oil is an insecticide, a miticide, and a fungicide - all in one. The best news is that it is nontoxic to mammals and birds.

BT (*Bacillus thuringiensis*) is a naturally occurring bacterial disease of some insects. **BT** will not kill mammals, fish, and it will not even kill all insects; only certain insects are susceptible to this product. This product is sold as **Thuricide** in the liquid form and as **Dipel** in the dust form. **BT** controls many caterpillars that love your plants, including: Cabbage Looper, Tobacco Budworm, and Tomato Hornworm. Do not use **BT** in your Butterfly Garden or if you are trying to attract butterflies. **BT** doesn't know the difference between a wanted butterfly caterpillar and an unwanted caterpillar pest.

Insecticidal Soap will kill many soft bodied insects with-

out harming plants (unless you mix it too strong or use the wrong type of soap). Soap does not always kill the hard bodied insects or many of the large insects.

Diazinon is still available to purchase this year and part of next year. This is a safe insecticide if it is used properly. It is labeled for use on apples, cherries, most fruit trees, vegetables and flowers.

Plain Water will dislodge and drown many insects and is often very effective controlling spidermites. Be sure to spray the undersides of leaves where aphids and spidermites hangout.

Don't try to kill every bug in your garden. If you can live with a few holy leaves, or, if a few curled leaves do not bother you, your chemical bill will decrease and your garden will still survive.

Organic Pesticides

True or False? Any pesticide that is organic is completely safe to use. An old garden myth is that all organic insecticides are toxic to insects and harmless to human beings. Nothing could be further from the truth. Pyrethrum and rotenone, although low in toxicity to mammals, are still toxic to humans if swallowed or inhaled. They are both highly toxic to fish. Both Malathion and Sevin (chemical pesticides) are much safer to use than Nicotine (organic pesticide).

Some of the organic insecticides that are beneficial if used properly are pyrethrum, rotenone, and deltamethryn. Other nontoxic organic insecticides are Hot Pepper Wax (this product also repels many rodents and animals), Insecticidal Soap, Neem Oil, Dormant Oil, Diatomaceous Earth, Boric Acid, and BT (*Bacillus thuringiensis*). These insecticides will not control all insect problems but they can help control some of them.

Other organic methods to control pests are: **Fly Paper, Indoor Fly Traps, Hornet & Wasp Traps, Snail Traps, Pantry Pest Traps, Roach Traps, and Spider Traps.**

Be Careful

Be Careful, all insecticides (chemical or organic) are poisons and many organic insecticides will kill animals and people just as quickly as the other types of chemicals. Be sure to wear gloves, use proper eye protection, and wear a mask or respirator when needed. Don't use a dust mask in place of a respirator. The paper dust mask will absorb chemicals and you will still breathe them, sometimes at even a stronger concentration than without a mask. However, a company has developed a disposable dust mask, **Air-Aid Emergency Mask®**, that helps filter many unwanted odors, fumes, and disease organisms. This mask is not a replacement for a respirator but it is better than not wearing any mask at all. It has a charcoal coated filter that helps prevent cleaning fumes, smoke, chemicals, and many communicable diseases from being inhaled.

Tomato Care

Are you tired of the old fashioned '**Tomato Cages**' that seem to collapse just when the tomato plants start to really produce fruit? This year we have some heavy duty tomato cages available that are much sturdier and will not collapse under the weight of the plant.

We also have another type of trellis system for tomatoes, peppers, and many other vegetables and flowers in your garden. Merlin Tracy, a member of our staff, has developed a

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method of trellising tomatoes that he has used for years in his own garden. He has made 'Hoops' out of rebar. These hoops help support your tomato plants and help make your garden more productive. By tying up your tomato plants, you can grow tomatoes six to eight feet tall. The taller the plant the more tomatoes you can harvest. You will have to choose **INDETERMINATE** varieties that can grow that tall. Some tomato varieties (**DETERMINE**) will only grow three or four feet tall, even if you stake them up. Stop by and take a look at these **Mer-Hoops**. See if they will work for you in your gardens.

Tomato Definitions

Determinate - The plant grows to a determined height. It doesn't need staking. All the fruit ripens within a three or four week period. Most commercial growers use this type of tomatoes for easy harvest. Celebrity, DX52-12, Moscow, and Heartland are some varieties of this type of tomato.

Indeterminate - The plant continues to grow taller all summer; to an indetermined size. It needs to be staked or put in a tomato cage for support. This type produces fruit for an extended time during the summer. Super Fantastic, Big Boy, Big Beef, and Sweet 100 are some varieties of this type of tomato.

Disease Resistance - These letters indicates whether the tomato variety is resistant to these common diseases.

- V - Resistant to Verticillium**
- F - Resistant to Fusarium**
- N - Resistant to Nematodes**
- T - Resistant to Tobacco Mosaic Virus**

NOTE: If you have any of these diseases already in your soil, be sure to plant varieties that are resistant to them. The only way to get rid of these diseases is by crop rotation. Chemicals do not effectively control these problems.

Growing Summer Squash

There is no doubt about it, summer squash is a prolific producer - zucchini leading the way. But, did you know you can even increase its production with two simple tips?

1. Plant two crops of summer squash instead of just one. Plant your first crop of summer squash when the soil temperature is at least 65 degrees. If you try to plant too soon the squash plant is often stunted or dies completely. Plant a second crop of summer squash 30 to 45 days later. The first crop will slow down and stop producing late-summer or early-fall. The second crop will just be starting to produce when the first crops slows down.

2. When you plant your squash seeds or plants, bury a one-gallon nursery pot in the middle of your hill. Make sure the rim is an inch out of the ground and no soil spills inside the pot. When you water your plants during the summer the water will fill the pot and supply plenty of water for the roots to absorb, without the water just running off.

Do you ever get a **Mystery Squash**? Maybe a big, round, dark-green squash with yellow spots scattered over the entire surface? Squash plants cross very easily. The fruit may resemble the mother plant (the plant where the fruit is growing) or it may resemble the father plant (the plant where the pollen came from) or it may be something totally different. As long as both parents are edible you can eat the fruit without any problem, although it may have an unusual taste because of the genetics involved. If, however, one of the parents could have been a gourd do not eat the fruit because some gourds can make people sick.

How Much Mulch?

Many people wonder how much bark they need to buy to cover their flower or shrub gardens. Fill in the blanks of this form and you can decide how much mulch you need.

Example: Your garden is 3 feet wide and 60 feet long. You want to put 2 inches of bark over your garden.

$$3 \times 60 \times 2 \div 12 = 30 \text{ (cubic feet)} \div 27 = 1.1 \text{ (cubic yards)}$$

A bag of bark is 3 cubic feet so you need either 10 bags of bark or 1 yard of bulk bark to cover this area.

Hot Peppers

Just one nibble can take your breath away and make you sweat. Depending on the variety, a single bite can move you to tears. Chile peppers can separate the daring diners from the rest of us with weak taste buds. Chile peppers are the basis for some of the world's hottest sauces.

The compound that makes chile peppers so pungent is capsaicin. Pure capsaicin is a whitish powder that is soluble in fats, oils, and alcohol, but it doesn't dissolve in water. Although many blame the seeds for harboring the heat, capsaicin is actually more concentrated in the white membranes within the fruit.

Once the chemical comes in contact with the nerve endings in your mouth, it fools your brain into thinking you are in pain. Your brain responds by producing endorphins, natural painkillers, that can produce a feeling of euphoria. Chile peppers can be addictive. Unlike other spicy foods, hot peppers eaten frequently can cause a long-lasting, desensitization to your taste buds, making many chile lovers search for a hotter "high." Make no mistake, chile peppers can physically burn your body as well. Always wear rubber gloves and don't touch your eyes when you are harvesting and processing them.

With more than 200 varieties to choose from, peppers are among the most nutritious foods around. They are loaded with vitamins A, C, and E. Peppers are also a good source of beta-carotene, capsanthin, and zeaxanthin. Just one fresh red chile serves up as much vitamin A as 1/2 cup of broccoli, as much potassium as one cup of spinach, and more vitamin C than five oranges, along with trace amounts of calcium, magnesium, phosphorus, and folic acid.

Cooking or drying the fiery fruit, however, changes their content. Vitamin C is one of the least stable of all the vitamins. Applying heat will cause the pepper's vitamin C content to drop significantly. Dried red chile peppers contain less than 3 percent of the vitamin C level found in fresh peppers. Vitamin A, on the other hand, actually increases when the peppers are cooked. Processed red chile peppers contain more vitamin A than carrots!

Steps to Determine Mulch or Soil Needs

Measure the area you want to cover (in Feet) and determine how deep you want to add mulch or soil (in inches).
(2" deep, 4" deep, etc.) = D(epth)

L(ength) (feet)
W(idth) (feet)

D = Depth (inches)
of Mulch or Soil

$L \times W \times D = \text{volume}$

$(3 \text{ ft}) \times (60 \text{ ft}) \times (2 \text{ in}) \div (12 \text{ inches})$
= Cubic Feet ÷ 27 cubic feet = Cubic Yards

R(adius) (feet)

D = Depth (inches)
of Mulch or Soil

$3.1417 \times R \times R \times D = \text{volume}$

$3.1417 \times (\text{ ft}) \times (\text{ ft}) \times (\text{ in}) \div (12 \text{ inches})$
= Cubic Feet ÷ 27 cubic feet = Cubic Yards

L(ength) (feet)
W(idth) (feet)

D = Depth (inches)
of Mulch or Soil

$L \times (W \div 2) \times D = \text{volume}$

$(\text{ ft}) \times (\text{ ft} \div 2) \times (\text{ in}) \div (12 \text{ inches})$
= Cubic Feet ÷ 27 cubic feet = Cubic Yards

Fill in the blanks and calculate the amount of soil or mulch you need to buy.

Because capsaicin doesn't dissolve in water, drinking water won't alleviate the burning sensation. Put out the fire with a glass of milk. Casein, a protein found in milk, literally strips the capsaicin from the nerve endings while the fat content in the milk absorbs the chemical. Chile pepper lovers always keep plenty of whole milk on hand. Stop by and pick up our handout about growing peppers.

Fairy Ring

Fairy rings may appear in a variety of ways in lawns. The most common is large rings of dark-green, tall grass. Mushrooms often appear within these rings. Another common symptom of a fairy ring is an arc of dead, brown grass.

Fairy ring fungi do not attack grass directly, they usually just break down organic matter in the soil. As a result of this process, nitrogen is released that the grass is able to use, forming the dark-green ring. If the fairy ring fungi become very dense, they prevent water from penetrating into the soil. The grass dies of dehydration - the actual cause of the dead grass in the arc. However, fairy ring fungi can also deplete the soil of some nutrients and can produce toxic levels of hydrogen cyanide which can also kill your lawn. The mushrooms that you see within the fairy ring are the fruiting structures of the fairy ring fungi, they are not the actual problem. Remove the mushrooms to prevent children from eating them.

Fairy rings may appear in one spot in the yard and not another because of unknown sources of organic materials buried in the soil such as a rotting stump or root, a buried log, or even buried lumber. Once this organic material decomposes, the fairy rings will often disappear on their own. However the decomposition process can take many years to complete.

Unfortunately there is not an easy control for fairy ring but you can help manage the problem, to at least lessen the visual effects. Do not fertilize as heavily, but fertilize more frequently so all the grass will grow at the same rate. Aerate occasionally and deep-water the rings often to help water penetrate into the fairy ring. You may also try putting humic acid down the holes you make. Humic acid may help to eliminate the fairy ring fungi.

The only sure control for fairy ring is to dig up the entire ring, find the organic food source, and remove as much of the fairy ring fungi as you can. Sound easy? Not so! The fairy ring fungi are usually 18" to 24" deep in the soil.

Chemical controls include making holes a foot apart all the way through the ring about 12" to 18" deep and filling the holes with a dish soap solution. After letting the dish soap soak for an hour or two, fill the holes with a solution of water mixed with either **Consan** or **Fungaway**. These fungicides may provide some limited control of the fairy ring fungi. Chemical controls may need to be reapplied two or three times each summer for two or three years.

Slug and Snail Controls

Slugs and snails are always a problem in both flower and vegetable gardens. There is no simple or easy way to control these pests. Diligence is perhaps the only way to win the battle against these critters. There are many different ways to try. See which of these methods work best for you.

1. Snail traps. You can either buy a snail trap or make a snail trap out of a pop bottle and use something sweet smelling, or snail bait, to attract them. The snails are lured into the trap

and then they can't get out. Your trap may need to be emptied every few days if you have a lot of snails.

2. Snail bait. Remember, most slug and snail baits do not kill or poison them. Most slug and snail baits only paralyze them so the sun can kill them - by dehydrating them. Be sure to remove the 'dead' snails before they have a chance to crawl away. Periodically, you may want to change the brand of slug and snail bait you use. Some snails may not be attracted to some baits but may love another brand. Try using **Pax Snail Bait** for a while and then switch to a liquid bait called **Deadline**. Both of these products are effective for slugs and snails when used regularly. In large groundcover areas you may have better results spraying **Lilly Miller Slug n Snail Spray** over the entire area instead of trying to spread out the bait.

3. Diatomaceous earth. This sharp sand dehydrates snails, and many other insect pests, as they crawl through it. Diatomaceous earth is a very safe way to control snails. Dust the ground and the plants affected by these pests. Reapply diatomaceous earth regularly, especially after watering.

4. Slug & Snail Barrier Tape. This copper strip prevents slugs and snails from crossing it. Have you ever put aluminum foil in your mouth and been shocked? This copper barrier strip does the same thing to snails. It produces an electrical charge as the snail crosses it. Snails will stay away.

5. Plant a few flowers slugs and snails don't like. If a slug or snail is hungry enough it will eat anything but there are a few flowers they are not particularly fond of.

Ageratum	Alyssum	Begonia	Cosmos
Geranium	Lobelia	Nasturtium	Nemesia
Portulaca	Verbena	Zinnia	Columbine
Arabis	Armeria	Astilbe	Aubretia
Campanula	Geum	Day Lily	Candytuft
Lupine	Peonies	Sedum	Thyme

Shade-Loving Perennials

While some plants are shade tolerant, others do not like any part of the hot sun's rays. Listed below a few of my favorite shade tolerant perennials. Pick a shady spot in your yard and try one or two.



1. Bleeding Heart This plant positively hates the sun. Plant it in a cool, shady area. It needs moist, fertile soil. Bleeding hearts grow 2' tall and are covered with drooping pink, heart-shaped flowers in the early spring. White blooming varieties of bleeding hearts are also available. There is a dwarf variety named **Luxuriant**, that blooms during the spring and summer.

2. Astilbe This plant has attractive fern-like leaves and produces a feathery tassel during the summer. It loves the cool, shady parts of the yard with plenty of water. It is available in several different colors; white, pink, red and lavender, and many shades in between. There are both tall and short varieties available, perfect for any shady garden in your yard.

3. Hosta Hostas are available in a seemingly unlimited number of varieties. The leaf colors are spectacular with an added benefit of fragrant, lily-like flowers that appear in the summer. The leaves can be blue, dark-green, light-green, yellow, or a combination of several different colors. Some varieties flourish in deep shade, while other varieties show their best leaf color with a little direct sun. They are definitely an ideal addition to your shade garden.

J&L's Coupon of the Month

\$ 3.00 OFF

Your first box of either
Miracle Gro®

Bloom Booster Fertilizer 3.75 lb. size

- or -

Schultz®

Bloom Plus Fertilizer 3.5 lb. size

Limited Supply Available - Coupon Expires June 30, 2003



Buy more of either
fertilizer for \$1.00
off per box.



Gardenias

Q. Every year I buy gardenias for pots on my patio. A few flowers open, but most of the buds drop off. What am I doing wrong?

A. Rapid changes in temperature and low humidity can cause buds to drop. For buds to form, gardenias require temperatures around 70 degrees during the day and above 60 degrees during the night. Buds will drop if the temperatures get too high or too low. Gardenias like moist soil and high humidity. Misting their leaves increases the humidity but it can cause fungus problems. So, instead of misting, set the container on a tray of gravel and fill it with water to raise the humidity. Do not let the pot sit directly in the water or the roots may begin to rot. Keep the soil moist but do not keep the soil wet. Use a moisture meter as a guide to help keep the soil moist.

When indoors, potted gardenias need full sun, but outside, they prefer part shade, especially during the hottest part of the day.

Did you know?

Apples, peaches, cherries and most fruit trees, don't produce identical fruit when they are grown from their seeds. If you grow the seed of a red delicious apple, you will not get another red delicious apple. You will get a genetic variation somewhere between a red delicious apple and a wild crabapple. Peaches, nectarines, and apricots all produce genetic variations when grown from seed. You may or may not get good flavored fruit from the tree and it may take several years before it will even produce any fruit. All commercially grown fruit trees are grafted or budded from mother trees to seedlings. By budding or grafting, fruit tree growers are assured they will have a tree that will produce the same flavor of fruit that it is supposed to.

Fertilizer Misconceptions

I am afraid TV advertising has confused many people regarding the use of fertilizers. TV advertising suggests using **Miracle Gro** (or any other brand of soluble fertilizer) exclusively for all of the fertilizer your plants need during the sum-

mer. This suggestion is true but what they don't tell you is that you have to fertilize every two weeks, all summer, with **Miracle Gro** (or the other brands) to keep your plants growing the way they should. I don't know about you, but I usually forget to fertilize that often.

In my opinion, the best way to fertilize vegetables and flowers is to mix **16-16-8 Multi-Purpose Fertilizer** in the soil before you plant your gardens. Re-apply **16-16-8 Multi-Purpose Fertilizer** again in two months, in all your vegetable and flower gardens. In addition, you can spray your plants with **Miracle Gro** fertilizer once in a while, to give your flowers a little extra boost. Use **Miracle Gro Fertilizer** as a supplement - not as the only source of fertilizer in your gardens.

If you have flowers that will not bloom properly, or if you want to make them bloom a little better for a special occasion, spray them with either **Schultz Bloom Plus Fertilizer** or with **Miracle Gro Bloom Booster Fertilizer** at least two weeks before that special date. This type of fertilizer promotes bigger and better blossoms, and helps produce more of them. Both of these fertilizers are fast acting, but they still need to be applied soon enough for the plants to utilize the fertilizer, at least ten to fourteen days.

Fertilizer Terms

Some fertilizers recommend different ways to apply them. Some say to side dress, others say to band or broadcast. Still others recommend foliar application. What's the difference?

Side dressing is applying strips of fertilizer beside rows of plants. Doing this puts the fertilizer right next to the plant so its root system doesn't have to search very far. Use this method along rows of vegetables during the summer growing season.

If you **band fertilizer**; you spread fertilizer in a circle around a single plant. This gives you the opportunity to use a special fertilizer for a specific plant. For example, you might feed an acid-loving plant, such as a rhododendron, that is planted next to other non-acid-loving plants. You can band each plant with the fertilizer it requires.

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Broadcasting works best when you want to apply the same fertilizer to a large area - just to scatter it around. Use this technique for fertilizing lawns and for fertilizing your garden before planting it in the spring.

Foliar Spray Plants can absorb fertilizer both through their root systems and through their leaves. Liquid fertilizers, and soluble fertilizers, can be mixed with water and sprayed right on the leaves. These types of fertilizers are fast acting and give immediate results. **Be careful:** Do not spray fertilizers on leaves during the heat of the day or if the plants are wilted - the fertilizer may burn the leaves.

Stuck with a stump?

What can I do with a stump from an old tree in our back yard?

Cut the stump as close to the ground as possible. Drill holes in it with an electric drill and push the bit in as deep as it will go. You can use any size or type of bit: the bigger the better. Or, if you don't want to drill, make cuts into the stump's surface with an axe or saw; rough up the stump. After preparing the stump, you can speed up the decomposition in one of two ways.

1. Mix soil with compost made from tree leaves. Leaf compost usually contains microscopic wood-digesting organisms that don't normally live in regular garden soil. Add a cup or two of blood meal. The blood meal (nitrogen), feeds the micro-organisms and will also help break down the stump. Cover the entire stump with the soil mix, working it into the holes. Depending on the hardness of the wood and the size of the stump, it should rot away in a year or two, or three, or four!

2. Dissolve **Hi-Yield Stump Remover** in a bucket of hot water. Fill the holes with the stump remover. This stump remover chemically burns the stump and provides nitrogen to feed micro-organisms. The micro-organisms are able to enter the wood and decompose the stump more quickly. Depending on the hardness of the wood and the size of the stump, it should rot away in a year or two, or three, or four!

The only quick way to get rid of a stump is to physically dig it out and remove it. However, if the stump is in a good spot, you might want to use it as a garden feature. Hollow stumps make good rustic planters. Carve out the center of the stump and fill the cavity with soil. Plant it with some of your favorite annual flowers. The soil inside the stump will also help the stump decay faster.

Or, instead of cutting it down to the ground, turn the stump into a garden pedestal. A stump makes a great base for a sundial, birdbath or other garden ornament. Depending on the height and girth, you could even use it as a garden bench.

Slime Flux Disease

Many willow and poplar trees are susceptible to a disease known as slime flux. This disease causes sap to ooze from a wound in the trunk. The sap ferments quickly, it usually has an unpleasant odor and it attracts many insects. Slime flux is often fatal, especially if it is left untreated for several months. The best treatment for slime flux is to cut away all the damaged bark and wash the trunk with a disinfectant, such as a mixture of clorox and water. Stop by for a more detailed information sheet about this tree problem.