

Polk County Urban Horticulturer Newsletter

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TURF

Tips for Successful Sod Installation - As the weather cools in September you may want to replace some of that sod which has been damaged during the year. Remove all debris, brush and other undesired vegetation. Existing grass, weeds and groundcovers should be killed with a systemic herbicide such as Roundup. Have a soil test conducted to determine the pH and nutritional level of the soil. Ideal pH for St. Augustinegrass is 6.5 and pH 5.0 for Bahiagrass. Based on the soil test, uniformly apply dolomite (or lime) and or fertilizer to the soil surface. Five pounds of dolomitic limestone per 1000 square feet will increase the pH by one point, for example 5.0 to 6.0.

Amend the area with organic matter such as composted manure and incorporate with a roto-tiller. The organic matter will help retain moisture, furnish nutrients to the turf and make the turf more drought tolerant. Roto-till as deep as possible (6-12 inches), making sure to avoid damaging any irrigation or utility lines. Laying new sod directly onto old vegetation (previous turf,



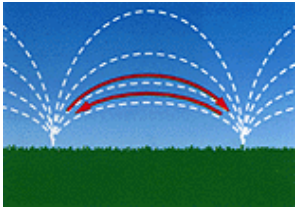
weeds, etc.), without roto-tilling, compresses the old vegetation into a matted organic layer which is slow to decompose. These layers form a barrier which slows irrigation water from reaching the root zone, and does not allow for good soil-sod contact. This leads to a very shallow root system which results in low drought tolerance. After roto-tilling, level and smooth the soil surface.

Thoroughly water the planting area prior to laying sod. The importance of temperature and moisture on rooting and establishment has been demonstrated by research showing that, during hot periods rooting was delayed eleven days when sod was installed on dry soil, as opposed to wet soil. Laying fresh sod on hot, dry soil makes it more likely that extensive damage will occur on exposed sod roots.

After the sod is laid, it should be rolled. This is not always necessary, but the rolling process helps to create a firm contact between the sod and soil.



Lack of firm contact between the soil and sod restricts available water to mostly what is retained in the sod itself, since upward water movement from the underlying soil is greatly reduced. Additionally, roots cannot cross an air layer to grow into underlying soil.



Newly laid sod should be watered daily until sufficiently rooted to survive less frequent but deeper watering. A good practice is to water lightly

twice per day, usually morning and afternoon, applying 1/4 inch of water each time. It is important that the sod does not dry out before the afternoon watering. Failure to keep the new sod moist during the day can easily result in it becoming water proofed. This situation causes applied water to be shed to the edges of sod pieces where it runs down between the joints of adjoining sod pieces and into the soil. After one or two weeks, eliminate the afternoon watering and increase the amount of water applied in the morning. After several weeks, the turf should be conditioned well enough to allow watering to be gradually reduced, until only 3/4-1 inch are applied only once per week (in summer). These watering amounts and frequencies may need to be adjusted depending on local regulations and weather conditions.

FALL GARDENING

Garden Design - The summer is passing by rapidly and it is already time to start thinking about the Fall garden. If you do not already have a garden spot, select an area that receives at least 6 hours of direct sunlight per day. You then need to make a garden design. Group crops by similar planting and harvest dates in order to keep the entire garden in production as long as possible. Arrange low growing vegetables such as radish, turnips, mustard, and lettuce along one side of the garden, place the medium to tall-growing plants such as peppers, bush beans, and squash in the middle of the garden, and the tall-growing vegetables such as pole beans, sweet corn, and stake tomatoes along the other

side. These arrangements minimize the effects of shading.

More than one crop, each requiring about the same spacing, may be planted in one row. For example, you could have bush beans, lima beans, and southern peas all planted one after the other in the same row. Run rows north and south so that exposure to sunlight is even for all rows and plants. Interplant quick growing crops like radish among the slower ones. The fast growing radishes are out of the way before the longer-growing crops need the space. Allow ample space between rows for convenient cultivation with the tool you plan to use.

Design your garden using crop rotation. This practice prevents diseases from living over from season to season. Try to avoid growing the same vegetable in the same location more often than once every three years.



Use stakes, string, and tape measure to lay out straight rows. Follow your previously prepared plan. Place a garden label at the head of each row. Information on the label should include crop, variety, and planting date. Utilize the fence around the garden to trellis vining crops such as cucumbers and pole beans. Don't plant too much of one crop at a time. To have fresh produce over a long period of time, plant smaller amounts of the same crop at 10-14 day intervals. It is even possible to double crop. This is when one crop is followed by another crop in the same place. However, when doing this the second crop should be of a different family, such as beans followed by broccoli.

Soil Preparation - The first thing to do is have the soil tested. These tests will determine the level of available phosphorous, potassium, calcium and magnesium, as well as pH. The pH reflects the acidity and alkalinity of the soil. Vegetables need the soil to have a pH of from 5.8 to 6.5 (slight acidic). If the soil test indicates that the pH is below 5.5, then you should add 2-3 pounds of lime or dolomite per 100 square feet. Don't just add lime because it seems reasonable to do so, because it may make the situation worse.

Don't Guess - Soil Test.

About three weeks before planting time, broadcast a complete fertilizer such as 8-8-8 with micronutrients (2-3 lbs. per 100 sq feet) over the soil surface along with dolomite, if needed. Manure is a good organic material to also incorporate into the soil (25 lbs. per 100 sq feet). The manure improves the soils capacity to hold water and nutrients around plant roots, it helps maintain a stable pH, and it supports beneficial bacteria and other necessary micro-organisms. The garden area should then be roto-tilled or spaded to a depth of 6-8 inches and leveled.

For those of you who have just about given up on raising tomatoes in the garden because of root knot nematodes, I suggest trying container gardening. A 5 gallon bucket can be used or perhaps a commercial Earth Box, which is available for \$30.00. However, I have found a 5 gallon bucket to work quite well. Drill several holes in the bottom of the bucket for drainage and fill 3/4 full of a good potting soil. Place one tomato transplant in each bucket. Plant one or two plants in September, October, November and December. Keep the soil moist, but not too wet. Fertilize every 10-14 days with a good soluble fertilizer for tomatoes. The plants need to be staked with a substantial rod. I use

a narrow gauge re-enforcing bar. The bar needs to be inserted into the soil as far as possible and wired to the upper rim at four points. As the plants grow they need to be carefully tied to the bar with a gardening tie. The buckets can be easily picked up and moved inside during cold weather. With this technique tomatoes can be enjoyed all winter.

NEW INVASIVE PESTS AND DISEASES



Chili Thrips - Relatively new pests in Florida are the Chili thrips. These pests have a wide host range including a variety of vegetables, fruit and ornamental crops. Currently it is particularly problematic in Florida's

landscape plants. The knockout rose is one of it's favorite hosts. The Chili thrips attacks 25 ornamental plants, 12 fruit crops including citrus and 13 field crops. A good way to look for these thrips is to purchase an art's palette. Place this palette under the flower head and snap the flower head down onto the hard surface. Then carefully look for these very tiny, long and skinny pale yellow insects. You probably will need a magnifying glass to see them. The natural product spinosad (Conserve) seems to give good control.

Cycad Aulacaspis Scale - This scale insect which has devastated Sago palms in Florida is still a major problem. If you have sagos in your yard, take a good look at them for the presence of these insects. The stems and leaflets will look like they are covered with snow. The populations are exploding at this moment. This insect is on the roots, trunk and leaves and about all you can do is keep it under control.

You will need to make regular applications of

horticultural oils and common insecticides like malathion and Orthene. Bayer Advanced Insect Control on Trees and Shrubs with imidacloprid does not work well at recommended dosages, but a new homeowner product called Spectracide Systemic Tree and Shrub Insect Control plus Fertilizer with dinotefuran has shown good results as a drench and as a spray. This product is supposed to be available at most retail garden centers, but I have not seen it in this area yet.

New Invasive Palm Diseases -

The new Fusarium disease which is attacking Queen palms has been recently found in Washingtonia palms. This disease starts with an abnormal increase in the number of senescing lower fronds and quickly works its way to the top until the whole palm looks like it has been freeze dried. There is no cure - the palm dies.



Lethal yellowing, another fatal disease of palms, has been confined pretty much to the lower 1/3 of Florida since the 70's. Coconut palms, Christmas palms and date palms are highly susceptible to lethal yellowing. The disease caused by a cell wall-less bacterium, called a phytoplasma, is transmitted by a small plant hopper. It is believed the plant hopper has made its way up into central Florida. In May 2007, the disease was confirmed in Sarasota County on two Canary Island date palms.

In 2006, in the Ruskin area date palms with lethal yellowing symptoms were sampled. DNA analysis determined the palms were infected with a phytoplasma related to, but genetically distinct, from the one that causes lethal yellowing. The DNA matched the signature of a phytoplasma known to cause

Texas Phoenix palm decline on Canary Island date palms in the Corpus Christi area of Texas. This phytoplasma has been identified in several species of date palms in landscapes and nurseries from Sarasota to Hillsborough County. Fusarium decline of Queen palms and these phytoplasma diseases have not been officially found in Polk County.

There isn't any treatment for the control of Fusarium decline of Queen and Washington palms. However, the phytoplasma diseases can be treated with injections of the antibiotic oxytetracycline HCl, often referred to as OTC. The injections are recommended on a quarterly basis. If you are interested, you can obtain more information about the process by visiting the web site <http://palmtreesaver.com>.

MISC. SEPTEMBER GARDENING

Flowers to plant - Ageratum, angelonia, begonia, blue daze, butterfly weed, bush daisy, cat's whiskers, celosia, cleome, coleus, coreopsis, cosmos, crossandra, fire spike, garden mums, gazania, gaura, gerbera, golden globe, goldenrod, heliotrope, jacobinia, impatiens, lantana, marigold, melampodium, moon flower, nicotiana, pentas, periwinkle, porter weed, portulaca, purslane, ruellia, salvia, Stokes aster, sunflower, sweet alyssum, torenia and zinnia.

Herbs to plant - Anise, basil, bay laurel, chive, dill, ginger, lemon balm, Mexican tarragon, mint, parsley, oregano, rosemary, sage, sweet fennel, sweet marjoram and thyme.

Vegetables to plant -

(early in month) lima bean, snap bean, corn, cucumber, eggplant, pepper, Southern Pea, rhubarb, squash and tomato; (end of month) broccoli, cabbage, celery, collards, endive, lettuce, mustard, onion, radish, strawberry and turnip.



Pruning - Pruning time is over for azaleas and camellias as they are now producing flower buds for next spring. Now is the time to prune bougainvillea and give a final pruning to poinsettia.

Hedges - In addition to providing privacy needs, hedges conceal fences, soften walls and create view barriers. There are a number of Florida plants that fill the bill, but one has to be careful to choose the plant which will grow to the desired height.

Plants which grow over six feet tall include anise, oleander, ligustrum, sweet viburnum and Walter's viburnum. Those growing about seven feet tall include Sandankwa viburnum, sinense viburnum and thryallis. Those growing under four feet include boxwood, dwarf yaupon holly (Schellings) and natal plum. We have recently planted several cultivars of Walter's viburnum (*Viburnum obovatum*) which is a native. The new cultivars include Mrs. Shiller's Delight, Reifler's Densa and Withlacoochie. These shrubs are supposed to only reach a height of three to four feet.

Citrus - It is time to make the final

application of fertilizer for the year. Use a good quality fertilizer containing secondary nutrients. You would apply approximately ½ pound of fertilizer, per year of age, up to eight years old with a 12% nitrogen fertilizer.

Greening disease of citrus still appears like it is going to be a major problem for homeowners in central Florida. The disease has been found in Polk County in a commercial grove. An infected citrus tree will be of no value and will eventually die in 6 to 7 years. The little insect transmitting the disease is here in large numbers. The treatment recommendation for homeowners is probably going to be weekly applications of pesticidal oils to new flushes of growth.



Have a good gardening day,

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