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How to Spread Turf Fertilizer Properly

by Craig Mauney, Extension Agent-Horticulture

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Fall is a time we fertilize grass in our home landscapes. Properly applying fertilizer to a lawn is a learned skill that takes practice. It is not as easy as it looks. It is not simply pushing a spreader around the yard until it is empty. You might wind up with a turf that does not have good curb appeal. Turf grass is usually a big part of most home landscapes and one of the first things noticed by visitors. When the turf is green and well manicured, it will give a good impression of your home and you as a gardener. You might even enjoy mowing the yard if your finished lawn is awesome. Fertilizer is only one part of any healthy turf program but an important part of the maintenance process. If you make a mistake while applying, your turf may stand out like a sore thumb. Follow the tips listed and it will make a tremendous difference to the looks of your turf.

**Step 1** – Always read fertilizer label first. It tells the proper rate, safety precautions and equipment needed. Adding more fertilizer will not make your grass any greener. Taking a soil test is the only way to know what the soil needs in amendments.

**Step 2** – Always use gloves when opening the material and filling the spreader hopper. This is where you are most likely to come in contact with the chemical. Glasses and mask are recommended to avoid dust and accidents. Try not to breath any dust that comes out as you fill up.

**Step 3** – It is best to spread the material in two passes. Use half rate in one direction and half in the other direction. So on your first pass go north to south and your second pass go east to west. Sometimes the label will tell you what number to use on your type of spreader or that information

can be found with the owner’s manual. Cut that in half and make two passes. When you put the spreader setting on a lower number, say below 10, the holes that the fertilizer comes out will open slightly. Do not fill your spreader any more than half to allow the material to flow easier. This will also make the spreader lighter and easier to push.

**Step 4** – Always close the release handle on the spreader before filling and also fill only on a hard surface (sidewalk, driveway, etc). Spills are easier to clean and you won’t damage the lawn with a burn. The pellets are hard to clean out of grass.



Misapplication of fertilizer using a drop spreader.

**Step 5** – When you are ready to spread, start 10 feet back from where you want the first pellets to hit the ground. Begin walking forward, towards your starting point, and open the release handle about 6 feet before where you want the first pellets to hit the ground. Why does the spreader need to be moving forward? Well the spinning tires turn an impeller under the hopper which then spreads the material evenly. If the

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spreader is not in motion, then the fertilizer will fall directly to the ground in piles and cause damage to the lawn.

Sometimes the fertilizer will not flow out freely when the handle is first opened. If this happens, close the handle, tap the sides of the spreader and repeat from the starting point.

**Step 6** – Always walk at a steady pace when spreading and close the handle three feet before the end of each pass. Steady pace allows even spread and coverage and closing handle 3 feet prior to the end allows any fertilizer left after closing the handle to flow out and finish the pass. As you walk, making your first pass, watch how wide the material is spreading out on both sides of the hopper. As you turn to start the next pass going the opposite direction, try to barely overlap the outer edge of your first pass to assure good

coverage. The usual reach of most spreaders are 9 to 10 feet wide at an average pace. After each pass, I take about 4 steps up along the edge and start my next pass. Watch your spread and experiment. Using lime will help you in the experiment process and will not make dark green stripes in the lawn from over fertilizing. Continue this process until you are finished spreading.

**Step 7** – When applying material along the side of a solid wall or fence, remember, any pellets hitting the wall, will settle down and build up causing potential problems. So make sure the outer edge of material hits solid areas to prevent this from happening. When finished, always put remaining material back into the bag and rinse out the spreader. Once again do this on a hard surface so cleanup is easier. Any fertilizer left inside will corrode and rust the spreader over time.

### Rotating Your Vegetables in the Garden *by Craig Mauney, Extension Horticulture Agent*

Rotate your vegetables by not planting the same vegetable or related vegetable in the same location year after year. Rotate at least once every three years (or 3-4 seasons between families) especially in small garden areas. If you have space to do so, rotate your entire garden area to another part of the yard. By rotating vegetables from different families you can prevent buildup of insects and diseases that attack your plants. Because plant insects and diseases are not always obvious, they may not build up to a damaging level in a single season or year. Below is a list of vegetable families you may find helpful when rotating your garden.

- Sunflower Family (Composite) – endive, chicory, artichoke, lettuce, salsify and sunflower.
- Onion Family (Lily) – asparagus, chive, garlic, leek, onion and shallot.
- Pea Family (legume) – peanuts, soybeans, peas and beans.
- Nightshade Family – tomato, eggplant, pepper and Irish potato.

- Mallow Family – okra.
- Grass Family – popcorn and sweet corn.
- Gourd Family – cucumber, gourd, cantaloupe, watermelon, pumpkin and squash.
- Goosefoot Family – beet, spinach and Swiss chard.
- Carrot Family (Parsley family) – carrot, chervil, celery, coriander, dill, fennel, parsley and parsnip.
- Mustard Family – bok choy, broccoli, Brussel sprouts, cabbage, Chinese cabbage, collards, cauliflower, turnip, rutabaga, radish, mustard greens, kohlrabi, horseradish, kale and cress.



**Kohlrabi**

### School Gardens & Nutrition Education *by Mary Jac Brennan*

School is in session and that signals the end of summer, which usually means the end of the growing season. But with the help of the Forsyth Cooperative Extension Community Garden Resource program, our school children will have the opportunity to have a garden at their school. Why have a garden at school? Isn't it a lot of work and won't the students just get dirty? Yes to both questions! It is

a lot of work and you do get dirty. Those are just two of the great life lessons that can be learned through school gardens. There is value in hard work, and for many children, getting their hands in the 'dirt' in a school garden may be the first direct experience of where food comes from. Research proves that school gardens can increase participants fresh produce choices when children have the

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opportunity to plan, plant, tend, harvest, and eat from a school garden.



Gardening is a wonderful activity for children and adults, and many lessons taught within the walls of the classroom can be reinforced in the garden. There are many science applications where students can have hands on experience with plants and learn about the parts of plants. There are great social studies activities where students learn about the cultural uses of plants and about the agricultural heritage of North Carolina. The not so obvious learning connections come in language arts, math, art, and even music. A garden based curriculum can meet grade level learning objectives for all of these subject areas.

What about nutrition education? We have a crisis with childhood obesity in North Carolina. Can you use a garden to help combat this major problem?

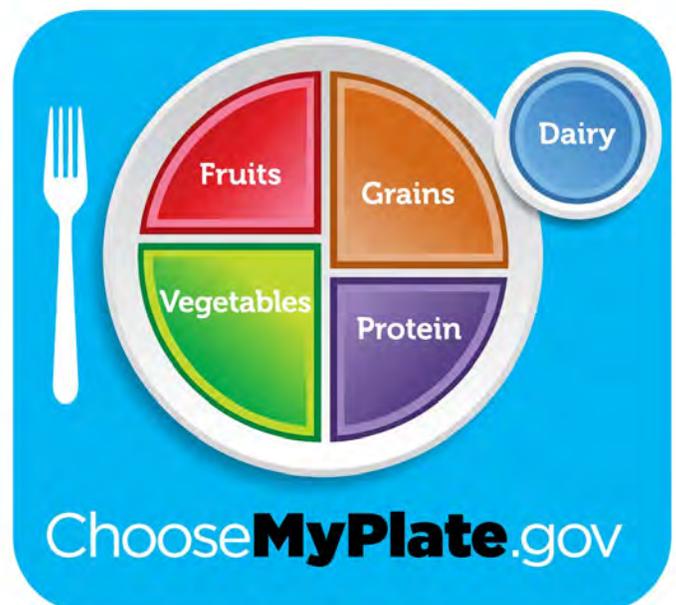
I like to think that gardening, and community gardening in particular, is the answer to all of our problems! All kidding aside, research tells us that children, who have 5 contacts with growing food and tasting what they have grown, are more likely to eat the 'new' food as part of their diet. Today's children are 3 generations removed from growing food. Many children don't know what some fruits and vegetables are, much less that those fruits and vegetables come from plants and are some part of a plant! There are many opportunities for nutrition education in a school garden. This fall, the Community Garden Resource Program, with support from Extension Master Gardeners, will 'deliver' a new pilot nutrition education project to schools through the vegetable garden on wheels, or the M.E.E.T. project. The Mobile Edible Education Tool is a

mobile school garden, with six themed gardens included. There is a perfume garden, a salad garden, a medicinal garden, an edible flower garden, a pollinator's garden, and a pizza garden! The M.E.E.T. trailer will travel to select schools for an on-site field trip for 4<sup>th</sup> & 5<sup>th</sup> grade classrooms. The M.E.E.T. activities are focused around the garden, tasting fresh veggies, and learning about nutrition. The classrooms that participate in the M.E.E.T. project receive an earth box garden to grow this fall along with garden based curriculum to use in the classroom.

The 4-H EFNEP, the youth component of the federally funded Expanded Foods and Nutrition Education Program, will be offered as a follow up to the veggie garden on wheels visit. Providing a six-lesson 4-H EFNEP series for the students is important, as according to current research, receiving nutrition and physical education at an early age provides children with a jump-start to developing a lifetime of healthy behaviors. This jump-start can prove vital in reversing the trend of childhood overweight and obesity. The 4-H EFNEP uses a hands-on learning approach when teaching children how to improve their nutritional and physical activity behaviors. Based on the USDA's MyPlate concepts, the 4-H EFNEP curriculum is designed to address several of the clarifying objectives found under several of North Carolina's new Essential Standards.

For more information about school gardens, call the Extension office at 703-2850 and ask for Mary Jac Brennan.

To find out more about 4-H EFNEP, call the Extension office at 703-2850 and ask for Lindsey Butner.



## Late Summer - Fall Color *by Derek Morris, Horticulture Technician*



*Salvia microphylla*  
'San Carlos Festival'

There are many annuals that contribute to late summer color in the garden. There are also many perennials that really stand out for their color bursts not only in late summer but many of these will bloom until the frosts of late October or November. Cannas and ornamental gingers are two that quickly come to mind. Cannas will bloom all summer long and into fall. Ornamental gingers will bloom from late summer into fall and, as an added bonus, most are quite fragrant. These two come in many different colors and shades to fit most any planting scheme. Salvias are another fantastic perennial that can fill the garden with late season bloom. *Salvia greggii* commonly known as Texas sage is a fantastic blooming machine that hummingbirds adore. It is truly a hummingbird magnet. The blooms of Texas sage come in many colors including all shades of red, yellow and white. There are also purple and pink varieties available. Texas sage grows between 2 and 3 foot high and equally as wide. It actually can be treated as a mini or subshrub, since over time it will become woody at the base. Trimming it back yearly in March will keep it more compact. Texas sage is very drought tolerant once established, since it is native to dry areas in Texas and Mexico. *Salvia microphylla* is a similar specie and like the specie *greggii* has many

varieties. 'San Carlos festival' is a particularly good variety of *microphylla* that has fuschia colored blossoms. 'Maraschino cherry' is a hybrid *Salvia* between the two that has deep red blossoms. Bog sage is another fantastic late summer and fall flowering perennial that has true blue blooms. Regardless of its common name you do not need a bog to grow this one. It does like moist soil but can handle moderately dry conditions once established. Bog sage, botanically known as *Salvia uliginosa*, will grow 4 foot high with a 3 foot spread. Another fantastic late blooming sage is known as *Salvia guaranitica* and it comes in several varieties. This native of Brazil will grow from 2 to 5 foot tall depending on variety with a similar spread and is not fussy about soil conditions. A prettier blue cannot be found in the fall garden than what this one gives. The varieties 'Brazil' and 'black and blue' are both adorned with rich dark blue blossoms that hummingbirds and bees find irresistible. The variety 'Argentina skies' has light blue flowers and is a taller growing variety. These plants with their bright blue blooms are especially nice paired with yellow flowering perennials and annuals such as mums and sunflowers.