

# Proper Use Of Fertilizer Pays Off

Fertilizers are often misunderstood.

I was recently reviewing a report issued by the Plant Disease and Insect Clinic at North Carolina State University and noticed that a great many plant problems were caused by improper fertilizer use.

Excessive fertilizer can burn tender plant tissues above ground and inhibit root growth due to the build-up of fertilizer salts in the soil during dry weather.

In addition, fertilizer applied to very acid or alkaline soils is essentially wasted because plants are unable to chemically extract the needed nutrients. This is why soil testing is so important.

Fertilizers leach more rapidly in sandy soils than they do in silt or clayey soils.

The numbers on the fertilizer bag represent the amount of nitrogen (N), phosphorus (P) and potassium (K) contained and are referred to as the grade or analysis. Each number represents the percent of nutrient by weight that is contained in the bag. For example, a 50-pound bag of 8-8-8 fertilizer contains 4 pounds of elemental nitrogen, 4 pounds of phosphoric acid equivalent and 4 pounds of potassium oxide equivalent. The remaining 38 pounds of material in the fertilizer bag is filler. The filler is usually a granulated or powdered form of limestone that has little plant nutritive value. The complete chemical analysis of the fertilizer should be clearly stated somewhere on the bag.

The primary nutrient elements required for plant growth and development are nitrogen, phosphorus and potassium. Calcium, magnesium and sulphur are required in lesser amounts and are classified as secondary nutrient elements. Zinc, manganese, iron, molybdenum, boron, copper and chlorine are required by most plants in minute amounts and are therefore classified as "trace" elements.

## THE PLANT DOCTOR

C. BRUCE WILLIAMS  
Extension Area  
Turf Specialist



ements.

Carbon, hydrogen and oxygen are also required for plant growth but the plant obtains these elements from the air and water and thus they are not classified as "nutrient" elements.

Plants can absorb fertilizers through the leaves or roots. However, most fertilizers are formulated to deliver nutrient elements to the roots. The roots must absorb the fertilizers in a water solution. If insufficient water is available or too much fertilizer has been applied, the concentration of dissolved fertilizer actually "pulls" water from the plant tissue. This results in fertilizer "burn". Most gardeners know the burn that results when a pellet of fertilizer falls on tender young foliage.

The best fertilizer is one that slowly releases adequate nutrients for plant growth, provides for all nutrient needs of the plant and is non-burning. Sounds like manure, doesn't it?

For many home gardening needs, composted leaf mulch or manure is a perfect fertilizer. Compost contains all the nutrients needed for plant growth. Nutrients are chemically bound in an organic form and are thus normally non-burning to plant tissues. Organic fertilizers, like compost, slowly release nutrients through the process of microbial degradation and mineralization.

Be sure that manure is composted

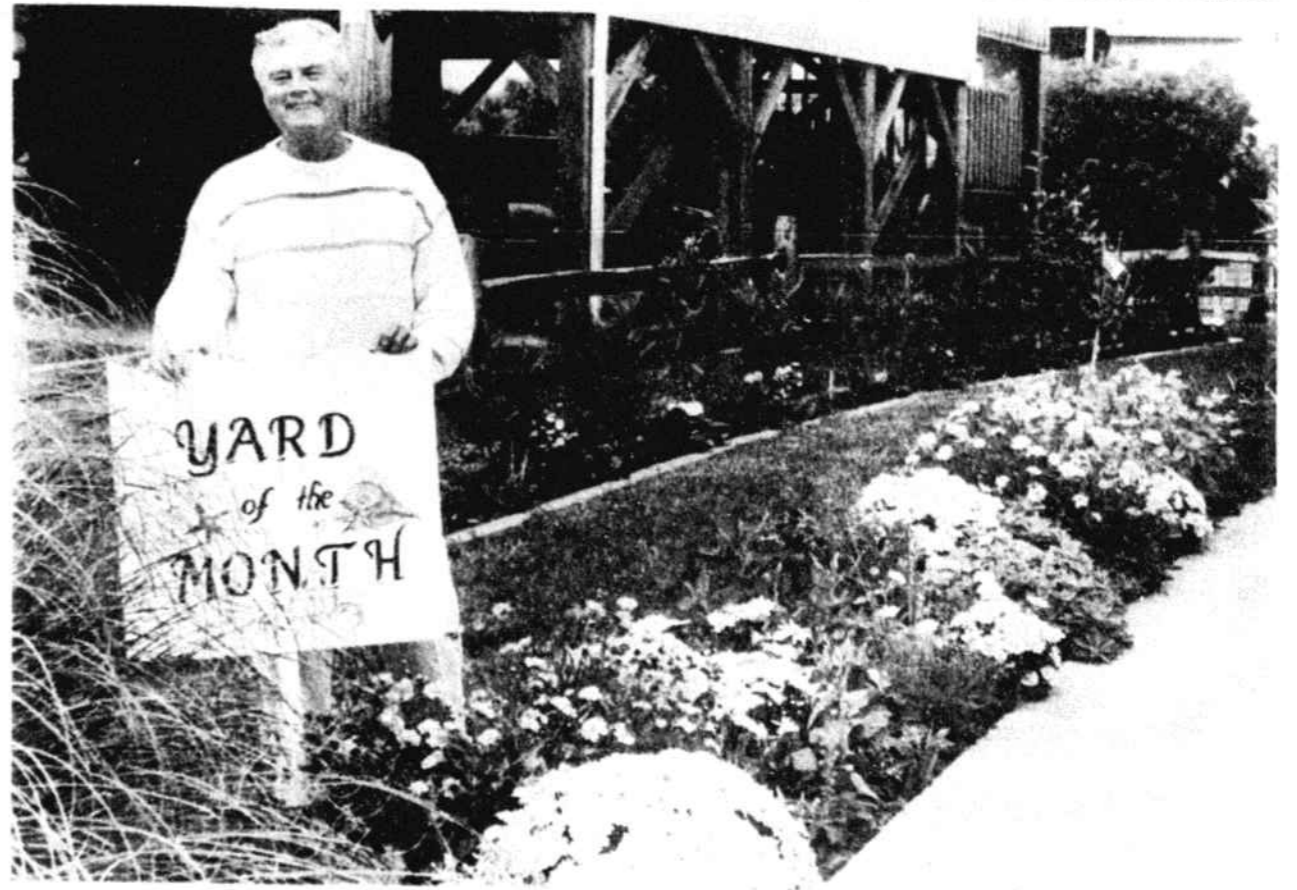
before you use it in your garden. Green or fresh manure applied to garden plants has the tendency to compost in place. The resultant microbial action actually ties up the nutrients in the compost and in the meantime your plants can literally starve to death. In addition, green manure can seed your garden with weeds you will be fighting for years.

Many commercial organic fertilizer products are available. However, I have actually worked with only a few of them.

Tom Glendinning established Green Glen Ltd. in Pittsboro with a product produced from composted turkey manure. The product looks like a high grade topsoil with no manure smell. Glendinning also distributes an amended poultry manure product called Harmony which has additional organic forms of nutrients added. W.S. Clark and Sons Inc. of Wilmington markets a natural organic nitrogen source called Hynite. Hynite contains 11 percent organic nitrogen derived from processed animal waste.

Whether you compost your own or purchase your organic fertilizer, the organic gardening movement started over 30 years ago definitely has some merit.

Send your gardening questions or comments to The Plant Doctor, P.O. Box 109, Bolivia, N.C. 28422.



STAFF PHOTO BY DOUG RUTTER

## Colorful Yard Honored

The Holden Beach Beautification Committee has chosen the colorful yard at 108 Frigate Street as yard of the month for June. Bill Bray (pictured) and Ben Ed Hampton are the owners. Bray said the yard has about 50 varieties of flowering plants including cosmos, zinnias, narcissus, Carolina and Gerber daisies, borage, calendulas, Mexican sage, oleanders and hyacinths.

# Waccamaw School Lists Last Honor Roll Of Year

Thirteen students are recognized for earning all A's during the final six weeks of classes at Waccamaw Elementary School on the sixth and final honor roll of the school year.

They are seventh graders Jamie Hewett, Shanna King and Joseph Piver; sixth grader Kevin Anderson; fifth grader Aimee Long; and fourth graders Ricky Babson, Rhonda Bates, Amanda Bland, Jimmy Fowler, Jarod Leggett, Tony Mintz, Belinda Simmons and Nicholas Tompkins.

Students earning all A's and B's are as follows:

### A/B Honor Roll

**Fourth Grade:** Travis Anderson, Michael Condrey, Will Gore, Sueann Holden, Tony McDowell, Jennifer McLean, Richard McLean, Renee Simmons, John Stanley, Jessica Stout, Jacqueline Smith, Michelle Ward and Timmy Carter.

**Fifth Grade:** Melissa Babson,

Christie Blackwell, Delphia Daniels, Crystal Duncan, Michele Condrey, Jomondre Frink, Chris Gore, Natasha King, Amanda Lee, Leslie Milligan, Laurie Penny, Stacey Phillips, Chris Russ, Joshua Simmons and Joshua Thomas.

**Sixth Grade:** Ashley Cox, Aaron Gore, Amber Inman, Leigh Milligan, Terra Milliken, Erica Minton, Sam Mintz, Jason Norris, Tiffany Skaggs, Michael Stanley, Raven Stocks, Tasha Thompson, Stephanie Todd and Cherkelia Brown.

**Seventh Grade:** Crystal Bailes, Neal Hughes, Brian Little, Sherida Marlow, Joyce Nelson, Ashli Smith, Demetria Thomas, Shanicka Thomas and Kelly Tripp.

**Eighth Grade:** David Bowens, Holly Clemmons, Don Gore, April Mintz, Davis Simmons, Janet Smith, Christian Tompkins and James White.

# Newly-Organized Waterway Art Show Winners Announced

Prizes were awarded in four categories at the first juried show held May 29 by the newly-organized Waterway Art Association.

Dorothy Sellers received the silver cup for Best in Show.

### Other awards were as follows:

**Amateur watercolor:** First and second place to Doris Redwine, and third place and honorable mention to Mimi Roth.

**Amateur oil and acrylics:** First and second place to Jean Pelletier, third to Nancy C. Clark and honorable mention to Bonnie Dempsey.

**Advanced oil:** First place and honorable mention to Ramona Bendin, and second and third place to Catherine Spencer.

**Advanced watercolor and acrylic:**

First and second place to Georgianna Dolan, third place to Mary Hewett, and honorable mention to Barbara Fleri.

Joyce Kennedy Martz of Southport judged the show.

Because of inclement weather, the outdoor art show for public viewing will be held later in the summer with date and location to be announced.

Anyone interested in helping the growth of art in the community can join the Waterway Art Association which meets year-round on the third Wednesday of every other month, from 9 a.m. to 3 p.m. at Seaside United Methodist Church. A painting lesson will be given on those morning, followed by a 1:30 p.m. meeting of the organization.

# Food Lion's Prices 8% Lower Than Winn-Dixie's "New Low Prices"

Winn-Dixie's been advertising a lot about how they're lowering prices. So we thought you might like to know just how those so-called 'new low prices' compared with Food Lion. A comparison of 100 key groceries revealed Winn-Dixie charged \$102.55 for items that cost only \$94.72 at Food Lion. **FOOD LION'S PRICES WERE 8% LOWER THAN WINN-DIXIE'S.** Here are just a

few examples of how much more you pay for key grocery items at Winn-Dixie. Winn-Dixie prices items you do not buy every week to "appear" to have low prices. They are not willing to be lower on items you buy every week. As you can see, if Winn-Dixie claims their prices are as low as Food Lion's, they still have a way to go.

Reese (10 Pack).....	1.06	.99
SMA Concentrate With Iron (13 Oz.).....	1.99	1.89
Kellogg's Corn Flakes (18 Oz.).....	1.69	.99
Maxwell House ADC Vacuum Bag Coffee (13 Oz.).....	1.86	1.59
Van Camp's Pork And Beans (16 Oz.).....	3/99	3/95
Georgio Mushrooms (4 Oz.).....	.65	.59
Comet Spaghetti (7 Oz.).....	3/99	3/95
Kraft Macaroni & Cheese Dinner (7.25 Oz.).....	.56	.55
Bumble Bee Light Chunk Tuna In Oil (6.1 Oz.).....	.52	2/\$1
Domino Sugar (5 Lb.).....	1.96	1.89
Dawn Mt. Spring (22 Oz.).....	1.26	1.19
Reynolds Wrap (25 Ft.).....	.76	.73
Angel Soft White/Pastels (4 Pack).....	.89	.85
Kleenex Bath Tissue Assorted.....	.89	.85
Northern White (2 Ply/4 Pack).....	.86	.85

**WINN-DIXIE TOTAL..... \$102.55**  
**FOOD LION TOTAL..... \$94.72**

**USDA Choice Beef Boneless Shoulder Roast**

**\$1.33** Lb.

USDA Choice Beef Family Pack Cube Steak.....Lb. 2.28

Grade "A" Jumbo/Small Pack Chicken Thighs.....Lb. .59

**Red & White "Seedless" Grapes**

**79¢** Lb.

Jumbo Western Cantaloupes.....Each .99

2 Liter - Diet Coke, Caffeine Free Diet Coke, Sprite, Diet Sprite

**COKE CLASSIC**

**\$1.08**

Prices in this ad are good Wednesday, June 10 thru Tuesday, June 16, 1992.

Drink Prices may vary according to distributor's outlets in certain areas. We reserve the right to limit quantities.

This price comparison was taken on May 25, 1992 in Raleigh. Some prices may have changed since that time.



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