## Use recommended amount of fertilizer

By STEVE GIBSON

Applying fertilizer and pesticides on very small areas such as gardens can indeed be challenging. Most people just apply without any idea of actually how much they are using. A little time devoted to planning can fine tune your gardening techniques, insuring that the correct amounts are being used. The North Carolina Department of Agriculture Soil Sample recommendations for homeowners suggest rates over 1000 square feet. This area would be a small garden site 20 feet by 50 feet for example. For lime it is generally accepted that every three to four years a ton per acre is required. This 20 by 50 foot area is roughly $1 / 43$ of an acre (an acre is 43,560 square feet.) So to lime, this small garden, 2,000 pounds (one ton) divided by 43 or 46.5 pounds would be close enough. To make it simple, a 50 pound bag of regular agricultural lime would be in order. Most of the pelletized lime is sold in 40 pounds, so slightly more than a bag on this area would be about right. If you would like to lime every year, in the above example, approximately a third of a bag would be required.

How about fertilizer? By far the majority of vegetable crops require less than 100 pounds total of nitrogen per acre. Doing some quick math ( 100 divided by 43 ) we can determine that about $21 / 3$ pounds is all that is required in our example. A 50 pound bag of the readily available 10-10-10 contains five pounds of nitrogen ( 10 percent of the 50 pounds is five). So to supply the amount needed for most vegetables, slightly less than half of a fifty pound bag would be required.
Applying pesticides with a pump up type sprayer can also
be a challenge. IF you determine that you have a pest that indeed needs treating, please make sure the product you select will control that pest. Many times all it takes is reading the abel. For commercial vegetables, if a farmer sprays a crop early in its development usually 25 to 30 gallons of spray mixture per acre is used. So what if you have four rows of beans 50 feet long and 2.5 feet apart? The area involved is $4 \times 50 \times 2.5$
equals only 500 square feet, just barely over the hundredth of an acre. To treat these bean rows early in the development would take slightly less than one third of a gallon of spray mixture ( 30 gallons if an acre was needed to be sprayed divided by 100 since you have more or less one hundredth of an acre equals .3 gallons.) In the above example, if the directions on the pesticide label instruct you to use a tablespoon per gallon you will only use one third of a table spoon or one teaspoon since you are only mixing a third gallon.
After the crops are well developed typically 100 gallons per acre are commonly used. So if you had, for example, field peas and are treating for the cowpea curculio, the same area above would require a full gallon of spray mixture.
I am convinced that the majority of home gardeners who use pesticides in sprayers apply way too much. This could result in above tolerance residues on the garden produce they harvest. So a little planning prior to the application itself can guarantee your garden produce is safe.

If you need further assistance, please don't hesitate to call us at 704-482-4365.

Gibson is an agricultural extension agent with the NC Cooperative Extension Cleveland County Office.

## TIPS <br> \section*{From Page 6}

Spraying: Spray the following landscape shrubs for the following insect pests: azalea-lace bug, boxwood-leaf miner, camellia-tea scale, euonymusscale, hemlock and juniper spider mites and hybrid rhododen-dron-borer. Spray iris beds for iris borers. Spray red-tip photinia weekly with a recommended fungicide if leaf spot has been a problem. Spray broccoli, cabbage and cauliflow er for worms. Spray wooden homes and wooden lawn furniture for carpenter bees. Spray your squash plants at the soil line to control squash borer. Continue through June 1 and use only the recommended insecticide.
Spray azaleas with the recommended fungicide to reduce the amount of azalea leaf gall. Begin weekly tree fruit sprays after flower petals fall. Start a fungicide spray program for your bunch grapes this month. Follow with weekly sprays. Continue with rose spray program.

Lawn Care:Plant warm season grasses like Bermudagrass and centipede grass this month Zoysia is planted in May.
Propagation:This is a good time to layer new plants by lowering a branch of your favorite shrubs and covering it with soil and a stone.
Specific Chores:Average last frost date in Burke County is April 20. Visit your local garden centers and nurseries to see what plants and products are available. Mulch all of your landscape plants as needed. Pine needles, cypress mulch and pine bark are good mulches. Prepare labels for all new plants and keep records on how well they perform.

May Garden Calendar
Plants in Flower: Southern Magnolia, Golden Chain Tree, Kousa dogwood, Hybrid rhododendron, Mountain Laurel, Satsuki azalea, Scotch Broom, Deutzia, Beauty Bush,


Weigela, Gumpo azalea, Roses, Clematis, Honeysuckle, Dianthus, Sweet William, Candytuft, Bearded Iris, Peony, Coreopsis, Poppy, Lady Slipper and Summer Annuals.
What to Fertilize: Fertilize summer flowering plants like crape myrtle, butterfly bush and rose-of-sharon this month. Do not forget to sidedress or fertilize your vegetables six to eight weeks after germination.
What to Plant: Plant gladioli corms this month. Continue set ting out summer annuals like begonia, geranium, marigold, petunia and zinnia this month. The following vegetable plants can be set out this month: eggplant, pepper, tomato and swee potato.The following vegetables can be planted this month: beans, lima beans, cantaloupe, corn, cucumbers, okra, southern peas, pumpkin, squash and watermelon.
What to Prune: Prune your hybrid rhododendron after they finish flowering. Prune any hedges that have outgrown their desired shape. Begin pinching your chrysanthemums and continue through mid-July. Pick off azalea and sasanqua camellia leaf galls if they develop. Do not cut back spring bulb foliage until it turns yellow and brown.
Pest Outlook: Check the following landscape shrubs for the following insect pests: arborvitae and juniper-bagworms, aza-lea- lace bug, boxwood-leafminer, camellia-tea scale, crape myrtle-aphid, euonymus-scale, hemlock and juniper - spider mites and pyracantha-lace bug. Spray hybrid rhododendron for borers. Spray iris beds for iris borers if a problem in the past. Spray the following vegetables if insects are observed: cucum-ber-cucumber beetle, squashsquash vine borer and aphids, tomato and eggplant - flea bee the, broccoli, cauliflower \& cab-
bage-worms. Begin corn ear worm control at early silking and continue through the late silking stages. Weekly sprays on red-tip photinia for leaf spot. Spray your blueberry plants for borers in mid-May. Continue with rose spray program for black spot. Look for aphids on your roses as well. Keep spraying your tree fruits and bunch grapes with a fungicide program. To control poison ivy and honeysuckle, begin spraying this month with a recommended herbicide. The North Carolina Extension Service recommends that you use pesticides sparingly. Spray only when needed.
Lawn Care: Fertilize warm season grasses like bermuda grass and zoysia this month. Do not fertilize tall fescue now. Start any warm season lawns like zoysia, bermuda grass and centipede grass in May. Mowing heights for your lawn are important. Cut tall fescue at three inches, zoysia at one inch, hybrid bermuda grass at $3 / 4$ inch and centipede grass at one inch.
Propagation: Take softwood cuttings of plants like clematis, chrysanthemum and geranium in late May if you have a misting system.
Specific Chores: Purchase locally grown strawberries. Move houseplants outside, if desired. If weather has been dry, give favorite plants a good soaking once a week.

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