Too much fertilizer could increase chinch bug numbers in lawn

As we move into the fertilization season for our lawns, be careful to not overdo it or you may pay for it with an increase in chinch bugs.

In October 2007, I attended an event at the University of Florida research facility in Citra. Eileen Buss, associate professor of entomology with UF's Institute of Food and Agricultural Sciences, explained the results of her research study on the relationship of fertilization of St. Augustinegrass and Southern chinch bug numbers. Chinch bugs are the number one pest of St. Augustinegrass in Florida.

The study indicated that repeatedly using large amounts of nitrogen fertilizer can ignite a population explosion of Southern chinch bugs.

UF turfgrass experts advise homeowners to use no more than 1 pound of slow-release nitrogen fertilizer per 1,000 square feet of lawn, a recommendation found in the document "St. Augustinegrass for Florida Lawns," available at http://edis.ifas.ufl.edu/LH010.

People sometimes deliberately overfertilize in their zest to have the greenest lawn in the neighborhood.

That more-is-better approach has become riskier in the past five years because Southern chinch bugs in Citrus, Escambia, Flagler, Hillsborough, Lake, Orange and Volusia counties have developed resistance to pyrethroids, the class of pesticides commonly used to control the insects, Buss said.

Resistant chinch bugs may be able to survive exposure to bifenthrin, a pyrethroid that is the top choice for Southern chinch bug control in Florida. However, pyrethroids should still perform well against nonresistant populations of Southern chinch bugs.

Buss co-authored the study with turfgrass specialist Laurie Trenholm, an associate professor of environmental horticulture, and doctor of plant medicine student Megan Gilbert

The results showed females raised on grass given 0 or 0.5 pounds nitrogen produced 15 to 20 eggs per week; those on grass given 1 or 2 pounds produced 25 to 35. Females on grass given 4 pounds briefly produced 45 eggs per week and then declined to 20.

Adult female Southern chinch bugs live about two months and produce eggs the entire time.

Buss said female chinch bugs produce more eggs on healthy St. Augustinegrass, which accounts for the differences in egg production.

Southern chinch bugs don’t move around much, staying in the same area unless they can’t find food.

And with the insects producing a new generation every four to six weeks during Florida summers, increased egg-laying could lead to rapid population growth in overfertilized lawns.

Excessive fertilization of St. Augustinegrass may produce excessive numbers of chinch bugs - everything in moderation.

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