RESEARCH

From left: Dr. John Hayes, Dean of Research, Dr. Bryan Unruh, Dr. Laurie Trenholm, Dr. Jerry Sartain and Dr. John Cisar discuss the results of a multi-year DEP research project focused on nutrient impacts to the environment. Photo by Joel Jackson.

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To help homeowners, industry personnel, UF/IFAS posts videos on turfgrass research

GAINESVILLE — Researchers with the University of Florida's Institute of Food and Agricultural Sciences recently completed the state's largest-ever study of landscape turfgrass and fertilizer use, and new online videos will help homeowners and lawn-care professionals understand the findings.

The eight-year, \$4.2 million study was funded by the Florida Department of Environmental Protection to determine the effectiveness of current UF/IFAS fertilizer recommendations, which have been in use since about 2000, said John Hayes, UF/IFAS dean for research. Florida has more than 5 million acres of home and commercial turf.

"This work is an important body of information generated here to address important questions about nutrient management," Hayes said. "We're proud to communicate our findings and we hope they will play a substantial role in helping residents, industry personnel and policymakers protect water quality."

Three hours of technical presentations from a Jan. 15 live symposium are available at http://tinyurl.com/be2la7q and a three-minute video aimed at educating the public has been posted at http://tinyurl.com/ajy4ytr.

The results generally are consistent with current UF/ IFAS recommendations for fertilizer use, Hayes said, but the Florida Department of Agriculture and Consumer Services plans to review the state's urban fertilizer rules in light of the study findings. The agency will hold public meetings to seek comment about possible changes. The study involved three locations, numerous establishment, fertilization and irrigation practices, and multiple turf varieties, including St. Augustinegrass, zoysiagrass, centipedegrass and bahiagrass.

Despite the differences, researchers made several basic conclusions:

- Very little nutrient leaching results from summertime application of UF/IFASrecommended fertilizer rates to healthy, growing turfgrass.
- Summertime fertilizer bans could potentially deprive healthy turf of nutrients when needed most, threatening turf health and quality.
- Nutrient leaching can result from fertilizer application to dormant or unhealthy turf.
- Newly laid sod should not be fertilized for 30 to 60 days because it will not have an established root system for effective nutrient uptake and it is likely to carry nutrients from fertilizer applications at the sod farm where it was grown.

The study involved experiments conducted at UF/ IFAS research facilities in the Panhandle, Gainesville and Fort Lauderdale, using turf, soils and management practices common to each area. The state's most popular turf, St. Augustinegrass, was studied at all three sites.

Faculty members John Cisar, Jerry Sartain, Laurie Trenholm and Bryan Unruh led the study and presented their research findings at a public meeting in Citra, where much of the footage was shot.

The video includes a questionand-answer session with the scientists, and comments from Andy Rackley, director of agricultural environmental services for FDACS.

Several researchers mentioned that their findings raised new questions and pointed out the need for additional research on topics including the use of bio-solids and other organic nitrogen sources, the use of reclaimed water, turfgrass phosphorus requirements, and the effects of summertime fertilizer bans.

"We're in some conversations with DEP (the state Department of Environmental Protection) still about moving forward with some additional data analysis," Unruh said.

He also noted that the results suggest UF/IFAS' nutrient recommendations for zoysiagrass may need to be modified, but any changes to those nutrient recommendations must come about through a vetting process by the Plant Nutrient Oversight Committee, a team

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of administrators and scientists who review all nutrient recommendations from UF/IFAS.

Extension personnel will be trained to help them communicate the findings to homeowners and there may be additional public workshops, Trenholm said.

Homeowners with unhealthy lawns should contact county extension personnel to discuss the problem

and not automatically assume that fertilizer is needed, Cisar said.

"If you have a lawn that's in bad shape, it makes sense to ascertain why," he said. "It may be that the grass needs fertilizer but it could be something else, like a lack of proper irrigation, proper mowing height, or the grass isn't getting enough light."