

# Making better turfgrass

by TERRY MCIVER / Managing Editor

*Improved turfgrass adaptability is one of the research goals at the University of Georgia Experiment Station.*

University of Georgia turfgrass scientists could have run a victory lap in Atlanta last month, thanks to the gold medal-quality work at the Georgia Experiment Station.

The station—located in Griffin, about 40 miles from downtown Atlanta—is an active research center for a variety of turf and ornamental experimentation.

Drs. Bob Carrow, Tim Murphy, B.J. Johnson, Ronnie Duncan and others are involved in a variety of research projects. Current goals of two programs are to enhance bermudagrass hardiness and improve insect control in ornamentals.

► “Some of the turfgrass work is showing that in our hot summers, we have bermudagrass that is more suited to those conditions than tall fescue,” says Murphy, agronomist in weed science. Tall fescue,

says Murphy, is the most popular species in northern Georgia, at least for home lawns in the Atlanta metro area.

“It’s a good turfgrass, no doubt about it,” says Murphy. “But summer survival is a problem. Tall fescue is not in the same league as bermudagrass when it comes to summer weed competition. Likewise, bermudagrass can’t compete with winter weeds. It’s not like one grass is ‘better’ than the other, but I think that it depends on the site and expectations.”

Murphy says choosing the turfgrass species and cultivar best suited to the climate has a dramatic influence on weed pressures.

“We’re starting to see research that shows what we’ve been saying for years: an adapted turfgrass will help you. Also, this work is showing that if you take care of that bermuda and maximize its competitive ability through good management and proper use, then it may be possible to back off on your herbicide program.”

Adds professor B. J. Johnson, “There’s no doubt in my mind that under normal conditions, you can reduce your pre-emergence herbicide rates 50 percent or more in the second year.” Johnson has been conducting herbicide efficacy experiments at the station.

► Dr. Ronnie Duncan’s work on seashore paspalum is also gaining notice, as the grass itself becomes a more widely-accepted Southern turfgrass. It has a low cold tolerance, which limits its use and adaptability in the U.S.

“Typically, you see seashore paspalum around Southern ocean areas,” says Murphy.



Shade tolerance experiments may result in better turfgrass cultivars and management practices.

"One reason it came into use in those regions is its high salt tolerance. There hasn't been a lot of breeding work done on it to extend its range, but Ronnie's making good strides.

"There's a lot of other attributes about seashore paspalum that make it very attractive. It's a very low-maintenance turfgrass in terms of its fertility needs."

► Faculty leader Dr. Joyce Latimer leads an ornamental research group. Currently, the team is researching shade tolerance of landscape plants. Its research and education garden for studying specific turf care or ornamental projects is two years old.

"The research garden was designed to look at alternative pest management strategies, and landscape management factors," says Latimer. "It's basically a 10-year project. We look at one landscape management factor—for usually two years—depending on what it is and what complications we run into."

Latimer says the team will examine various landscape components, including turfgrass, annuals, herbaceous perennials and woody ornamentals.

► "One of the major projects is how we can increase the diversity of species used in the landscape and learn how the landscape affects the potential for biological controls," says entomologist Kris Braman.

"Now we have fairly good data on how pests and beneficial predator insects colonize these different areas with the idea being to look at some of the claims that wildflowers promote or enhance the occurrence of beneficial insects and biological

controls."

Braman says shade is having notable effects on reducing the number of two-lined spittlebugs and subsequent damage on host plant material.

► The Georgia Commercial Flower Growers Association has donated \$2000 to build a greenhouse in the garden, which they plan to use for retail horticulture training.

"They see it as a place where they can also hold workshops," explains Latimer. "When they have greenhouse update or greenhouse workshops, there is a place they can actually do things; not just give lectures, but actually hands-on work.

"If a Home Depot store wanted a garden center training program," says Latimer, "the managers would be trained by our extension people, and they would be given the material they need to train their individual employees. If they want to customize the program, they have all that flexibility to customize it. We would facilitate the program by having a location for it, and providing the material they need for it."

According to Latimer, the research garden could also be used for Georgia Green Industry certification.

"The Georgia Green In-



**Latimer:**  
*Landscape features influence pest and disease activity.*

dustry Association would like a central location where they can collect all of the plant materials that are to be included on the certification exam," says Latimer. "They are looking for a place someone can go to study for the exam, and one place where the exam could be given. They see this as a nice location for the entire state."

► According to Murphy, three Georgia counties—Fayette, Henry and Paulding—are among the fastest growing counties in the U.S.

"If we go 20 miles east or west, it's a very active subdivision building area, with lots of turfgrass, ornamentals, lawn care and landscaping activity,"

says Murphy.

"Traditionally, growth has been on the north side of Atlanta, but they've gone about as far north as they can go. Now, they're running around the edges."

The Olympics has brought lots of green industry activity to the state. The interstates are trimmed with ornamentals planted and maintained by the Georgia Department of Transportation.

Other developments include the turfgrass installation for the Olympic Stadium and the construction of 30 athletic fields for softball demonstrations in Columbus, Ga., about 80 miles west of Atlanta. **LM**



**Murphy:**  
*Adaptability to climate reduces turf stress.*