

Efforts to produce an armyworm-resistant bermudagrass continue but without earth shaking progress. Dr. Bob Lynch, USDA entomologist, found a slight resistance to armyworms in one selection out of 500 plants collected mainly from South Africa, but there has been little progress in transferring this resistance to the triploid hybrids.

Last summer a California landscape contractor contacted Dr. Burton regarding the establishment of bermuda turf in a large housing development. The specifications called for use of a bermudagrass that would shed no pollen. Of course, common bermudagrass pollen is one of the worst for people suffering from asthma and hay fever. However, Dr. Burton's Tif-turf bermudagrass hybrids are sterile, produce no pollen and therefore perfectly safe for use as the turfgrass cover on such projects. Again, the spin-off of research for better golf course turfs has benefitted all mankind.

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Influence of Soil Moisture Level
on Turfgrass Water Use and Growth

1986 Grant - \$10,000 [first year
of support]

One means of conserving water on turfgrasses is to reduce irrigation frequency; thereby, allowing the turfgrass to undergo a greater degree of drought stress before irrigation. By evaluating turfgrass performance under non-limiting to moderate moisture stress conditions, minimum water use requirements for a given level of turfgrass quality can be formulated. Also, the measurement of physiological and morphological plant responses will provide insight into drought avoidance and tolerance mechanisms for the three warm season grass species in this study.

During 1986, twenty-seven research units were installed under field conditions. Each unit had individually controlled irrigation capability. Moisture sensing probes were installed at three soil depths to monitor water extraction relative to rooting patterns. The three grasses [Tifway bermudagrass, Meyer zoysiagrass, and common centipede-grass] were established with each species irrigated under a range of soil moisture from non-limiting [soil = -0.40 b] to moderate stress [soil = -9.0 b]. Detailed measurements of water use and growth parameters were initiated several times starting in mid-July. However, the TDR unit used to determine soil water content did not function properly and was returned to the manufacturer for upgrading. Intensive data collection is scheduled by 1987 and 1988 growing seasons. All scientific equipment to be provided by the University of Georgia in this joint project has been obtained and a graduate research assistant has been assigned to the project.