

"We have documented cost savings on both of those," says Johnson. "The wildflower program is about \$250,000 a year. The other savings are considerably more than that."

Controlling vegetation in North Carolina is no small task. The 400-person Landscape Unit maintains 285,000 acres of routinely-mowed vegetation and nearly 300,000 total acres with reforested areas included. This acreage is among the nation's largest state-maintained highway system with more than 76,000 miles of roadways.

Because of its location smack-dab in the middle of the transition zone, the state DOT maintains a good working relationship with North Carolina State University, especially Dr. Joe DiPaolo (who made the NRVMA award nomination). DiPaolo has done research on turfgrass species that has saved Johnson some money.

DiPaolo, in his nomination letter, notes a 50 percent savings in roadside vegetation control in North Carolina with the use of maleic hydrazide or mefluidide + chlorsulfuron as growth regulators on tall fescue.

"In 1971, fescue was used into the ocean and was certainly not adapted to a large part of the state," observes Johnson. "We now use three different warm-season grasses. We also use regular Kentucky-31 tall fescue, bluegrass and some of the hard fescues in our cool-season mixes. Centipede is a warm-season material that we're very interested in. It's shown some adaptation into the cool-season areas because of its low maintenance. It's really a no-mow type of material."

And how's this for planting? In preparation for the 1987 summer Olympic Festival, the DOT planted an unbelieva-



"The wildflower program is probably the most popular thing I've ever seen happen in DOT," says Bill Johnson of the North Carolina DOT.

ble 53,000 dozen annual flowers, 2,100 junipers, 1,900 crepe myrtles, 1,000 pampasgrass plants, 5,000 daylilies and 28,000 cannalilies along 20 interchanges—in six months.

Finally, one more new program with which the DOT is experimenting involves the state's Wildlife Re-

sources Commission. Recognizing that roadsides serve as a linear wildlife refuge, a pilot project provides roadside feeding areas for small game.

"An added benefit is that this should reduce our maintenance costs," says the ever-frugal Johnson. "We want our roadsides to be more attractive to people and an asset to wildlife as well. From these projects we will be able to develop a program that could receive wider application in the future."

Two decades of control

by Will Perry, managing editor

Ray Dickens, Ph.D., professor of turf management at Auburn University, was presented with the NRVMA's award in the academic category in appreciation of two decades of service to managing roadside vegetation.

Dr. Dickens initiated and developed Auburn's first course in turfgrass management soon after joining its academic staff in 1968. Today, as the primary consultant to the Alabama Highway Department, he remains among the pioneers doing ef-

fective research on managing roadside vegetation.

His early work showed the effectiveness and economy of weeping lovegrass as a temporary cover when seeded in a seed mixture. At the same time, he was helping identify the areas on which crown vetch, an attractive cover, is adapted.

Dr. Dickens also provided the research needed to select *Sericea lespedeza* adapted for acid road cuts. This cooperative work resulted in the release of two cultivars recom-

mended specifically for highways: *Interstate* and *Interstate 76*.

Dr. Dickens' recent research on highway vegetation has emphasized chemical growth control, particularly MSMA and 2,4-D, in lieu of mechanical mowing. Dr. Dickens' cost-effectiveness studies of fan-cage sprayers compared to other application methods is indicative of research that has resulted in a sharp drop in maintenance costs for the state of Alabama Highway Department.

Dr. Dickens' research is largely re-



Dr. Ray Dickens, of Auburn University, has been instrumental in Alabama's roadside management.

sponsible for the state eliminating tall weeds and grass in favor of bermudagrass during the summer. Winter weeds are controlled by herbicide applications during bermudagrass dormancy.

Dickens' 1978 study of several roadside mulch materials showed that seedling establishment is increased by adding cellulose, excelsior, or other mulch materials to erosion control nettings. He also showed that incorporating plant nutrients into the adhesive appears to be an acceptable method of applying fertilizers to mulched areas.

Dr. Dickens also aids in writing and interpreting construction specifications and arbitrating conflicts between contractors and the state highway department.

Orange County Weed Busters

by Terry McIver, associate editor

Bill Tidwell, winner in the county category, is the supervisor for EMA/Public Works for Orange County, Anaheim, Calif. Originally a park ranger, Tidwell has steadily progressed up the educa-

tional and professional ladder. He earned his masters degree in environmental studies, and holds lifetime teaching credentials in ecology and agriculture.

Tidwell's division is responsible