

## **Stop 1. Update on State and Federal Trucking Regulations for the Turfgrass Industry**

Ron Edwards, Michigan Center for Truck Safety

Ron Edwards, from the Michigan Center for Truck Safety, will discuss state and federal trucking regulations applicable to turf grass industry as well as, recent changes in state law that provide some exceptions to businesses operating smaller vehicles.

## **Stop 2. MSU Bermudagrass: Looks like a Clone, Acts like a Clone**

Dr. David Gilstrap

Researchers at Oklahoma State University have published several papers showing that MSU bermudagrass is the top rated cultivar with regards to cold tolerance. Along with the turf breeder at Kansas State University, the cultivar served as the maternal parent for Midlawn bermudagrass, an interspecific hybrid that is among the most cold tolerant of any commercially available cultivar. MSU received no royalty from Midlawn because the use of our bermudagrass was not legally protected, i.e., not patented.

In 2002, I hosted a field-day stop for which the write-up was entitled *MSU Bermudagrass: What Are We Waiting For? (Answer: Funding)*. A few years later, the Michigan Turfgrass Foundation generously provided money needed to begin DNA testing on 50 bermudagrass samples collected from the main campus here at Michigan State University. The balance of the funding came from proceeds I generated by teaching in the MSU-China turfgrass program. Working with our potato breeder, Dr. Dave Douches, we were able to determine that the DNA fingerprint of the MSU bermudagrass is consistent with that of a clone. In other words, genetic diversity among the samples was lacking. This means that the cultivar is highly (or solely) self sterile, and can therefore be considered a vegetative cultivar, which means that its spread across the main campus has occurred primarily by the transport of stolons (undoubtedly by mowers) and not by seed dispersal. Since only vegetative cultivars, and not seeded cultivars, can be patented, this possibility exists and continues to be the ultimate goal of this research. The research plot where this stop occurs was established around 1990 via cup cuttings from several points on the main campus. In early June, mowing ceased followed by heavy fertilizer applications and regular irrigations. By mid-July, immature seed heads had formed and a small amount of pollen was collected and sent to the Douches lab to be tested with a staining technique to determine if the pollen was viable or sterile.

By today, enough time has passed so that if seed was going to be produced, it would have by now. It is of note that I went through this same activity during the late 1990s and couldn't find any. So, let's hope the weather is dry enough for us to get down on our hands and knees to search the bermudagrass inflorescences and locate even a single seed. The ramifications of today's findings and the future direction of this project will be discussed.