t the Florida Turfgrass Association's December committee day, a prominent sod producer suggested that the FTGA should be the organization to spearhead efforts to standardize the definition of a "bushel" of sprigs. Since we are trying to define and position the FTGA as the "umbrella" turf organization, it is fitting that FTGA tackle this problem. But superintendents, as the end users, and golf course designers, who typically write planting rates, need to be principals in the creation of these new specifications. Frank Hutchinson, president of the

> Golf Course Builders Association of America, has already written on the subject, and the GCBAA should also participate in this process.

How do *you* define a bushel of sprigs? Do you just accept what the grassing company delivers and then take the heat if your grow-in took longer than a neighboring course planted at the same time? Do you relish the thought of a confrontation with the grassing contractor and the inevitable delays when the planting job is

lighter than you had anticipated? If you're faced with a deadline or approaching winter, do you just specify a heavier rate of sprigs and pay the contractor more money for what might have been the proper and normal rate in the first place? Shouldn't a bushel from company A be the same as a bushel from company B?

I first became aware of the problem about 12 years ago when I sent a man and a truck to pick up 150 bushels from a nearby grower for a green renovation and was blown away by the paltry pile of sprigs he returned with. I sent my assistant to Publix to get a bushel basket, and when we had finished filling, counting, and emptying (without compacting), we had a grand total of 16 bushels. The grower was not apologetic or receptive to my complaint, but begrudgingly allowed me to pick up additional sprigs.

A Georgia bushel is supposed to be 0.4 cubic feet. A Texas bushel may be anywhere from 0.4 to 1.23 cubic feet. An industry standard bushel is 0.4 cubic feet, and the U.S. standard bushel is 1.25 cubic feet. Dr. Al Dudeck from the University of Florida defines a bushel as the amount of sprigs harvested from 100 square feet, while others try to define a bushel in terms of how many live plants per square foot have survived three to six weeks after planting. Volume seems to be the only practical means of measuring sprigs.

Other factors also influence the delivered volume. Sprigs are typically delivered in an open truck rather than stuffed into bags, bushel baskets, or other containers. Trucks used for delivery must be easily measured to determine their capacity in cubic feet. Truck capacity can be certified by the grower or measured by the buyer upon delivery. Settling, or "shrinkage", is inevitable even if the sprigs were compacted after loading.

Obviously, the standards must agree on whether the volume is figured before or after this settling occurs. Water loss occurs the longer the sprigs sit in the truck before planting. Sprigs grown on heavier soils, like Georgia clay, are usually washed under high volume to remove the soil. This process may also remove more of the unusable detritus like clippings and thatch, whereas sand-grown sprigs are typically not washed (and may allow for nematode contamination as some of the Georgia growers contend). GCBAA President Hutchinson's recommendation is to adopt the U.S. Standard bushel of 1.25 cubic feet and figure in no more than 20% shrinkage at delivery.

I won't go so far as to say that this is the grassing industry's "dirty little secret," but the facts that the sod producer who raised the issue wishes to remain anonymous, and that the industry has done nothing to police itself, suggests that a strong outside organization or coalition of organizations needs to step in. Having no standardized definition of a bushel of sprigs has allowed abuses by some grassing companies either at the bidding stage or the planting stage. The honest sod producers and grassing contractors will support this effort.

Architect Jan Beljan, who took part in December's discussion, has agreed to solicit the support of the American Society of Golf Course Architects and personally participate in the project. If we move forward with this, our thinking was to establish some plots at Ft. Lauderdale using different varieties and variable planting rates with photographs taken every step of the way, including the sprigs laid out on the ground before planting, to help in writing the standards and determining proper planting rates. What do you think?

## Mark My Words

What is a

**Bushel?** 



Mark Jarrell, CGCS