

Zoysia's new stars

by RON HALL/ Managing Editor

The breeding program at Texas A&M University releases four new zoysiagrasses to fill a range of market niches

Dr. Milt Engelke has been working with zoysiagrass since 1982. He's part of a team carrying on and enlarging some of the work begun by the late Jack Murray at Beltsville, MD. Last year Engelke started to see some of these efforts pay off when Texas A&M University released four new cultivars.

They were developed in cooperation with the USGA.

"We can't turn out a variety overnight," says Engelke in somewhat of an understatement. "It's taken 16 years to get to this point, and I'm just pleased to be where we are."

Now that the new zoysiagrasses are released, and will soon be going to production fields, he's confident that they—and other zoysia releases to fol-

low—will revitalize interest in the species. That's because zoysiagrass, generally speaking, is noted for its salt tolerance, tolerance to temperature extremes, low fertility needs and low moisture requirements.

While most turf experts feel that zoysiagrass, at its best, gives about 90 percent of the performance of bermudagrass at its best, zoysia generally does so with considerably less fertilizer, water and chemical controls. It's also more shade tolerant.

"We've had enough death losses (winterkill) in bermudagrass in the last few years that the industry is thinking more about zoysiagrass again. We're starting to get a zoysia mentality buildup," says Engelke.

Late last summer, LANDSCAPE MANAGEMENT walked the breeder plots at the The Texas A&M University Research and Extension Center just north of Dallas and saw first hand the four new cultivars that were being released. Going into production are:

Palisades Zoysiagrass, a vegetatively propagated clone of *Zoysia japonica*, medium textured, shade tolerant, cold hardy, low water use and rapid recuperative ability. It is intermediate in salt tolerance. Palisades will be suitable for use as a warm-season turfgrass for golf course fairways and roughs, and under shaded areas throughout the transition zone, home lawns, sports fields, industrial parks and highway medians. Optimum mowing height will range from 1/2 inch to 2 inches. On tees and fairways, mowing heights of 1/4 inch to 1/2 inch are possible with acceptable results.

Cavalier Zoysiagrass, a *Zoysia matrella*, vegetatively propagated, fine texture, long, narrow leaf, with low rhizome but high density stolon production, good to excellent salt tolerance and good shade tolerance. It is resistant to the fall armyworm and the tropical sod webworm. It is intermediate in its growth and recovery rate. Cavalier has good winter hardiness and will persist in regions north to Kansas, Missouri and southern Illinois. It will find its primary utility in home lawns, golf course fairways and tee boxes, and in parks, sports field and other recre-



Winter kill of bermudagrass is prompting a new look at zoysiagrass, says Milt Engelke. Shade tolerant zoysia requires less fertilizer, water and chemicals.



Zoysiagrass is generally known for its tolerance to salt and extreme temperatures. The newest varieties are ready for production.

ational areas.

Diamond Zoysiagrass, a *Zoysia matrella*, with fine texture, high rhizome and tiller density, superior salt tolerance and rapid regrowth and recovery from damage. Also, vegetatively propagated. Because it will tolerate close, frequent mowing, it's commercial value includes golf putting greens in the Gulf Coast and tee boxes in full sun and under moderate to heavy shade. It generally lacks sufficient winter hardiness to be used in open areas for turf north of the Gulf States.

Crowne Zoysiagrass, a *Zoysia japonica*, vegetatively propagated, with a medium-coarse texture, good winter hardiness, good to excellent shade tolerance, reasonably good salt tolerance, and low water use requirement. It is characterized by aggressive regrowth by rhizomes and stolons. The

harvest cycle of Crowne can approach 8-12 months, in contrast to the industry standard "Meyer" which averages 15-24 months. Its area of adaptation extends northward to north-central Kansas. It tends to scalp under close or infrequent mowing. Generally, it lacks turf performance under close-mowed conditions and is suited for industrial parks and roadsides with excellent competition against weeds.

Adds Engelke, "The most important thing, from my perspective, is that we release these grasses into the marketplace, and that we work with the people and help them find their market niche, and what their locality requires." **LM**

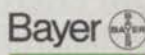
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