

**IRONITE SIGNS ON TO SPONSOR INTERPRETATION**

LAS VEGAS — Ironite Products Co. has signed a three-year agreement to present the simultaneous interpreting services at the Golf Course Superintendents Association of America (GCSAA) annual International Golf Course Conference and Show.

The pact begins with 1997's 68th annual event, set for Feb. 6-12 at the Las Vegas Convention Center here. The complimentary service will be available to attendees who want Japanese and/or Spanish interpretations of the session.

It will be provided at the 1997 conference and show for the Innovative Superintendent Session: Part 1 (Feb. 10, 7-8:30 a.m.) and the Concurrent Education Session of Weather Roulette (Feb. 10, 9-11:45 a.m.).

**Genetic advances**

*Continued from page 13*

on those genes are not going to spend the money in the turf market, which is minuscule compared to corn, soybean and cotton."

MSU Department of Crops and Soil Sciences Chairman Dr. Boyd Ellis said it is difficult to estimate a time frame for releasing new genetically engineered turfgrasses. "Whenever you engineer

something like this, there is always a discussion and negotiation about how it is released," he said. "We are not in the business of marketing the varieties, just in developing and releasing them."

In the case of MSU's new bentgrass, researchers added a gene, patented by AgrEvo, that is resistant to the herbicide Finale that controls brown patch and dollar spot and kills wheat and other turfgrasses like poa annua.

With a gene patented by Monsanto, Rutgers' bentgrass is resistant to Roundup.

"The problem is that the chemical companies dictate how those genes are used," Kenna said. "The prime market for them is in corn and soybeans. There aren't enough acres of turf to justify it at this time... Besides that, right now Finale and Roundup are not labeled to be used on bentgrass."

But, he added, "if people want products coming out of the production line five or 10 years from now, we have to start working on them now. Some people want to wait for the corn industry to do this and that. But they have. Now we have to focus on turfgrass ourselves."

Kenna said the highest priorities are: genetic mapping; marker-assisted selection; and post-plant resistance.

Genetic mapping will divulge what genes are common in the various turfgrasses.

Marker-assisted selection involves comparing a plant that resists stress or disease or some other enemy with plants that don't survive, and searching for differences in their proteins to identify the genes that allow that plant to survive. This leads to DNA probes that can ensure the genes for that particular strength exist in the populations with which the scientist is working.

Post-plant resistance is similar to marker-assisted selection. A field is inoculated with a pathogen like dollar spot and the plants that survive are checked to discover the genes that make it resistant.

"We can use that information to help us make faster progress in breeding," Kenna said. "If you know what the gene is that [adds resistance], you know the DNA sequence; if you know the DNA sequence, you can make a probe; and, rather than having to plant that experiment out in the field, you can just start probing the plant materials you have and if the gene is there you can say, 'This is dollar-spot resistant.'"

The genetics workshop began with 30 participants "by invitation only" and ended with 96 attendees. Astonished at the popularity, Sticklen said a follow-up in the future would be welcomed.

This one, she said, "had several-fold results.

"One was exchange of knowledge, which was very valuable — people talking about problem-solving, initiating corroboration, that sort of thing. Second was where to go to get funding. Third was the fact that this was international, so we learned what's going on outside our borders. And the last session was a panel on future perspectives.

"We had people from academia, foundations, the private sector and seed companies."



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