Rutgers gains rights to Purelntro technology

By ANDREW OVERBECK

NEW BRUNSWICK, N.J. — Rutgers University has reached an exclusive agreement with Japan Tobacco to develop and commercialize transgenic turfgrass varieties using a pioneering plant transformation technology.

Japan Tobacco’s Purelntro employs plasmids derived from Agrobacterium tumefaciens, a bacterium that has the unique ability to insert a portion of its DNA into the cells of plants. According to officials at Rutgers, Purelntro technology is more precise than the Scotts Co.’s “gene gun” and it will allow turfgrass producers more access to transgenic varieties.

“Agrobacterium has been used by researchers for years in transforming dicots but it has never been used in monocots,” said Jim Costagano, manager of technology and licensing at the Center for Turfgrass Science and the Biotechnology Center for Agriculture and the Environment at Rutgers.

Dr. Barbara Zilinskas, a plant scientist at Rutgers, received permission from Japan Tobacco in 1997 to begin work with Purelntro in turfgrass and was

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First National expands Native American lending

By DEREK RICE

MARTINSVILLE, N.J. — Rumors of the demise of funding for golf course development projects are greatly exaggerated, according to Jerry Sager, managing director at First National, who said the departure of some of the bigger names has led to that perception.

“Textron’s certainly been around a long time and we've been doing golf course loans for 20 years. I don't think that's fair,” he said.

Along with First National, Sager said, other key lenders have been in the golf business for many years.

“Textron’s certainly been around a long time and we've been doing golf course loans for 20 years. I don't think that's fair,” he said. "Quite frankly, I don't think we've both been quite consistent."
Lesco signs first independent marketer

CLEVELAND — In a move to expand into previously untapped geographic markets in United States, Lesco has signed its first independent marketer agreement.

Lesco, which announced the new marketing program late last fall (GCN December 2001), has teamed up with Wilco Farmers as part of the deal. Wilco, an agricultural cooperative in Oregon’s Willamette Valley, supplies its customers with a range of goods including crop protection products and crop nutrients, and lawn and garden products.

Under the program, Lesco will sign contractual agreements with nurseries, garden centers and other independent marketers positioned to distribute the company’s proprietary product line. With the program, Lesco aims to reach marketers who are eager to increase profits and strengthen their presence within the professional turf care industry. Lesco estimates that the independent marketer program will enable the company to reach over $250 million in untapped market potential.

Rutgers to use PureIntro technology

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eventually successful in converting creeping bentgrass and fescue.

“We filed a patent for the transformation of turfgrass using PureIntro, but we didn’t have freedom to operate under the general patent,” said Costagano. “This agreement gives us a general license from them in turfgrass in exchange for a royalty.”

According to Zilinskas, PureIntro is very precise. “It has some advantages over particle bombardment because it introduces single copies of the gene as opposed to multiple copies. Multiple copies often lead to the suppression of the gene you are trying to introduce.

“And since Scott’s holds the exclusive license for the gene gun, this provides an alternative for other turf companies to expand their biotech work,” she added.

COOL SEASON FOCUS

Work at Rutgers will focus on inserting disease-, insect- and herbicide-resistant genes into cool season turfgrasses.

“If we could come up with a gene that could control Pythium in cool season grasses or a way to have toxins in grass roots to kill grubs, that would be a big deal,” said Dr. William Meyer, head of the turfgrass breeding program at Rutgers. “We need this technology to help solve problems that we have not been able to solve using conventional breeding.

Once the genes are identified, Zilinskas will insert them into the elite cultivars and possibly have them ready for commercialization in two to three years. According to Meyer, Rutgers is drawing up agreements with several seed companies to start developing new transgenic varieties. Seed companies will have to pay royalties to Rutgers and Japan Tobacco on any new varieties that come out of the program.

BIOTECH DEBATE COULD SLOW DEVELOPMENT

With the technology in place and gene identification underway, the only other significant roadblock is the growing anti-biotech movement in the United States. Within the seed business some growers are loathe to plant transgenic varieties because of contamination concerns.

However, Meyer remains confident that transgenic turfgrass will reach the market. “I think the isolation problems can be handled spatially,” he said. “I think sometimes the debate is more about market share and politics than it is about science. We are cautious in our work, but in the end the Environmental Protection Agency, the United States Department of Agriculture and the Animal and Plant Health Inspection Service will control all decisions regarding transgenic varieties.

According to Costagano, the technology is too valuable to pass up.

“There are environmental concerns, but in the end, this is too powerful a tool in the hands of cultivar developers not to use it,” he said. “Once these questions get answered, we will be on the cutting edge.”