Changes galore foreseen for 2000

Continued from previous page

mudagrass varieties will be growing in different places.

In the future, superintendents may be responsible for collecting leachate from drain pipes on greens, filtering it and putting it back on the roughs and fairways, Kopec said.

FAIRWAYS AND ROUGHS

He predicted that Southerners be doing less overseeding because of reduced water availability and a trend toward playing on dormant Bermudagrass.

Because of the demand to maintain out-of-play areas to enhance wildlife, Kopec said he foresees decreased fairway size and the development of "transition roughs," with a primary which is playable, a secondary rough which acts more as a penalty, and a tertiary rough of native grasses.

"You won't see houses butted up to the rough," he said. "You might see 75 to 80 feet between housing tract developments where you will see a sign posted: 'Agricultural chemicals applied.'

"I'd like to see six-foot-high grass between my property and that, and maintain the status of a golf course as environmentally safe and wildlife sensitive at the same time. It can be done."

ROOT-ZONE MODIFICATIONS

"In the next 10 years we'll see big increase in science," Kopec said, specifying sports fibers. "Research in sports turf management can be applied to our fairways."

"By the year 2000 I hope there is a not a single one of you who is applying a toxic insecticide, herbicide or fungicide," he said. "If you have to, apply an agricultural chemical, apply a plant protectant... Get an IPM [Integrated Plant Management] program. And if you do have to apply a chemical, make it a plant protectant agent.

He said future products will be more species-specific, "so there is less chance of eradicating beneficial predators. They will have a shorter half-life residual because they will be used to control a short-term problem... In most cases it will be more expensive because development costs will increase and registration of these materials will as well."

The industry will also benefit from advances in using natural ecosystem products, Kopec said.

MICROCHIPS & GENETICS

Genetic engineering, he said, offers some potential for progress in genes for heat, drought and salt tolerance, insect and disease resistance, herbicide tolerance, pest inoculants and parasitoids.

"The microchip is here to stay," he said, pointing to maintaining service records, payroll, shop inventories, irrigation system, and pesticide application equipment.

"And it might be on your three-gang mowers by the year 2000," he said. "Pollution control devices may be controlled by microchip."

International trade agreements between Canada, the United States and Mexico open up some exciting possibilities.

"For you as superintendents and for researchers at large, exchange of germplasm, ideas and new developments in golf with Mexico and Asia is very exciting," he said.

Kopec also suggested that superintendents be proactive and that they better reward their crews. "They might have more specialized jobs to do and you will want to keep them around," he said.

Professor: Learn to manipulate

Show Time '93

ANAHEIM, Calif. — University of Georgia Professor Lee Burpee told superintendents here that advances in pesticide research and disease-resistant turfgrass species and cultivars hold hope for making biological control of diseases a reality.

Speaking at a forum on the future direction of pesticide technology, Dr. Burpee said: "Unfortunately, we're only attacking the pathogen from one side. We want to attack it from all three sides... chemical controls, changing species or cultivars, and manipulating the environment."

He said superintendents can practice "biocontrol" by manipulating cultivars and environments.

Changing species of grass can provide biocontrol, he said, such as shifting turf on a tee from bluegrass to rye.

"Kentucky bluegrass is much less susceptible to snow mold than annual bluegras, for instance," he said.

In the same way perennial ryegrass is more resistant to snow mold than is creeping bentgrass.

"Unfortunately, we are only in the beginning stages of being able to recommend cultivars," Burpee said.

He added that there are no biological fungicides, but studies are being done to discover some.

Burpee said few economic incentives and the narrow spectrum of biological controls are roadblocks to their commercialization.

In many cases they're not as broad spectrum as existing chemical pesticides, he said. And they are predominantly less effective than chemical controlas at low rates of application.