I will never say a riding greensmower can't cut as well as a walk behind again. I will never say a riding greensmower can't cut as well as a walk behind again. I will never say a riding greensmower can't cut as well as a walk behind again. L will never say a riding greensmower Cantcut as well as a walkbehind again L will never say a riding greens mower can't cut as well as a walk behind again. The Toro® riding greensmower cutting unit. Forget what you've learned.

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TORO Count on it.

Off The Fringe

Business briefs

Chemtura

Crompton becomes Chemtura

Middlebury, Conn.-based Crompton Corp. and Great Lakes Chemical Corp. have merged. The new company is called Chemtura Corp. and will be the fourth-largest pub-

licly traded U.S. specialty chemicals company.

"Our new name reinforces the fact

that we are Chemtura, a unique new company with a portfolio of global businesses that have achieved leading positions in high-value market niches," said Chemtura chairman, President and CEO Robert L. Wood.

Tribe's suit targets Shinnecock, National Golf

Shinnecock Indian tribal leaders have filed a suit that claims ownership of 3,600 acres of expensive real estate on eastern Long Island, N.Y., including Shinnecock Hills Golf Club and the National Golf Links of America. The tribe claims the land was stolen in the 19th century. The tribe hopes the suit, which also seeks compensation, will make it possible to build a casino near the Hamptons, according to the report.

Carlson leaves Jacobsen

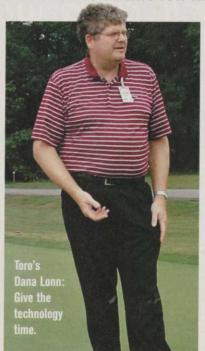
Charlotte, N.C.-based Jacobsen announced in July that President Jon R. Carlson had left the Textron company to pursue other interests. Barclay Olson, president of Textron's Industrial segment, will run the business until a replacement is named.

"Jacobsen's strategic direction remains unchanged," Olson said. "We will continue to focus intensely on dealer and customer satisfaction, product innovation and reliability, and ultimately superior business performance."

To Go Where No Superintendent Has Gone Before?

GPS HAS BEEN SLOW GETTING TO THE GOLF MAINTENANCE

INDUSTRY, BUT EXPERTS VOW THAT IT IS COMING



f you believed the hype five years ago, by now the golf course maintenance industry should be seeped in Global Positioning System (GPS) and its myriad of uses. But that is not the reality.

In fact, widespread use of GPS is still years from coming to fruition. Although there is no doubt that GPS technology is on the way, it's no more evident on the golf course today than it was in 2000. The predictions of fleet management tools and unmanned

By Anthony Pioppi, Contributing Editor

mowers have yet to be realized. Mark Schmidt, senior project manager and senior agronomist for John Deere & Co., said the buildup was overstated. He said GPS became the umbrella term for all new technology.

Although GPS in its most basic definition is nothing more than a locating device that tracks where something is and where something was, manufacturers insist there is a place for GPS in the golf maintenance field.

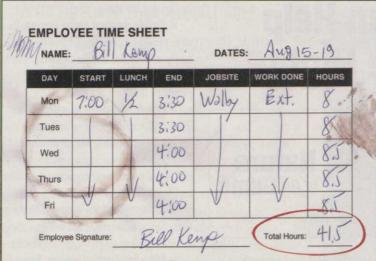
"With any technology, you have to find value for the customer," Schmidt said. "People want to know what's the payback for them."

One way is equipment tracking, not in the Big Brother sense of keeping an eye on where everybody is all the time, but to better monitor usage through extremely accurate records, according to Dana Lonn, director of the Center for Advanced Turf Technology at The Toro Co. "That is one way to better track cost," Lonn said.

Another way is to monitor, for instance, why it takes one worker twice the amount of time to perform the same task as another. In that way GPS could be used as a teaching tool.

When GPS was first touted, one of Continued on page 16

TIRED OF SECOND-GUESSING HANDWRITTEN TIMECARDS?





REALITY?

Employee Report

Bill Kemp

Jobsite Name: Walby Golf Course Date Range: 8/15/2005 through 8/19/2005 Activity Start End 12:02 PM Mon 8/15 7:19 AM Placing the pin 4:43 hours 12:40 PM 3:39 PM Bunker 2:59 hours 7:42 hours 12:06 PM Tue 8/16 7-21 AM Placing the pin 4:45 hours 12:37 PM 3:42 PM Bunker 3:05 hours 7:50 hours Wed 8/17 7:16 AM 12:04 PM 4:48 hours Placing the pin 12:33 PM 3:44 PM Mowing 7:59 hours 3:11 hours Thu 8/18 7:18 AM 12:25 PM Placing the pin 5:07 hours 1:05 PM 3:42 PM Mowing 2:37 hours 7:44 hours 7-17 AM 11:50 AM Fri 8/19 Placing the pin 4:33 hours 12:36 PM 3:41 PM Mowing 3:05 hours 7:38 hours 38:53 hours **Employee total** Bill Kemp



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Golf Courses Can Help Butterflies Take Flight

BY RON DODSON

Editor's Note: This column will appear bimonthly in Golfdom. Dodson, the CEO of Audubon International, can be reached at rdodson@auduboninternational.org.

here are more than 700 species of butter-flies in North America, but many of them are declining in substantial numbers. Butterflies are in worse shape than birds in regard to the number of species in decline. Golf courses can play an important role in the conservation of these important insects, and their preservation can be a part of a golf course beautification program.

Creating a butterfly refuge on the golf course is actually a fairly simple and rewarding project that can literally bring landscaped areas around the course to life. Plants that attract butterflies can be added to annual beds, perennial borders, containers, hanging baskets and general landscaping. In addition, nectar-producing flowers for



adult butterflies and host plants for caterpillars can be planted in special butterfly gardens near tee boxes, around the clubhouse and in other locations around the golf course.

All butterflies go through dramatic changes before becoming the butterflies that we all recognize. Butterflies start out as eggs, most often laid on the underside of a leaf or branch. Caterpillars are born with a healthy appetite and often eat their shells as their first meal.

The plants on which the butterfly eggs are deposited, and on which they feed, are called host plants. The Monarch Butterfly, for example, only feeds on milkweed. Milkweed contains chemical compounds known as cardiac glycosides, which make the caterpillar unpleasant-tasting to predators, therefore helping ensure a higher survival rate.

If you would like to become part of the movement to help conserve and restore the populations of butterflies, there are some basic steps that need to be taken:

▶ Choose a sunny, sheltered location to get started. Like other insects, butter-flies are cold-blooded. They rely on the sun to raise their body temperatures and their metabolisms so they can fly. That is why you often see butterflies in sunny meadows or basking on rocks or roads with their wings perpendicular to the sun for

optimal solar absorption.

terflies need.

▶ Provide abundant nectar sources. Provide plants that are highly visible and easily accessible. Bright-colored flowers with numerous flower heads and large petals to land on are most attractive.

▶ Include host plants for caterpillars.

This will require a bit of investigation on your part to determine what butterflies occur in your region and what specific host plant requirements these but-

► Avoid pesticide use around butterfly gardens. Since butterflies are insects, they are susceptible to pesticide exposure.

▶ Add a few finishing touches. In addition to the host and nectar plants, a small patch of mud or wet sand will provide needed water and salts for the butterflies. Add a few flat rocks near the edge of the garden for resting.

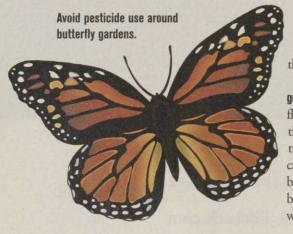
There are many excellent books about butterfly conservation available that can help you to select the right plants for your region, as well as provide more information about butterflies.

To get you started, some good annual plants for butterfly gardens include: Cosmos, Calendula, Impatiens, Snapdragon, Sunflower and Zinnia. A short list of good perennial plants include: Anemone, Columbine, Red Milkweed, Aster, Wild Indigo, Coreopsis, Purple Cone Flower, Joe Pye Weed, Ox Eye Sunflower, Blue Flag Iris, Turks Cap Lilly and Spiderwort.

There are also shrubs, trees and vines that can be beneficial in a butterfly garden, including Leadplant, Carolina Allspice, Flowering Dogwood, Button Sage, Northern Spicebush, Sassafras and Trumpet Vine.

Host plants are important for butterflies and caterpillars, and include Black-eyed Susans, Butterfly Weed, Clovers, Hibiscus, Indian Paint Brush, Milkweed, Mustards and Violets.

For more information about butterflies and butterfly conservation, you can visit http://www.xerces.org.



Turf-Seed Rolls Out Green Carpet in Rolesville

MINUS ITS SIDELINED FOUNDER, BILL ROSE, THE TURFGRASS COMPANY FLAUNTS ITS WORK DURING ANNUAL FIELD DAY

By Thomas Skernivitz, Managing Editor

ister companies Turf-Seed Inc. and Pure-Seed Testing Inc. finally got some wonderful weather June 17 for their annual field day. Unfortunately, their founder, Bill Rose, couldn't be in Rolesville, N.C., to enjoy it.

Rose, who started Turf-Seed in 1970 and its research arm, Pure-Seed Testing, four years later, suffered neck fractures June 11 at his farm in Oregon. While attempting to separate a cow and its calf, Rose was flipped into the air by the cow. He landed on his head and was knocked out of commission for four to six weeks.

"He's going to be fine. There's no paralysis," Turf-Seed CEO Gordon Zielinski said. "He seems in very good spirits, and he was anxious that he wasn't here."

Typifying Rose's demeanor, he's been telling everyone that the cow "didn't mean it."

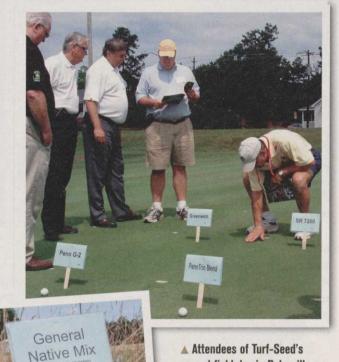
In Rose's absence, his colleagues and a guest speaker, Maria Tomaso-Peterson, representing Mississippi State University, carried the show, which alternates every year between Hubbard, Ore., and Rolesville. They covered the gamut of turfgrasses and respective issues that are affecting courses throughout the country:

2005 turfgrass crop — Oregon experienced an unusually dry fall and early winter. Some February days even hit 80 degrees. But the rains finally came — "they always do," Zielinski said and April and May saw a large amount of precipitation.

"We thought there were going to be production issues on the tall fescue and perennial ryegrass," Zielinski said. "Right now the crops have recovered, and it looks like we'll have a good harvest. Overall, the year will have good supply, but we may see shortages by specific varieties."

Perennial ryegrass — Tomaso-Peterson, an assistant professor of turfgrass pathology, addressed host resistance. And while noting that North Carolina is susceptible to diseases that aren't prevalent in Oregon, she focused on gray leaf spot and its effect on perennial ryegrass. The condition has plagued the Carolinas and surrounding states for more than 15 years, and in August 2004 — nine months after seeding — it "just hammered" one of Turf-Seed's ryegrass trials in Rolesville.

"Over time (gray leaf spot) has spread all the way into the St. Louis area and has gone as far east as the Maryland and New York areas along the eastern seaboard," Tomaso-Peterson said. "It's gotten to the point where golf courses have lost



annual field day in Rolesville, N.C., bow down to Greenwich velvet bentgrass, one of the company's most impressive varieties of turf, thanks to its heat tolerance, low fertility and disease resistance.

■ Native grass mixes are

becoming more popular on

so many fairways that they are converting to bentgrass." Pure-Seed Testing's research director, Melodee Fraser, said the company is

gray leaf spot resistance in perennial ryegrass. She singled out an experimental va-

riety, PST-2BL, as the most successful.

courses, especially on outer rough areas and steep banks. The grasses appear intimidating from the tee, but don't prohibit the player from retrieving the making "great progress" in ball. They also provide a food source to wildlife.

"This (trial) is one of the most exciting things you'll see on the research farm," Fraser said. "I get a lot questions from superintendents, particularly about collar areas. They overseed their bermudagrass collars and they'd really like to hold that year round. They ask if we have varieties that can do it. This (trial) might help us be more confident in areas like that around the green that are highly maintained and receive irrigation when it needs it."

Bentgrass — Tee-2-Green Corp., another division of the Rose enterprise, is quick to point out that its creeping bentgrasses are represented at three of this season's four major

Continued on page 16

Off The Fringe

Continued from page 12 its more glamorous applications was for turf diagnosis. Lonn said that will still become a reality. The process will combine technology that monitors light absorption of the turf along with GPS to track the readings. The sensors won't be able to determine what's wrong with the grass, only if it is stressed or healthy, giving superintendents an advantage in preventing disease outbreak.

Lonn said Toro is trying to determine whether it makes more sense to sell the sensors to superintendents or sell the technology to third parties that would monitor the information.

In the past few years there has been a realization that GPS could lead to autonomous mowers. Lonn and Schmidt agree the technology is on the way.

"It's not a matter of if, but a matter of when," Lonn said. "We've more or less figured out how to do this. We haven't figured out how to do it commercially." Schmidt said autonomous mowers, like other GPS applications, come down to the question: "Where's the value in the technology?"

Ed Wagner, president of Massachusetts-based Chaperon Guidance Systems, is baffled by the unwillingness of the industry to move in that direction as a quicker pace. His company created the technology for unmanned or autonomous mowers but the industry turned it away, he said. "The owners very much wanted the technology. The OEMs (original equipment manufacturers) did not," he said.

Prototypes of the machines impressed a number of owners and superintendents in Massachusetts who said they would implement the technology that involved one worker chaperoning a number of mowers.

The first step in utilizing the GPS technology this way would have been to modify machines into unmanned mowers. The logical next

Quotable

"We don't talk about hurricanes here anymore. It's like taboo."

— Rob Kloska, superintendent of the Jupiter Island Club in Hobe Sound, Fla.

"There's not a whole lot to do around here. But you manage."

— Jerry Bonner, who interned on the golf course maintenance staff at Pinehurst No. 2 this year, on the nightlife in the quaint town of Pinehurst, which ain't exactly Vegas.

step would have been for manufacturers to develop mowers that, because they would not need to accommodate a rider, would be smaller, lighter, use less hydraulics and fuel and thereby cost less to run and to purchase. Ultimately, Wagner said the price points would have gone down and that scared away manufacturers.

Wagner went looking for another customer once the golf equipment manufacturers turned their backs on his technology. He found it in the Department of Homeland Security, which is using autonomous devices to monitor areas such as pipelines and natural gas storage facilities.

Wagner surmised that autonomous mowers would make their way to the golf industry but via a nontraditional route. "What you will see is that the next generation of mowers will come from offshore manufacturers," he said, in part because traditional industry leaders don't want to take a chance. "It's easier to be a fast follower than be first in the market."

Continued from page 15

tournaments. Penn A-1 can be seen at Augusta National (Masters), Penn G-2 at Pinehurst (U.S. Open) and Penn A-4 at Baltusrol (PGA Championship).

Not that Tee-2-Green is resting on its laurels. Among its newer varieties, the creeping bentgrass Seaside II is gaining in popularity because of its high salt tolerance and drought resistance. Then there's the old standby, PennCross, which recently celebrated its 50th anniversary. It's still the No. 1-selling bentgrass in the industry, the company says.

As for velvet bentgrasses, Fraser lauded Greenwich for its heat tolerance, low fertility and disease resistance. "And what we've actually seen over time is that the (Greenwich) velvet actually starts to push into the creeping bents that might be planted next to them," she said.

Bermadagrass — Thanks to hybrids, this variety has come a long way. "It wasn't too long ago when the only seeded

bermudagrass you could buy was AZ Commons," Fraser said. "We've come a long way in a relatively short period of time."

New varieties have finer leaves, shorter internodes and improved mowing quality and winter hardiness. "We've mowed them down to a half (-inch) here," Fraser said.

Fraser cited the company's efforts to improve the salt and shade tolerance of bermudagrass.

Seashore paspalum — Sea Spray is the first brand available from seed and can be used anywhere on the course.

"From an agronomic standpoint, it's every exciting to me to see what great turf it makes," Fraser said. "Last year on the (North Carolina) farm during the heat of summer the two very best varieties were Sea Spray and Greenwich velvet bentgrass. Those were the two shiniest varieties, and the way it's looking now (with Sea Spray), we're going to see that again this summer."

Sea Spray's cold tolerance is still being studied, Fraser added.



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