

MAINTENANCE



BRIEFS

DELHI TO OFFER EQUIPMENT MANAGEMENT CERTIFICATE

DELHI, N.Y. — Responding to concerns about the lack of qualified turf equipment mechanics, SUNY Delhi has teamed with the New York State Turfgrass Association to create a college certificate in turf equipment management. The college will introduce the program in January 2003. The program will be geared toward both new students and those who have field experience. Courses will be offered in the off-season. For more information, contact 607-746-4545 or www.delhi.edu.

LEBANON CUTS ROYALTY CHECK

NEW BRUNSWICK, N.J. — Lebanon Seaboard Corp. has presented a check for \$102,934 to Dr. William Meyer of Rutgers University to further turfgrass research. Lebanon Seaboard has numerous ongoing cooperative projects with Dr. Meyer and Dr. C. Reed Funk at Rutgers that have led to the release of several top-rated turfgrass varieties. The amount represents royalties for some of these varieties of tall fescue, Kentucky bluegrass, perennial ryegrass, hard fescue, creeping red fescue and chewing fescue.

CHIPCO TRAINING ONLINE

MONTVALE, N.J. — The Chipco Professional Products group of Bayer Environmental Science is conducting a free online training program entitled "Poa annua Control" on its Web site www.bayerchipco.com. The training session addresses how professionals have been challenged with Poa annua and will review strategies for control and management. Participants will learn about cultural practices and herbicides to consider depending on the control method and situation.

ENDORSE CONTROLS ANTHRACNOSE

DAYTON, N.J. — Results from Rutgers University field tests this year have demonstrated that Cleary Chemical's Endorse fungicide provides control and management of anthracnose. Endorse is a translaminar, systemic antibiotic fungicide. In the Rutgers trial, Endorse was used in a preventive program on a Poa annua/bentgrass green at a rate of four ounces per 1,000 square feet at a 14-day application interval.

Going native: Proper management ensures playability

By KEVIN J. ROSS, CGCS

One area of golf course design and course aesthetics that clash with playability is the proliferation of native grass areas. The addition of native grass, which has been labeled the "Scottish look," has sparked a debate, as architects incorporate more and more of these grass areas into designs.

Most of these layouts are sites with limited trees and open land, which need mounding features for hole separation and definition. But the use of native grass can also be found as bunker surrounds and wildlife habitat areas. Some courses have also incorporated native areas to reduce mowing and labor costs in out-of-the-way areas.

True native grass can be defined as grasses indigenous to the area that are growing in nearby fields. These species survive with natural rainfall, no fertilizer and no mowing. Native grass cultivar selection often results in grasses that are not truly native to the area. There is no

problem with this, however many times mistakes are made in selection. The typical mistake is choosing a cultivar that performs more like a true turfgrass than a true native grass.

Another typical mistake is the seeding rates. Many times superintendents/architects use rates much too high and create a stand that is far too dense. For example, the normal seeding rates for native fescues should be 50 to 75 percent less than a turf stand. This will provide

a much more playable situation with a thinner stand. The grass will develop a more clump-type growth

habit with the ability to seed better and get that wispy, seedhead look.

Continued on page 9



Sand Hills Golf Club in Nebraska is an example of a course carved out of true native grasses.

Winter irrigation systems protect Colorado courses

By ANDREW OVERBECK

COLORADO SPRINGS, Colo. — Here on the Front Range of the Rocky Mountains winter weather does bring snowfall, but it doesn't stick. Because of the brutal winds and lack of steady snow cover, courses are forced to irrigate in order to stave off desiccation.

"We historically get 50 inches of snow," said Fred Dickman, superintendent at the Broadmoor Golf Club in Colorado Springs, which sits at 6,800 feet in elevation. "But it blows off and we have a lot of sunny days that open us up to desiccation. We have to keep the plant and soil moist in the winter months."

To accomplish this frigid task, Dickman has a winter irrigation system that consists of Drisco pipe laid below the frost line and connected to limited areas on the fairways and greens.

"We blow out our regular lines and shut off our regular system and then we repressurize the main line to run the winter system," he said. "Our watering window is

Continued on page 9

Seeded zoysia shows promise in lower transition area

By ANDREW OVERBECK

WEST LAFAYETTE, Ind. — Purdue University is working in conjunction with the University of Kentucky to study the viability of seeded zoysia grass in the lower transition zone. The results so far are promising, according to Purdue's turfgrass extension specialist Zachary Reicher.

"We are in our third full year of research here," said Reicher. "We think zoysia is the best overall choice for fairways and tees in the lower transition area from Kansas to Maryland because of its ease of maintenance. It also requires less inputs and it survives the winter better than bermudagrass."

Research has focused on the best approaches to seeding zoysia, specifically studying the best tim-

ing and rates and when herbicides can safely be applied. Work is also being done to determine the best

With seeded varieties, more courses could get the benefits of zoysia without the initial expense.

Previously, zoysia has been only widely available as sod, sprigs or strips. Seeded zoysia costs \$1,500 to \$2,000 an acre compared to \$15,000 for sod and \$5,000 for strip sod.

According to Tim Bowyer of Patten Seed Co., which is supplying the studies with its Zenith seeded zoysia grass, there is now a ready supply of seeded zoysia on hand.

"Before it was a inventory issue," said Bowyer. "Now we can produce the volume of seeded zoysia that the market needs. But there has been no work done on seeding it because it has traditionally been

all plugging and sodding. It can

Continued on page 10



Seeded zoysia establishes faster than plugs

Haines puts PermO₂Pore to work at San Pedro GC

By DAVID HUBBARD

BENSON, Ariz. — For more than 10 years, Lou Haines consulted with golf course superintendents on porous ceramic technology. Now, as a part owner of San Pedro Golf Course here, the veteran agronomist and golf course superintendent is utilizing his innovative soil conditioning system in his own project.

Slated to open in early December, San Pedro Golf Courses promises a "pure golf" experience that preserves the spirit and tradition of golf.

Carved from high desert terrain in the San Pedro River Valley, 30 minutes southeast of Tucson, Colorado-based Arizona Golf Systems has constructed a much-needed top quality, affordable layout in this area of the state.

With the help of noted Denver-based course designer Mark Rathert they have masterminded a 7,300-yard classic configuration free of real estate development or other distractions from the game. There are no out-of-bounds markers on the course,

Continued on page 10

Haines' ceramic material eases maintenance

Continued from page 6

no trick holes and there are no continuous cart paths.

"One of my pet peeves as a golfer is having to keep cars on paths set too far off to the side. When we say 'car path only,' we mean take it down the middle of the fairway," said Haines. "Our car paths are essentially invisible, because the PermO₂Pore root zone helps us

achieve a more traditional look and feel. Players are directed to the optimum areas of the fairway, with their view and play unimpeded by car paths."

Haines' proprietary PermO₂Pore mix of sand and porous ceramic granules creates a specialized root zone sturdy enough to support car traffic leaving natural gravel paths fanning onto the fairways, and gath-

ering again at the gravel paths near the greens. PermO₂Por is a product made by Agronomic Systems Design Group, which Haines helped them develop.

With little or no compaction to deal with, the maintenance crews only have to control the wear to the turfgrass by managing the traffic patterns. Small metal markers delineate the fortified areas. To golfers, there is no noticeable car path beyond the gravel areas.

The porous ceramic root zone is approximately 12 to 15 feet wide, and extends 30 to 40 yards into the fairway, large enough to be able to redirect cars each day to allow the worn areas of turf to grow and heal.

Haines has also applied porous ceramic technology to putting greens. A similar soil conditioning and drainage system he calls SoilAire alleviates the need for the gravel blanket normally prescribed by the USGA in "perched greens"

construction.

"Over the years, the capillary nature of the soil in perched greens is increased by the steady build-up of organic matter," said Haines. "With their capability to retain so much more water, the greens simply do not get enough air and must be aerated more often." Haines added that SoilAire green construction is in place at more than 50 golf courses throughout the country.

A prescribed mixture of sand and porous ceramic placed directly over the base soil results in improved capillary movement as compared to the more traditional approach. As water moves through the SoilAire mixture, it slows at the soil interface, but does not stop. The capillary forces pull excess water through the root zone, while drawing air in from the top as the system reaches equilibrium. The porous ceramic material drains more rapidly and holds equal amounts of air and water in the root zone.

Where USGA specifications require a cavity 16 inches deep to accommodate two separate layers of gravel and soil cavity, the depth of the cavity for the SoilAire mixture is only 10 inches.

"The porous ceramic mixture itself may cost a little more, but the overall green construction costs compare closely to that of a USGA approach," said Haines. "The SoilAire system has the potential to reduce long term maintenance costs, which helps in our objective to provide affordable golf at San Pedro." ■



BUNKER RENOVATION: CASE STUDY #27

Jack used to struggle with his maintenance budget.

He always looked for ways to control costs yet deliver results.

Over the years, he implemented many new methods and routines.

His bunkers always eluded him.

After most storms, he would spend \$1,800 to \$2,500 on labor,

repairing water damage on his bunkers. Jack was looking for answers to

his bunker problem and found a solution that works.

TOUGH DECISIONS ... SERIOUS SOLUTIONS

He turned to an advanced technology from IVI-GOLF. Sandtrapper™ lines the bunker

and ends the routine of sand trap maintenance. It prevents washouts,

sand contamination and eliminates short renovation cycles.

Jack made the right decision. Now, he spends a lot less money on labor.

This keeps the course owners satisfied and leaves room in

the budget for other important items. He's happy to have found a

serious solution to his elusive bunker problem.

Stop struggling with tough decisions and contact IVI-GOLF.

We'll send you a product information guide

to learn more about Sandtrapper.

Zoysia research

Continued from page 6

give lower-end golf courses something that exclusive golf courses have used for years."

The data collected so far shows that the best time to seed zoysia is between May 15 and July 1. After 10 weeks, there is 100 percent coverage and the turf is playable. The best rate is between one to two pounds of seed per 1,000 square feet, and the first herbicide application, depending on the product used, can be made as early as two weeks after seeding.

For the conversion of ryegrass and bluegrass, Purdue has conducted field trials and also worked with four golf courses in Indiana and Kentucky.

"We found that overseeding existing fairways doesn't work well, even at high rates of seed," said Aaron Patton, a graduate student working with Reicher. "The best move is to treat the area with Roundup, prepare a seedbed and put down seed."

Patton and Reicher plan to spend another year doing more herbicide studies and Patton will continue on to study which varieties are most resistant to zoysia patch.

"At this point," Reicher said, "we have enough answers so superintendents can make an educated decision about whether to choose or convert to zoysia." ■