

BRIEFS



GOVERNOR APPOINTS CLARK

GREEN VALLEY, Ariz. — Mark K. Clark, head superintendent of Green Valley Country Club here, has been appointed by Arizona Gov. Fife Symington to the Structural Pest Control Commission. Clark is the first person from the "green industry" to hold such a position. His appointment is for three years, and will require monthly meetings which involve travel and a great deal of case study for each meeting. It is a voluntary position.



Mark Clark

PHILLY GCS ELECT GUSTAITIS

PHILADELPHIA — The Philadelphia Association of Golf Course Superintendents has elected Anthony Gustaitis president. Vice President is Joseph Owsik, while Donald R. Brown, CGCS, is treasurer; Henry C. Wetzel, Jr. secretary; and Steve Carpenter sergeant at arms.

PAIUTE RESORT HIRES LOPEZ

LAS VEGAS — William "Willie" Lopez is the new superintendent here at the Las Vegas Paiute Golf Resort, according to Carl von Hake, general manager. Lopez, formerly the assistant superintendent, takes charge of 40 employees and two 18-hole championship courses — Snow and Sun Mountain. He graduated from the Turf Management Program at the College of the Desert in Palm Desert, Calif. Von Hake said Lopez has filled the vacancy left by Jim Sprankle, who has assumed a similar post in Indonesia.

PENN STATE RESEARCH GETS \$130K

STATE COLLEGE, Pa. — The Pennsylvania Turfgrass Council has allocated \$130,000 to the Pennsylvania State University for the 1996-97 fiscal year. The grants, totalling more than \$1 million, have been donated to Penn State by the council over the past nine years. The Pennsylvania Turfgrass Council has a membership of more than 1,200, comprising golf course superintendents, lawn care owners/operators, landscapers, grounds managers, industrial representatives, and many others in the turf industry.



CANADIAN CONFERENCE

Rossi: As knowledge expands, so will IPM

By MARK LESLIE

MONTREAL — Predicting that pest-management careers loom in the future of the turfgrass industry, Dr. Frank Rossi said Integrated Pest Management (IPM) will become more effective as the base of knowledge widens.

Speaking at the Canadian International Turfgrass Conference and Show here, Rossi told superintendents: "As we get more people in turf and the

superintendent gets more and more educated, the jobs are going to be more competitive and you're going to need more trained staff. You'll have lifetime assistants, people who spend a career as pest-management experts on golf courses."

The move in that direction will correlate with knowledge, said the New York State Extension turfgrass specialist and Cornell University assistant professor.

"To me," he said, "IPM is just a matter of making decisions based on what you know — not on how much [pesticide] you have in the shop. We want you to make knowledge-based, not product-based, decisions... We have to know more about the biological system we are managing. This means the plants as well as the pests."

IPM, Rossi said, "is about options. How many options do I have to deal with this

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USGA funds research on floating green

COEUR D'ALENE, Idaho — The U.S. Golf Association (USGA) Green Section will award Washington State University (WSU) a \$24,000 funding grant to study the run-off water used to irrigate the floating green here at the Coeur D'Alene Resort.

A multi-million-dollar, state-of-the-art water-collection system exists underneath the floating green. It collects all rain and irrigation water into huge tanks and prevents any of the water — not to mention any other products used to maintain the floating green — from escaping into Lake Coeur D'Alene.

The water is then pumped back on shore where it's disposed of along with other golf course runoff. In their continuing efforts to make golf courses more environmentally-friendly, WSU and the USGA will study this water and the products it contains.

In 1996, Washington State Golf Asso-

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PROVING GROUND

Hercules Country Club in Wilmington, Del., has been a testing area for fall-applied pre-emergence herbicides for crabgrass control by Sam Snyder, director of facilities and grounds. This shows the signature 15th hole of the 27-hole facility. See story, page 28

QA Danneberger details research into bent and rye

Karl Danneberger is an associate professor of Turfgrass Science at Ohio State University. He coordinates and teaches undergraduate turfgrass science, and conducts research in turf management and physiology. His studies have included plant growth regulator use, green speed studies, alternative spike use, control of moss, and high temperature stress work. At present, he is concentrating on the three research areas discussed in the following article.

Golf Course News: Could you discuss your research involving creeping bentgrass and perennial ryegrass cultivar identification?

Karl Danneberger: Golf course superintendents choose specific cultivars to fill specific needs. Superintendents base their selection on information listed in seed catalogs, and National Turfgrass Evalu-



Karl Danneberger

ation Program (NTEP) reports. These two entities report cultivar's resistance to disease, insects, levels of endophyte, performance under stress, color, texture and growth habit.

Understandably, when superintendents purchase a lot of seed of a particular cultivar they expect it to perform similar to

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COOLING THE CANOPY

Technology advances fans

By TERRY BUCHEN

DALLAS — Growing bentgrass greens, in the transition zone or warm-season climates, is difficult at best, but has been made easier with the advent of greens fans installed at a superintendent's discretion.

"Since we have installed our fans, we have seen the quality go from fair/mediocre to excellent summer greens," said Mark Price, greens and

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ON THE GREEN

New way found to bring fan relief to turf.

An easy breeze is quite enough

MONTREAL — Knowing air, soil and canopy temperatures — and taking measures to control them — are crucial to keeping turfgrass alive, according to Dr. Joseph DiPaola.

Well-known for his research in turf-growth regulation, water stress and cold hardiness, DiPaola told Canadian superintendents: "The entire system of turfgrass stresses is largely

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Cooling fans protect turf against the hidden killer, desiccation

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driven by the energy load that is put on the turf and by temperature gradients that either pull too much water out, or drop or raise the temperature on the turf. That's simplistic, but it is a good starting point for looking at stresses. One of the stresses — which is a hidden killer — is des-

iccation. And it is driven by the difference between the air and soil temperature."

A 15-degree difference between soil and air temperature, he said, moves more water out of the turf than the turf can put back in. "To add to that problem," DiPaola said, "if you have soil that is at 50 degrees (F) and it moves down to 40

degrees (10 to minus-5 Celcius) you have a turf that has doubled its difficulty in delivering water from the soil to the shoot. If you bump that soil temperature up by 15 degrees you are in a position to draw water out more quickly. You have to ask yourself the question, then: 'Do I know what my soil temperatures are?' Because if you

know the soil and air temperatures you know if you are in a desiccation mode.

While a person might not feel uncomfortable at 60 degrees (F) (12-15 C), the turf plant could be, according to how much water is being drafted out of it.

And in the case of heat stress, a superintendent needs to know

the soil temperature.

"The canopy temperature of the turf is considerably higher than the air temperature," he said. "The simple solution to getting canopy and air temperature the same is using fans. A slight (3- to 4-mph) breeze will drop the canopy temperature to that of the air temperature."

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ALWAYS OUT FRONT
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New fans give supers power

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grounds superintendent at The Northwood Club, "We are going to install fans on two additional greens real soon, in addition to the four greens that currently have either two or three fans, depending on the size and shape of each respective green."

"Our fans are 48-inch, belt-driven exhaust fans with 2 1/2-horsepower (single-phase residential) electric motors, manufactured by Dayton and distributed by Graingers. They blow from 28,000 to 32,000 cubic feet per minute (CFM), and are extremely quiet because they operate at low RPM's on a reostat.

"Because of their large size and CFM output capability, they do not have to have oscillation, are painted flat-black and are mounted mostly in trees or on traditional posts. The custom-made tree mounting brackets were made locally and the fans are left mounted in the trees year-round. They are occasionally touched-up with flat black enamel; have three zerk fittings which are greased once a month during the warmer months; have belt dressing put on occasionally if they become slick from rainfall; and have a sign mounted on one of them at each greens complex that they are 'immovable obstructions' regarding the rules of golf.

"Each fan complex has a time clock, mounted on a pedestal at the power source, which is usually set to turn the fans on between 4-5 A.M. and 7-8 P.M., depending on climatic conditions that we witness from our Maxi Weather Station and from observations on The Weather Channel. Last Fourth of July, we had to run our fans 24 hours a day because of extremely high humidity, with night temperatures in the 80s and 90s," Price explained.

"The fans are quite heavy and that is the main reason we do not bring them inside during the winter time, mainly for employee safety, to maintain their structural integrity and to help eliminate any future vibration. They hold up quite well in the elements."