BRIEFS



ENVIROTECH HIRES CROWE

ENID, Okla. - Envirotech Services, an engineering consulting firm, has hired M. Kevin Crowe as its representative in the Eastern United States. He will be handling the firm's golf course consulting in that area, helping golf courses come into compliance with



environmental and safety and health regulations. Crowe, a resident of Augusta, Ga., was formerly the course superintendent at Bonita

M. Kevin Crowe

Bay Club East in Naples, Fla., as well as assistant superintendent in training at Augusta National Golf Club. He earned an associate degree in environmental horticulture from Abraham Baldwin Agricultural College. Crowe is a member of the Georgia and Everglades golf course superintendents associations.

IOWANS ELECT APPEL PRESIDENT

DES MOINES, Iowa - Russ Appel of Briggs Woods Golf Course in Webster City has been elected president of the Iowa Golf Course Superintendents Association. He and a new slate of officers were elected at the 66th annual Iowa Turfgrass Conference and Trade Show held here, Jan. 24-26. Joining Appel are Vice President Troy Martinson of Sioux City Country Club; Northwest Director Stephen Roseberry of Sibley (Iowa) G&CC; Central Director Don Portwine of Ames (Iowa) Golf and Country Club; and Northeast Director David Roe of Garner Memorial G.C. in Cedar Rapids. Serving in the second year of a two-year term are Southwest Director Ron Stephan in Indianola; Director of Association Affairs John Ausen of Hyperion Field Club in Johnston; and Southeast Director Joyce Hamilton of Wahkonsa Country Club in Durant.

..... EQUIPMENT, ENGINE COUNCIL MEETS

CLEVELAND - The Equipment & Engine Training Council will hold its 4th annual meeting in Cleveland on April 9-11. The meeting's purpose is to address the critical shortage of technicians in the outdoor power equipment industry. For more information contact the EETC at 512-448-1788.

..... WEB SITE GOES ON-LLINE

GREENTRAC.COM, a web site pertaining to turf installation and management, has debuted.

Seven Lines of Defense

MAINTENANCE

Canadian project uses set of conservation techniques

By CHERYL REGO

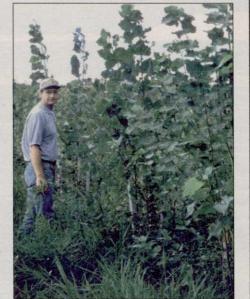
NTARIO, Canada - Environmental concerns ride high at the site of any golf course development, and now a developer here is using what it calls the Seven Lines of Defense to combat environmental concerns. The Seven Lines of Defense are conservation techniques that address concerns such as water runoff, loss of nutrients and leaching of pesticides.

Some of the techniques featured in the Seven Lines of Defense have been already been incorporated into new golf courses, and many of the techniques are leading the industry. Two of them are particularly interesting.

• By lining the greens, tees and inlets to wetlands with klinker ash stone, a hydro-generation waste product, the developer hopes to remove additional phosphorous runoff.

• It also plans to plant a harvested species such as poplar trees in the constructed wetlands which will remove unwanted components by bio uptake.

The notion of using klinker ash on the course has an interesting start. Klinker ash is a byproduct from the coal-fired generating stations of Ontario Hydro. Hydro was looking for a way to get rid of the klinker ash, and with some research



Vito Cirone, one of Burnsides employees, is planting in the field.

found that it could be used as bulk fill and that it attenuates and binds phosphorus.

Phosphorus is a major concern for the Lake Rosseau Beach Resort. The resort is located in the Muskoka Lakes region of the province, a watershed area of great environmental interest. Phosphorus encourages algae blooms in lakes. The idea to incorporate klinker ash stone came from Michael Michalski, a biology consultant who had done research on the ash. Experiments are now being done to determine the life span of klinker ash's phosphorus-ab-

Continued on page 28

Niche and native grasses may be an answer for some By PETER BLAIS

ROCKPORT, Maine - In the near term, superintendents cannot live without pesticides, fertilizers, irrigation, etc., according to Skip Lynch, director of Seed Research of Oregon's Golf & Sports Turf Division.

But in the long term, by going to low-maintenance/high-resistance niche and native grasses, superintendents can drastically reduce their use of these inputs.

"It's been working in England for 400 years," Lynch told those attending the recent Maine Golf Course Superintendents Association annual conference here. "They don't irrigate, fertilize or spray pesticides. Because of that, they have grasses that have adapted to those management extremes." Why change?

Today's demands on courses are growing, Lynch said. Input costs - i.e. fertilizers, irrigation and pesticides are going higher and higher. Demands for late- and early-season play as well as Augusta National-like conditions are escalating. And despite the "Brown Is Beautiful" campaign designed to lower golfer expectations, golfer demands mean living turf is being pushed to its limits.

More challenges loom on the hori-Continued on page 32



The future is now in maintenance building complexes **BV MARK LESLIE**

HARROGATE, England - Maintenance "barns" of the past are shedding that identity as modern technology, forward-thinking space planning and environmentally conscious superintendents transform their work areas into "turf-care centers," or "natural resource management centers.'

That was the word from Master Greenkeeper Terry Buchen, an American who told an audience at BIGGA Turf Management Exhibition (BTME) about "Maintenance Facilities of the Future.

Indeed, parts of these facilities of the future already exist at some high-end private and public facilities in the United States. The highly traveled Buchen took bits and pieces of a number of maintenance complexes to present a composite from which greenkeepers could draw and to which they could aspire.

Continued on page 30

British & Int'l Show Review



OF PRESIDENTS PAST AND PRESENT

New British & International Golf Greenkeepers Association Chairman Elliott Small of Tulliallan in Scotland, center, visits with Golf Course Superintendents Associaiton of America President Dave Fearis, left, and GCSAA past President George Renault III.

Watschke: Expect breakthroughs in turf By MARK LESLIE

HARROGATE, England - Fantastic advances in turfgrass breeding and genetics loom in the immediate future, but with this progress will come unheard-of challenges for greenkeepers, said Dr. Thomas Watschke of Pennsylvania State University.

"Innovations are only limited by the imagination, and believe me when I say that geneticists know how to dream," Watschke said in a talk at the BIGGA Turf Management Exhibition (BTME) here.

Technology offers very seductive solutions. But what are the ramifications of the results?"

He was referring to one of the latest of a phenomenal string of new high-tech grasses that have included one Roundup resistant bentgrass and another possible Prograss-resistant bent.

Dr. David Huff, Watschke said, has produced a semidwarf-type annual bluegrass that is superb but without seed Continued on page 38



Niche and native turfs are the answer in some places

Classic quality, start to finish.

Continued from page 25

zon in the form of additional government regulations.

"[EPA chief] Carol Browner is not our friend," warned Lynch. "Restrictions on fertilizer, limits on irrigation water and reductions in emissions and waste are on the way.

"Why do you think Toro and

Jacobsen are making electric greens mowers? Emissions, emissions."

There is also a growing demand for non-chemical solutions to turf problems — i.e. good neighbor policies, the Audubon Cooperative Sanctuary Program, removal of certain families of pesticides. "We've already lost mercury, PCNB is a target and certain fumigation techniques are going away. The reality is, we need to change our way of thinking," Lynch said.

These changes will require developing new grassing strategies and golfer acceptance of less-than-perfect conditions. "You cannot sustain Augustaquality conditions on 16,000 courses in America," Lynch said. "We need to develop a more intimate relationship with Nature by bringing native and naturalized areas closer to play, thereby reducing the amount of maintained turf."

This is where niche and native

grasses enter the picture.

Niche grasses are traditional turf types that suit a certain management regime and cultural practices. Colonial bentgrasses, velvet bentgrasses and fine fescues are three examples commonly used in the Northeast.

Native grasses are plant materials that are indigenous to an area, such as big blue stem, Queen Anne's lace and Indian head.

They also include grasses introduced hundreds of years ago, like the red fescues Spanish friars planted in the Southwest as a forage grass in the 1500s.

NICHE GRASSES

Colonial bentgrasses are bunch grasses. They are fine textured, apple-green in color, and

'[EPA chief] Carol Browner is not our friend. Restrictions on fertilizer, limits on irrigation water and reductions in emissions and waste are on the way.'

- Skip Lynch

establish quickly. They are tolerant of sandy, gravelly soils with low fertility requirements and fairly high disease resistance. They also have low irrigation needs.

"The problem with Colonials is that you can kill them with kindness," Lynch said. "The more water you dump on them, the worse they perform. They are excellent fairway and tee turf and can be mowed to a quarterinch. They have good wear tolerance and blend well with fine fescues and poa annua. They can help you get through icy conditions and low-fertility, low-water, zero-pesticide regimes."

Velvet bentgrass — long a staple in the Northeast — is often as effective as the As and Gs being specified into many of today's courses, Lynch said. Velvet bentgrasses are stoloniferous and have an ultra-fine texture with a leaf width that is half of A4.

If managed properly, they are very disease resistant, have a true green color, are tolerant of most soil types (especially low pH), require little nitrogen and need little water.

They are suited to tees, greens and fairways, are the most shadetolerant of all bentgrasses and can withstand low mowing heights.

Fine fescues are a grossly under-used grass, Lynch noted. Fine fescues include chewings,

Continued on next page



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New York Turf Assn. seminars planned

March 9, the New York State Turfgrass Association (NYSTA) will present its Western Regional Conference, a one-day seminar designed to share with grounds managers the latest information, research. and techniques.

UFFALO, N.Y. - On

In addition to the educational sessions, this one-day conference will include a trade show with vendors representing various interests.

Seminars will include:

• General Session Weather or Not, Stan Levine, National Weather Service Forecaster; Using Weather Conditions to Predict Pest Outbreaks,

of Maryland.

• Build Your Skills - Basic Turf Soil Management, Joann Gruttadaurio, Cornell University; Turfgrass IPM, Kevin

Trotta, North Rockland CSD; Weed Identification and Control, Joann Gruttadaurion, Cornell University

Dr. Michael Raupp, University

• Lawn & Landscape -Advances in Integrating Biological Controls Into Plant Health Care, Dr. Michael Raupp, University of Maryland.

• Golf — Turfgrass Disease Review (Including New Diseases Such a Gray Leaf Spot), Dr. Peter Landschoot, Pennsylvania State University.

• Environmental Issues -The Audubon Cooperative Sanctuary System & Stewardship Where You Live, Work, and Play, Joellen Zeh, Audubon International; DEC Certification Regulation Changes, Ed Hanbach, NYS DEC; Dow Does 48-Hours Notification Affect Your Business.

JACKLIN. Genetics Inside

Bob Ottley, One Step Lawncare; Legislative Process/Current Legislation, Pat Hooker, New York.

Farm Bureau; 48-Hour Notification: Working With Your Legislator, Michael Maffei, CGCS, Back O'Beyond, Inc.

Conference hours are from 8 a.m. to 3:30 p.m., with registration beginning at 7 a.m. For more information, call NYSTA at 800-873-8873, 518-783-1229.

NFT

PRN

Native, niche turf

Continued from previous page hards, creeping reds and sheeps. They are also low-maintenance/ low-fertility grasses.

"You can do just about anything with fine fescues that you can do with Kentucky bluegrass," Lynch said. "They are excellent in shade and blend well with bents.

"A mixture of five pounds of chewings fescue with a pound of bent can re-establish an area in six weeks. As you lower the mowing heights, the chewings fescues mow out and give way to the creeping bentgrasses that are starting to establish themselves. They can also be used in conjunction with natives."

NATIVE GRASSES

Besides requiring little maintenance, native grasses are prized for their aesthetic qualities, Lynch said. Their seed heads, fall color and diverse texture make them attractive

Natives are best used in outof-play areas and as accents around tee boxes, specimen gardens and slope stabilization areas.

There are several keys to establishing native grasses, Lynch said.

"Don't cultivate too deeply, otherwise you'll bring weeds to the surface, especially in areas that were formerly pasture," he explained. "Don't prep the soil down more than 2 inches.

"Minimize pre-planting fertility regimes to less than half of what is used in in-play areas because natives will suck up the nutrients as quickly as they can find them.

"Keep seeding rates low. The idea is to give each individual plant enough room to establish itself.

"And finally, be patient. It takes three to five years to establish a mature-appearing area. If you're expecting results in a year, you'll spend a lot of money and be very disappointed." GOLF COURSE NEWS

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