



Keith Bartlett, CGCS, at St. George's Golf and Country Club in Ontario, says Canadian superintendents are much more IPM oriented than U.S. superintendents. Photos: Photoscape

## AN EXEMPLARY PROGRAM?

IPM in Canada has become even more important recently because of new pesticide laws and regulations.

BY DAVID MCPHERSON





**G**olf courses are filled with pests: weeds, diseases and insects, many of which are unseen to the weekend duffer. These pests threaten the health of turf, and it's the superintendent's job to combat these intruders and keep turfgrass green.

Enter Integrated Pest Management, a Canadian golf industry accreditation program that promotes minimized pesticide use and enhanced environmental stewardship. Many golf course superintendents have always practiced IPM, but Ken Cousineau, executive director of the Canadian Golf Superintendents Association, says it has become more important during the past five years because of the approach to pesticide bylaws enacted in a number of communities throughout Canada.

"IPM is now becoming a lot more formalized," Cousineau says. "Municipalities are asking for IPM certification in their bylaws, and we're encouraging municipalities to take that approach rather than adopt a ban on the use of products that are already approved for use on the golf course, but they've chosen to ban for whatever reason."

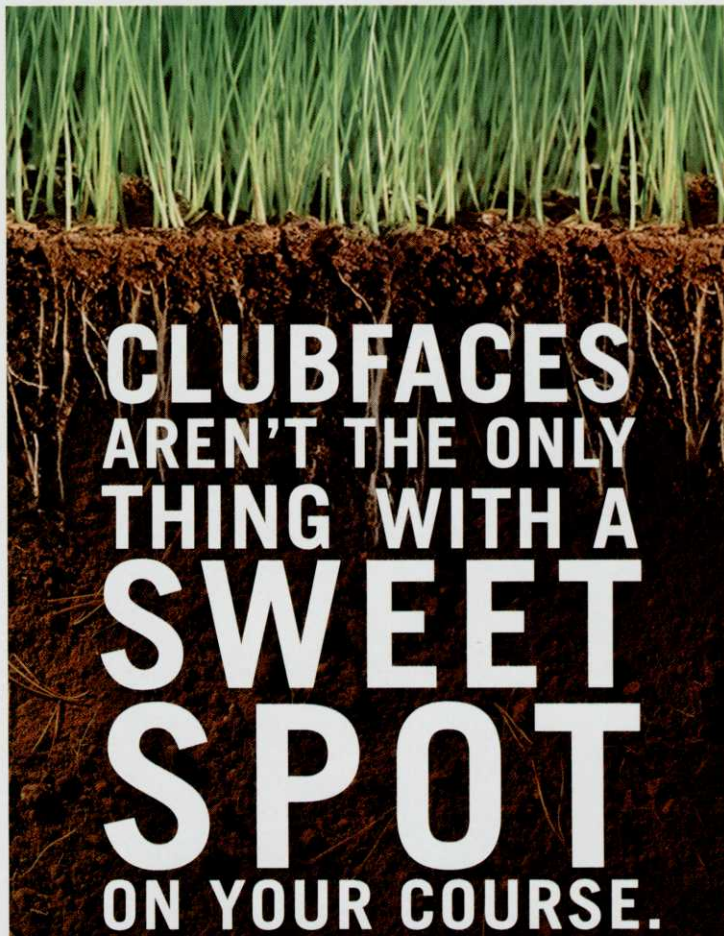
An IPM accreditation program is necessary because of the inconsistency among municipal bylaws, says Jeff Stauffer, superintendent at Credit Valley Golf and Country Club in Mississauga, Ontario.

"There are situations in Ontario where there's a golf course on one side of the street that has to follow one set of rules, and a course right across the road follows a completely different set of rules," he says. "We're just asking for the same rules to be followed or implemented for everybody."

"We developed the IPM accreditation program to verify there was a gap under provincial legislation to apply pesticides," Stauffer adds. "We were licensed to apply them, but how you got to the decision to apply them was missing. An accreditation program helps show the day-to-day decision that leads up to the reasoning to apply a pesticide product or not."

With the CGSA spearheading the IPM program, and with some of its members working behind-the-scenes to bolster government relations, the playing field is being levelled gradually, but there's still a ways to go.

Because the implementation of IPM in Canada is a provincial responsibility, some provinces have programs and others don't. Some of the programs are supported legislatively and others aren't. To date, IPM programs are available in British Columbia, Manitoba and Ontario. Quebec has a legislative program of pesticide use reporting and several provinces in Atlantic Canada recently started adopting



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## PEST MANAGEMENT

IPM initiatives, while Saskatchewan and Alberta don't have any IPM accreditation programs yet. Ontario's IPM program is a model for other provinces developing IPM accreditation protocols.

The CGSA adopted a policy statement in 2007 about IPM, and Cousineau says the association is pilot-testing an environmental management system during the course of the 2008 golf season to

help superintendents with record-keeping and reporting on environmental matters. A national IPM program and/or a stricter set of guidelines are important components of the association's work plan for next year.

Most superintendents in Canada apply pesticides very sparingly and only as a last resort, says retired superintendent Gordon Witteveen,

### Inside the IPM Accreditation Program

The Integrated Pest Management Accreditation Program provides golf course superintendents with the structure and support required to adequately, professionally and responsibly protect their golf courses from pest infestations. Through the use of Ridgetown College at the University of Guelph in Ontario, third-party environmental auditors and universal record-keeping, the IPMAP creates rigid documentation that pesticides are responsibly used on an as-needed basis only.

“Presently, the IPMAP is voluntary for most golf courses in Ontario,” says Jarrod Barakett, golf course superintendent at Deer Ridge Golf Club in Kitchener, Ontario, and director of government relations for the Ontario Golf Superintendents Association. “There are some municipalities across the province that have provided golf courses with an exemption within their adopted pesticide bylaws if the golf course attains IPM accreditation through the IPMAP. Within these municipalities, the IPMAP is mandatory.”

The IPMAP is fully supported by the Ontario Allied Golf Association and recommended to city councils throughout Ontario as an alternative to pesticide bans on golf courses.

There are three phases to the IPM accreditation:

**Phase one** – During the first year, a golf course must designate an IPM agent, Barakett says. This person can be anybody on staff – superintendent, assistant superintendent, second assistant, etc. Before becoming an IPM agent, the designated individual must successfully complete an IPM accreditation exam administered by Ridgetown College. Upon successful completion, the individual then becomes an IPM agent, and the golf course becomes registered. The IPM agent then is required to achieve eight continuing educational credits every calendar year. Continuing education credits are offered through various industry seminars and their values are determined by the IPM council.

The IPM agent also is responsible for scouting golf courses for pests and recording any pest activity, Barakett says. The IPM agent then records any steps taken to relieve pest pressure up to and including pesticide application.

At the end of each year, the registered golf course is required to submit the IPM records to Ridgetown College for a desk review audit.

**Phase two: desk review audit** – This audit is performed by a third-party environmental auditor. Upon successful completion of the desk audit the golf course becomes level-one IPM accredited. After achieving level-one accreditation, the golf course must continue to submit records for annual audits, and the agent must continue his CEC developments.

**Phase three: on-site audit** – To achieve level-two accreditation, a golf course must have the environmental auditors visit the golf course, Barakett says. During the visit, the environmental auditors perform an on-site audit during which the auditor reviews the golf course's IPM records, checks sprayer calibrations and visits any hot spots (areas of high pest pressure) on the course.

Upon successful completion of the on-site audit, the golf course becomes level-two accredited. On-site audits are conducted every three years.

There are more than 40 golf courses in Ontario with level-two accreditation. The program has been in place for four years, but because of the structure of the IPMAP, the golf industry is only in the third year of the level-two accreditation designation.

Visit [www.ontarioipm.com](http://www.ontarioipm.com) for more information about the accreditation process. **GCI**





Phase three of Canada's IPM Accreditation Program includes a visit from environmental auditors to check sprayer calibrations, review IPM records and view hot spots. Photo: Mark Scenna

who has written several books about keeping the greens.

"We've been practicing IPM long before it got a name tag," Witteveen says. "Unfortunately, Friends of the Earth, Sierra Club and other such organizations think what we are doing is only window-dressing. We have to recognize these groups aren't friends of golf."

"Pesticides are a very regional problem in Canada," he adds. "Bugs are most active where it's warm and humid like Windsor, Ontario, and at times the rest of Southern Ontario. To the best of my knowledge, dollar spot isn't a problem in Prince Edward Island and Saskatchewan, but it's a huge problem in Ontario."

Unlike the U.S., Canada doesn't have a federal preemption law that prohibits local entities from regulating pesticides. Currently, 135 municipalities throughout Canada have adopted varying degrees of pesticide bylaws for private


property, including golf courses. Quebec (91 municipalities) and Ontario (27 municipalities) are the provinces with the highest number of pesticide bylaws.


Keith Bartlett, CGCS, of St. George's Golf and Country Club in Etobicoke, Ontario, isn't IPM accredited yet, but says he'll start the process shortly.


"Golf courses are way ahead of the lawncare industry, as we try not to apply pesticides," Bartlett says. "IPM consists of doing a lot of other things right such as treating fine turf areas before serious problems develop."


According to Bartlett, who has a master's designation from the CGSA, one of the main benefits of an IPM program is that it forces superintendents to keep detailed records. Unfortunately, he says the IPM issue has become political and doesn't recognize the skill and dedication golf course superintendents have

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providing great conditions without endangering the health of people or the environment.

"You can't kill every weed on the golf course," he says. "I'm always trying to find ways to tweak my fertility program or other maintenance programs to reduce pesticide use and its associated costs. IPM doesn't save us a lot of money because we use it to fertilize more, test more (soil and tissue nutrient analysis), create a balanced soil profile and microorganism population, and introduce new turf species.

"The biggest stumbling block is the members' tolerance to imperfection," he adds. "I prioritize the key areas – greens, tees and fairways – but the rough and bunker mounds are important and require attention as well. We're much more IPM orientated than our counterparts in the U.S. They have more products at their disposal, and in discussions with them, they're still spraying by the label."

## A U.S. PERSPECTIVE ON IPM

Despite Bartlett's view of pesticide use on golf courses in the U.S., pesticide restrictions in areas of California are even more severe than in Canada, says Brian Netz, golf course superintendent at Presidio Golf Course in San Francisco.

"Our program was instituted at the urging of the National Park Service," Netz says. "It's probably among the most stringent in the country. Its creation was a collaborative effort between the Presidio Trust (a quasi-public entity that actually manages the property) and Arnold Palmer Golf Management, as well as a number of consultants on both sides. The actual hands-on constructors were Christa Comfort, the Presidio Trust IPM coordinator, and former superintendent Kevin Hutchins."

While Presidio isn't a nonpesticide-use facility, the course is very much an IPM facility, Netz says. Some of the biggest IPM practices

the club has implemented include:

- No chemicals known to California to cause cancer and/or reproductive harm are used. Netz says this means the majority of pesticides registered in California aren't available.

- No pesticide applications are made within 24 hours of a rain forecast.

- Storm water is tested each year, which costs \$9,000 for every pesticide used on the property.

- Fairway, tee and green clippings are used in a Presidio Trust regeneration program.

- New products must go through an extensive review process.

- Specific damage thresholds are observed before pesticide use is engaged.

- No-spray zones are established around sensitive areas.

- Compost tea is used as an alternative where possible.

In theory, Netz likes the idea behind Cana-

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da's IPM program, but he wonders what all the excitement surrounding it is all about.

"IPM is now passé," he says. "As an industry, we've moved beyond IPM into best management practices. I don't know anyone who can afford to spray any more than they absolutely have to. The rub is that IPM to the \$35 18-hole public course is different than to the 18-hole private course where a membership costs \$250,000. I don't think people understand that. Both are aerifying, watering, fertilizing, etc., but the guy at the private club is going to have a lot less of a threshold for pest/disease damage than the public club player. The media and public think IPM is a standardized system and some courses use it and others don't, whereas the reality is everyone in the golf industry is functioning on a best management practices paradigm relative to their location and their consumer demands."

What Netz calls the "pain" of the system is

that many golfers want Augusta National conditions for \$49.95 a round.

"They don't want to be educated about IPM, the unique challenges you face, the limitations of your rescue chemistry, your nematode ails or anything else," he says. "They want to be 'green' everywhere. Then, they're only interested in 'PGA Tour green speeds for my 36-handicap game,' 'playing golf in four hours so I can watch football or the TiVo shows from the night before,' and 'there better not be any blemishes on the greens even though I'm not fixing my own ball marks.'"

"IPM isn't a model or a program," he adds. "It's about doing the right thing – doing everything you can to keep the plant healthy until a problem arises and then thinking: 'I can do A, B, and C, and if it still doesn't look better I can put out some rescue chemistry.'"

The next big step forward in golf management should be a step back to more reasonable

expectations, Netz says.

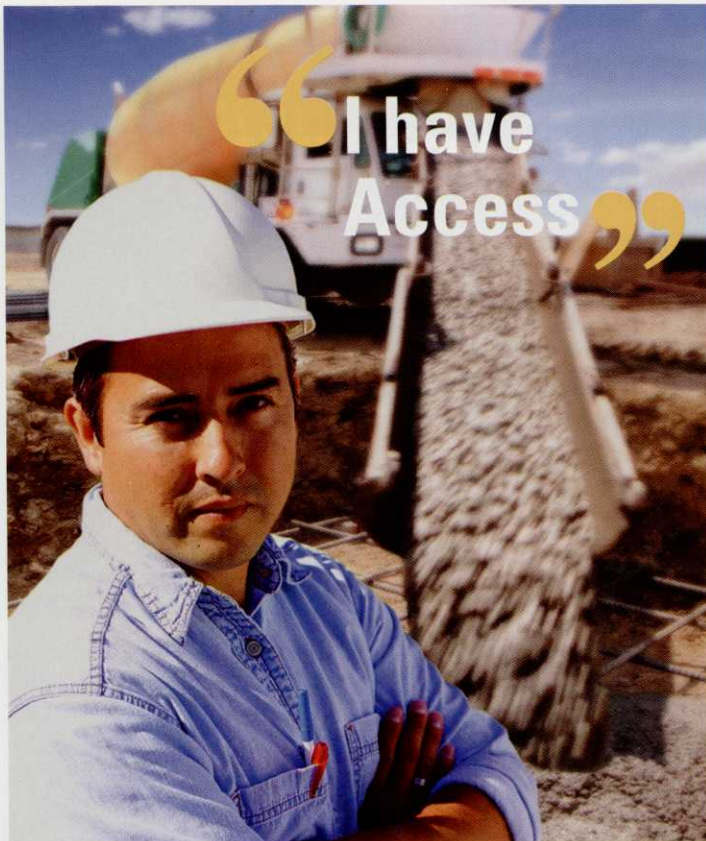
"That doesn't mean we lose any of the beauty of the course or the game," he says. "I don't know where it should start – rolling back conditioning in some areas won't be well received – but I have to put bread on the family table, too."

Bartlett agrees that, in the future, having a formal process such as an IPM accreditation program still doesn't simplify the superintendent's job. There are no standard solutions to the unique pest management problems each superintendent faces daily. And, like Netz alludes to, members at each club have different expectations.

"There needs to be a monumental shift in attitude, not only for us about how to invest labor and testing, but also from our clubs to give us unscheduled time to complete tasks," he says.

Can it be done, Bartlett asks?

"Only if our backs are against the wall with no other options," he says. **GCI**



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