

Call them 'medicines,' not pesticides, Vargas urges

By MARK LESLIE

OTTAWA — Saying pesticides applied to turfgrass are in many cases less toxic than foods and medicines people ingest every day, Dr. Joseph Vargas told golf course superintendents the public debate is ill-focused.

"The debate today is over whether we ought to be using synthetic pesticides," he said. "The debate that ought to be enjoined is, should we be using synthetic pesticides, and limiting the last spray to reduce the residue that is on the crop with the ability to wipe this pesticide off

the outside of the crop? Or should we be trying to produce naturally organic foods that can be grown without pesticides but which contain natural pesticides and toxins?"

"For all the fear mongering about pesticides, they can't find a victim to bring onto center stage," the Michigan State University professor of botany and plant pathology told the Canadian Golf Superintendents Association Conference.

"The biggest mistake we ever made was calling things we use to control plant diseases 'pesticides,' while people who use things to control human diseases call them 'medicine,'" he said. "It doesn't matter if you are controlling a bacterial disease in a person or on a plant, you use a bactericide. It doesn't matter if you are controlling a fungal disease on a plant or on a person, you are using a fungicide. But, unfortunately, when we use them on a plant we call them pesticides.

"When we use the same products on people we call them medicine. And there is a perception that medicines are good and pesticides are bad, when in reality they are oftentimes the same chemistry."

He said, for example:

- Pneumonia, strep throat, tuberculosis controlled by antibiotics like streptomycin and oxytetracycline. You put these materials in your body through your digestive tract and throughout your veins. Yet, we use the same materials on bacteria wilt and you are required to wear a respirator and protective clothing.

- Micosin and miconazol, two ingredients in the turf fungicide Banner, are also active ingredients for treating athlete's foot, jock itch and vaginal yeast infection. "[Golfers] ask, 'Is it all right to walk on the golf course after you've sprayed Banner out there?'" and think nothing of spraying or rubbing the same chemistry on sensitive parts of our bodies," Vargas asked.

- Triazole chemistry was first used solely for human medicine, and "the ones that weren't as active on the human fungi they used on agricultural crops — all the same chemistry, yet one is considered bad and one good," he said.

- Athlete's foot is a fungicide. And if you have head and body lice, you control them with the same miticide that is used in agricultural and ornamental crops.

- Carbaryl is used in the insecticide



Sevin to control cutworms, grubs and ants — and also in products to control ticks and fleas on dogs. "Again, that's considered good because it's dog spray," Vargas said, "And people will ask, 'You just sprayed my lawn. Is it safe to let my dog or cat out there?'"

• When used to control spider mites on ornamentals, lindane is considered a miticide or pesticide. Yet when a doctor treats body lice with Quell, it is 1 percent lindane in hand cream.

Vargas added that some pesticides are very toxic while some are not, and herbicides are much safer. Referring to LD50 — the chemical dosage that will kill or control 50 percent of the population of a pest — he said: "We do not have a fungicide with an LD50 lower than caffeine... We have one fungicide more toxic than aspirin, four fungicides more toxic than salt, and six more toxic than ethyl alcohol."

While saying he was not painting a picture of pesticides as always safe, Vargas said the media and public attention paid them has been excessive.

Drawing on Dr. Bruce Ames' research at University of California-Berkeley — which concluded that 99 percent of the pesticides the public consumes are naturally occurring, Vargas said: "They isolated 42 toxins from plants. Twenty were found to be carcinogenic [cancer-causing]. If you took this natural chemical out of a tomato plant or broccoli plant, isolated it, remanufactured it and tried to register it as a pesticide you could not do it because it is a carcinogen."

"Yet every day you ingest them and people keep clamoring for resistant plants so that we don't have to use synthetic pesticides on them."

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