Veterinary sheds light on pesticide perceptions, realities

By MARK LESLIE

PROVIDENCE, R.I. — Addressing the question of whether risks to animals from pesticide applications are real or perceived, a Virginia toxicologist said he spends “most of my time convincing people that a ‘poisoning’ wasn’t a poisoning at all,” but some such cause as an infectious disease.

Nevertheless, Dr. Dennis Blodgett recommended to an audience of mostly lawn-care professionals that they take a number of measures to assure they do not harm birds, fish or other wildlife. While fungicides cause no problems and fertilizers are a concern primarily with fish, Blodgett said the herbicides 2,4-D, dicamba, MCPP, MCPA and Bensulide must be used carefully.

Listing birds, bees and fish as “more susceptible to pesticides than other species,” the associate professor at Virginia-Maryland Regional College of Veterinary Medicine said: “We need a non-application zone around fish ponds.”

He also suggested that pesticide applicators:

• Not irrigate pesticides to water-saturated ground.
• Not apply them before a heavy rain.
• Avoid application on windy days.
• Avoid puddling herbicides.
• Not apply pesticides if waterfowl or pets are in the area.
• Avoid application on windy days.
• Empty and turn over feeding bowls, water dishes, etc.
• Use newer insecticides that are not organophosphates and are safer, in general, than LPs and carbamates.
• Beware using Ficam or Dursban where waterfowl could be affected.
• Beware using the pre-emergent herbicide Bensulide where there are young dogs, which have developed signs of SLUD (Salivation, Lacrimation, Urination, Diarrhea).

If a person claims a pesticide application harmed wildlife, Blodgett said that in order to determine whether the problem is real or perceived, the applicators should:

• Make sure any clinical signs of sickness are compatible with the pesticide used.
• Make sure the onset times of the symptoms match the time of application.
• Determine if they share the blame. For instance, he said, if a dog owner has used a flea collar, shampoo, or flea dip on a dog, the animal’s ingestion of a chemical might “put them over the top, whereas your pesticide application alone wouldn’t cause any problems.”
• Have public relations literature explaining why problems are unlikely.

If people are convinced the pesticide application caused a problem, Blodgett recommended the applicator get “a real diagnosis from a veterinarian” through blood or urine samples, or through brain samples and stomach contents if the dog is dead.

“Communicate with a veterinarian, whenever possible,” he added. “Volunteer to call the vet with information on what was in the spray and, especially, the concentration. Most veterinarian colleges have toxicologists on staff who are available for consultations.”

In Blodgett’s audience at the New England Turfgrass Conference here, half the people had been accused of poisoning pets, yet none thought the animal was poisoned.

“Some of the problems occur because of the innate habits of the animals,” Blodgett said. “Cats lick themselves, so anything that gets sprayed on them is going to end up in their stomachs. Once it’s in their stomach, it gets absorbed into their body a lot faster than if it were just going through their skin.

“Waterfowl consume grass as a large percentage of their diet, Continued on next page
Insecticide problems are rare in cats and dogs, but are observed in waterfowl because of their diet, Blodgett said.

"We don't get SLUD signs... You get a sick cat that doesn't want to move around or eat. It has a delayed onset of three to seven days after application."

He said Diazinon is behind most calls he gets concerning waterfowl, so it's been taken off golf courses. "It only takes two granules to kill a songbird," he added. "So 5-percent Diazinon is the highest concentration that can be safely used on lawns if you have waterfowl in the area, or birds of most any type. Two pounds per acre can kill birds."

Ficam and Dursban also are implicated with waterfowl cases, he said.

Concerning 2,4-D, he said high doses cause paralysis in dogs, while lower, but still toxic, amounts can cause vomiting and diarrhea.

The lethal dose of 50 milligrams per pound of body weight categorizes 2,4-D as toxic, but the application rate of one pound per acre only produces a concentration in grass of 150 parts per million.

"That is the same as 150 milligrams for every two pounds of grass," Blodgett said, "and since a dog will, at most, eat only one cup full, that is way less than will poison him."

He said the old fear that 2,4-D is a cancer concern for dogs has been disproved.

Citing fish being highly susceptible to most pesticides — organophosphates, carbamates and even parathrides, Blodgett said, "Some of the herbicides are pretty toxic to fish, particularly Prowl or Pendimethalin."

He added that fish are also susceptible to fertilizers and the ammonia in fertilizer, and noted that urea breaks down into ammonia.

**Super: Nemacur not 'misapplied'**

HOLLYWOOD, Fla. — The Nemacur "misapplication," which lead to Florida officials drastically reducing the use of the remedy for nematode, was not a misapplication at all, according to William Peace.

Peace, superintendent at The Club at Emerald Hills here who was assistant superintendent at the time of the incident in 1994, said the application was done by the book.

Responding to an article in the GCN March edition, Peace said: "We had an outside contractor come in to put out the Nemacur. Everything was done by the label. There was nothing on the radar indicating rain, and no prediction of rain."

But, 3 inches of rain fell during the night and some of the Nemacur was washed into the abutting Intercoastal Waterway, causing a major fish kill.

Peace said that after the state's investigation, the club was never fined and it split the cleanup cost with the contractor.