

# Watching for

Superintendents are wary of disease threat, which is now nationwide

BY ROBIN SUTTELL



**W**est Nile virus (WNV), which is making a determined westward march across the United States, looks like it's here to stay.

Researchers are delivering a grim prognosis for 2003. Officials at the Centers for Disease Control and Prevention in Atlanta say it's likely all states will see incidences of this sometimes-fatal illness this summer.

In 2002, there were more than 4,000 cases of the mosquito-borne disease in the United States, including 284 deaths. Only Hawaii, Alaska, Oregon, Nevada, Utah and Arizona have yet to detect WNV. It's also likely that many more people were infected with the virus but experienced mild or no symptoms, public health experts say.

With the continuing spread of the virus seeming inevitable, it's imperative that Americans remain aware of the disease and take preventive measures. For superintendents, these measures go beyond merely applying insect repellent before going outside. It comes down to

addressing physical issues on the course, as well as educating staff members and golfers about the disease's hazards and protection from it.

"The key to preventing West Nile virus is to have an integrated mosquito control program, including trapping and surveillance, larviciding, adulticiding and community education," says entomologist George Balis, who works for Roselle, Ill.-based Clarke Mosquito Control.

With the Midwest being an area of high West Nile Virus activity already in 2003, for example, Balis says it would be "prudent" for superintendents in that region to have a control program in place to address the risk," he says.

"Waiting until an outbreak is in full swing before considering mosquito control can be a significant risk," he says. "Plan now for a mosquito outbreak and have a plan in place for any control measures."

In virus-free Oregon, superintendents are doing just this. They know the threat is real and that their courses are susceptible.

"The arrival of West Nile virus is imminent," says Michael Hindahl, a golf course industry consultant from Estacada, Ore., and an affiliate board member with the Oregon GCSA. "As we speak, there have been no reported cases that I'm aware of, but the assumption is that it will arrive at some point. Our superintendents are already starting preventive measures. The real challenge is clarifying the reality of the situation and avoid-



FILE PHOTO

**Certified superintendent Tony Lasher must walk a fine line to treat the threat of West Nile virus because his course is home to endangered fish, including Coho salmon.**



# West Nile

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ing confusion in educating the golfing community. Golfers are starting to ask questions.”

Hindahl says Oregon superintendents are mainly addressing standing water issues where they can. They also are keeping an eye out for dead birds, often the first sentinels of the disease. No one that he knows of is spraying pesticides, he says.

At Westfield Companies CC in Westfield Township, Ohio, about an hour south of Cleveland, the grounds team takes the threat seriously. West Nile virus has been present in Northeast Ohio for the past few years.

“We are in a rural area,” says superintendent Steve Numbers. “A health threat is a health threat. We have an obligation to be proactive. The safety and well-being of our members and guests are important to us.”

Numbers says he and his crew have found dead birds on the course. Dead birds also have turned up in neighboring Westfield Village. “We know there can be exposure,” he says.

While the Westfield course doesn't have any swampy or wetland-type areas, it does have small areas of woods and longer grasses that Numbers says the crew will mow down once or twice during the season. The courses' lakes and ponds are rather large and generally have a lot of air movement over them. Nine of the lakes have aerators that not only reduce algae but would prevent the occurrence of a mosquito breeding site. Standing water is not an issue, Numbers notes.

## West Nile at a Glance

According to the Center for Disease Control (CDC), West Nile virus has been commonly found in humans and birds and other vertebrates in Africa, Eastern Europe, West Asia and the Middle East. It had not been documented in the Western Hemisphere until 1999. It is not known where the U.S. virus originated, but it's most closely related genetically to strains found in the Middle East. The virus can infect humans, birds, mosquitoes, horses and some other mammals.

Most people infected with the West Nile virus (WNV) will not have any type of illness. The CDC estimates that

20 percent of people infected will develop West Nile fever, which has such mild symptoms as fever, headache, body aches and, occasionally, a skin rash on the trunk of the body and swollen lymph glands.

Symptoms of severe infection (West Nile encephalitis or meningitis) include headache, high fever, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness and paralysis. It's estimated that one in 150 people infected with the West Nile virus will develop a more severe form of disease.

Statistically, a person's risk of contracting WNV is low. In most areas where the virus is established, only 1 percent of the areas mosquitoes carry the virus. Less than 1 percent of people bitten by these infected carriers develop serious complications. The remainder exhibit flu-like symptoms or no symptoms at all.

Those at highest risk are the elderly and people with weakened immune systems. However, the CDC cautions that it's important for all people to protect themselves from mosquito bites to minimize the risk of infection.

For more information, contact [www.westnilevirusfacts.org](http://www.westnilevirusfacts.org).

The course did spray once last year prior to a junior tournament. The course contracted with the same company that sprays the Westfield Village to “fog” the South course where the event was played. “We felt that because of the high profile event and the timing of last year's outbreak that it would be money well spent,” Numbers says.

The issue of spraying pesticides vs. not spraying is a tricky one, particularly for courses where environmental and/or natural resource issues come into play.

At Sparrows Point CC in Baltimore, the grounds crew does what it can to eliminate

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MICHAEL HINDAHL  
OREGON GCSA

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standing water and prevent mosquito infestation. However, because of the course’s proximity to the protected areas of the Chesapeake Bay, superintendent John Denholm does not want to put insecticides in water that could run off into the bay.

“I have one hole that is near sea level,” he says. “We are very flat here. We have water that attaches itself to the golf course and feeds into the Chesapeake Bay, and we have some tidal water areas that surround the golf course. If I put insecticides in standing water in the flat areas, they could move.”

Superintendents might face similar issues in environmentally conscious Oregon, Hindahl says.

“There’s a great deal of sensitivity about the ability to treat waterways or anything near waterways with any sort of pesticide,” he says. “There’s a limit to treatments that can be done under the law. There’s a real hesitancy to treat for fear of breaking the law.”

Tony Lasher, certified superintendent of The Resort in Welches, Ore., is facing such a problem. While the virus hasn’t struck the state, he wants to be prepared. But he admits he and his staff are “waffling” with respect to what kind of measures to take. They have expanded buffer/riparian zones that help with preservation of wild Coho salmon and steelhead (both

### Keeping Golfers in the Know

Superintendents across the country know the importance of making golfers aware of the hazards of West Nile virus and also the steps necessary to properly protect themselves.

“The educational component, trying to get the same set of information out to every golfer, is important for managing the situation,” says Michael Hindahl, an Estacada, Ore., golf course industry consultant and affiliate board member of the Oregon GCSA.

Many superintendents have included articles about the virus in monthly newsletters that go out to club members. Other courses offer literature in the clubhouse detailing the disease and prevention measures or post signs reminding them to frequently apply insect repellent.

“I think they are aware of the risk in general,” says Steve Numbers of Westfield Companies CC in Westfield Township, Ohio. “All we can do is educate them and seek to address what may be a potential hazard on the course.”

Numbers suggests that superintendents visit the Centers for Disease Control and Prevention’s West Nile virus information Web site where they can get reliable information about the mosquito life cycle and what they and their golfing clients can do to protect themselves.

And for golfers who don’t remember to take care of their own protection, the Westfield clubhouse does offer complimentary insect repellent for their use.

— Robin Suttell

### Mosquito Control

#### Tips to avoid mosquito bites

- Wear light-colored, long-sleeved shirts and pants, as well as covered shoes and socks.
- Use a mosquito repellent containing DET when outdoors. Look for “DEET,” “N, N-diethyl-m-toluamide” or “N,N-diethyl-3-methylbenamide” on the product label.
- If possible, limit outdoor activities at dawn, dusk and early evening when mosquitoes are most active.

#### Tips to discourage mosquito infestations

- Eliminate sources of standing water where mosquitoes will lay eggs. Remove, cover or drill drainage holes in items that can trap water. Common standing water areas/mosquito breeding grounds include:
  - flower pots
  - ponds
  - trash cans and recycling bins
  - holes or reservoirs in trees or stumps
  - puddles and ditches; and
  - bird baths
- Trim grass regularly.

SOURCE: CENTERS FOR DISEASE CONTROL & PREVENTION

endangered fish) habitats on the golf course.

“Unfortunately, this is also good habitat for the mosquitoes,” he says. But because of the endangered status of those fish, chemical pesticide treatments are out of the question. It leaves Lasher walking a fine line. The sensitivity regarding endangered steelhead and salmon tempers treatment options because of worries about potential runoff into the streams.

“We have not changed our practices, except to prevent standing water around our wash area and similar things,” he admits.

Balis says there are a number of organic or low-impact ways to eliminate mosquitoes, including bacterial larvicides, mosquito fish or natural pyrethrin, an organic compound taken from the chrysanthemum plant. “All of these can minimize the mosquito population,” he says.

Environmental restrictions might change the way superintendents approach prevention, but it certainly doesn’t mean they should ignore it, Hindahl says. ■

*Suttell is a free-lance writer from Cleveland.*