

# Spraying on cities partially effective

## One mosquito species hit hard, the other less so, results show.

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Published 12:01 am PDT Saturday, August 19, 2006

Story appeared in Metro section, Page B1

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Spraying pesticide by plane over Woodland and Davis made a serious dent in one species of disease-carrying mosquito but less headway against another, pest control chief David Brown said Friday.

The mixed results mean the mosquito control district needs to do a deeper analysis of one species' movements, as well as step up attacks against larvae and adults, particularly along urban-rural borders, Brown said.

Still, Brown said he is "reasonably optimistic" that the Sacramento-Yolo Mosquito and Vector Control District will not have to order more aerial pesticide runs over cities this year.

Brown's assessment came as Placer County officials confirmed that county's first confirmed human case of West Nile virus.

The disease, which usually passes unnoticed in humans but can occasionally disable or kill, could flare up if hot weather or other factors fuel mosquito breeding.

"We need folks to do what they can to help," Brown added, including continuing to drain standing water and using mosquito repellent.

The vector control district and allied researchers have tried several ways to measure the effectiveness of spraying a pesticide called EverGreen Crop Protection EC 60-6 over Davis and Woodland on Aug. 8 and 9.

In results released Friday, they compared the numbers of mosquitoes caught in two different types of traps in sprayed areas and in comparable areas nearby that were not doused by air.

The spraying appears to have reduced the number of *Culex pipiens* mosquitoes, with reductions varying from 58 percent to 77.7 percent, after trap tallies were evaluated using a UC Riverside professor's formula aimed at accounting for natural variations, Brown said.

But another West Nile-carrying mosquito, *Culex tarsalis*, appeared to have increased by 11.2 percent in Davis when measured with one type of trapping, and to have been reduced by only 25.6 percent when evaluated with a different set of traps.

Woodland results were slightly better, showing a 46.8 to 51.2 percent reduction.

No one is quite sure yet what that means or how to best respond, Brown said. One possibility is that the *Culex tarsalis* mosquitoes, which are common in agricultural areas, may be quickly reinvading along urban boundaries after spraying.

For now, the district plans to look more closely at trap-by-trap variations, while also going after mosquitoes more intensively in rice fields and other agricultural areas near city limits.

That will include dumping more larvae-killing bacteria into water and spraying adult mosquitoes from truck-mounted or backpack rigs.

Another measure of how well the pesticide worked -- how many caged mosquitoes died -- also fell short of expectations, though Brown said there were enough deaths to indicate the spray vanquished many mosquitoes. Ideally, he said, he'd like to see kill rates above 80 percent in mosquitoes placed in open urban areas, and that only happened after one of the two nights of spraying in Woodland and not at all in Davis.

Brown's assessment came as confirmed cases of West Nile in humans continued to climb, although the numbers remain well below last year's levels.

Placer County officials said a 57-year-old Newcastle man had been diagnosed with the county's first known case for 2006.

A statewide count, which tends to lag behind local tallies, on Friday showed 68 cases of West Nile diseases in California, including 15 in Yolo County, four in Sacramento County and three in Sutter County. Kern County, at 20, continues to have the most human cases, according to the state Web site.

West Nile virus also has claimed the life of a Butte County woman.

## **WHY IT MATTERS**

The state has confirmed 68 cases of West Nile virus in California, including 15 in Yolo County, four in Sacramento County and three in Sutter County. Kern County, at 20, continues to have the most human cases. The virus claimed one life in Butte County.

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