

California Arbovirus Surveillance Bulletin # 4

Week 7 Friday, February 17, 2006

Weekly Summary

Comments

Humans:

No human cases have been reported in 2006.

Horses:

The California Department of Food & Agriculture has reported no new case of equine WNV this year.

Dead Birds:

Since February 3, the hotline has received 746 dead bird reports. One out of 98 dead birds collected from 25 counties tested positive for WNV. The positive dead bird was an American Crow collected within Santa Clara County.

- 0/97 (0%) dead birds tested positive via RT-PCR.
- 1/1 (100%) dead birds tested positive via VecTest.

Since January 1, 2006, two out of 190 (1.1%) dead birds have tested positive for WNV.

Mosquito Pools:

CVEC has reported no positive mosquito pools this year.

Sentinel Chickens: WNV: VRDL has reported no seroconversions so far this year.

Website Information:

For updated information on WNV, please visit the California WNV website, www.westnile.ca.gov, the CDC website, www.cdc.gov, and the USGS website, www.westnilemaps.usgs.gov. Please go to the Vector website at <http://vector.ucdavis.edu/arbo.html> for flock location and more information on WNV and other vector-borne diseases.

TEST SUMMARIES for 2006

Humans and Horses

		Number Tested	WNV Positive		WEE Positive		SLE Positive		Other Positive	
			Imported	Local	Imported	Local	Imported	Local	Imported	Local
Humans Tested	Week	25	0	0	0	0	0	0	0	0
	YTD	113	0	0	0	0	0	0	0	0
Horses Tested	Week	N/a	0	0	0	0	0	0	0	0
	YTD	0	0	0	0	0	0	0	0	0

Dead Birds

	Number Tested	WNV Positive
Week	98	1
YTD	190	2

Sentinel Chickens and Mosquito Pools*

		Number Tested	WNV Positive	WEE Positive	SLE Positive	Other Positive
Chicken sera	Week	95	0	0	0	0
	YTD	566	0	0	0	0
Mosquito pools	Week	33	0	0	0	0
	YTD	322	0	0	0	0

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*Total has been adjusted to include local agency submission

WNV Positive Dead Birds Reported (February 6-17)

Species	County	City	Zip Code	Date Collected	Date Tested	Tested By
American Crow	Santa Clara	Santa Clara	95054	2/6/06	02/6/06	VecTest

National Comments:

In 2005, West Nile virus (WNV) activity was detected in 48 states, New York City (NYC), and the District of Columbia (DC), compared to 47 states, Puerto Rico, DC, and NYC in 2004. A total of 2,949 human WNV cases were reported for 2005 (as of February 14, 2006) from 42 states. In 2004, 2,470 cases had been reported from 40 states, DC, and NYC. In 2005, of 2,776 cases with available data, the median age was 51 years (range: 3 months-98 years) and 1,577 (57%) of the cases were male. Forty-four percent of the cases were neuroinvasive. There have been 116 WNV-related fatalities reported as of February 14, 2006. The median age of the 112 decedents where data is available was 76 years (range: 16-98 years)

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TEST PROTOCOLS

Dead Birds:

All bird species, except chickens, doves, and pigeons, from all zip codes are currently being accepted for testing unless otherwise requested by a local agency. Positive RAMP and Vec-Tests from oral swabs from corvids are no longer confirmed. Other bird species are tested by singleplex RT-PCR and confirmed with a second primer set.

Dead birds are necropsied at the California Animal Health and Food Safety (CAHFS) Laboratories and kidney tissue from the dead birds are forward to the UC Davis Center for Vectorborne Diseases (CVEC) for WNV using the PCR Taqman assay. Organ pools from PCR positive carcasses are tested using cell culture for virus isolation. The WNV Dead Bird Surveillance Coordinator, Ryan Carney, can be reached directly at (510) 412-6254.

Sentinel Chickens:

Dried blood spot specimens from sentinel chickens submitted each week to the DHS Viral and Rickettsial Disease Laboratory (VRDL) are tested for the presence of antibodies to West Nile virus (WNV), western equine encephalomyelitis (WEE), and St. Louis encephalitis (SLE) viruses by EIA and IFA. The VRDL performs additional testing, including plaque reduction neutralization (PRNT), on specimens from sentinel chickens from geographic areas where WNV is detected for the first time. The VRDL also forwards selected serum to CVEC for additional testing for WNV, WEE, and SLE antibodies as needed.

Mosquito Pools:

All mosquito pools are screened for WEE, SLE, and WNV viral RNA using a Taqman multiplex RT-PCR. CVEC will cease confirmation testing on PCR-positive pools of *Cx. tarsalis* and *Cx. quinquefasciatus* but will continue to confirm multiplex PCR-positive results for other mosquito species using singleplex RT-PCR.

Prepared by the Vector-Borne Disease Section (Infectious Diseases Branch) and the Viral and Rickettsial Disease Laboratory Branch, Division of Communicable Disease Control, California Department of Health Services, 850 Marina Bay Parkway, Richmond, CA 94804. Questions concerning this bulletin should be addressed to Al Hom by phone (510) 412-6252, FAX (510) 412-6263, or email [ahom@dhs.ca.gov].