

California Arbovirus Surveillance Bulletin # 10

Week 16 Friday, April 22, 2005

Weekly Summary

Comments:

Humans:

No human cases of WNV have been reported this year.

Horses:

The California Department of Food & Agriculture has reported no WNV positive equine cases.

Dead Birds:

This week the hotline received 1,203 dead bird reports, for a YTD total of 9,305 reports. WNV RNA was detected in 4 of 183 (2.2%) dead birds tested from 39 counties. The positive dead birds were collected from El Dorado, Orange, and Santa Clara counties.

Three of the four WNV positive dead birds tested positive via RT-PCR performed by the UC Davis Center for Vectorborne Diseases and one bird tested positive by immunohistochemistry (IHC).

The following bird species tested positive for WNV: American crow (1); barn owl (1); lesser goldfinch (1); zebra finch (1). See "WNV Positive Dead Birds" table for details.

Since January 1, 2005, 57 of 1469 (3.9%) dead birds have tested positive for WNV.

Mosquito Pools:

CVEC reported no positive mosquito pools.

Sentinel Chickens:

VRDL reported no sentinel chicken seroconversions.

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.

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TEST SUMMARIES

Humans and Horses

| | | Number Tested | WNV Positive | | WEE Positive | | SLE Positive | | Other Positive | |
|---------------|------|---------------|--------------|-------|--------------|-------|--------------|-------|----------------|-------|
| | | | Imported | Local | Imported | Local | Imported | Local | Imported | Local |
| Humans Tested | Week | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | YTD | 284 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Horses Tested | Week | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | YTD | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Dead Birds

| | Number Tested | WNV Positive |
|------|---------------|--------------|
| Week | 183 | 4 |
| YTD | 1469 | 57 |

Sentinel Chickens and Mosquito Pools

| | | Number Tested | WNV Positive | WEE Positive | SLE Positive | Other Positive |
|----------------|------|---------------|--------------|--------------|--------------|----------------|
| Chicken sera | Week | 944* | 0 | 0 | 0 | 0 |
| | YTD | 3845 | 1 | 0 | 0 | 0 |
| Mosquito pools | Week | 471 | 0 | 0 | 0 | 0 |
| | YTD | 2226 | 1 | 0 | 0 | 0 |

*This total has been adjusted to include local agency submission

WNV POSITIVE DEAD BIRDS

WNV Positive Dead Birds Reported April 16- April 22, 2005

| Species | County | City | Zip | Date Collected | Date Tested |
|----------------------------|-------------|-------------|-------|----------------|-------------|
| American Crow [^] | Orange | Irvine | 92604 | 3/23/2005 | 3/23/2005 |
| Barn Owl | Santa Clara | San Jose | 95133 | 3/30/2005 | 4/18/2005 |
| Lesser Goldfinch | El Dorado | Placerville | 95667 | 3/28/2005 | 4/18/2005 |
| Zebra Finch | Santa Clara | San Jose | 95136 | 3/30/2005 | 4/18/2005 |

[^]Indicates IHC

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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 Vec-Tests from oral swabs from crows 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) and 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].