Week 21 Friday, May 29, 2015



Weekly Update

Humans

No human infections have been reported in 2015.

Dead Birds

Ten West Nile virus (WNV) positive dead birds were reported this week from San Diego (6), Santa Clara (3), and Solano (1) counties. **This is the first indication of WNV activity in Solano County this year.** To date this year, 49 birds have tested positive for WNV from eight counties. At this time last year, 33 WNV positive birds had been detected in nine counties.

Mosquito Pools

A total of 15 WNV positive mosquito pools were reported this week from Orange (2), Riverside (5), and Tulare (8) counties. **This is the first detection of WNV activity in Orange County in 2015.** To date this year, 40 WNV positive mosquito pools have been reported from six counties. At this time last year, 18 WNV positive mosquito pools had been detected from five counties.

Sentinel Chickens

No seroconversions have been reported in 2015.

| 2014 & 2015 YTD West Nile Virus Comparisons | | | | | | |
|---|------------|------------|--|--|--|--|
| | 2014 | 2015 | | | | |
| Total # Dead Bird Reports | 2,258 | 3,194 | | | | |
| # Positive Counties | 7 | 12 | | | | |
| # Human Cases | 0 | 0 | | | | |
| # Positive Dead Birds / # Tested | 33 / 313 | 49 / 565 | | | | |
| # Positive Mosquito Pools / # Tested | 18 / 3,283 | 40 / 4,932 | | | | |
| # Seroconversions / # Tested | 1 / 2,857 | 0 / 2,515 | | | | |

Website Information: For updated information on WNV in California, please visit the California WNV website, www.westnile.ca.gov, or the California Vectorborne Disease Surveillance System website, www.calsurv.org. For national information on WNV and other arboviruses, please visit the CDC website, www.cdc.gov, and the USGS website, www.westnilemaps.usgs.gov

Week 21 Friday, May 29, 2015

| YTD Activity by Element and County, 2015 | | | | | | | |
|--|--------|------------|----------------|-------------------|--|--|--|
| County | Humans | Dead Birds | Mosquito Pools | Sentinel Chickens | | | |
| Alameda | | 1 | | | | | |
| Los Angeles | | | 2 | | | | |
| Orange | | | 2 | | | | |
| Riverside | | 1 | 12 | | | | |
| San Diego | | 28 | 1 | | | | |
| San Mateo | | 2 | | | | | |
| Santa Barbara | | | 1 | | | | |
| Santa Clara | | 13 | | | | | |
| Solano | | 1 | | | | | |
| Sonoma | | 2 | | | | | |
| Stanislaus | | 1 | | | | | |
| Tulare | | | 22 | | | | |
| Totals | 0 | 49 | 40 | 0 | | | |

TESTING SUMMARIES

Humans

| | | WNV | SLE | WEE |
|-------------|------|-----|-----|-----|
| Human Cases | Week | 0 | 0 | 0 |
| | YTD | 0 | 0 | 0 |

Dead Birds

| | | Number Tested | WNV Positive |
|---------------|------|------------------|--------------|
| Dead Birds | Week | 43 | 10 |
| | YTD | 565 | 49 |

Chickens & Mosquitoes

| | | Number Tested | WNV Positive | SLEV Positive | WEEV Positive | |
|----------------|------|------------------|-----------------|------------------|------------------|--|
| Chicken Sera | Week | 402 | 0 | 0 | 0 | |
| | YTD | 2,515 | 0 | 0 | 0 | |
| Mosquito Pools | Week | 815 | 15 | 0 | 0 | |
| | YTD | 4,932 | 40 | 0 | 0 | |

Week 21 Friday, May 29, 2015

NEW POSITIVES

Dead Birds

| County | Agency | City | Zip | Species | Reported | Virus |
|-------------|--------------------|---------------|-------|---------------|-----------|-------|
| San Diego | San Diego Co VCP | Chula Vista | 91914 | American Crow | 5/26/2015 | WNV |
| San Diego | San Diego Co VCP | La Mesa | 91941 | American Crow | 5/26/2015 | WNV |
| San Diego | San Diego Co VCP | La Mesa | 91941 | American Crow | 5/26/2015 | WNV |
| San Diego | San Diego Co VCP | La Mesa | 91941 | American Crow | 5/26/2015 | WNV |
| San Diego | San Diego Co VCP | Oceanside | 92058 | American Crow | 5/27/2015 | WNV |
| San Diego | San Diego Co VCP | Spring Valley | 91977 | American Crow | 5/27/2015 | WNV |
| Santa Clara | Santa Clara Co VCD | Los Altos | 94024 | American Crow | 5/21/2015 | WNV |
| Santa Clara | Santa Clara Co VCD | Los Altos | 94024 | Common Raven | 5/27/2015 | WNV |
| Santa Clara | Santa Clara Co VCD | Milpitas | 95035 | American Crow | 5/27/2015 | WNV |
| Solano | Solano Co MAD | Vallejo | 94591 | American Crow | 5/27/2015 | WNV |

Mosquitoes

| County | Site Code | Pool # | Species | City | # in Pool | Trap Type | Collected | Virus |
|-----------|-----------|--------|----------------------|---------|--------------|-----------|-----------|-------|
| Orange | ORCO1021 | 1007 | Cx. quinquefasciatus | Tustin | 41 | GRVD | 5/13/2015 | WNV |
| Orange | ORCO1021 | 1008 | Cx. quinquefasciatus | Tustin | 48 | GRVD | 5/13/2015 | WNV |
| Riverside | COAV3111 | 1357 | Cx. quinquefasciatus | Indio | 50 | CO2 | 5/22/2015 | WNV |
| Riverside | COAV3111 | 1360 | Cx. quinquefasciatus | Indio | 50 | GRVD | 5/22/2015 | WNV |
| Riverside | COAV3111 | 1364 | Cx. quinquefasciatus | Indio | 43 | CO2 | 5/22/2015 | WNV |
| Riverside | COAV3111 | 1406 | Cx. quinquefasciatus | Indio | 50 | GRVD | 5/28/2015 | WNV |
| Riverside | COAV3111 | 1415 | Cx. quinquefasciatus | Indio | 50 | GRVD | 5/28/2015 | WNV |
| Tulare | DLTA6407 | 222 | Cx. quinquefasciatus | Dinuba | 12 | GRVD | 5/27/2015 | WNV |
| Tulare | DLTA6519 | 223 | Cx. quinquefasciatus | Cutler | 45 | GRVD | 5/27/2015 | WNV |
| Tulare | DLTA8324 | 224 | Cx. quinquefasciatus | Goshen | 9 | GRVD | 5/27/2015 | WNV |
| Tulare | DLTA8413 | 201 | Cx. quinquefasciatus | Visalia | 22 | GRVD | 5/27/2015 | WNV |
| Tulare | DLTA8423 | 202 | Cx. quinquefasciatus | Visalia | 37 | GRVD | 5/27/2015 | WNV |
| Tulare | DLTA8425 | 205 | Cx. quinquefasciatus | Visalia | 50 | GRVD | 5/27/2015 | WNV |
| Tulare | DLTA8425 | 206 | Cx. quinquefasciatus | Visalia | 50 | GRVD | 5/27/2015 | WNV |
| Tulare | DLTA8532 | 194 | Cx. quinquefasciatus | Visalia | 43 | GRVD | 5/22/2015 | WNV |

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Test Protocols

Humans:

Specimens are tested by local laboratories with an IgM or IgG immunofluorescent assay (IFA) and/or an IgM enzyme immunoassay (EIA). Specimens with inconclusive results are forwarded to the California Department of Public Health Viral and Rickettsial Disease Laboratory (VRDL) for further testing or confirmation.

Dead Birds

Oral swab samples from corvids are collected onto RNA preservation cards and tested by the UC Davis Center for Vectorborne Diseases (CVEC) for West Nile virus by the singleplex RT-PCR Taqman assay and confirmed with a second primer set. Some local agencies test birds using the RAMP© test or conduct RT-PCR on tissue samples.

Sentinel Chickens:

Dried blood spot specimens from sentinel chickens are submitted to the California Department of Public Health Vector-Borne Disease Laboratory and tested for the presence of antibodies to West Nile, western equine encephalomyelitis, and St. Louis encephalitis viruses by EIA. Positive samples are confirmed by IFA, western-blot, or PRNT.

Mosquito Pools:

Mosquito pools are submitted to CVEC and screened for West Nile, western equine encephalomyelitis, and St. Louis encephalitis viral RNA using a Taqman multiplex RT-PCR. CVEC no longer performs confirmatory 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), California Department of Public Health, 850 Marina Bay Parkway, Richmond, CA 94804. Questions concerning this bulletin should be addressed to Tina Feiszli by phone (510) 412-6253 or email: tina.feiszli@cdph.ca.gov.