

California Arbovirus Surveillance Bulletin #5

Week 14 Friday, April 8, 2016



Weekly Update

Humans

No human cases have been reported in 2016.

Dead Birds

No West Nile virus (WNV) positive dead birds were reported this week. To date this year, 12 birds have tested positive for WNV from four counties. At this time last year, five WNV positive birds had been reported from three counties.

Mosquito Pools

No positive mosquito pools have been reported in 2016. At this time last year, one WNV positive mosquito pool had been reported from one county.

Sentinel Chickens

No seroconversions have been reported in 2016.

2015 & 2016 YTD West Nile Virus Comparisons		
	2015	2016
Total # Dead Bird Reports	1,610	967
# Positive Counties	4	4
# Human Cases	0	0
# Positive Dead Birds / # Tested	5 / 191	12 / 127
# Positive Mosquito Pools / # Tested	1 / 827	0 / 1,324
# Seroconversions / # Tested	0 / 429	0 / 133

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YTD WNV Activity by Element and County, 2016				
County	Humans	Dead Birds	Mosquito Pools	Sentinel Chickens
Los Angeles		1		
Orange		1		
San Diego		7		
Santa Clara		3		
Totals	0	12	0	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	9	0
	YTD	127	12

Chickens & Mosquitoes

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	0	0	0	0
	YTD	133	0	0	0
Mosquito Pools	Week	427	0	0	0
	YTD	1,324	0	0	0

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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.

Website Information: For updated information on WNV in California, please visit the California WNV website, www.westmile.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.westmilemaps.usgs.gov
