



MOSQUITO and VECTOR MANAGEMENT DISTRICT of Santa Barbara County

DISEASE SURVEILLANCE REPORT

January 2014

West Nile Virus Activity

No West Nile Virus (WNV) activity has been detected in Santa Barbara County in 2014 to date. However, one dead bird and a sentinel chicken have already tested positive for the disease in other parts of California. The dead bird was a Crow collected on January 22, 2014 in Santa Clara County. The sentinel chicken was from El Segundo, Los Angeles County and became infected sometime between bleedings on December 10, 2013 and January 2, 2014. These are some of the earliest detections of WNV on record in California.

Statistics for California WNV activity can be found online at www.westnile.ca.gov. National statistics for WNV can be found at the National Centers for Disease Control and Prevention website at www.cdc.gov.

Sentinel Chicken Flocks

District personnel took blood samples from the District's sentinel chicken flocks in Carpinteria, Goleta, and Solvang once during the month of January 2014. These will be the last sentinel chicken samples taken for the 2013 season. All samples tested negative for WNV and other mosquito-borne viruses.

District personnel picked up 30 new chickens from Demler Egg Ranch in San Jacinto, California on January 9, 2014. Ten of these chickens have already replaced the two year old chickens at the Mission Hills Community Services District. A Mission Hills CSD employee adopted the old chickens. The chickens at the Goleta Sanitary District will be replaced in February 2014. The Paradise Road flock will be re-established in spring 2014. The chickens at Carpinteria and Solvang will serve for another season. The 2014 sentinel chicken bleeding season will begin the first week of April 2014.

Samples of blood are collected from each chicken on strips of filter paper and dried overnight. They are then submitted to the California Department of Public Health Vector-Borne Disease Laboratory at Richmond, California where they are analyzed for antibodies to WNV and other mosquito-borne viruses.

West Nile Virus Dead Bird Submissions

The District did not submit any dead bird samples in January 2014.

Negotiations are continuing between the Mosquito and Vector Control Association of California and the California Department of Public Health over the future of the Dead Bird program. Due to funding cuts to state health agencies by the National Centers for Disease Control and Prevention, local agencies may have to help finance live staffing of the program's Dead Bird Hotline.

The dead bird submission protocol has changed as of September 1, 2013. The California Animal Health and Food Safety Laboratory will no longer accept dead bird carcasses. Citizens can still report dead birds to the California Department of Public Health's (DPH) toll free West Nile Virus Dead Bird Hotline (1-877-968-2473 or 1-877-WNV-BIRD) or online at www.westnile.ca.gov. However, only Corvids (Crows, Ravens, Jays, and Magpies) will be authorized for testing. Local agencies will pick up the dead birds and collect samples via oral swabs that are transferred to RNase cards. The RNase cards are dried outdoors for at least two hours then mailed to the U.C. Davis Center for Vector-Borne Diseases where the samples will be analyzed for West Nile Virus.

Live Mosquito-Borne Virus Surveillance

Live Mosquito-Borne Virus Surveillance trapping will resume in March 2014.

This surveillance technique utilizes battery-powered traps that use dry ice as a source of carbon dioxide to attract adult female mosquitoes that are actively seeking a blood meal. The live female mosquitoes are taken into the District's laboratory where they are anesthetized with triethylamine under the fume hood. They are then separated by species using a stereo zoom microscope and placed into "pools." The pools (1 pool = up to 50 adult female mosquitoes of a single species collected at one place at one time) are stored in the District's ultra-low temperature freezer at -70°C until they can be submitted to the U.C. Davis Center for Vector-Borne Diseases at Davis, California where they are analyzed for the presence of live mosquito-borne viruses including WNV.

