West Nile Virus Risk

Both The Colorado Department of Public Health & Environment (CDPHE) and Colorado State University began testing mosquito samples on June 15th, 2015. There have been no confirmed mosquito pools infected with West Nile virus in Colorado as of July 2, 2015. Last year this time we had seen 10 confirmed mosquito pools infected with West Nile virus with 2 WN+ pools from Adams Co., 2 from Boulder Co., 1 from Mesa Co., 1 from Delta Co., and 4 WN+ pools from Weld County. At present no human West Nile virus positive cases have been reported in Colorado. There are 7 confirmed human West Nile Virus Cases in the United States as of June 30, 2015. There has been 1 case in Delaware, 1 case in Kansas, 1 case in New Mexico, 1 case in Oklahoma, and 3 cases in Texas.

West Nile Virus Activity by State (as of June 30, 2015)

Colorado State University has tested a total of 261 sample pools of mosquitoes containing 4361 Cx. tarsalis mosquitoes, 667 Cx. pipiens mosquitoes, 100 Cx. salinarius mosquitoes, 47 Cx. spp mosquitoes collected in Fort Collins as of June 30th, 2015. All mosquitoes which were collected from traps set in Fort Collins have been negative for WNV, to date. Colorado State University has tested 55 sample pools containing 2040 Cx. tarsalis, 7 Cx. pipiens and 7 Cx. spp. mosquitoes collected from the City of Loveland during June. All samples collected from Loveland have been negative, to date. There are no plans to test mosquito specimens collected from mosquito traps set in unincorporated Larimer County at this time, due to budget cutbacks at the state level.
Weather

Warm temperatures and receding floodwaters kept larval production at a fast pace during the second half of June. Overall larval counts and product application totals remained comparable with average seasons, with a spike in Cx. tarsalis larvae occurring in the 2nd and 3rd weeks of June. The species composition of Cx. tarsalis mosquito larvae increased largely as a result of warm temperatures and stagnant pools of water left behind after flooding. Subsequent increases in adult Cx. tarsalis abundance data were observed from mosquito trapping at the end of June. Temperatures for the first week of July are anticipated to be in the mid to high 80’s, which will cause sustained Cx. tarsalis mosquito populations into early July.

The average temperature in the month of June 2015 was 69°F in Fort Collins/Loveland, and 71°F in the City of Longmont. The total rainfall in the month of June 2014 was 2.36” in Fort Collins/Loveland and 1.17” in the City of Longmont.
Larval Control Operations

CMC field technicians performed 1,988 site inspections as part of the inspection and larviciding program in June 2015. Of the 1,988 inspections, 1,658 sites were wet (83.4%) and 710 sites were producing mosquito larvae (41.4% of the wet sites). An estimated 690 million larvae were killed before emerging in June 2015. Of the 406.1 acres treated in June 2015, 3703 lbs. of VectoBac (Bti), 0.4 lbs. of Altosid (methoprene) and 29.3 gallons of BVA mosquito larviciding oil were applied.

CMC field technicians performed 1,871 site inspections as part of the inspection and larviciding program in June 2014. Of the 1,871 inspections, 1,639 sites were wet (87.6%) and 819 sites were producing mosquito larvae (49.9% of the wet sites). An estimated 1.6 billion larvae were killed before emerging in June 2014. Of the 616.7 acres treated in June 2014, 5,594.1 lbs. of VectoBac (Bti), 165.5 lbs. of VectoLex (Bsph), and 883 gallons of BVA mosquito larviciding oil were applied.

CMC’s backyard technician performed 50 site inspections as a part of the Fort Collins backyard program in June 2015. Of the 50 inspections, 27 sites (54%) were wet and 10 (11.1%) were producing or had the potential to produce mosquito larvae. Of the 0.6 acres treated 0.1 lbs. of altosid (methoprene) and 0.5 gallons of BVA mosquito larviciding oil were applied.

During June 2015, CMC technicians performed site inspections at 44 storm drain grids as part of the City of Fort Collins Urban larviciding program to control larval mosquito populations in storm drains and catch basins. Of these inspections, 10 (22.7%) grids were found wet and 6 (20%) grids were treated with long term larvicide products including .2 lbs. of Altosid and 0.1 gallons of BVA mineral oil.
Mosquito Population Surveillance

There were 128 light traps set in Fort Collins the month of June 2015. Of the 128 light traps set; a total of 31,061 mosquitoes were collected. There were 25961 (84%) Aedes spp., 359 (1%) Culiseta spp., 4446 (14%) Culex spp., and 292 (1%) other mosquitoes collected. There was an average of 242 mosquitoes per trap night and 34 Culex spp. mosquitoes per trap night collected in Fort Collins during June 2015.

There were 183 light traps set in Fort Collins the month of June 2014. Of the 183 light traps set; a total of 13,594 mosquitoes were collected. There were 11,527 (84.8%) Aedes spp., 304 (2.2%) Culiseta spp., 1,643 (12.1%) Culex tarsalis, 86 (0.6%) Culex pipiens, 26 (0.2%) Culex spp., and 8 (<1.0%) Coquillettidia perturbans mosquitoes collected. There was an average of 74 mosquitoes collected per trap night and 10 Culex spp. mosquitoes per trap night during June 2014 in the City of Fort Collins.

Sentinel traps (25) in Larimer County collected 16,923 mosquitoes in the month of June 2015. There were 14,869 (88%) Aedes spp., 212 (1%) Culiseta inornata, 1568 (9%) Culex spp., and 274 (2%) other mosquitoes collected in June 2014.

There were 27 gravid traps set in Fort Collins during the month of June 2015. Gravid traps set in the City of Fort Collins collected 643 total mosquitoes. There were 12 (2%) Aedes spp., 16 (2%) Culiseta inornata, 615 Culex spp.

There were 172 light traps set in the City of Loveland during June 2015. Mosquito surveillance traps (172) set during June 2014 in Loveland collected a total of 23,114 mosquitoes. Of these there were 16,285 (70%) Aedes spp., 655 (3%) Culiseta inornata, 6,174 (27%) Culex spp. mosquitoes collected. There was an average of 134 mosquitoes collected per trap night and 35 Culex spp. mosquitoes per trap night during June 2015 in the City of Loveland.

There were 14 gravid traps set during the month of June 2015 in the City of Loveland. Gravid traps set in the City of Loveland collected 211 total mosquitoes. There was 1 (<1%) Aedes spp., 3 (<1%) Culiseta inornata, 207 (98%) Culex spp. mosquitoes collected from gravid traps.

Adult Mosquito Control Operations

CMC is contracted to perform mosquito adulticiding in Green Stone HOA, Willow Springs and Lindenwood HOA during the 2015 season, when mosquito counts surpass 100 mosquitoes in a single trapping night. The City of Fort Collins has not budgeted money for adulticiding for 2015.

CMC performed one application in Greenstone HOA on June 29th due to a mosquito trap that contained more than 100 mosquitoes.
Public Relations

CMC received 18 phone calls from the residents of Fort Collins during the month of June 2015. There were 8 new larval mosquito sites reported. Of these reports 8 were inspected and all 8 of the sites that were inspected were treated due to larval production or potential larval production. CMC received 4 calls from residents requesting information about the Fort Collins Backyard inspection program. CMC technicians inspected these site and treated as necessary. Two residents called CMC and requested to be added to the spray notification list for Fort Collins. CMC added the resident’s information to the notification list. CMC received a call from a resident requesting information about West Nile positive mosquitoes. CMC provided information about trapping and West Nile positive pools in other counties, and told the resident that no mosquitoes have tested positive for West Nile in Larimer County at this time. CMC received 2 mosquito annoyance calls and we assured them we are intensively larviciding the area and advised that they help our efforts by removing standing water on their property.

CMC also provided 2 volunteers for the CSU Lagoon Series Event on June 24th.