



CITY OF FORT COLLINS JUNE 2017 MONTHLY REPORT

JULY 5TH, 2017

West Nile Virus Risk

Both the Colorado Department of Public Health & Environment (CDPHE) and Colorado State University's Arthropod-borne and Infectious Disease Laboratory began testing mosquito samples on June 16th, 2017. We have had only one confirmed mosquito pool infected with West Nile virus in Colorado as of July 2nd, 2017. This sample of *Culex tarsalis* mosquitoes was collected from Trap LC-053 in Northwest Berthoud. Colorado's first human case of West Nile virus was recorded this week from an individual in Jefferson County.

In June of 2017 Colorado State University's lab tested a total of 208 sample pools of mosquitoes containing 2,125 *Cx. tarsalis* mosquitoes and 470 *Cx. pipiens* mosquitoes collected from the Fort Collins Loveland and Berthoud areas. In 2016 CSU tested a total of 217 sample pools of mosquitoes containing 1,605 *Cx. tarsalis* mosquitoes, 681 *Cx. pipiens* mosquitoes, 4 *Cx. spp* mosquitoes.

There are no plans to test mosquito specimens collected from mosquito traps set in unincorporated Weld County at this time, due to budget cutbacks at the state level. A weekly report of WNV positive activity throughout the state will be maintained by CDPHE and included in these reports as seen below.

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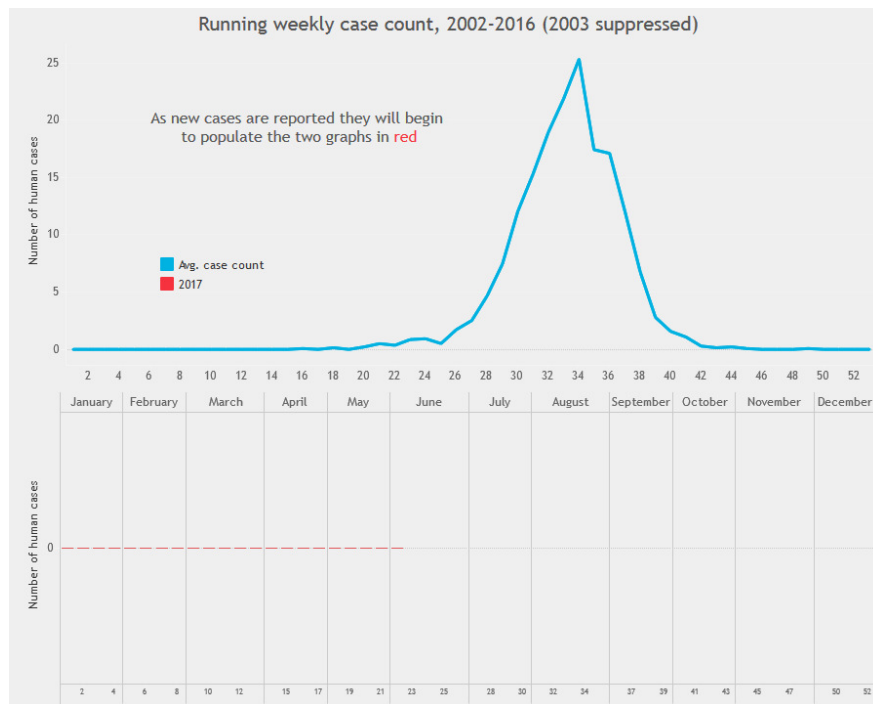
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(CDPHE image taken from <https://www.colorado.gov/pacific/cdphe/west-nile-virus-data>)

Wear Your Repellent!

Use approved mosquito repellents containing DEET, picaridin or oil of lemon eucalyptus.

DEET products generally provide the longest protection. The other repellents work but must be applied more frequently.

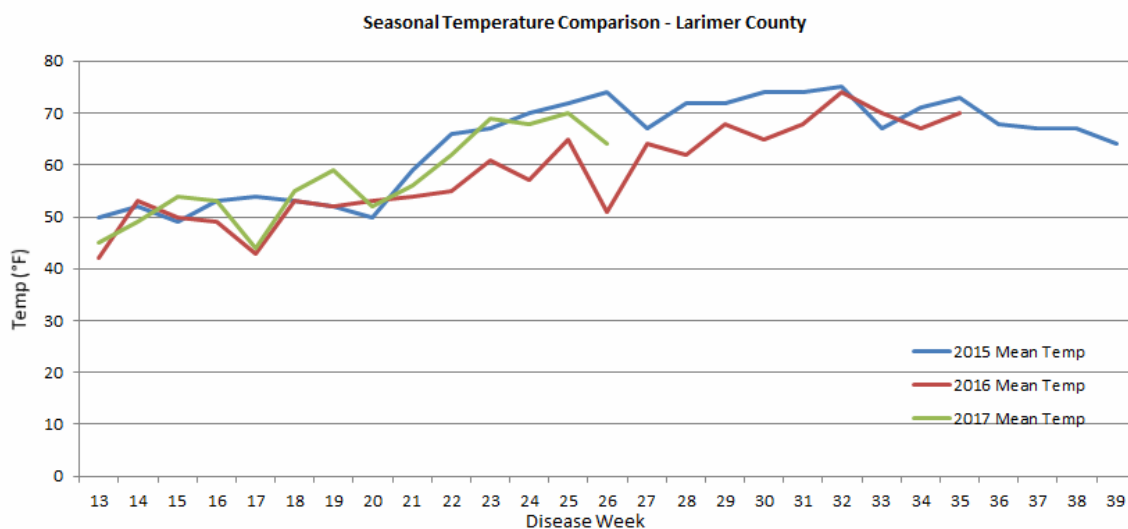
Follow the product label for correct use. Products with 10 percent or less DEET are recommended for children.

Weather

VDCI began field inspections throughout Northern Colorado in mid-April. The number of *Culex tarsalis* mosquito larvae obtained from larval sites has remained low, as a result of cool early season temperatures and even a late snow in May. VDCI has focused larval site inspections on mandatory sites known to produce larvae early season.

Higher than average snowpack led to increased flooding along river corridors throughout northern Colorado during the first part of June. Receding floodwaters have kept larval production at a fast pace during the second half of the month and increasing temperatures have led to faster larval production and adult trap counts. The majority of species we are seeing at this time are “floodwater” species and are not of concern to human health. While *Culex* populations are on the rise, historical data indicate that overall abundance is lower than normal and disease risk remains low throughout Larimer County.

The average temperature for Larimer County in the month of June 2017 was 66.6°F which is much higher than last year. Rainfall in the month of June 2017 was lower than average with only 0.03 inches of precipitation on record. In June of 2016 there was 0.17 inches of precipitation on record. Drought conditions and minimal rainfall during the month of May has likely lead to flood irrigation and larval production in surrounding areas.



Larval Control Operations

VDCI field technicians performed 2,812 site inspections as part of the inspection and larviciding program in June 2017. Of the 2,133 inspections, 2,361 sites were wet (84%) and 1,193 sites were producing mosquito larvae (47.4% of the wet sites). Of the 535.2 acres treated in June 2017, 2,888 lbs. of VectoBac (*Bti*), 655 VectoLex (*Bsph*) Water Soluble Packets, 275 Altosid briquettes (Methoprene) and 37.4 gallons of BVA mosquito larviciding oil were applied.

CMC field technicians performed 2,133 site inspections as part of the inspection and larviciding program in June 2016. Of the 2,133 inspections, 1,800 sites were wet (84.4%) and 784 sites were producing mosquito larvae (43.2% of the wet sites). Of the 290.4 acres treated in June 2016, 1713.4 lbs. of VectoBac (*Bti*), 1 lb. of VectoLex (*Bsph*), 0.3 lbs Altosid (Methoprene) and 9 gallons of BVA mosquito larviciding oil were applied.

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). 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.

VDCI's backyard technician performed 109 site inspections as a part of the Fort Collins backyard program in June 2017. Of the 109 inspections, 68 sites (62.4%) were wet and 44 were producing or had the potential to produce mosquito larvae. Of the 3.2 acres treated, 275 altosid (methoprene) briquettes were applied.

During June 2017, VDCI technicians performed site inspections at 43 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. Drains that were wet or had the potential to hold water were treated with long term larvicide products including Altosid pellets and VectoLex WSP (BspH).

Mosquito Population Surveillance

There were 221 light traps set in Fort Collins the month of June 2017. Of the 234 light traps set; a total of 32,340 mosquitoes were collected. There were 30,096 (93.1%) *Aedes spp.*, 287 (0.9%) *Culiseta spp.*, 1,778 (5.5%) *Culex spp.*, and 179 (<1%) other mosquitoes collected. There was an average of 146 mosquitoes per trap night and 8 *Culex spp.* mosquitoes per trap night collected in Fort Collins during June 2017.

There were 234 light traps set in Fort Collins the month of June 2016. Of the 234 light traps set; a total of 14,929 mosquitoes were collected. There were 12,981 (87%) *Aedes spp.*, 231 (1.5%) *Culiseta spp.*, 1617 (10.8%) *Culex spp.*, and 96 (<1%) other mosquitoes collected. There was an average of 64 mosquitoes per trap night and 7 *Culex spp.* mosquitoes per trap night collected in Fort Collins during June 2016.

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 25,961 (84%) *Aedes spp.*, 359 (1%) *Culiseta spp.*, 4,446 (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.

Sentinel traps (22) in Larimer County collected 14,440 mosquitoes in the month of June 2017. There were 13,870 (96.1%) *Aedes spp.*, 108 (<1%) *Culiseta spp.*, 458 (3.2%) *Culex spp.*, and 4 (<1%) other mosquitoes collected in June 2017.

There were 39 gravid traps set in Fort Collins during the month of June 2017. Gravid traps set in the City of Fort Collins collected 412 total mosquitoes. There were 22 (53%) *Aedes spp.*, 9 (2.2%) *Culiseta inornata*, and 381 (92.5%) *Culex spp.*

There were 173 light traps set in the City of Loveland during June 2017. Mosquito surveillance traps set during June 2017 in Loveland collected a total of 18,663 mosquitoes. Of these there were 17,046 (91.5%) *Aedes spp.*, 261 (1.4%) *Culiseta spp.*, and 1,323 (7.1%) *Culex spp.* mosquitoes collected. There was an average of 108 mosquitoes collected per trap night and 8 *Culex spp.* mosquitoes per trap night during June 2017 in the City of Loveland.

There were 12 gravid traps set during the month of June 2017 in the City of Loveland. Gravid traps set in the City of Loveland collected 245 total mosquitoes. There was 3 (1.2%) *Aedes spp.*, 4 (<1%) *Culiseta inornata*, and 245 (67%) *Culex spp.* mosquitoes collected from gravid traps.

Adult Mosquito Control Operations

There have been no adult mosquito control operations performed within or by the City of Fort Collins to date. The City of Fort Collins has not budgeted money for adulticiding for 2017.

VDCI is privately contracted to perform mosquito adulticiding within Green Stone HOA, Willow Springs and Lindenwood HOA during the 2017 season, when mosquito counts surpass 100 mosquitoes in a single trapping night. A total of 15 road miles within these neighborhoods were sprayed via ground based vehicles with Ultra Low Volume (ULV) AquaKontrol mosquito adulticides to reduce adult mosquito populations on the dates listed below.

Vector Disease Control International		Adulticide Data				
Customer	Subdiv/Area	Material	Start Time	End Time	Miles	
Greenstone HOA						
Truck						
06/13/2017	GREEN STONE HOA	Aqua Kontrol 30 30	23:20:00	23:50:00	4.0	
06/20/2017	Greenstone HOA	Aqua Kontrol 30 30	20:42:00	21:00:00	4.0	
06/27/2017	Green Stone	Aqua Kontrol 30 30	22:44:00	22:58:00	3.0	
				Truck	Sum	11.0
					Avg	3.7
					Min	3.0
					Max	4.0
Willow Springs HOA						
Truck						
06/28/2017	Willow Spring	Aqua Kontrol 30 30	23:23:00	23:45:00	4.0	
				Truck	Sum	4.0
					Avg	4.0
					Min	4.0
					Max	4.0
Grand Total					15.0	

CMMS - Comprehensive Mosquito Management System ©2017 Vector Disease Control International

Public Relations

VDCI received 5 phone calls from the residents of Fort Collins during the month of June 2017. There were 2 new larval mosquito sites reported. Both of these reports were inspected and treated due to larval production or potential larval production. VDCI received 2 calls from residents requesting information about the Fort Collins Backyard inspection program. There was one business opt out call and inspection.