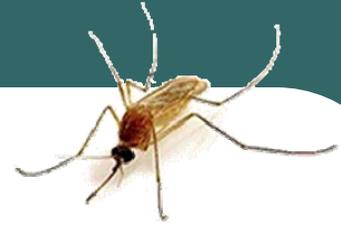




Arbovirus Surveillance Update: Nov 15- Nov 21, 2015

Tarrant County Public Health



MMWR Week 46 (Nov 15 – Nov 21, 2015)

Report Date: Nov 24, 2015 - Final Report of the Season

- A total of 4,982 mosquito pools have been submitted to North Texas Regional Laboratory at Tarrant County Public Health in 2015; All pools tested negative for SLEV
- 424** pools have tested positive for WNV in Tarrant County. Cities with positive mosquito pools include:

Arlington 45	Crowley 19	Grapevine 11	Lake Worth 16	River Oaks 11
Azle 2	Edgecliff Village 6	Haltom City 6	Mansfield 5	Sansom Park 8
Bedford 7	Eules 20	Haslet 2	N. Richland Hills 29	Southlake 2
Benbrook 11	Fort Worth 118	Hurst 10	Pantego 9	Unincorporated 32
Burleson† 1	Grand Prairie 7	Keller 1	Richland Hills 12	Watauga 4
Colleyville 11		Kennedale 10		Westover Hills 9

- To date in 2015 there have been 2 imported human CHIKV cases, 1 imported human DENV case, 30 human WNV cases (4 WNF; 26 WNND), no SLEV cases, and 1 WNV-associated death reported in Tarrant County.
- More information can be found at: [Tarrant County Mosquito-Borne Illness](#)

†Area of Burleson located within Tarrant County; CHIKV-Chikungunya Virus; DENV-Dengue Virus; SLEV-St. Louis Encephalitis Virus; WNV–West Nile Virus; WNF = West Nile Fever; WNND = West Nile Neuroinvasive Disease

Table 1. WNV activity summary, Tarrant County, Weeks 42-46, 2015

Week	Oct 18 - Oct 24	Oct 25 - Oct 31	Nov 1 - Nov 7	Nov 8 - Nov 14	Nov 15 - Nov 21	YTD
MMWR Week	42	43	44	45	46	
Total traps placed in Tarrant County	134	145	79	97	1	4,818
Average number of female <i>Culex</i> species per trap	75.8	51.9	46.0	16.6	28.0	74.2
Average number of female <i>Cx. quinquefasciatus</i> per trap	69.9	46.5	38.7	13.2	26.0	62.8
Number of mosquito pools tested ¹	174	124	75	76	24	4,982
Number of positive mosquito pools (NTRL; Non-NTRL) ²	11;1	5;0	4;0	0;0	0;0	416;8
Confirmed WNV human cases (WNF; WNND) ³	0;0	0;1	0;0	0;0	0;0	4;26
Presumptive WNV viremic blood donors	0	0	0	0	0	0
WNV infection rate per 1,000 <i>Cx. quinquefasciatus</i> ⁴	2.79	1.28	2.11	0.00	0.00	
WNV infection rate per 1,000 <i>Cx. restuans</i> ⁴	8.91	0.00	0.00	0.00	0.00	
Weekly vector index ⁵	0.229	0.060	0.082	0.000	0.000	

¹ Based on lab testing date; ² Based on mosquito collection date; NTRL = North Texas Regional Laboratory

³ Based on onset of illness date for cases reported to Tarrant County Public Health; WNF=West Nile Fever; WNND = West Nile Neuroinvasive Disease

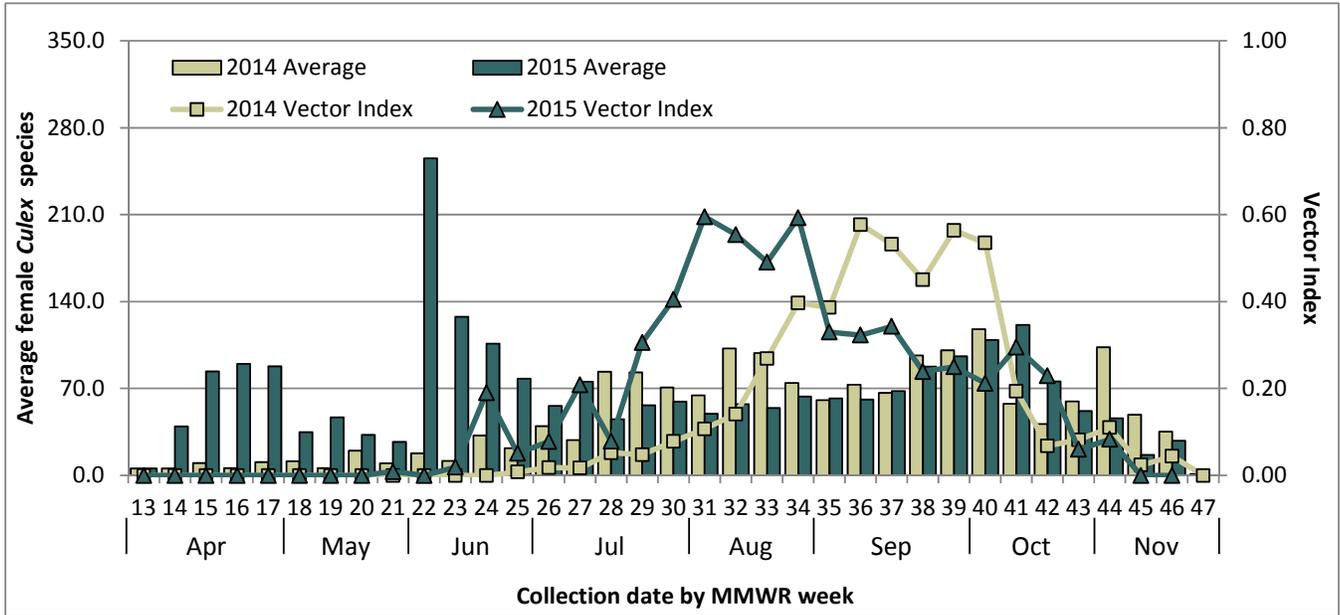
⁴ Calculated using a Maximum Likelihood Estimation (MLE). Biggerstaff, Brad J. PooledInfRate, Version 4.0: a Microsoft® Office Excel® Add-In to compute prevalence estimates from pooled samples. Centers for Disease Control and Prevention, Fort Collins, CO, U.S.A., 2009

⁵ Vector Index is a measure of infectivity accounting for vector species composition, vector species population density, and proportion of vector population infected with WNV

Note: Infection rate and vector index calculations may not include positive pools from Non-NTRL laboratories; Data subject to change due to on-going case investigations, mosquito collection, and testing

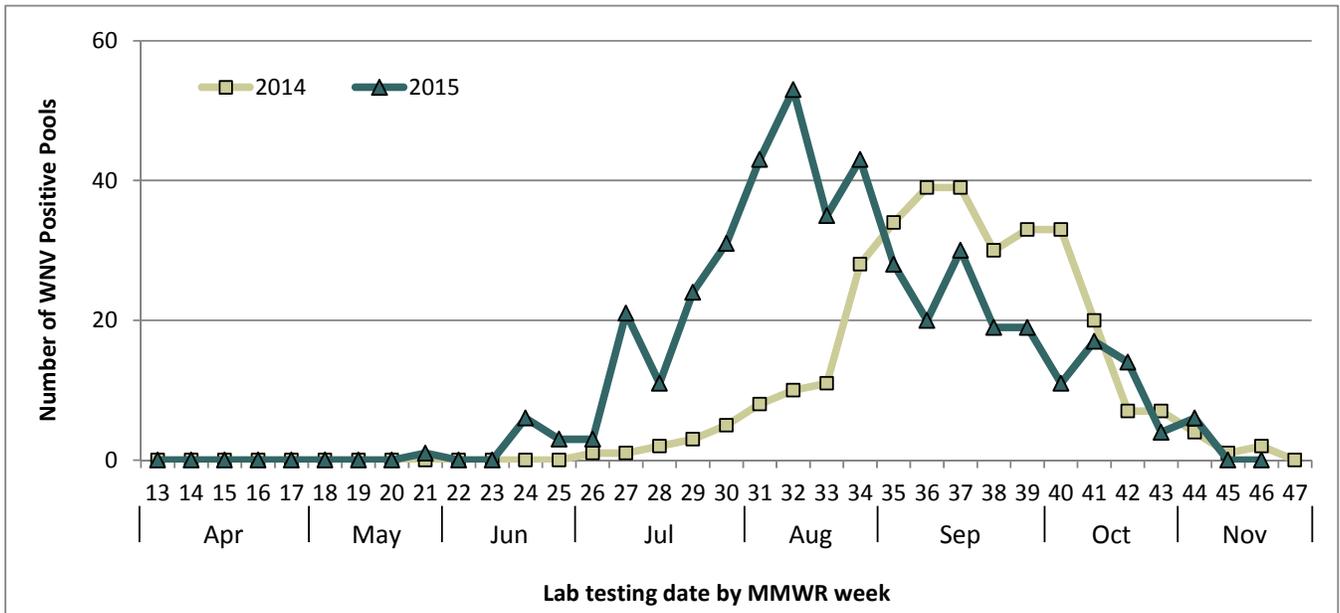
Data source: Tarrant County Public Health

Figure 1. Average number of female *Culex* species per trap and vector index, Tarrant County, 2014-2015



Data source: Tarrant County Public Health

Figure 2. Number of WNV positive mosquito pools by lab testing date, North Texas Regional Laboratory, 2014-2015



Data source: Tarrant County Public Health

Tarrant County Arbovirus Surveillance Update 11/24/15

Figure 3. West Nile Virus mosquito trap results, Tarrant County, Week 46, 2015

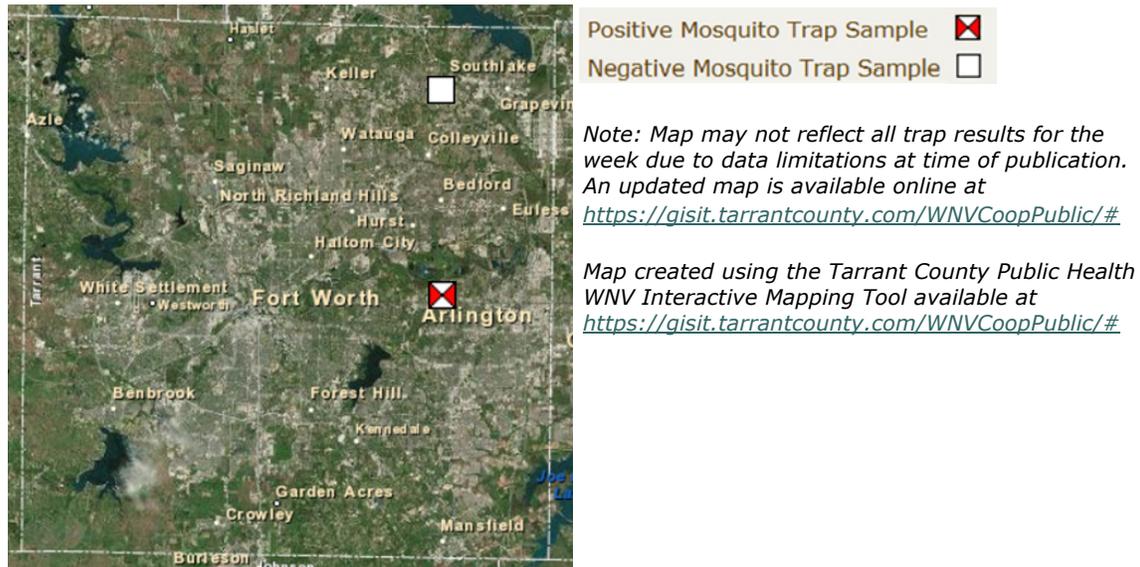


Table 2. State-wide arbovirus season activity as reported by Texas DSHS on Nov 24, 2015

North Texas Counties	WNV		CHIKV*		DENV*		SLEV	
	Positive Mosquito Pools	Human Cases	Positive Mosquito Pools	Human Cases	Positive Mosquito Pools	Human Cases	Positive Mosquito Pools	Human Cases
Collin	24	2 WNF; 3 WNND	0	2	0	1	0	0
Dallas	443	12 WNF; 11 WNND	0	8	0	2	0	0
Denton	45	4 WNF; 5 WNND	0	1	0	1	0	0
Ellis	3	0 WNF; 0 WNND	0	0	0	0	0	0
Hood	0	0 WNF; 0 WNND	0	0	0	0	0	0
Hunt	8	1 WNF; 0 WNND	0	1	0	0	0	0
Johnson	22	0 WNF; 2 WNND	0	0	0	0	0	0
Kaufman	0	1 WNF; 1 WNND	0	0	0	0	0	0
Parker	0	0 WNF; 2 WNND	0	0	0	0	0	0
Rockwall	6	0 WNF; 0 WNND	0	0	0	0	0	0
Somervell	0	0 WNF; 0 WNND	0	0	0	0	0	0
Tarrant	422	4 WNF; 26 WNND	0	1	0	1	0	0
Wise	0	0 WNF; 0 WNND	0	0	0	0	0	0
North Texas Total	973	24 WNF; 50 WNND	0	13	0	5	0	0
All Texas Counties	1,533	69 WNF; 174 WNND	0	37	0	20	4	0

* All reported CHIKV & DENV human cases are imported

WNV - West Nile Virus; WNF - West Nile Fever; WNND - West Nile Neuroinvasive Disease; CHIKV - Chikungunya Virus; DENV - Dengue Virus; SLEV - Saint Louis Encephalitis Virus;

Data source: Texas Department of State Health Services (DSHS)