

2025 VECTOR CONTROL REPORT



Program Focus

The Vector Borne Disease Control program in Lehigh County is implemented by the Lehigh County Conservation District (LCCD). The mission of the program is to provide safe environments for residents to live, work, and play in, as well as improve the quality of life for all residents. The focus of the program is to survey and control biting arthropods such as mosquitoes and ticks that can cause human illness. To follow our objectives, we use Integrated Vector Management (IVM) strategies. IVM incorporates educating the public, vector surveillance, and preventative practices, coupled with physical, biological, and chemical control applications. This report contains Lehigh County's season summary for mosquito and tick related activities.



Mosquito Surveillance

565

Mosquito Traps

246

Larval Samples

207

WNV Positive Mosquito Pools

From early May to the end of September, sites within Lehigh County were surveyed for adult and immature (larval and pupal) mosquitoes. Any adult mosquitoes captured were identified and tested for specific mosquito-borne viruses. Surveyed sites were located within all the municipalities of Lehigh County. Sites were chosen in areas with standing water likely to be mosquito habitat, including artificial containers like tires, sewage treatment plants, and floodwater. Mosquito trapping was prioritized in areas with a higher human population, a higher population of elderly, or nearby public parks.

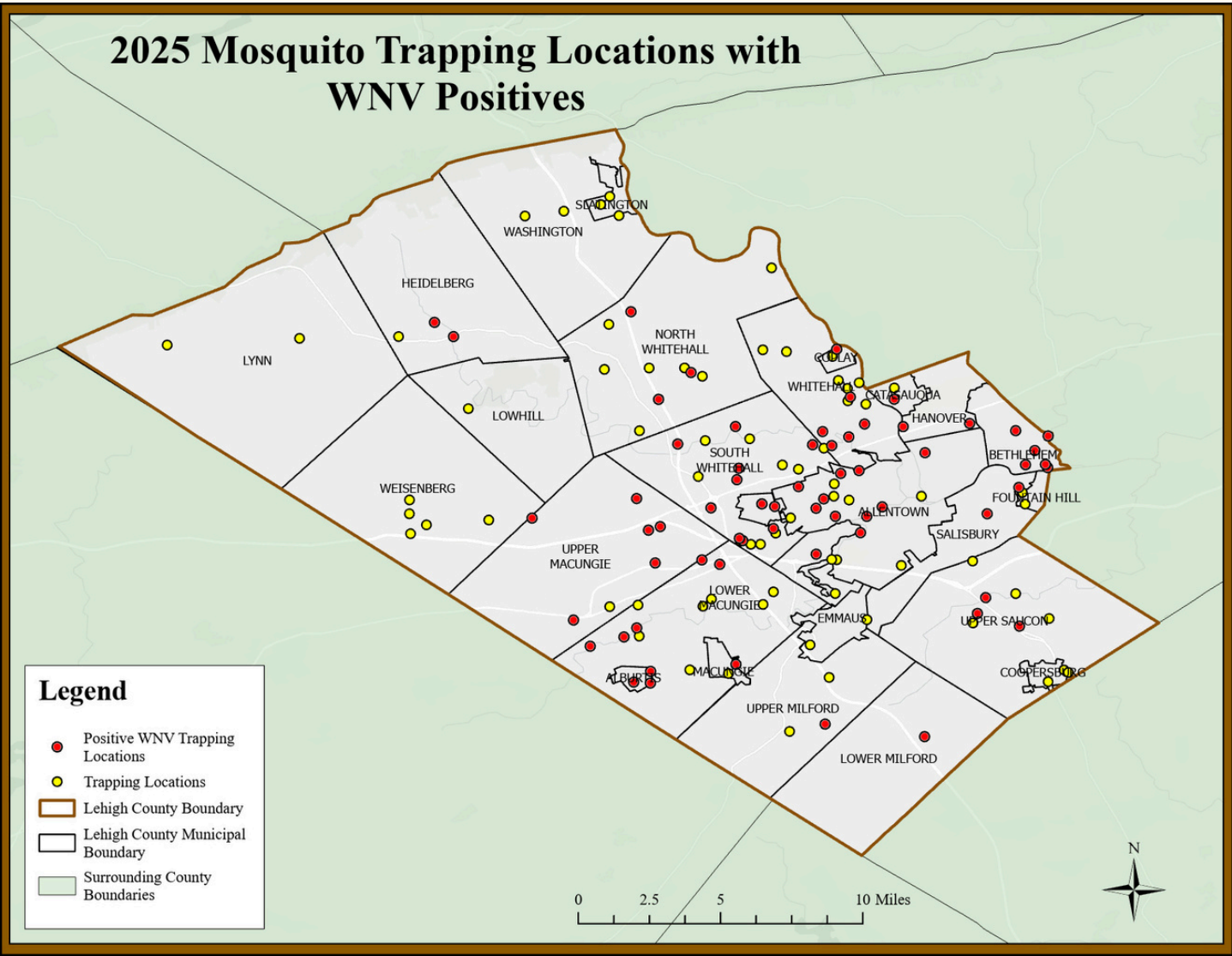


This season, the program set **565** mosquito traps and collected **246** larval samples. Four diseases were tested for: West Nile Virus (WNV), St. Louis Encephalitis (SLE), La Crosse Virus (LCV), and Jamestown Canyon Virus (JCV). The season ended with **207** adult mosquito pools coming back positive for West Nile Virus. No presence of St. Louis Encephalitis, La Crosse Virus, or Jamestown Canyon Virus was found within mosquitoes collected from Lehigh County.



VIRUS	WNV	SLE	JCV	LCV
TOTAL TESTS PERFORMED	586	586	10	10
POSITIVE RESULTS	207	0	0	0

Below is a map of Lehigh County. The map shows the 2025 mosquito trapping locations. Each yellow dot shows a trapping location that did not have any WNV positive pools of mosquitoes. Red dots indicate that at least one pool of mosquitoes tested positive for the presence of West Nile Virus at that trapping location at some point during the season.



Mosquito Prevention and Control: Vector Program Efforts

243

Larval Control Events

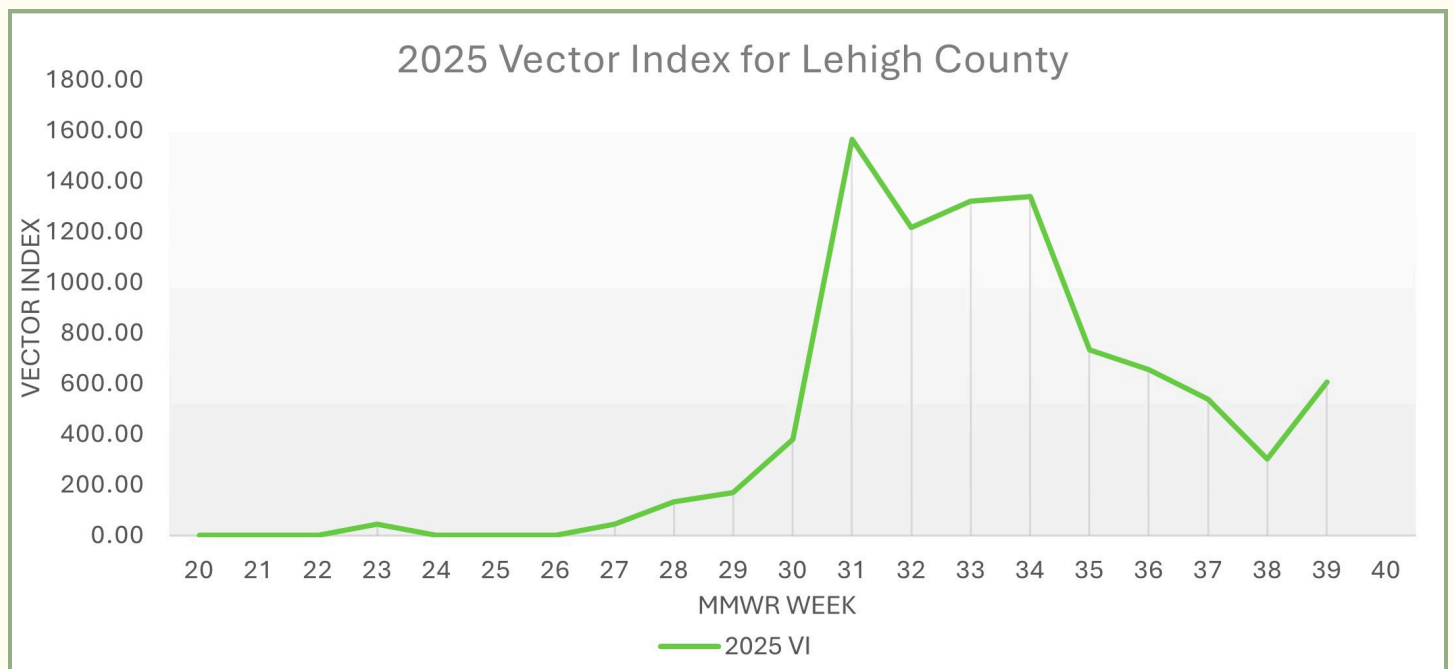
15

Adult Control Events

3

WNV Positive Human Cases

Mosquitoes breed in standing water. Immature mosquitoes, called larvae or pupae, need standing water to survive. When staff find mosquito larvae or pupae, the first step is to dump out, or otherwise eliminate the water wherever possible. If the water cannot be completely eliminated, we will treat the water with a mosquito control product to prevent larvae from turning into adult mosquitoes, breaking their life cycle. When these efforts are not sufficient to control nuisance or diseased adult mosquito numbers, adult mosquito control products are used. In the 2025 season, we conducted **243** larval control events and **15** adult control events.



Above is the vector index graph for Lehigh County. The MMWR week or epi week is a numbering system used for public health tracking. The vector index is the relative abundance of infected mosquitoes and is a way to quickly estimate the risk of arbovirus transmission in an area. This graph helps us determine when adult control needs to be performed. With all of our efforts, only **3** human cases of West Nile Virus were reported within the county.

What Municipalities Can Do

Municipalities can help reduce mosquitoes by eliminating any areas that hold standing water. You can regularly dump water in unused equipment or store equipment under cover. Tires can be regularly recycled, have holes drilled in them, be stored under cover, or be covered by tarps so water does not accumulate. You can avoid mowing while the ground is wet so that tire ruts and low spots which hold water are not formed. When cutting the grass, avoid sending any grass clippings into the catch basins. Catch basins can be checked for existing debris and cleaned out so they can flow freely. Similarly, gutters on buildings can be cleaned so they do not hold water due to clogged downspouts. All of these measures are easy solutions that can help reduce mosquitoes in your area.

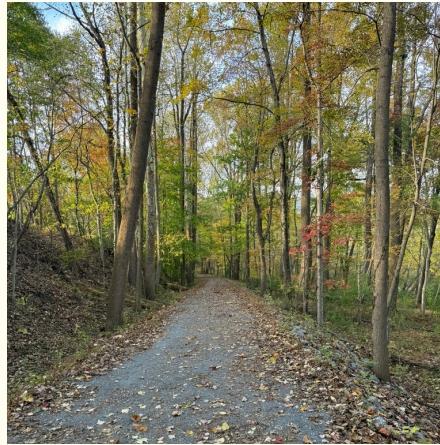


Municipalities can take the extra step and have their staff perform mosquito control. They will need to obtain or already have their pesticide license and be certified in Category 16, Public Health-Invertebrate Pests. LCCD's vector control program only has two certified applicators. Additional treatments performed by municipalities during peak mosquito season could help reduce mosquito numbers.

LCCD hosts a pesticide training every year called "Mosquitoes and Weeds". This training allows municipal applicators to gain their credits in Category 16, as well as Category 10, Right-of-Way and Weeds, and CORE.

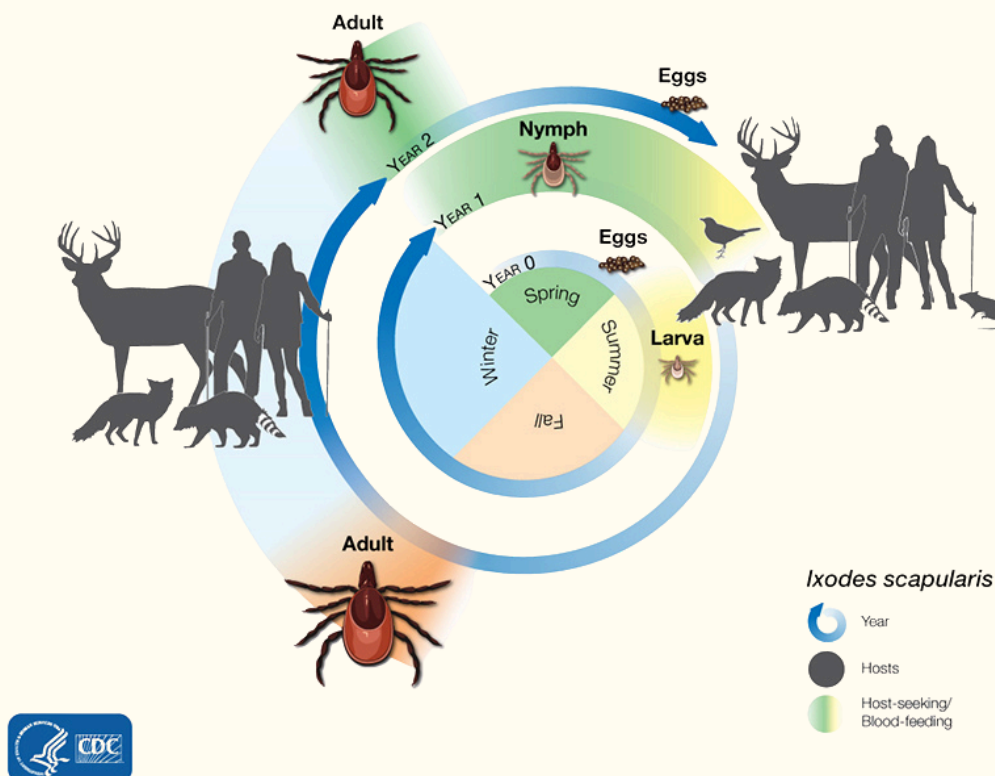
To help even more, municipalities can consider adopting a standing water ordinance. A standing water ordinance would prohibit property owners from allowing stagnant/standing water to accumulate on their property. A property owner's failure to comply can allow the municipality to act against and abate the nuisance. This may help LCCD cover treatment area gaps on private property.

Tick Surveillance

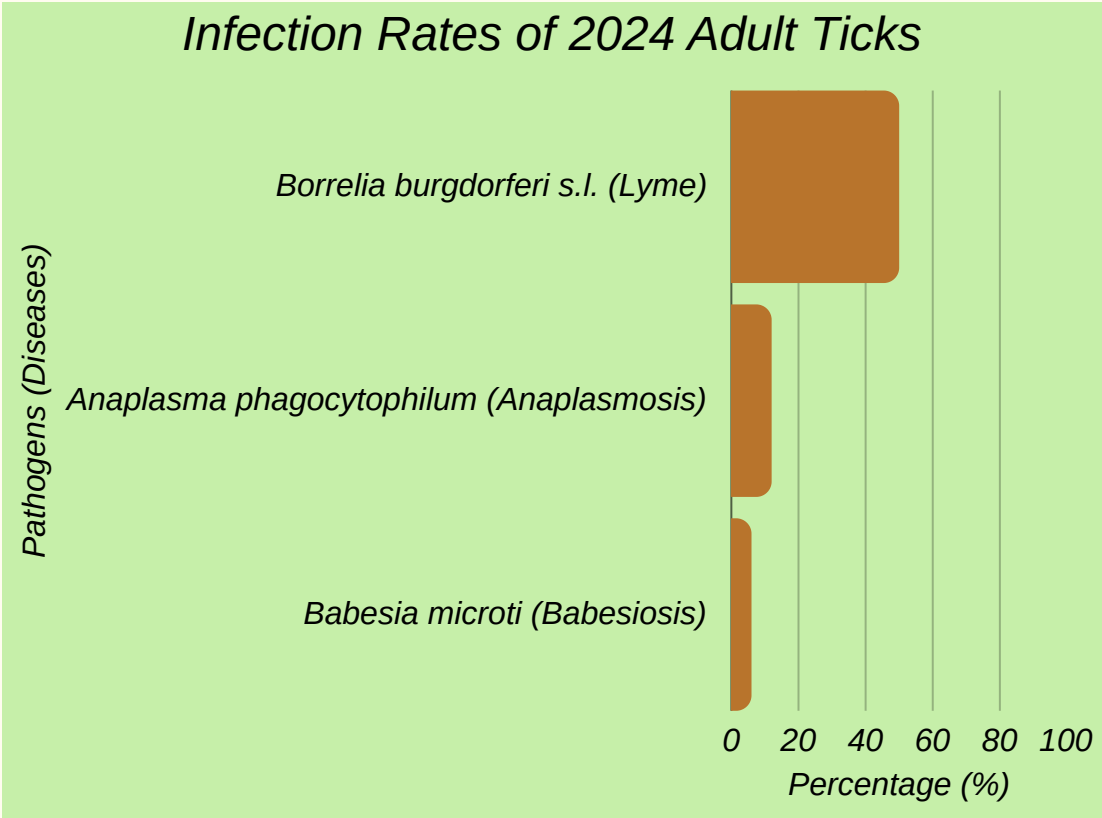


From April to the end of August, LCCD performs tick drags to conduct nymphal tick surveillance. After August, nymphal collection is complete, and DEP Vector Management performs the adult tick collection. The 2025 adult tick data is still being collected and processed.

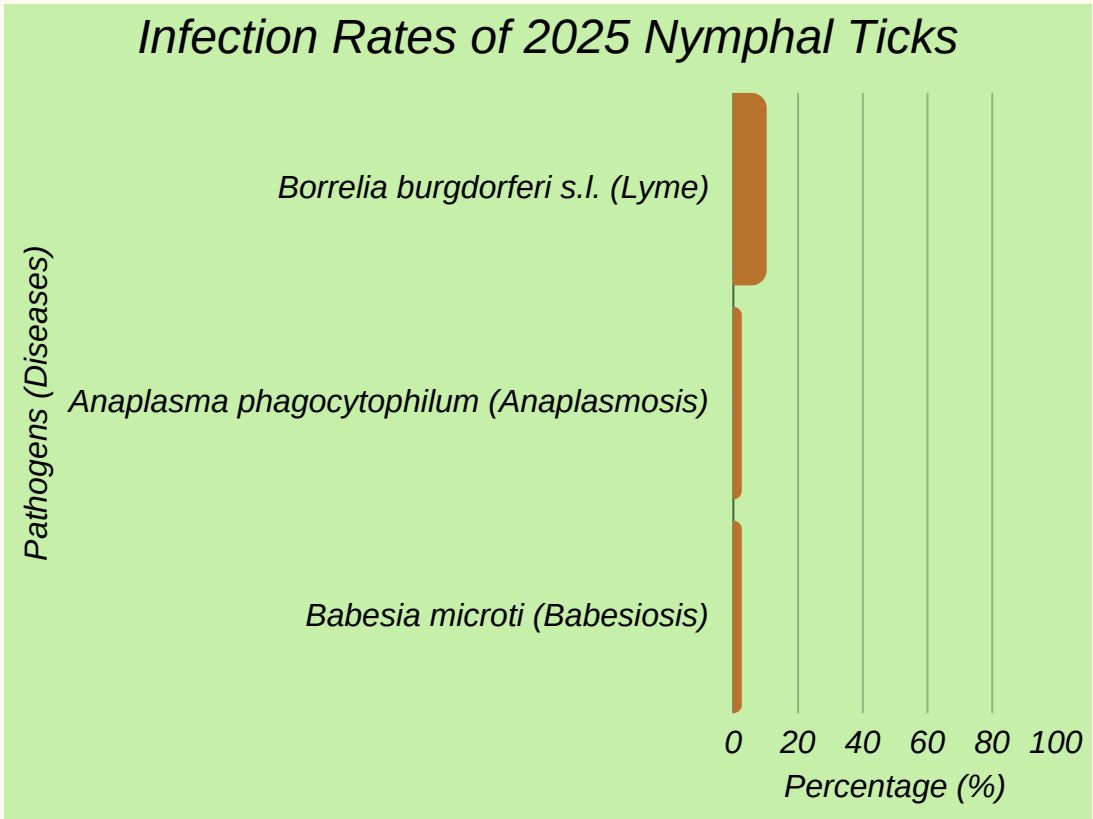
Below is the life cycle of the black-legged tick (*Ixodes scapularis*). In Lehigh County, we are primarily concerned with the black-legged tick, as its species is responsible for most of the disease transmission.



In 2024, a total of 108 adult ticks were collected within Lehigh County. 50 of those 108 adult ticks were tested for three major pathogens. The results showed **50%** of those ticks tested positive for Lyme, **12%** for Anaplasmosis, and **6%** for Babesiosis.



In 2025, a total of 75 nymphal ticks were collected within Lehigh County. 39 of those 75 ticks were tested for the same three major pathogens. The results showed **10.3%** of those ticks tested positive for Lyme, **2.6%** for Anaplasmosis, and **2.6%** for Babesiosis.



Complaints and Public Education

Residents of Lehigh County can contact LCCD's vector control program with mosquito complaints. Vector staff will survey the area and look for potential mosquito habitat nearby. At that time, staff provide education to citizens on how to reduce mosquitoes on their property. This includes dumping water from buckets, kid pools and toys, flower pots, bird baths and other containers, and keeping gutters clear. Wearing long sleeves and pants while outdoors and using an EPA-approved bug repellent can also help prevent mosquito bites. To further reach the public, our staff held 13 educational events by sending out articles, producing a bus advertisement, attending workshops and fairs, placing door hangers, posting on social media, and having an interview with Lehigh Valley News.



Contact Information

For further information or questions, please reach out to us.

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CONSERVATION DISTRICT