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For immediate release

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A West Nile Virus Story: A Single Mosquito Bite Changed Everything

Farmers, ranchers, and agricultural workers face a higher risk of mosquito-borne illnesses due to extended time outdoors, particularly during peak mosquito activity at dawn and dusk.

To better understand and address this risk locally, PPHD is collaborating with academic and community partners to expand education and research efforts focused on West Nile virus among agricultural workers. A team from UNMC will be at the Farm & Ranch Expo at the Scotts Bluff County Fairgrounds on February 6-7, 2026, offering voluntary “Spit for Science” testing to help determine the prevalence of West Nile virus among the agricultural population in the Panhandle.

For Rick Horstman, a third-generation farmer living just outside of Hemingford, summer typically means long days in the field and family life centered around harvest. Last July, a single mosquito bite abruptly brought that routine to a halt.

Rick began experiencing persistent headaches and congestion in his lungs. Initially treated for a respiratory illness, his condition continued to worsen. He soon developed encephalitis, dangerous swelling of the brain, causing severe pain, uncontrollable shaking, and significant confusion. Combined with the effects of the illness and medications, he was disoriented and unable to recognize himself for several days. “I didn’t even know who I was,” he recalled.

Rick was airlifted to Cheyenne, where he spent several days hospitalized, unable to walk and with critically high white blood cell counts. While there, he was diagnosed with West Nile virus. After briefly returning home, his condition did not improve. Early one morning, he went to the emergency room and was transported by ambulance to Rapid City, where he spent another four to five days hospitalized. It was there that doctors also diagnosed him with tularemia.

In total, Rick battled two serious vector-borne infections and endured an extended period of severe illness, spending much of that time confined to his home. “Just imagine being at the height of wheat



harvest and feeling so sick you don't even want to leave your house," he said. "That's how hard it was."

Months later, Rick continues to experience lingering headaches from the encephalitis, a reminder that recovery from West Nile virus can take a year or longer.

The University of Nebraska Medical Center is partnering with the Panhandle Public Health District to study West Nile virus risk among people working in the agricultural sector in western Nebraska. This pilot project is funded by the Central States Center for Agricultural Safety and Health (CS-CASH). The project launched in December 2025, with a collaborative team meeting hosted by PPHD in Scottsbluff. The study team will work with local community partners to provide education on West Nile virus and enroll volunteers in a study to assess environmental risks for exposure to the virus. For more information, contact Megan Barhafer at mbarhafer@pphd.ne.gov or 308-765-1939.

A team from UNMC will be at the Farm & Ranch Expo at the Scotts Bluff County Fairgrounds this Friday and Saturday, February 6-7, 2026, offering voluntary "Spit for Science" testing to help determine the prevalence of West Nile virus among the agricultural population in the Panhandle.

Panhandle Public Health District is working together to improve the health, safety, and quality of life for all who live, learn, work, and play in the Panhandle. Our vision is that we are a healthier and safer Panhandle Community. Visit our website www.pphd.ne.gov.