

# Eastern equine encephalitis found in Montcalm County animal

Submitted by the Michigan  
Department of Health and Human Services

LANSING — Testing at the Michigan State University Veterinary Diagnostic Laboratory recently identified Eastern equine encephalitis (EEE) in one animal each in Calhoun, Jackson and Montcalm counties.

As of Friday, EEE has been confirmed in 21 animals from 11 counties: Barry, Berrien, Calhoun, Cass, Genesee, Jackson, Kalamazoo, Lapeer, Montcalm, St. Joseph and Van Buren. There is an EEE vaccine available for horses, but not for people. Additional animal cases are under investigation.

The Michigan Department of Health and Human Services (MDHHS) Bureau of Laboratories has confirmed EEE in an adult resident of Calhoun County. Eight cases of EEE have now been confirmed in residents of Barry, Berrien, Calhoun, Cass, Kalamazoo, and Van Buren counties, including three deaths.

“The increasing geographic spread and increasing number of EEE cases in humans and animals indicate that the risk for EEE is ongoing,” said Dr. Joneigh Khaldun,

MDHHS chief medical executive and chief deputy for health. “We continue to urge Michiganders to protect themselves against mosquito bites until the first hard frost.”

The MDHHS is encouraging local officials in the affected counties to consider postponing, rescheduling or canceling outdoor activities occurring at or after dusk, particularly activities that involve children. This would include events such as late evening sports practices or games or outdoor music practices. The MDHHS recommendation is being made out of an abundance of caution to protect the public health and applies until the first hard frost of the year.

EEE is one of the most dangerous mosquito-borne diseases in the United States, with a 33 percent fatality rate in people who become ill. People can be infected with EEE from the bite of a mosquito carrying the viruses. Persons younger than age 15 and over age 50 are at greatest risk of severe disease following infection.

Across Michigan, residents can stay healthy by following steps to avoid mosquito bites:

- Apply insect repellents that contain the active ingredient DEET, or other U.S. Environmental Protection Agency-approved product to exposed skin or clothing, and always follow the manufacturer’s directions for use.

- Wear long-sleeved shirts and long pants when outdoors. Apply insect repellent to clothing to help prevent bites.

- Maintain window and door screening to help keep mosquitoes outside.

- Empty water from mosquito breeding sites around the home, such as buckets, unused kiddie pools, old tires or similar sites where mosquitoes may lay eggs.

- Use nets and/or fans over outdoor eating areas.

Signs of EEE include the sudden onset of fever, chills, body and joint aches which can progress to a severe encephalitis, resulting in headache, disorientation, tremors, seizures and paralysis. Permanent brain damage, coma and death may also occur in some cases.

For more information about mosquito-borne diseases, visit [Michigan.gov/emergingdiseases](http://Michigan.gov/emergingdiseases) online.

## MID-MICHIGAN

# Health department confirms case of EEE

Officials say there is no reason to stay inside

By Eric Baerren

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Multimedia journalist

Mid-Michigan District Health Department has announced that it has diagnosed a horse in Montcalm County with Eastern Equine Encephalitis. It's the first positive diagnosis of the disease in the county since 2005 and just the

fifth since 1942.

No case of the disease has been diagnosed in people in Montcalm since they started tracking the disease in 1980, according to a press release.

Three people have died this year in Michigan of Eastern Equine Encephalitis and another five made ill from it, all of whom live in the southwestern corner of the state. In response, health officials there advised people to reschedule outdoor activities or just stay inside.

Some people took those advisories to include the entire state.

Mid-Michigan District Health Department said there is currently no reason for people to alter their behavior because one horse tested positive for the disease in Montcalm County.

"No human or animal cases have been reported in Clinton or Gratiot Counties," the press release said. "At this time, it is felt that the risk of EEE in humans in Clinton County, Gratiot County and Montcalm County is VERY

LOW and we do not feel it is necessary to reschedule or change outdoor sports schedules. However, avoiding mosquito bites is still, and always is, advised as they could still transmit this disease as well as others, such as West Nile Virus."

No cases of West Nile Virus have been diagnoses this year in Montcalm, Gratiot or Clinton counties. Nor, for that matter, in Mecosta, Isabella and Clare counties. A case was detected in a Midland County bird, however.

The health department advised taking the following steps to avoid getting bitten by mosquitoes: Apply an insect repellent containing the active and statistically-safe ingredient DEET, wear long-sleeved shirts and long pants when outside, drain standing water to reduce mosquito breeding grounds and properly maintain screens that keep mosquitoes from getting into homes.

Eastern Equine Encephalitis is one of the most dangerous mos-

**EEE » PAGE 2**

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# EEE

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quito-born illnesses found in Michigan. This year's eight confirmed human cases is higher than the 1-3 cases normally diagnosed. Most cases in Michigan are found in the southern part of the state, especially the southwestern counties.

It is maintained in birds, and can sicken horses and people. It is not trasmissible from birds to people, horses to people or people to people. It requires a mosquito for that.

# Daily News

Friday, September 27, 2019

## State to conduct aerial sprays Sunday of Eureka, Montcalm and Pierson townships to combat EEE

ELISABETH WALDON  
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Adam Petersen received a bit of a surprise Wednesday morning when he attended a local meeting and learned about an issue directly affecting his own neighborhood.

As a Montcalm County commissioner, Petersen is a member of the Mid-Michigan District Health Department's Board of Health. During Wednesday's meeting, he learned of plans to conduct an aerial spray in parts of Montcalm County to combat Eastern Equine Encephalitis (EEE), a mosquito virus.

Those plans became official Thursday evening, with the Michigan Department of Health and Human Services (MDHHS) announcing it will be conducting aerial sprays in three Montcalm County townships Sunday night.

Portions of Eureka, Montcalm and Pierson townships will be included in the effort. The spraying will begin at 8 p.m. Sunday, weather permitting. The Mid-Michigan District Health Department will be distributing more information to the public today, including a map of the affected area.

Testing at the Michigan State University Veterinary Diagnostic Lab last week identified EEE in a horse from a property on Fitzner Road in Montcalm Township, the same township where Petersen resides.

"Obviously my first reaction was to find out what the best course of action is," Petersen said. "At the end of the day, I live there. They're all my neighbors and friends so I wanted to know what was going to be sprayed and what the course of action is."

The chemical that will be used in the spray is called Merus 3.0, an organic pesticide containing 5% pyrethrin, according to the health department. Pyrethrins are chemicals found naturally in some chrysanthemum flowers. According to the health department, the amount of chemical that will be used is so small that there is no risk to people, farm animals or pets. Residents inside the spray area will not notice anything — there will be no residue or odor of any kind. Merus 3.0 is used regularly in other parts of the country to prevent EEE with no negative health effects, according to the health department.

"I just want everyone that's in this affected area to be aware of what's going on and to take proper precautions," Petersen said. "Anything we can do to reassure the

**The Michigan Department of Health and Human Services will be conducting aerial sprays in portions of Eureka, Montcalm and Pierson townships Sunday night to help combat Eastern Equine Encephalitis (EEE), a mosquito virus.**

— Submitted photo | [www.cdc.gov/eee](http://www.cdc.gov/eee)



taxpayers of our great county that this spray is a safe practice and is practiced in other states regularly."

Petersen is considering hosting a town hall this weekend if enough residents are interested in attending to have their questions answered. Anyone interested in a town hall is asked to call Petersen at (616) 835-3438 or comment on his Facebook page.

"We could possibly do it at Montcalm Township Hall, but I'd be willing to have it at my house, or fill up the barn," he said.

According to the health department, avoiding mosquito bites is the best way to protect oneself from EEE and other diseases, like West Nile. One way to do this is to avoid outdoor activities between dusk and dawn, when mosquitos are most active. And while this is generally a good practice, rescheduling or changing outdoor school activities, such as sports practices and games is not necessary at this time, according to the health department. This is because the risk of EEE to humans in Clinton, Gratiot and Montcalm counties is currently very low. Other parts of the state may be taking these measures, but it is not necessary in the Montcalm County area at this time.

Additional ways to avoid mosquito bites include:

- Applying an insect repellent that contains DEET, or other Environmental Protection Agency-approved product to exposed skin, following the manufacturer's directions.
- Wearing long-sleeved shirts and long pants when outdoors.
- Applying insect repellent to clothing. Permethrin is a particularly effective re-

pellant for clothing.

- Maintaining window and door screening to help keep mosquitoes outside.
- Emptying water from mosquito breeding sites, such as buckets, unused kiddie pools and old tires.

EEE is a disease found in birds, and spread between birds by mosquitos. Certain species of mosquitos can also spread the disease from birds to some mammals, like horses, deer, and humans. The disease cannot be passed between mammals, such as from horse to horse or horse to human.

People younger than age 15 and older than age 50 are at greatest risk of severe disease following infection. Signs of EEE include the sudden onset of fever, chills, body and joint aches which can progress to severe encephalitis (inflammation of the brain).

EEE infection in humans is one of the most dangerous mosquito-borne diseases in the United States. Since 1980, there have been no more than one to three human cases identified in Michigan each year, primarily in southern and southwestern Michigan.

As of Friday, there have been eight human cases in six counties (Kalamazoo, Berrien, Barry, Cass, Calhoun and Van Buren). Of the eight cases, three resulted in death. EEE has also been identified in a total of 27 animals — 15 horses, 11 deer and one dog. These animal cases have been identified in 13 counties (Barry, Berrien, Calhoun, Cass, Genesee, Jackson, Kalamazoo, Kent, Lake, Montcalm, Newaygo, St. Joseph and Van Buren).

For more information, visit [www.cdc.gov/eee](http://www.cdc.gov/eee) or [www.michigan.gov/eee](http://www.michigan.gov/eee) online.

# Bugging out



Mid-Michigan District Health Department Emergency Preparedness Coordinator Hailey Brewer, left, explains details of a planned aerial spray to combat Eastern Equine Encephalitis, a mosquito virus, to Alannah Phillips, store manager of Daily Deals in Greenville, on Friday afternoon. — DN Photo | Elisabeth Waldon

## Health department officials spread the word about Sunday night's aerial spray for mosquitoes

ELISABETH WALDON  
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Andrea Tabor's last day on the job with the Mid-Michigan District Health Department was more eventful than her typical work week.

Tabor, who is retiring as director of community health and education for the health department, spent Friday visiting Greenville-area businesses, alongside Hailey Brewer, the emergency preparedness coordinator for the health department.

The two health workers were part of a coordinated effort to spread awareness and information about a planned aerial spray over Eureka, Montcalm and Pierson townships this Sunday night to combat Eastern Equine Encephalitis (EEE), a mosquito virus. The spraying will begin at 8 p.m., weather permitting. You can view maps of the affected portions of the townships at [www.mmdhd.org/EEE](http://www.mmdhd.org/EEE) online.

"We've been handing out frequently asked questions not only about the EEE disease itself, but also about the spray that's going to be happening Sunday," Tabor said. "The people that we have been able to talk to have been very receptive and we've actually received pretty positive feedback about spraying in general, which I think is good. I think that shows the information is getting out there. And the spray is pretty harmless, except to mosquitoes."

"I would say overall people are very thankful for the information that's going out," Brewer agreed. "To have this information, I think, is beneficial."

The aerial spray is part of a larger effort by the Michigan Department of Health & Human Services (MDHHS) to conduct sprays



Mid-Michigan District Health Department Director of Community Health & Education Andrea Tabor, right, explains details of a planned aerial spray to combat Eastern Equine Encephalitis, a mosquito virus, to John Woudwyk, store manager of Walgreens in Greenville, on Friday afternoon. — DN Photo | Elisabeth Waldon

in high-risk areas of 14 counties — Allegan, Barry, Berrien, Branch, Calhoun, Cass, Jackson, Kalamazoo, Kent, Leapeer, Montcalm, Newaygo, St. Joseph and Van Buren counties. The sprays will begin Sunday evening and continue until 4:30 a.m. Monday.

The pesticide being used is Merus 3.0, an organic pesticide containing 5 percent pyre-

thrin, according to the MDHHS. Pyrethrins are chemicals found naturally in some chrysanthemum flowers. They are a mixture of six chemicals that are toxic to insects. Pyrethrins are commonly used to control mosquitoes, fleas, flies, moths, ants and many other

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# Health officials spread the word about mosquitoes

Continued from Page 1

pests. Pyrethrins have been registered for use in pesticides since the 1950s.

In general, health risks are not expected during or after spraying, according to the MDHHS. No special precautions are recommended; however, residents and individuals who have known sensitivities to pyrethrins can reduce potential for exposure by staying indoors during spraying. Aerial spraying is not expected to have any impacts on surface water or drinking water.

Aerial spraying will be conducted in the nighttime hours as this is when mosquitos are more active. It is also when fish are less likely to be at the surface feeding and honeybees are most likely to be in their hives. However, owners should cover small ornamental fishponds during the night of spraying. While it is not necessary to bring animals indoors during spraying, concerned pet owners can bring animals inside during spraying.

Mosquito control professionals will apply the pesticide as an ultra-low volume (ULV) spray. ULV sprayers dispense very fine aerosol droplets that stay suspended in the air and kill adult mosquitoes on contact. This is a tactic other states have recently employed to combat EEE, according to health officials.

"We are taking this step to help protect the health and safety of Michiganders in areas of the state that are being affected by this dangerous mosquito-borne disease," said Dr. Joneigh Khaldun, MDHHS chief medical executive and chief deputy for health. "The continuing number of cases in both people and animals indicate an ongoing risk for EEE exposure. We continue to urge residents to protect themselves against mosquito bites until a hard frost."

According to Health Department Health Officer Marcus Cheatham, the MDHHS decided late Friday afternoon that people can request to opt-out of the spray on a case-by-case basis.

"People who want to opt-out should do so immediately because they need to load the co-

## A CLOSER LOOK AT EASTERN EQUINE ENCEPHALITIS

Eastern Equine Encephalitis (EEE) infection in humans is one of the most dangerous mosquito-borne diseases in the United States. Since 1980, there have been no more than one to three human cases identified in Michigan each year, primarily in southern and southwestern Michigan.

As of Friday, EEE has been confirmed in nine people, with three fatalities, in Barry, Berrien, Calhoun, Cass, Kalamazoo and Van Buren counties. In addition, cases have occurred in 27 animals from 13 counties: Barry, Berrien, Calhoun, Cass, Genesee, Jackson, Kalamazoo, Kent, Lapeer, Montcalm, Newaygo, St. Joseph and Van Buren. There is an EEE vaccine available for horses, but not for people. Additional animal cases are under investigation.

Avoiding mosquito bites is the best way to protect oneself from EEE and other diseases, like West Nile. One way to do this is to avoid outdoor activities between dusk and dawn, when mosquitos are most active. While this is generally a good practice, re-scheduling or changing outdoor school activities, such as sports practices and games is not necessary at this time, according to the health department. This is because the risk of EEE to humans in Clinton, Gratiot and Montcalm counties is currently very low. Other parts of the state may be taking these measures, but it is not necessary in the Montcalm County area at this time.

Additional ways to avoid mosquito bites include:

- Applying an insect repellent that contains DEET, or other Environmental Protection Agency-approved product to exposed skin, following the manufacturer's directions.
- Wearing long-sleeved shirts and long pants when outdoors.
- Applying insect repellent to clothing. Permethrin is a particularly effective repellent for clothing.
- Maintaining window and door screening to help keep mosquitoes outside.
- Emptying water from mosquito breeding sites, such as buckets, unused kiddie pools and old tires.

EEE is a disease found in birds, and spread between birds by mosquitos. Certain species of mosquitos can also spread the disease from birds to some mammals, like horses, deer, and humans. The disease cannot be passed between mammals, such as from horse to horse or horse to human.

People younger than age 15 and older than age 50 are at greatest risk of severe disease following infection. Signs of EEE include the sudden onset of fever, chills, body and joint aches which can progress to severe encephalitis (inflammation of the brain).

For more information, visit [www.mmdhd.org/EEE](http://www.mmdhd.org/EEE) or [www.cdc.gov/eee](http://www.cdc.gov/eee) or [www.michigan.gov/eee](http://www.michigan.gov/eee) online.

Source: Mid-Michigan District Health Department and Michigan Department of Health & Human Services

ordinates into the GPS tomorrow," Cheatham said.

Cheatham provided the Daily News with the following statement from the MDHHS:

"We are currently in a public health emergency and aerial applications provide the most effective option to suppress the outbreak by reducing mosquito populations. Due to the height and speed the plane will operate, it is not possible to stop the spraying over a single property. If an individual wishes to opt out of the application, under MDARD rules, an area of 1,000 x 1,000 feet would not be sprayed around the residence. This will reduce the overall treatment effectiveness in the area, mosquito populations upwind of the opt-out area will not be reduced, and neighbors will not benefit from the reduction in mosquito numbers.

"Before exercising this option, please re-

call that EEE is highly deadly, and that this aerial spraying does not carry any significant risks to human health. While it is unnecessary to do so, you can further reduce your exposure to EEE by staying indoors, and closing windows and doors.

"If, for whatever reason, you would still prefer that spraying not occur in your area, you may send an email with your name and full residential address to [eee@michigan.gov](mailto:eee@michigan.gov)."

Montcalm County Commissioner Adam Petersen, who is a member of the Board of Health, offered the option of hosting a town hall this weekend for residents who had questions about the spray, but he says it seems most residents have been able to get their questions answered by visiting [www.mmdhd.org/EEE](http://www.mmdhd.org/EEE), [www.cdc.gov/eee](http://www.cdc.gov/eee) or [www.michigan.gov/eee](http://www.michigan.gov/eee) online.

# Daily News

Monday, September 30, 2019

## EEE spray in portions of Eureka, Montcalm and Pierson townships postponed

Staff report

The Eastern Equine Encephalitis (EEE) aerial spray planned for Sunday night in portions of Eureka, Montcalm and Pierson townships was postponed by the state. A new spray date has not yet been announced.

Aerial sprays were still scheduled to take place in portions of Berrien, Cass and St. Joseph counties Sunday night.

Updates on which counties are being sprayed are being posted at [www.michigan.gov/emergingdiseases/0,4579,7-186-76711\\_77442---,00.html](http://www.michigan.gov/emergingdiseases/0,4579,7-186-76711_77442---,00.html) online.

## *Board of Health Takes On Full Slate of Issues*

**By Rosemary Horvath  
Herald Staff Writer**

Gratiot County will pay a portion of a new full-time staff position in the Mid Michigan District Health Department's Environmental Health Division.

An experienced Environmental Health Educator will be hired in the new fiscal year after Oct. 1.

Gratiot's share of the salary is \$14,631. This is beyond the regular annual allocation the county pays for health department programs.

Montcalm and Clinton counties which round out the health department's service area will pay their portions.

Need for a knowledgeable environment health educator who works well with the public materialized last year after the health department attempted but failed to strengthen its health regulations addressing sewage disposal and as other issues emerge in the district such as water quality.

Besides working with the public, the educator will evaluate and improve environmental conditions that could adversely affect public health, the job description states.

The educator will be based at the Ithaca district office but will work districtwide.

At the Board of Health meeting last week in Ithaca, Health Officer Marcus Cheatham introduced Ryan Klumpp and Doug Young, both environmental health specialists and sanitarians. Young has been working in Riverdale.

Stephanie Husted was introduced as a new community health worker for Gratiot County.

Health Director Dr. Jennifer Morse briefed board members on two emerging health issues:

*See Full Slate on page 4*



**MORSE**

# Gratiot County Herald

Thursday, October 3, 2019

## FULL SLATE *continued from page 3*

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Vaping among the age group 18 to 34 year-olds and this week's aerial pesticide spray over western Montcalm County.

Michigan has been the first state to ban the sale of flavored vapes with a nicotine level of 2 percent or less, but the ban is being contested by some Republican lawmakers.

Morse said popcorn flavors have caused specific lung damage, particularly among young. Coffee and cinnamon flavors are more toxic to body tissues.

"There's just a bunch of gunk" where the manufacturing is in unregulated facilities, Morse said.

Spraying to kill mosquitoes that could be infected with Eastern equine encephalitis was to begin Sunday night into early Monday morning, weather dependent.

Altogether, the state health department funded the cost of spray-

ing for EEE in 14 west Michigan counties, where cases of EEE have been documented.

Michigan had nine confirmed cases this year. Three became fatalities. There have been 27 confirmed animal cases.

An infected horse died in Montcalm Township, which is part of Montcalm County Commissioner Adam Petersen's district.

The Board of Health member offered to organize an educational forum for his district, particularly to include members of the Amish community.

Spraying would cover portions of Montcalm, Pierson, and Eureka townships.

The aerial pesticide sprayed was Pyrethrins which goes by the commercial name of Merus 3.0.

Pyrethrins are pesticides found naturally in some chrysanthemum

flowers that are toxic to insects.

Morse explained EEE is a disease of birds like the West Nile Virus.

Following a discussion, Petersen moved to accept the state's plan for the mosquito control. Gratiot County Commissioner Chuck Murphy seconded the motion which received unanimous support. Absent was Board of Health chairman Gratiot County Chairman George Bailey.

Following a robust discussion on pros and cons, board members unanimously voted to forego seeking national accreditation through PHAB, the Public Health Accreditation Board.

Commissioner Petersen had asked point-blank: "Do we need this?"

Cheatham replied, "I say no."

Clinton County board chairman Bruce DeLong moved and Petersen seconded to not participate.

While the board agreed national recognition is worthwhile, members couldn't justify spending the first year fee of \$12,000 and \$8400 annually for the next four years.

Public health is underfunded as it is so sacrificing local programs to cover the cost couldn't be justified, they agreed.

MMDHD led the state as becoming nationally accredited in 2015. A new 5-year cycle would begin next year.

Staff agreed this would not mean standards would be lowered and that quality would be maintained.

"We will still be doing things for state accreditation," Cheatham said.

# Gratiot County Herald

Thursday, October 3, 2019

## Riverdale Residents Hopeful Future Water Tests Wards Off Municipal System

**By Rosemary Horvath**  
**Herald Staff Writer**

A Seville Township citizens committee working with the Mid-Michigan District Health Department continues to see that causes of septic runoff in the small hamlet of Riverdale are removed.

Mikie VanHorn, a Riverdale resident and citizens committee member, said most Riverdale residents remain hopeful they will not be forced to replace private septic systems with a sanitary sewer system that has been proposed by the Michigan Department of Environment, Great Lakes and Energy.

She reminded the MMDHD Board of Health at its meeting Sept. 25 that a concerted effort is being made to resolve all the sanitary problems.

More property owners have applied to the health department to install new septic system permits. Meanwhile, they have "pump and haul" contracts, she said.

Township trustee Doug Brecht, another committee member, added that a county drain will soon be cleared and opened by the drain commission. Also, a section of tile where a fiber optics company had inadvertently sliced through and connected two drains also will be repaired.

While VanHorn has gone door to door talking with local residents, Brecht has mapped out known catch basins and drains and discovered ones the drain office had never recorded.

Once these projects are completed, the Riverdale group will ask the health department to return to Riverdale for another round of testing.

The citizens group is convinced test results will no longer show high levels of E. coli bacteria from human waste originating from faulty septic systems and/or drain

fields, or where no septic was connected.

# Daily News

Saturday, October 5, 2019



The *Coquillettidia perturbans* mosquito, also known as the cattail mosquito, is known as the “bridge vector” of deadly Eastern equine encephalitis because it transfers the virus from infected animals to humans. — Shutterstock image

## Bad weather, resident concerns hamper efforts to spray for EEE

ROBIN ERB | Bridge Magazine

A seemingly simple move against the deadly Eastern equine encephalitis virus — a statewide, airborne spraying campaign to kill mosquitoes that can the disease — is off to a slow start.

Weather has grounded the planes from the Illinois-based mosquito control company, Clarke, that were to carry pesticides. Rain renders the spraying less effective, and low cloud cover makes it difficult for pilots wearing military-grade night vision goggles to see, said Laura McGowan, Clarke spokeswoman.

Through Thursday afternoon, the state had sprayed 186,146 acres.

Meanwhile, resident concerns about chemicals sprayed overnight from low-flying aircraft has shrunk the target area from about 720,000 acres to 500,000 acres, said Lynn Sutfin, spokeswoman for the Michigan Department of Health and Human Services.

Residents are “concerned about their health,” said Leslie Kinnee, spokeswoman for the Mid-Michigan District Health Department.

“They’re concerned about their livestock. They’re concerned about their pets. They’re concerned ‘I still have vegetables in the garden. Will this pesticide be harmful to me?’” she said.

The health department, which covers Clinton, Gratiot and Montcalm counties, issued a notice to residents that were in areas to be sprayed after staff began fielding concerns. The notice instructed residents how to opt out of the program, but it also stressed the deadly nature of the EEE virus that this week killed a fourth Michigander. The victim lived in Calhoun County, according to the Michigan Department of Health and Human Services.

“I know people are concerned, we un-

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# EEE spray efforts hampered

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derstand that,” Kinnee said. “But when you look at the facts, it’s a pretty nasty disease.”

On Sept. 27, the state announced plans to spray 720,000 acres hardest hit by EEE, which is rare in the U.S. but deadly, killing roughly 1-in-3 people who become ill. Even those who survive may suffer severe and permanent brain damage. Adults 50 and older and children are at greatest risk.

On average, the United States reports about seven fatal and non-fatal human cases each year for the entire country. But already this year, nine cases, including four fatalities, have been reported in Michigan’s Barry, Berrien, Calhoun, Cass, Kalamazoo and Van Buren counties.

Additionally, EEE has killed horses, white tail deer, and two wolf pups in Barry, Berrien, Calhoun, Cass, Genesee, Jackson, Kalamazoo, Kent, Lapeer, Montcalm, Newaygo, St. Joseph and Van Buren.

Those cases and a prolonged warm spell prompted the state to launch its first scale spraying program since 1980. The state posts daily updates for residents on its Area Treatment Zones map.

The pesticide, Merus 3.0, is an organic pesticide containing 5 percent pyrethrin, a chemical found naturally in some chrysanthemum flowers but that is toxic to insects.

The product lasts only a short time in the air. It dissolves as it hits the ground, eliminating concerns for bees because they’re not active until the morning, said Clarke spokeswoman McGowan.

The droplets settle to the ground within 30 minutes of spraying” and “immediately break down,” and Clarke pilots spray only until 3:30 a.m. or so, meaning the product has disappeared by the time bees emerge in the morning, she said.

But even as the state sought to reassure residents of the safety of Merus 3.0 and reported its fourth death from EEE

, residents were concerned enough about chemicals that they have opted out of the spraying program.

Kalamazoo County, considered to be a high-risk area, had so many citizens requests to opt out of the program that it has withdrawn altogether from the spraying program, reducing the areas to be sprayed throughout the state by about 210,000 acres, according to Lynn Sutfin, spokeswoman for the state health department.

Among those concerned are Michigan’s bee keepers, who worry about the pesticides harm to honeybees.

The Great Lakes Bee Supply in Kalamazoo’s Galesburg recommended on its Facebook page that beekeepers pull their honey from hives early and provide clean water, specialized for honeybees, inside the hives.

Bees play a crucial role in the food chain, said owner Bill Graham, and beekeepers are already struggling to maintain hives against a shrinking bee population.

“I’m not trying to be ruthless,” Graham said, referring to the deaths from EEE. “But bees pollinate all our food all our vegetables, all our fruit, the crops for the cattle to eat, the pigs to eat — everything. We’re doing everything we can to get pollinators to make it, then they mass spray an area and could kill everything,” he said.

He said he did not lobby against the spraying, but that he recommended beekeepers close up the hives on the nights that the state sprays and throughout the following day.

The Michigan chapter of the Sierra Club, a national environmental advocacy group, has also fielded calls.

Chairwoman Anne Woiwode said it’s a difficult balance between those concerns and the human death toll. The chapter has advised its members to make their own decisions about spraying, sharing with them information on how to opt-out if that’s their decision.

## County Locations Receive "All-Clear" Results for PFAS



Posted on Wednesday, October 9th, 2019 and is filed under [News](#). You can follow any responses to this entry through the [RSS 2.0](#) feed. You can skip to the end and leave a response. Pinging is currently not allowed.

**By Rosemary Horvath**  
**Herald Staff Writer**

Gratiot County had a good news message last week delivered by Liz Braddock, environmental [health](#) director at the Mid-Michigan District Health Department.

Water tests from residential wells at sites in Ithaca and in Alma had no detection of PFAS chemicals.

"This is really good [news](#)," she stated.

The Michigan Department of Environment, Great Lakes, and Energy will continue to monitor the area behind the county animal control facility that had functioned as a landfill for the city of Ithaca that still owns the property.

A plan remains in place with the current owner of the former Total Petroleum Refinery location in Alma.

A year ago, the state tested all schools and daycare centers in the county as part of the statewide surveillance. All area locations showed no evidence of the chemicals, Braddock said.

Testing four residential wells for PFASs in Alma was a joint effort between the health department and EGLE.

The location of the residential wells is near Horse Creek along Lincoln Road near the former site of the refinery that operated from 1938 to 1999.

The current owner of the property is MRP Properties, a national operation with an Alma office.

There had been multiple fires on-site during Total's operation when a gaseous film-forming foam was used to extinguish the fires. This substance has been identified to have contained harmful chemicals.

The former Ithaca-owned landfill showed low levels of the chemicals which prompted testing of nearby residential water wells.

PFASs are man-made chemicals identified as Per- and polyfluoroalkyl substances. More than 4,000 PFASs have been used in technical applications and consumer products, such as the fire foam.

Among the other agenda items discussed at the Oct. 1 board meeting, County Administrator Tracey Cordes highlighted the number of professional conferences staff members have attended, including herself.

Cordes also attended the Alma College Building Communities forum this week as a forum participant.

Seifert Concrete & Masonry of Ashley was awarded a contract to replace the sidewalk on the south side of the courthouse for \$10,625. This includes landscape restoration. Cordes noted that the city of Ithaca routinely replaces public sidewalks but, in this case, the county that doesn't pay city taxes occupies the entire block and is responsible.

Searles Lawn Care of Ithaca had a contract renewed for snow removal on courthouse property.

Commissioners appointed Republican Vicky Sue Salisbury of Pine River Township and Democrat Maryanne Evans-Justin of Alma to the Board of Canvassers. They and others were recommended by their respective county chairman. Evan-Justin was reappointed after the previous term expired in October. Republican Donna Crumbaugh chose not to seek another term.

Commissioners with the exception of the board chairman who was absent met in closed session to continue discussing union contract with sheriff department personnel.

# Daily News

Thursday, October 10, 2019

## 3 Montcalm County townships sprayed for EEE virus

Staff report

After repeated postponements, three townships in Montcalm County have all received an aerial spray for the Eastern Equine Encephalitis (EEE) mosquito virus.

Portions of Montcalm and Pierson townships were sprayed last Friday, while portions of Eureka Township were sprayed Sunday, according to Mid-Michigan District Health Department Public Information Officer Leslie Kinnee.

Kinnee said a total of 109 people from Montcalm County requested to opt-out of the spray, although only 15 of those re-

quests were from people living in the actual spray zones.

More than 557,000 acres were sprayed throughout Michigan and all areas planned for treatment have been compared as of Tuesday, according to the Michigan Department of Health & Human Services (MDHHS). A total of 16 counties have reported EEE activity, with 39 animals testing positive for EEE infection and 20 human cases of EEE and other mosquito viruses being reported to date. Four people have died from EEE.

The pesticide used in the aerial spray was Merus 3.0, an organic pesticide containing 5 percent pyrethrin, according to

the MDHHS. Pyrethrins are chemicals found naturally in some chrysanthemum flowers. They are a mixture of six chemicals that are toxic to insects. Pyrethrins are commonly used to control mosquitoes, fleas, flies, moths, ants and many other pests. Pyrethrins have been registered for use in pesticides since the 1950s.

In general, health risks are not expected from the spraying and it's not expected to have any impacts on surface water or drinking water, according to the MDHHS.

Visit [www.mmdhd.org/EEE](http://www.mmdhd.org/EEE), [www.cdc.gov/eee](http://www.cdc.gov/eee) or [www.michigan.gov/eee](http://www.michigan.gov/eee) for more information about EEE and the aerial sprays.

# Lakeview Area News

## Thursday, October 10, 2019

### Understanding Eastern Equine Encephalitis



By Kyle Ogden

The mosquito-borne virus, Eastern Equine Encephalitis (EEE) has been a health concern within Michigan this fall. Prevention of EEE is important and educating ourselves is vital. There's no vaccine and no treatment other than support measures like IV fluids. The virus has infected about 9 residents in Michigan with 4 fatalities as of October 2, according to a state update. Reported cases of EEE have been found across 15 Michigan counties. 16 human cases of EEE and other arboviruses have been reported this year.

#### Who and what can get infected with EEE?

Anyone can get infected with EEE. Children under the age of 15 years old and people older than 50 are more susceptible to EEE. One third of the cases of EEE infections result in fatalities. Thirty-three animals have been infected with the virus in Michigan. This includes horses, mules, donkeys, pigs and llamas. Birds serve as the primary reservoir host and amplifying hosts. The mosquito feeds on a host then bridges the spread of the virus to humans and horses.

#### What are the symptoms of EEE?

According to the Center for Disease Control (CDC), the symptoms start about four days after the bite from an infected mosquito. The symptoms are chills, fever, fatigue, joint pain/muscle aches and inflammation. Anyone experiencing symptoms should see a doctor immediately.

#### What can you do to protect yourself?

Wear a long sleeve shirt and pants; use insect

spray with one of these ingredients: DEET, Picaridin, IR3535, Oil of Eucalyptus (OLE), Para Mentane-diol (PMD), or 2-Undecanone. Avoid outside activity between 7p.m. to 7 a.m., secure window screens, keep grass cut, discard old tires, repair failed septic systems, clean clogged gutters, and flush oriental fountains. Also, replace water in pet bowls twice a day.

When applying insect repellent to babies and children, always follow the recommended instructions. Adults: spray insect repellent onto your hands and then apply to child's face. Do not use products containing oil of lemon eucalyptus (OLE) or Para-Mentane-Diol (PMD) on children under 3 years old.

#### Where in Michigan are people getting infected?

Cases have been reported in 15 counties: Allegan, Barry, Berrien, Calhoun, Cass, Genesee, Jackson, Kalamazoo, Kent, Lapeer, Livingston, Montcalm, Newaygo, St. Joseph, Van Buren. Montcalm, Newaygo and Kent are considered high-risk counties.

*Lakeview Area News* has spoken with Leslie Kinnee of Mid-Michigan District Health Department about the townships that have been sprayed in the higher affected areas. Those townships are Montcalm, Pierson and Eureka. Pyrethrins are chemicals [used for spraying] found naturally in some chrysanthemum flowers. This chemical has been evaluated and found to be safe. This may reduce the risk of getting infected by killing the mosquito larvae.

For up-to-date information can be found on [www.michigan.gov/EEE](http://www.michigan.gov/EEE) or [www.cdc.gov/EEE](http://www.cdc.gov/EEE).