

PROTECT YOUR OPERATION FROM FLIES

Research shows that protecting your pigs against flies is now more important than ever. ClariFly® Larvicide is feed-through fly control that works to reduce your risk of flies. It works by stopping the fly life cycle in the larval stage, preventing the emergence of harmful adult flies. That means flies stop repopulating, helping to reduce the risk of deadly diseases on your operation.



ClariFly® Larvicide is proven to prevent the development of house flies in treated manure by

96.7%

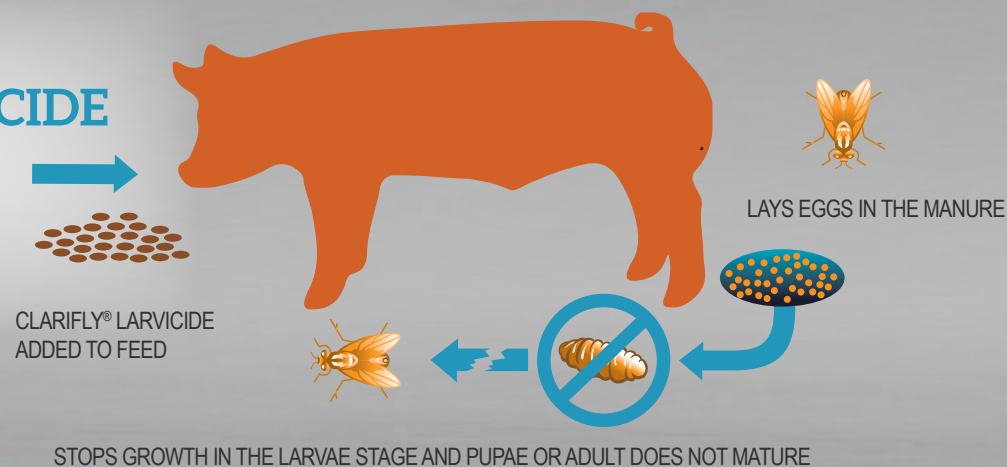
THE NEW BIOSECURITY THREAT FLYING IN FRONT OF YOUR FACE

Flies Are Buzzing Through Your Biosecurity

Flies carry and transmit PEDV, a coronavirus that causes piglets to develop scours that make them stop eating. Infection results in high morbidity and mortality in neonatal piglets with rates approaching 80-100 percent within 12 to 36 hours of onset.



CLARIFLY® LARVICIDE INTERRUPTS THE FLY LIFE CYCLE



ClariFly® Larvicide also features a target-specific mode of action and has zero impact on swine, humans and beneficial insects.



While ClariFly® Larvicide helps prevent the emergence of flies, there is no silver bullet for fly control. Starbar® baits, traps, and sprays also will control flies on your operation.



In addition to protecting against house flies, stable flies, and dark-eyed fruit flies, ClariFly® Larvicide 267 controls non-biting gnats and Indian meal moths.



Visit CentralFlyControl.com or call 1.800.347.8272 to learn more about how ClariFly® Larvicide can help protect your operation from the emergence of flies, and check out StarbarProducts.com for more information on controlling adult flies.

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New research confirms: Flies can spread PEDV

Bioassay test proves flies are a vector for porcine epidemic diarrhea virus. By JoAnn Alumbaugh

Flies have been part of pig operations as long as people have been raising pigs. But now producers have another good reason to think about fly control: A study conducted earlier this year confirms that even a few flies have the ability to infect pigs with porcine epidemic diarrhea virus (PEDV). Although PEDV isn't zoonotic, it can be devastating for herds that contract the virus because of high death loss, particularly in baby pigs.

Grant Allison, DVM, a veterinarian at the Walcott (Iowa) Veterinary Clinic, has seen what the virus can do. In his practice alone, he currently has herds representing about 20,000 sows that are positive for PEDV.

It's unknown how the virus enters a herd. There is speculation about different possibilities, but to date, no unequivocal proof exists.

New research connecting flies to the potential spread of PEDV could have major implications for the industry. Flies captured on swine operations amid outbreaks of PEDV and Senecavirus A, tested positive as carriers of the viruses in Iowa and Minnesota studies, respectively. In the case of Senecavirus A as well as PEDV, flies transmitted live virus—the first known such findings in a commercial setting.

Important findings

Allison knew he was on to something when he did a literature search and found the topic hadn't been explored or documented as a route of transmission

for PEDV. In talking with others, he picked up on the connection between pigs with PEDV and flies, to see if they transmitted disease.

"Flies replicate in moist conditions, that could involve manure, so there's an intimate relationship between manure and virus and flies," Allison says. "The idea that flies might be a possible vector was immediately obvious. We came up with a plan and started by finding an outbreak and trapping flies to see if the flies were positive."

The flies were positive for PEDV via a Polymerase Chain Reaction (PCR) test.

"In and of itself, that doesn't prove the virus on those flies is live, it just means

Spellman, regional sales manager for Central Life Sciences, but that is changing as research uncovers more about the risk that flies pose to operations.

"We're finding these flies infected in January in a non-seasonal fashion," Spellman says. "Now that we know flies pose more of a risk in the biosecurity discussion, producers will want to implement a plan that has the best possibility of success. That involves killing more than just adult flies through periodic spraying. It would involve controlling the population to reduce the fly population dynamics to a level that reduces the risk of them being a vector and transmitting the disease."

As a risk mitigation strategy, products can be a part of an integrated pest management program to reduce the risk, now that it's known flies can serve as a vector and transmit disease from other operations, from

vehicles, from breaches in security, or from transport vehicles. An "all or nothing" fly control program can be part of an operation's overall biosecurity plan to help potentially reduce seasonal breaks or re-breaks at any time of the year.

Comprehensive control

As far as a comprehensive control program is concerned, Allison says there are basically two options, in his opinion.

"You'll have to use some kind of fogger, mister or spray that's going to be used extensively and routinely, or you'll use a larvicide in the feed," Allison says. "I'm concerned about fogging or misting in

terms of worker safety and health, so I'd look at the in-feed larvicide first."

Allison and Spellman say they want to replicate the bioassay to see if the results are the same. "At the end, it's what was in or on the fly that infects pigs," Allison says. "In a clinical sense—it's not the fly that's important. The pig is not going to eat all those flies, but flies are continually on their feed and water, on their backs and ears. The fact that the liquid fly attractant was contagious is extremely important. In an infectious model at the barn level, where the fly goes is where transmission is likely happening."

Continual learning

Allison was happy to be part of the project. "I've been in practice for 30 years, and I've never been involved with documentation of how a disease is transmitted," he says, adding what they learned about flies as a vector is on par with the discovery PEDV could be transmitted to pigs via feed ingredients or through contaminated surfaces.

"It's important that you know what could be the source of infection and do your best to minimize it," Allison says. "If you don't know flies transmit it, then you're not going to control flies. Now, maybe you should think about it, because flies are a vector, just like a dirty truck."

"Add this to the list of those routes of transmission," he adds. "I'm pretty sure no one has really paid much attention to flies as a vector because they haven't for the last 30 years, but producers and their veterinarians had better be thinking about it now. Ignore it at your peril."

In addition, this threat is something producers can manage or control, unlike feed ingredients. Allison's clients don't have the capability or time to test feed ingredients and refuse them before they're fed to pigs.

"We know feed and transport vehicles are a risk, but at the end of the day, pigs have to eat and trucks have to move. Fly

control is something every producer can do at the farm level that might make a difference."

"Swine pests pose a significant threat to an operation's bottom line by spreading disease, interfering with animal comfort and performance and even potentially bringing about nuisance lawsuits from neighbors," says Mark Taylor, vice president of sales and marketing, ag products, at Central Life Sciences, which partnered in the project. An integrated pest management (IPM) program can help protect producers from these risks, he adds.

Chance to make a difference

Allison was especially excited about the results. He's seen how depressing and demoralizing it is for producers to deal with a disease, especially when that disease is PEDV.

"I'm the person who gets called to euthanize the pigs that won't thrive, and I've done it enough times that it's hard to sleep at night," he says. "The economic cost of PEDV is large, and no one wants to see that kind of suffering in man or beast. This might be my contribution, to help ease that suffering. If just one farm doesn't have to go through an outbreak as a result of this research, it would be a victory, and that would be fantastic."

"Dr. Allison cares deeply about his clients, their welfare and their pigs' performance," Spellman says. "He's doing this for the right reasons."

This new research shows flies pose a year-round risk for disease transmission, creating a new paradigm. A disease risk reduction strategy to control flies will need an "all-in" approach, including an integrated fly control program that is safe for people and pigs. A fly-control program, along with sound husbandry practices and diligent biosecurity measures, offer one more way for producers to protect their herds. 🐷

Editor's Note: If you're interested in seeing a summary of the research from Iowa State University, contact the author at: jalumbaugh@farmjournal.com

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