## **INSECTS and VECTORS**

The following information is from the research I did online regarding insects and vectors. There are several articles online with unbiased research and analysis of insects for everyone to read.

The National Association of Local Boards of Health (NALBOH) has put out a booklet to assist local boards of heath on concerns of CAFO's. Their mission is to strengthen boards of health, enabling them to promote and protect the health of their community. In this booklet are pages that list the concerns of Insect and Vectors. Houseflies, stable flies and mosquitoes are the most common insects that are associated with CAFO's. Houseflies breed in manure, while stable flies are attracted to the organic material, such as livestock bedding. Mosquitoes breed in standing water, and on the edges of manure lagoons that can cause mosquito infestation to rise. (Human manure lagoons have to be treated and I have not read anywhere in Indiana that livestock manure lagoons have to be treated.) Since flies are attracted to human food, there is a potential for spreading bacteria or pathogens to humans, including microbes that can cause dysentery and diarrhea. Mosquitoes spread zoonotic diseases, such as West Nile virus and different strains of encephalitis are just a few. Residents closest to CAFO's are at a much higher risk do to higher fly population than average homes.

Pathogens are parasites, bacterium, or viruses that are capable of causing disease, or infection in animals or humans. There are 150 pathogens in manure that could impact human health. The major source of pathogens are from CAFO's is in the animal manure, where flies like to breed. We can't stop all the flies and they don't have not problem flying up to 15 miles from a CAFO's. The highest percentage of flies, stay within a 2-mile radius from a CAFO. Again, that is why residents in a 2-mile radius are at a higher risk.

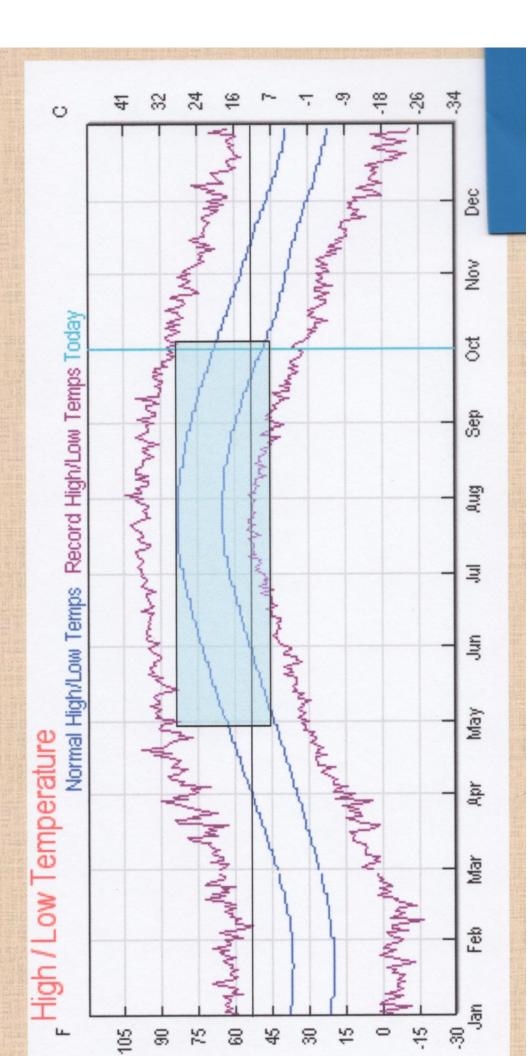
I researched another article where they did a study on fly activity in Southern and Northern states. I have attached the results and it should be of no surprise. CAFO's are magnets for flies, mosquitoes, beetles and other insects and have a much higher volume of insects, then traditional farms. Residential communities health, are at a higher risk near a CAFO's, needless to say the impact on lake residential communities that have an abundance of water areas.

I read this in an article "Residences closest to the feeding operations experience a much higher fly population that average homes. To lower the rates of insects and any accompanying disease threats, standing water should be cleaned or emptied weekly, and manure or decaying organic matter should be removed twice weekly "(Purdue Extension, 2007). Not sure if exact wording, but another acknowledgement of the risk.

There weren't many articles on rats and mice. I did find one on Wright County Eggs, where many recalled eggs were produced. It had several live rats and mice living inside the laying house. Mainly do to the negligence of owners. There are a couple of counties that felt it is a concern and wrote an ordinance.

Homework completed by Rita Harness 1/17/18 2:12 PM

## Window Fly Activity



## Distribution of Dispersal

