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## **AGRIVIEW**

**By: Rick Hirsch  
County Extension Agent**

**Anticipating a significant increase in the state's mosquito population, Texas A&M AgriLife Extension Service entomologists are offering tips on how we can help slow mosquito breeding in backyards and protect from being bitten.**

**"Mosquito populations are booming throughout the state and will likely not go away anytime soon after all our rains and flooding," said Dr. Mike Merchant, AgriLife Extension urban entomologist in Dallas. "Not all of the mosquitoes swarming us right now are likely to carry disease, but West Nile virus-infected mosquitoes are beginning to show up in traps."**

**For more information about where mosquitoes can breed, and how to identify Aedes and other mosquitoes, go to AgriLife Extension's Mosquito Safari website,**  
<http://mosquitosafari.tamu.edu>

**Humans are not the only ones to suffer from mosquito-borne diseases, AgriLife Extension experts noted.**

**Mosquitoes can also be vectors for dog heartworms. An infected mosquito can pass tiny heartworm parasites on to any uninfected dog it bites.**

**Heartworm causes lasting damage to heart, lungs and arteries, and can affect the dog's quality and length of life. In addition, horses are susceptible to several encephalitis diseases, including West Nile virus, and should be vaccinated every year.**

**To control mosquitoes effectively and economically, is to understand their basic life cycle and be familiar with the important mosquito types. Mosquitoes can be divided into two groups based on where they lay their eggs. For example, floodwater mosquitoes lay eggs on the ground in low spots, and these eggs hatch when it rains and the low area fills with water.**

**With the unusually high May rainfall, these mosquitoes are common now and likely to remain so during the duration of the rain. Floodwater mosquitoes are good fliers and can travel many miles from their breeding sites in temporary pools, roadsides and low lying areas.**

**There is little people can do on their own property to protect themselves from floodwater mosquitoes, other than stay indoors or wear repellent.**

**We have more control over other mosquitoes that breed in containers and live closer to town. Container breeding mosquitoes include some of the most significant species that may negatively affect human health, including the common house mosquito.**

**The entomologists referred to what they called “the four D’s” as a general means for people to help manage mosquitoes and protect against bites. These are:**

**- Dusk/Dawn – Avoid being outside when mosquitoes are searching for a blood meal, which is usually in the early morning hours and just before the sun goes down. While some species are daytime biters, most prefer to feed at dusk and dawn.**

**- Drain – Empty standing water from “containers” around your home and work areas, such as buckets, wheelbarrows, kiddie pools, toys, dog bowls, water troughs, tires, bottles, etc. Make improvements that allow standing water to run off following rains.**

**- Dress – If out during mosquito feeding hours, wear long sleeves and pants in plain colors. Avoid attracting them by wearing excessive amounts of perfume or aftershave.**

**- Defend – Any time you go outside for an extended period of time, wear an insect repellent.**

**There are also techniques that can help control larval stage of mosquitoes in water.**

**Mosquito dunks containing insect growth regulators or Bti, the mosquito larva's bacterial natural enemy, can be used in water that cannot be dumped or drained to reduce mosquito populations.**

**Products that apply a surface film or oil on the water can also be used to reduce larval mosquito and pupal populations by preventing them from getting air through their breathing tubes. The use of films or oils should be limited to locations without any other organisms, since it will prevent oxygen to the non-target organisms as well.**

**The entomologists agreed that repellents with DEET remain the gold standard for protection.**

**DEET has some of the best persistence. However, there are good alternatives to DEET if you aren't going to be outside very long. The natural repellent, oil of lemon**

eucalyptus, is a good alternative to DEET for those who prefer an organic product. The most important thing is to find a repellent that works for you and to use it.

Merchant periodically posts news updates on mosquito activity on his City Bugs website, <http://citybugs.tamu.edu>. He also has developed four short videos on different aspects of mosquito control that can be found at <http://bit.ly/1F8cZkg>.

**STATE OF TEXAS AGRICULTURAL RELIEF (STAR):**

The Texas Department of Agriculture (TDA) is accepting applications for the State of Texas Agriculture Relief (STAR) Fund Producer Disaster Assistance Program (Program). Funding for the Program is available through the STAR Fund established to collect monetary contributions from private individuals and entities to fund disaster recovery efforts. TDA will provide a cost share to qualified agricultural producers (producer) for a specific value determined by TDA (maximum assistance will not exceed \$5,000 per applicant). The Program is designed to provide relief to Texas agricultural producers adversely impacted by natural disasters.

An eligible producer is a farm operator located in a county declared a disaster by the Texas Governor. Applicants may submit documentation for agriculture related expenses not paid for by insurance or other governmental sources related to farm fencing, agricultural structure repairs (for example: barns, chicken houses, or stables), animal removal or other necessary agricultural related costs directly related to the natural disaster. Applicant must demonstrate that expenses incurred were related to agriculture production and directly caused by the disaster.

Submitted applications will be reviewed individually and eligibility of expenses will be determined on a case-by-case basis. TDA will assist producers by reimbursing them 50% of the eligible costs up to a maximum value set by TDA. Applicants will be required to

**show documentation of the costs, including both the reimbursed portion and the matching portion. (Example: A producer would need to submit documentation for \$2,000 of eligible expenses to receive \$1,000 in reimbursement.)**

**Applications must be complete and have all required documentation to be considered. TDA reserves the right to request additional information or documentation to determine eligibility. Applications missing documentation or otherwise deemed incomplete will not be considered for funding until sufficient information has been received. TDA reserves the right to deny applications if the applicant is unable to provide required documentation within thirty (30) days of TDA requesting the information. All determinations regarding eligibility of expenses and funding amounts are final.**

**Applications MUST be received by close of business sixty (60) business days after the Texas Governor's declaration of disaster for the county in which assistance is sought. Please see TDA's website for a complete listing of eligible counties and deadlines. LATE APPLICATIONS WILL NOT BE ACCEPTED.**

**IMPORTANT DATES:**

**June 25<sup>th</sup> - Horticulture Field Day - Texas A&M AgriLife Research and Extension Center at Overton - Free Admission - 8:30 a.m.**

***Rick Hirsch is the Henderson County Extension Agent - Agriculture for the Texas A&M AgriLife Extension Service. Visit our web page at <http://henderson.agrilife.org/>.***