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Pest Check

Subterranean Termite Swarming Season

For one subterranean termite genus, *Reticulitermes*, the months of February through May means swarming season in Texas. These winged reproductive swarmers emerge from the colony in order to fly and begin a new colony. Subterranean termites are social insects that live in colonies underground, in order to avoid sunshine and outside air. Their caste system consists of workers, soldiers, and reproductives. The workers build shelter tubes from tiny pieces of soil, wood, and debris that are glued together using secretions and fecal material. These shelter tubes form an extensive tunneling system underground that allows them to carry resources back into the colony. The soldier termites protect the colony from other insect intruders and the reproductives are responsible for starting a new colony.

Termites feed on cellulose material, including roots, paper, and cardboard. They are important to our ecosystem, since they decompose cellulose; however, they become economic pests when they invade structures. Termite damage may be detected by the presence of mud tubes, damaged wood, and the swarming of winged reproductive termites.

Some Preventative Practices:

- 1) Any stumps, scrap wood, grade stakes, cardboard boxes, and newspapers found around structures should be removed.
- 2) Firewood, landscape timbers, and compost piles should not be stored around foundations of structures.
- 3) Minimize moist areas by grading the soil and installing gutters to allow water to drain away from the building.

Some Chemical Approaches to Termite Control:

If termites are found around structures, some measures can be taken, such as applying liquid insecticides and/or installing baiting systems. When soil insecticides are applied, they provide a continuous chemical barrier around the structure. There are both repellent and non-repellant liquid insecticides that can be applied around structures. The

termites attempting to tunnel into the chemically treated area will either be killed or repelled, thus preventing them from entering the structure. Termite baiting systems can also be installed above ground and/or in the ground around structures. The bait stations usually contain a piece of untreated wood until termite activity is detected. Once termite activity is observed, then the untreated wood is replaced with a plastic tube containing an insecticide within a cellulose matrix. The worker termites feed on the cellulose matrix and then exchange it with other members of the colony. This results in death of the colony members.



Photo of termite damage. Photo by Center for Urban and Structural Entomology, Texas A&M University.

Honey Bees and Toxin Filled Nectar

Scientists at Newcastle University in the United Kingdom have found that honey bees learn to avoid nectar containing plant toxins, but they will still eat the nectar when there is no other alternative available. They found that when bees are surrounded by toxic plants such as almonds or apples, they are forced to eat the toxic nectar. This may be another factor affecting colony health. Their study showed that bees that ate toxin filled nectar became sick, so they avoided the smell of the toxic flowers. By understanding how honey bees learn to detect toxins could help to breed plants that do not contain toxins, so the honey bees will be more protected.



Photo of a honey bee. Photo by the Texas A&M University Honey Bee Lab, College Station, TX.

Two Spotted Leafhopper Spotted in Texas

A two spotted leafhopper was spotted in Houston, TX in 2010. This leafhopper is known to reside in California and Hawaii. The two-spotted leafhoppers are about $\frac{1}{4}$ inches in length, pale yellow in color with a dark stripe down the center of the back, and two eye spots at the end of the wings. Since its eyes are yellow and blend in with the head, the dark brown eye spots at the end of the wings make the leafhopper appear that it is moving backwards as it walks.

All leafhoppers are classified in the family Cicadellidae. They have piercing-sucking mouthparts that allow them to pierce plant tissue and feed on plant juices. Leafhoppers usually have a wide range of host plants and their feeding causes yellowing of plant tissue. Also a leafhopper's excrement, honeydew, can promote the growth of sooty mold.

Some Control Options

Leafhoppers can be excluded from areas using screening or row covers. For open field flower or nursery production, silver reflective plastic mulches have been shown to repel leafhoppers.

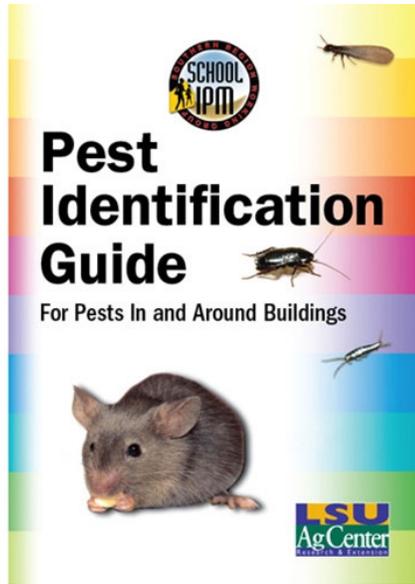
Insecticides containing such active ingredients as permethrin, imidacloprid, or acephate can be effective at controlling leafhoppers. Before using a pesticide for the first time or on a new crop or cultivar, treat a few plants and check for phytotoxicity. Remember to read and follow the instructions on the label before using any pesticide.



Photo of *Sophonia orientalis*. Photo by Graham Montgomery, Copyright ©2010 found on <http://bugguide.net/node/view/433910>.

New Pest Control Book

A new book titled Pest Identification Guide for Pests In and Around Buildings is a great pocket guide to help identify pests commonly found in and around structures. It contains excellent photos and information about pests, such as ants, cockroaches, rats, spiders, bed bugs, and more. The cost is \$12 and it can be purchased online at <https://store.lsuagcenter.com/p-85-pest-identification-guide-for-pests-in-and-around-buildings.aspx>.



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