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Pest Check

Subterranean Termite Swarming Season

February through May is termite swarming season for one subterranean termite genus, *Reticulitermes,* in Texas. 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. Each caste member within a termite colony has distinct physical and behavioral characteristics. 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 food resources back into the colony. The soldier termites protect the colony from other insect intruders and the winged reproductives are responsible for starting a new colony.

Termites feed on any cellulose material, such as roots, paper, and cardboard. They are important to our ecosystem, since they decompose cellulose; however, they become economic pests when they invade human dwellings and 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.
4) Do not allow shrubs, vines, tall grasses and other dense vegetation to grow against structures. Thick vegetation makes it hard to inspect for termite activity and these plants tend to trap moisture.

Some Chemical Approaches to Termite Control:

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

repellent and non-repellant liquid termiticides 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 around structures and in conducive conditions within the area. The stations will initially 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 a termiticide within a cellulose matrix. The worker termites feed on the cellulose matrix and then exchange this material with other members of the colony. This results in death of the colony members.

A winged reproductive, *Reticulitermes sp*. (Isoptera: Rhinotermitidae). Photo by Center for Urban and Structural Entomology, Texas A&M University.


A termite queen, *Reticulitermes sp*. (Isoptera: Rhinotermitidae). Photo by Bart Drees, Professor and Extension Entomologist, Texas A&M University.

Being Proactive

USDA-APHIS (Animal and Plant Health Inspection Service) has issued a federal order as of January to prohibit the importation of certain palms which may serve as a host of *Rhynchophorus ferrugineus* Olivier, the red palm weevil and *R. palmarum* Linnaeus, the giant palm weevil. These beetle infestations usually go undetected until severe damage or death of the host plant occurs. The beetles are found within the stems of their plant hosts so detection is difficult during port of entry inspection, especially when symptoms are not apparent. *R. ferrugineus* has spread throughout regions of the Persian Gulf and Europe, and *R. palmarum* is distributed in tropical regions of Central and South America. As of now, these pests are not known to occur in the United States and are not known to be seed-transmitted. Plants affected by the order include the genera *Acrocomia, Astrocaryum, Attalea, Bactris, Brahea, Butia, Calamus, Chamerops, Desmoncus, Euterpe, Manicaria, Mauritia, Metroxylon, Oncosperma, Roystonea, Sabal and Washingtonia*.

Photo of leaf bases of *Washingtonia* sp. Photo by James Manhart, Texas A&M Herbarium, Texas A&M University: http://botany.cs.tamu.edu/FLORA/dcs420/fa07/fa07050.jpg.

For all those coffee drinkers out there!

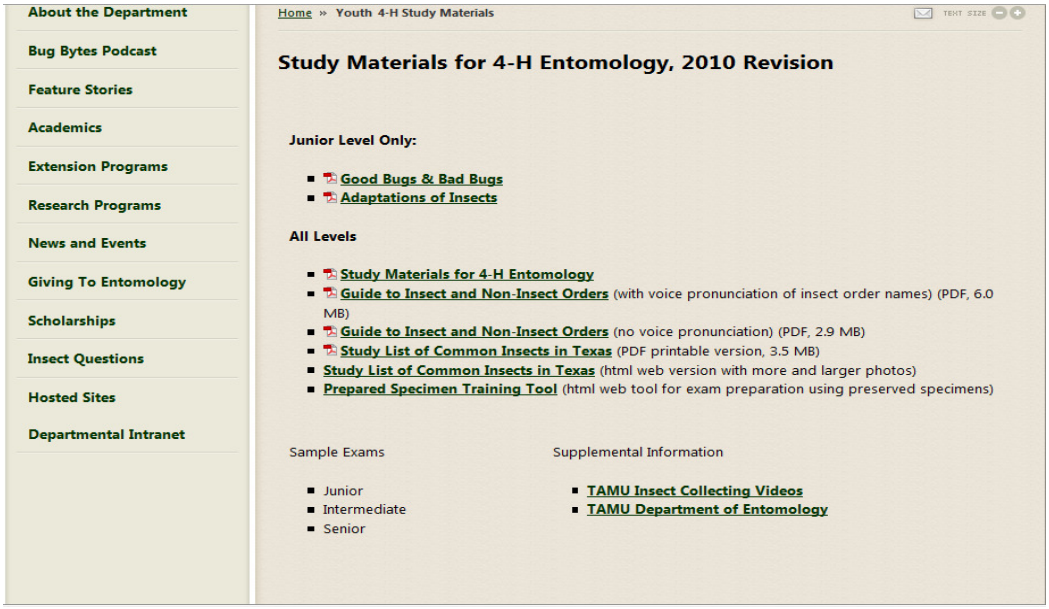
Coffee is one of the biggest cash crops in many parts of the world, and the coffee berry borer is one of the most widespread pests of the coffee berry. The female borer drills a hole into the berry and then lays her eggs. The eggs hatch and the larvae complete their development by feeding on the berry. These tiny beetles cause economic losses estimated at $500 million. Recently, however, a group of scientists discovered a thrips species, *Karnyothrips flavipes,* which is a natural enemy of the coffee borer. This thrips was identified as feeding on the eggs and larvae of the coffee borer inside the coffee berry. Scientists found the highest percentage of thrips preying on borer larvae and eggs early in the growing season, which coincides with the coffee borer populations being the highest. More research is needed to determine how effective this predator is at controlling the coffee borer and to see if this thrips is preying on the coffee berry borers in other coffee producing countries. For the full story, please view http://www.sripmc.org/news_popover.cfm?id=4153.

Photo of green Arabica coffee berries growing in Kona, Hawaii.

New, Updated Website to Help Identify Insects

While field guides are a great reference, people often turn to websites to help them identify insects. The new and improved 4H Entomology website found at http://insects.tamu.edu/youth/4h/index.html is a wonderful resource for the general public. On the website there is a guide to insect orders, where you can learn how to

pronounce scientific names and find out biological information. In addition, there are great videos on insect collecting, pinning and preserving insects. It serves as an impressive teaching tool for beginner insect collectors and those that want to start a reference collection.



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