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Insec(tc)ure*:
Are you insecure about your insect cures?

A UT Urban IPM Lab Newsletter for the Pest Management Industry

Southern Termite Survey

Karen Vail, UT Entomology & Plant Pathology

In March 2024, the Southern IPM Center awarded a grant to assistant professors at Louisiana State University, Mississippi State University and Florida A&M to study the termite diversity of the southern U.S. I and faculty, PMPs or entomologists from 8 other states agreed to be collaborators. I won't go into all the details, but we hope to have several deliverables, including state-specific identification guides for termite alates and termite identification training. In addition, the group will conduct trap-based termite alate surveys in spring 2025 throughout the southern U.S. to better define the current Formosan subterranean termite distribution.

No statewide termite survey has ever been conducted in Tennessee, so I look forward to this project. We are still working out the details, but 22 locations in Tennessee may be monitored for Formosan subterranean termites. It's a relatively simple process. A glue board initially developed to catch fruit flies and thus not very sticky will be hung on light poles or near light sources and checked weekly from about the end of April until the end of June. This use of fruit fly glue boards is a tried-and-true technique used in Florida for years. So, right now, I'm contemplating where we should place the traps.

Table 2 in Insec(tc)ure Volume 3, Issue 9 lists the known past detections of Formosan subterranean termites in our state (Shelby, Henderson and Roane counties). As you can see, it appears we have an established population in Shelby County, Tennessee, because *C. formosanus* was detected 3 out of 4 years between 2019 and 2022 in a neighborhood a little northeast of central Shelby County. I will place traps near the marina where the infested boat in Roane County was anchored and in Shelby and Henderson counties near areas of previous activity. I thought that major urban areas (Knoxville, Sevierville, Kingsport, Cookeville, Crossville, Chattanooga, Jackson, Oak Ridge, and Wilson, Rutherford and Williamson counties), and areas with military installations (Tullahoma, Clarksville, Milan) would be other likely spots to monitor due to increased commerce and potential movement of infested items such as railroad ties. To finish things off, four more counties along the southern border will receive traps to catch any potential fly-ins. See Figure 1 for potential trap locations. We have plenty of time to figure this out, but I'm mentioning it now, so if anyone wants to volunteer to check the traps once a week, they can let me know. Don't worry, I'll be making phone calls if I don't hear from you.

In the meantime, if you find a termite that you suspect is a Formsan subterranean termite, i.e., it's an alate that is 12 – 15 mm long, yellow-brown and wings are covered with hairs; or, if you find a termite soldier with an oval-shaped head and forward-facing fontanelle (opening), please send them to me in an empty medicine vial and cover the termites with clear propylene glycol before mailing them in a crush-resistant container. Include a note that lists the date, location (street address, city, state, zip or GPS coordinates) and county where the termites were found, along with your contact information. We will have a more detailed description of how to submit samples in the future, but I don't want to miss out on a potential detection. Also, if you think you found Formosan subterranean termites in the past and they aren't

listed in Table 2 (Shelby, Henderson, or Roane counties), please contact me at kvail@utk.edu, 865-974-8800 or 2505 EJ Chapman Dr, 370 Plant Biotechnology Building, UT Entomology & Plant Pathology, Knoxville, TN 37996-4560.

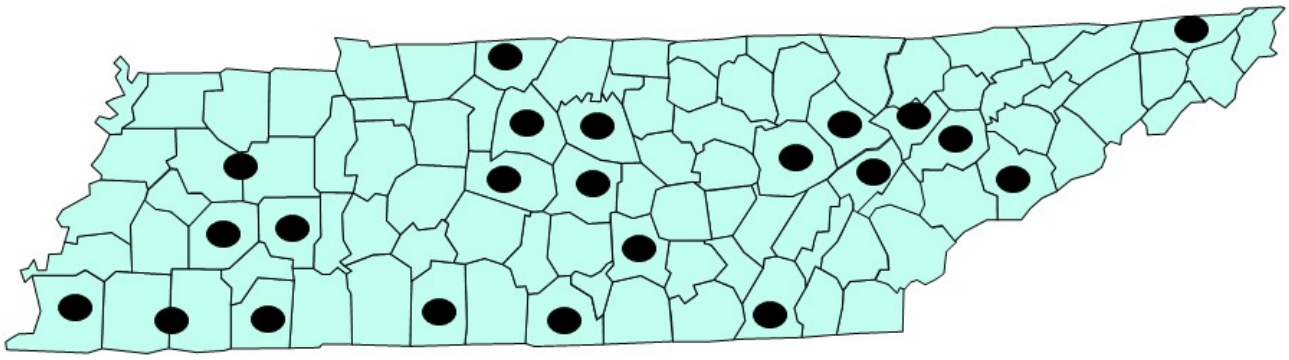


Figure 1. Potential sites for trapping Formosan subterranean termite alates in Spring 2025.

Upcoming Educational Events Offered by the UT Urban IPM Program

> 8:00 – 9:00 **Exploring Bed Bug Biology and Recent Innovations in Management Strategies**
Simona Principato, University of Kentucky

> 9:00 – 10:00 **What Do You Mean We Have Smokybrown and Turkestan Cockroaches in Tennessee?**
Dr. Art Appel, Auburn University

10:00 – 10:30 Break with Vendors

>10:30 – 11:30 **Mosquitoes: Insect Vector and Vector-Borne Diseases**
Dr. Angela Tucker, University of Tennessee

11:30 – 12:30 Lunch

> 12:30 – 1:30 **Norways, Roof Rats and House Mice, Oh My!**
Tim Madere, New Orleans Mosquito, Termite & Rodent Control Board

>1:30 – 2:30 **Working with Suspected Delusional Infestations**
Dr. Karen Vail, University of Tennessee

Drum roll please…. Announcing the exciting lineup of the 10th Annual Bed Bug, Cockroach and Rodent Management Meeting to be held in Knoxville on August 7th at the UT Conference Center. Thanks to your responses on program evaluations, we've expanded beyond the previous subjects presented. This year, Simona Principato, of the University of Kentucky's DeVries Lab, will present innovations in bed bug management. When the folks in Chattanooga grabbed me after a meeting to complain about the increase in smokybrown cockroaches in the area, I sought Dr. Art Appel of Auburn University, one of the few researchers in the country that have addressed this pest, to honor us at this meeting. Our last out-of-state speaker, Tim Madere, comes to us from NOMTRCB, the New Orleans Mosquito, Termite & Rodent Control Board. Tim will share his practical, hands-on experience managing rodents in a large southern city. Dr. Angela Tucker is new to UT and will deploy her years of industry training experience to update us on mosquitoes and the diseases they vector in East Tennessee. And, I'll round things out by discussing delusional infestation (DI), a condition in which individuals falsely believe they are infested with insects, mites and other parasites, and the latest materials we have developed to work with these suspected DI individuals. Stick around for the problem-solving session at the end of the conference when manufacturer reps, distributors, pest management professionals, social workers, housing personnel and presenters work together to solve scenarios about these pests.

For more information, see https:tiny.utk.edu/2024BBEvent.

ACE (Associate Certified Entomologist) Prep Course

Fall 2024

Are you certified in pesticide applicator category 7 with a minimum of 5 years of verifiable pest management experience in the United States? Then you may be ready to become an ACE, an associate certified entomologist. Before you can become an ACE, you will need to provide two letters of professional reference, be willing to adhere to the ACE Code of Ethics, complete the application and pay the application fee to the Entomological Society of America and pass an online test of your knowledge of structural pest control. The program and its benefits are explained in its entirety at https://entocert.org/ace. The application process is separate from the training offered below.

To help you prepare for the exam, Dr. Karen Vail, Extension Urban Entomologist of the UT Department of Entomology & Plant Pathology will provide an ACE Prep Course this fall. All training sessions will be virtual and held from 5 pm to at least 6 pm on select Mondays via Zoom. A new Zoom link will be sent each week. By offering online training, we no longer limit participants to be within a few hours' drive of campus!

2024 Training Date	Subject
September 16	Integrated Pest Management and Tools
September 23	Insecticides and Modes of Actions
September 30	Pesticide Safety, Laws & Labels
October 7	Insect Biology and Morphology
October 14	Ants
October 21	Cockroaches
October 28	Flies
November 4	Stinging and Biting Arthropods
November 18	Stored Products Pests
November 25	Occasional Invaders
December 2	Wood-destroying Organisms
December 9	Common Commensal Pests/Review
December 15	Extended review in the afternoon
December 16* 5 pm – 8 pm	**Exam (limited to 15)***

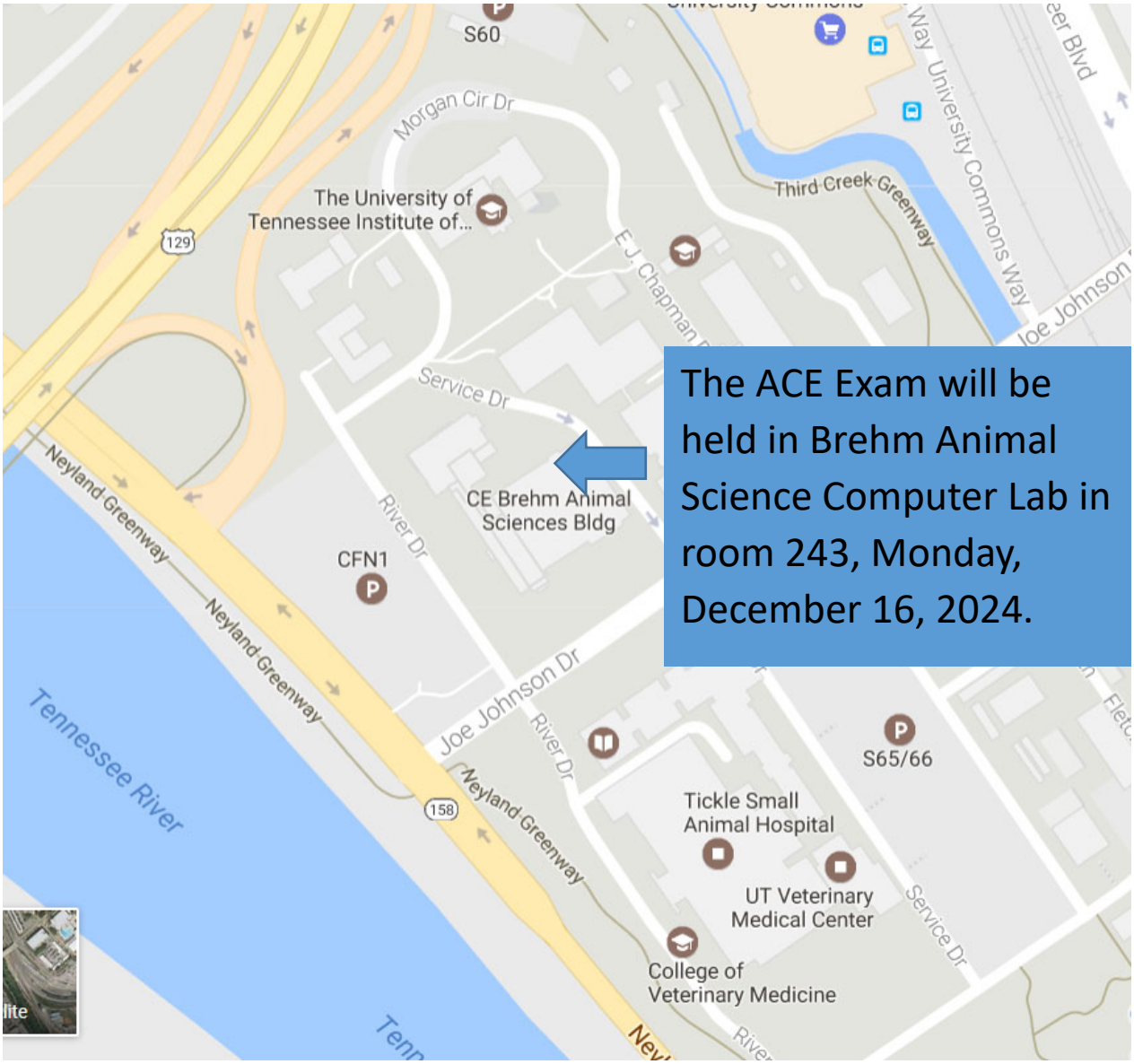
*The ACE exam will be given in room 243 Computer Lab of the Brehm Animal Science Building.

You can register for all classes of the ACE Prep Course at one time for a discounted price of $300 or pay $30 for each class as long as you register at least one week before the training date. Enrollment is limited to 25 per training date. One Tennessee pesticide applicator recertification unit in categories 7, 8, 10 and 12 per session. The course will only be held if at least 5 register before August 31st.

Register for the UT ACE Prep Course online at

https://tiny.utk.edu/ACEPrepFall2024

ACE Exam Location - UT Institute of Ag Campus Map



As long as it's after 5pm, you can park in lot CFN1.

We suggest you purchase the *IPM for the Urban Professional: A Study Guide for the Associate Certified Entomologist* from ESA (https://entocert.org/ace/resources) and the *NPMA Field Guide to Structural Pests (*https://ebiz6personal.npmapestworld.org/UI/ProductDetails.html?productId=703*)* prior to taking the training. The NPMA manual is also available as a downloadable phone app (available for Apple iOS or Google) and comes with an annual fee. The ESA study guide is discounted when you purchase it with your ACE application. In the past, shipping of the manuals has been greatly delayed, so order the manuals as soon as you sign up for the class!

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Precautionary Statement

To protect people and the environment, pesticides should be used safely. This is everyone's responsibility, especially the user. Read and follow label directions carefully before you buy, mix, apply, store or dispose of a pesticide. According to laws regulating pesticides, they must be used only as directed by the label and registered for use in your state.

Disclaimer

This publication contains pesticide recommendations that are subject to change at any time. The recommendations in this publication are provided only as a guide. It is always the pesticide applicator's responsibility, by law, to read and follow all current label directions for the specific pesticide being used. The label always takes precedence over the recommendations found in this publication.

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