

# ScienceWatch

New developments from the LSU AgCenter

## New technologies developed to combat Formosan subterranean termites

A grassy plant used worldwide for erosion control and a new pop-up termite indicator may provide new, environmentally safe weapons in the arsenal to combat subterranean termites.

### Nootkatone

Dr. Gregg Henderson, an LSU AgCenter entomologist, learned of vetiver grass's potential as a termiticide from Don Heumann, a nursery and greenhouse operator in Metairie, La. Because he was aware of the growing damage termites are causing in the New Orleans area, Heumann thought he might be on to something when he noticed a lack of bugs in greenhouses where he was growing vetiver. So he took some plants to Henderson.

After experiments showed termites avoided going through sand mixed with ground vetiver roots, Henderson worked with Dr. Roger Laine of the AgCenter's Department of Biochemistry to extract oils from the roots. The scientists discovered the oils contain a chemical called nootkatone, which, it turned out, is both a repellent and toxic to termites. They conducted further studies that indicated nootkatone affects certain other insects as well. The LSU AgCenter and Heumann have filed for a patent on the use of nootkatone as an insecticide. A bonus of this product is a pleasing scent similar to sandalwood.



Vetiver grass



Burying a simple plastic container with a red warning flag can be the first line of defense in the battle to control termites. The LSU AgCenter has applied for a patent on the device.

### Pop-up Indicator

In another development, Henderson and Jay Paxson of the AgCenter's Department of Entomology have developed a pop-up device that can indicate the presence of subterranean termites. The AgCenter has applied for a patent on the indicator, which presents a clear visual signal when termites consume a food "trigger" that trips a signal to show they have been active.

The simple, inexpensive signal device can be adapted to fit almost all commercially available monitors or bait stations. The invention takes advantage of one of the newer, safer methods of controlling termites by placing toxins in bait stations that are placed around a structure either above or below ground. These bait stations intercept termites by luring them with foods and causing them to carry toxin-laced baits back to their nests where they feed other members of the colony.

The new device can signal the presence of termites without disturbing a buried monitor or bait station, and because the signal is outside the housing, the monitor doesn't have to be transparent or visible. The pop-up indicator is ready for production as soon as a manufacturer licenses it from the AgCenter.



for information

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