



Department of  
Entomology

Disclosure number: Ag-1101

## **Termite Protozoa Killing Yeast**

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### **Description:**

This invention is a modified yeast that can be fed to termites and then produce and express peptides that destroy the protozoa in the gut of termites; the demise of the protozoa that are responsible for wood digestion results in the death of the termites. The time required for the yeast to kill the termites is long enough to allow transfer of the yeast among colony mates. The peptide products of the modified yeast are very specific for the protozoa which means that they are effective in small amounts and have low general toxicity and environmental impact. In proof of concept studies, all termites in the studies died within five weeks of eating the yeast.

### **Advantages:**

- Effects large number of termites with the potential to kill entire colonies
- Very specific to protozoa
- Easily mass manufactured and applied as bait

### **Commercial Uses:**

- Termite control
- Cockroach control
- Drugs against protozoan parasites
- Production of general insecticidal toxins

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