



*For more information
contact:*

**Office of Technology
Management**

Web: otm.msstate.edu

Email: otm@msstate.edu

Phone: 662-325-9263

OTM #: 0855

Enhancement of Termite Bait Stations Using Blue-Stain Fungi Attractant

What it does

Blue-stain fungi of the Phylum Ascomycota function as a natural attractant for wood-targeting pests (termites, silverfish, woodworms, etc.). The fungi can be extracted by identifying and isolating carriers in bark beetles or root weevils of the Order Coleoptera with which the fungi symbiotically associate. Cultures of the fungi can be grown in a solid or liquid state and joined to wood, non-wood, or wood derivative substrates to fit the need of existing bait stations.

Why it is important

Wood-targeting pests are responsible for billions of dollars in damages annually. Infusing bait with blue-stain fungi, whether the bait has been naturally infested or inoculated artificially, improves upon existing bait stations and bait matrix formulas by increasing the attractiveness of the resulting bait. Ultimately, luring wood-targeting pests from target structures and toward a more attractive food source (e.g. blue-stain wood) fully defines the effectiveness of the bait station, thereby decreasing the damage to target wood.

Advantages

- Fungi does not decay wood substrate, ultimately preserving strength, bolstering permeability of pesticide injection, and maintaining attractiveness of bait wood
- Blue-stained wood has increased permeability relative to non-blue-stained wood which allows for increased pesticide transport and retention in wood grain
- Fungi can be synthesized to treat wood and non-wood substrates
- Existing bait stations, pesticides, and insecticides are compatible with blue-stained wood
- Higher consumption rate when compared to currently available attractants
- Renewable resource that, when paired with low-toxicity pesticides, produces an environmentally conscious bait system

IP Protection: U.S. pending patent application