

Decay in termite monitoring stations

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ABSTRACT

In-ground monitoring stations and termite baits are widely used in the southern United States with the intent of detecting and eradicating subterranean termite activity near buildings. These stations comprise a wood (or other cellulose material) substrate (monitor) and perhaps a termiticidal toxicant (bait) held in a plastic cage that allows for both easy examination and access by termites. The usual practice is to inspect the station monitors for termite activity every few months. If termites are detected, a bait is added to or replaces the untreated monitor. However, in addition to termite attack, the monitors are subject to fungal decay, and rapid decay in high hazard areas is interfering with the usefulness of this baiting approach.

This paper reports on an evaluation of the relative decay susceptibility of termite baiting systems used in commercial monitoring stations. Some monitors are very susceptible to wetting and fungal decay, corroborating anecdotal evidence from the field. It was concluded that decay in high hazard areas is likely to interfere with the usefulness of some of these systems. To be used successfully, possible approaches to overcome the decay issue are: careful selection of the system used; placement on or above ground rather than in the ground; recognition that monitors and/or baits need to be changed every few months; avoiding remote sensing systems that do not allow a visual check of the monitor; developing durable monitors and baits, e.g., with the addition of a non-termite-repellent fungicide.

Keywords: baits, decay, fungal, fungicide, monitor stations, subterranean termites, termiticide

1. INTRODUCTION

In-ground monitoring stations and termite baits are widely used in the southern United States for detecting and eradicating subterranean termite activity near buildings. Terminology can vary, so the following definitions will be used in this document: A termite station is a unit (normally plastic and cage-like) placed in the ground designed to detect and feed termites. A monitor is a non-poisoned cellulosic food substrate, normally placed in a station. A bait is a cellulosic food substrate that has been poisoned with termiticide. Stations are placed in the ground in proximity to the structure to be protected. The usual practice is to inspect the stations for termite activity every few months. If termites are detected, a treated bait is added to the untreated monitor. Su and others have reviewed the development and effectiveness of this approach (Grace and Su 2000, Su and Scheffrahn 1998).

While there has been some investigation of alternatives that could enable remote monitoring of the stations (eg., Yanase *et al.* 2003), manual inspection remains the standard practice. Because of the labor cost associated with these inspections, there is a trend to extend the time between visits and also to place the toxicant within the station from the beginning (rather than monitoring and then adding the toxicant). Furthermore, less frequent disturbance of the monitors and baits