Performance of *Sentricon® Termite Colony Elimination System* for Control of *Reticulitermes hesperus* at a Condominium Development in Southern California

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ABSTRACT

The RockPointe Condominium Complex in Chatsworth, California, has had a long history of subterranean termite activity and termite-related homeowner complaints. A total of 7,327 Sentricon® stations were installed between October and December 2001 along the perimeter of 134 buildings and inspected monthly thereafter. Sentricon® stations with actively foraging termites present were immediately baited with hexaflumuron following label instructions. The active ingredient was changed to noviflumuron in April 2003. When feasible, additional stations were installed adjacent to the active stations to increase the rate of station discovery and enhance bait consumption.

INTRODUCTION

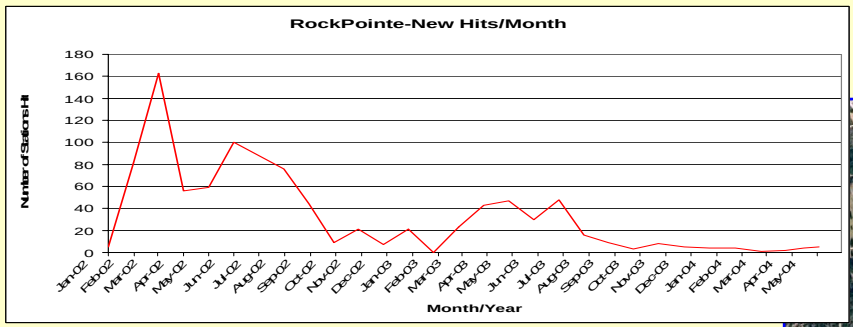
For several years prior to 2001, the RockPointe Condominium Complex experienced extensive termite damage and frequent owner complaints. Rather than spot treating individual buildings in response to complaints, the management of the complex decided to use the Sentricon System to monitor and reduce termite activity throughout the 90-acre complex. The day-to-day service of the site was conducted by a Dow AgroSciences-trained pest control firm following label instructions. The data for each month was provided to and analyzed by University of California personnel.

METHODOLOGY

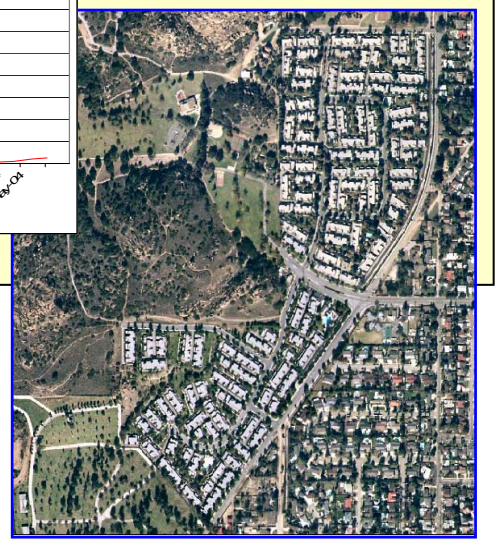
The technician initially installed Sentricon monitoring stations at RockPointe in October 2001. Standard Sentricon stations with wood monitors were installed at a spacing of three to five meters around the perimeter of 134 buildings. A total of 7,327 stations were installed. The first check was in January 2002. Any active stations with 40 or more termites were baited with Recruit III™ until April 2003 and then Recruit IV™ termite bait to date. The inspections required one full-time employee to work exclusively at this site each day only inspecting stations. In September 2004, all stations were converted to Sentricon with ESP™, an electronic sensor device that detects the presence/absence of termites in the station. This allowed the technician to check the stations for activity without opening each station. This change reduced the time required for monitoring the site from four to two weeks. Stations that were baited were examined every 30 days. If no further termite activity was observed in baited stations for three consecutive months, the bait tube was replaced with an ESP™ sensor device. As an independent measure of termite efficacy, homeowner complaint forms were analyzed each month to determine whether complaints declined as a result of the baiting regime.

RESULTS

Within two months of installation, 41% of the buildings had stations with subterranean termite activity. These stations were then baited. After 6 months 90% of the 134 buildings had stations with termite activity and 95% had termite activity after one year. Of the 7,327 stations initially installed, 12% had subterranean termite activity after one year. In 2003, 70% fewer stations had new termite activity than in 2002. This was likely the result of successful baiting. Since March 2004, only a few stations have become active.



Number of Active Sentricon stations at Each Month's Inspection



DISCUSSION

This site has served as a case study for the Sentricon Termite Colony Elimination System to be used in large scale housing. The site has been studied for over four years, and positive trends are indicated. Termite activity, as measured by number of active stations, increased after initial installation. This indicates that termites around the structures located and began feeding in the stations. This activity corresponds with buildings having a history of termite activity and failed treatments. Once baiting was implemented, the number of active stations declined at subsequent visits, the bait was consumed, and colony numbers declined.

Per the Homeowner Association staff, a reduction in termite related complaints from the resident's paralleled the reduction of termites in stations at the site. These results strongly suggest that the ongoing baiting program utilizing the Sentricon® Termite Colony Elimination System has had a significant impact on the subterranean termite population at this site.

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