Development and Demonstration of Reduced Risk IPM Practices

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Goals of Projects

- Identify the most effective methods of reducing the potential runoff of pesticides.

- Incorporate these methods for the management of urban ants and other pests into IPM programs.

- How adoption of these alternative pesticide management practices affect PMPs.
The 2008-2009 PMA:
Partner Companies – Different Approaches

- In 2008 & 2009, PMA Team Partners included Lloyd’s Pest Control, Orkin and Western Exterminator in Southern California.

- Each company developed their own scope to meet project objectives – Reduce the use of synthetic pyrethroid insecticides by 50%.

- Two similar routes were used by each company for the IPM project (One for conventional and one “IPM”).
Customer Type - 2009 Study

Western: Monthly, EOM and Quarterly
Lloyd: Quarterly
Orkin: Monthly, EOM and Quarterly
The Business of IPM

- Time is a key factor…

- For a typical residential service, Pest Management Professionals are required to conduct assessments, complete inspections, and other pest management tasks within 20-25 min.

- Tasks include educating the resident and the completion of required documentation.
Treatment Procedures*

2008
- Limited (1 gallon) targeted treatments with Talstar Pro (Bifenthrin) vs. 2 gallons for standard route when needed. Used baits and exempt/reduced risk materials to supplement treatments as needed.

2009
- Reduced Talstar treatments to ½ gallon for targeted applications and 1 gallon for standard route

*Exceptions were made for Callbacks or “heavy” activity
Used gel & granular baits and exempt/reduced risk materials to supplement treatments as needed.
Targeted Treatments
Results - 2008

- Callbacks: Size of the home was important when treating for ants. Larger homes (2500 Sq. Ft.) did require more extensive treatments with Talstar or occasionally, a second application of Termidor.

- No significant difference in customer satisfaction between routes as measured by pre-season (April) written and post-season (November) telephone surveys.
Results - 2009

- Results on the “standard” route were the same as the 2008 “experimental IPM route”

- Two treatments with Termidor were made on both routes in 2009

- Callbacks: Similar with no significant differences between routes

- No significant difference in customer satisfaction between routes (telephone surveys)
Common Ground

- Customer satisfaction was not significantly different between all routes for all companies
- Treatments with Termidor were required to achieve acceptable control
- All IPM strategies met the goal of at least a 50% reduction in the use of synthetic pyrethroids
- “Targeted” liquid treatments were used by most companies

- Procedures used on the experimental routes (all companies) did not greatly affect costs.
- No change in the time required – fits existing business model.
- Reduction in pyrethroid use by at least 50% was achieved while maintaining customer satisfaction.
- Average of 67.3% less synthetic pyrethroid was used on the 2009 IPM route vs. 2008 CR route.
Salt Creek Watershed 2014 Study Site
2014 Study – Western Exterminator & Orkin

- Small scale study in two neighborhoods with drainage into the Salt Creek watershed (Orkin & Western service approximately 20% of homes).

- Separate “IPM” RR* route (no pyrethroids) and Conventional IPM route in the two study areas

- Conventional IPM:
  - Limited Pyrethroid treatments per new label and state requirements
  - Pyrethroid (Fenvalerate) used as liquid residual
2014 Feedback

- As before, this was a “blind” study

- No difference in callbacks between study sites (May - October)

- Analysis of runoff from sites???

- Looked at ways to enhance targeted applications of all liquid residual products to ensure efficacy and reduce runoff
Bottom Line:

- Interventions with pesticides may be needed for effective management of ants in IPM programs but *following the labels, new state requirements and incorporating reduced risk materials into the service will give the results your customers expect.*

- When well planned and executed there is likely to be little to no impact on business!