

THE ROLE OF INDEPENDENT RESEARCH IN THE REGULATORY PROCESS: A LESSON INVOLVING THE URBAN PEST MANAGEMENT COMMUNITY IN THE UNITED STATES

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Abstract The regulatory process in the United States, as it pertains to termite management, is charged with the dual responsibilities of environmental stewardship and consumer protection. These two important roles can only be accomplished using sound scientific data as the foundation of the decision-making process. Sources for obtaining scientific data include scientific and popular press literature while additional information can be accessed through manufacturer in-house data bases and service provider records. The regulatory community finds itself faced with sorting through information during the decision-making process and determining what constitutes an unbiased, scientific assessment of product efficacy. This task is often complicated by the fact that many regulatory decision makers do not have a scientific background resulting in a lack of confidence when examining data provided for registration of new products or use patterns. Members of the Urban Pest Management Community (UPMC) in the United States often find themselves at odds over regulatory decisions. Understanding that communication and cooperation are required for reasonable conflict resolution, a dialog initiated by the leadership of three UPMC organizations: Association of State Pest Control Regulatory Officials (ASPRCO), National Pest Management Association (NPMA), and Responsible Industry for a Sound Environment (RISE), resulted in the formation of the Termiticide Scientific Review Panel (TSRP). The three aforementioned organizations represent part of the UPMC in the US which also would include but is not limited to the Federal regulatory arm [the Environmental Protection Agency (EPA) and Federal Trade Commission (FTC)] and the urban entomology research community [comprised of University, Consultants, and Federal research organizations –United States Agriculture Department's Forest Service (USDA, FS) and Agricultural Research Service (USDA, ARS)] and property owners (representing a wide range of interests that include the real estate industry, mortgage lenders, as well as, the actual property owners). The formation of the TSRP in the United States is an example of using common sense for a common cause that could stand as a blueprint for other countries interested in placing a level of comfort to the science used in the process of regulation.

Key Words Communication, termiticide, scientific review, panel protocols, efficacy

INTRODUCTION

Protecting structures from termite infestation in the urban habitat is big business worldwide. Termite management is a high profile segment of the Urban Entomology arena because property owners, and those affiliated with the sale of and lending on real estate, feel a vested interest in protecting that portion of their financial portfolio from these cryptic insects. The aforementioned stakeholders are but a small part of what I will define, for the sake of this discussion, as the Urban Pest Management Community (UPMC). The UPMC consists of organizations or groups that can be placed into one of five broad categories; the *Private Sector* (anyone with a direct financial stake in termite management related to property including realtors, mortgage lenders and owners), *Manufacturers* of termite management products (pesticide manufactures, distributors), *Regulatory Agencies* (local, regional or central government), *Practitioners* (providers of termite management services), and the *Research Community* (comprised of individuals that may have private, government, university or manufacturer affiliations).

Members of each of the aforementioned five segments of the UPMC share the common the goal of ensuring safe and effective management of termites. However, despite this common interest, communication between members of the UPMC can be characterized along a continuum of conflict ranging from no communication to outright hostile relations - usually based on perceptions of opposing agendas. Open communication between all UPMC members should be the normal state of relations to enable economically and environmentally meaningful termite management. In this paper I would like to discuss an example from the United States that demonstrates the value of dialog between UPMC members. It is my hope that this example could provide incentive for members of the Urban Entomology Research Community (UERC), worldwide, to become active members of their UPMC by involvement in the regulatory process.

Urban Entomology Research and its Role in the UPMC

Urban Entomology in the United States, as an organized and recognized academic discipline, has only in the past 50 years developed and fostered relationships as an active member of the UPMC in part because of the agricultural/forestry roots of entomological research in addition to the stigma of associating with a service industry whose sole purpose is/was to exterminate - not appreciate - those interesting creatures all entomologist study (Snetsinger, 1983; Robinson, 1996; Forschler, 2003). Training the next generation of entomologists for employment in the UPMC should be a goal of the Urban Entomology Academic Community. The UPMCs' need for qualified professional entomologist is great, as evidenced by the fact that Bachelors, Masters or Ph.D. graduates with an emphasis in Urban Entomology have a choice of several job offers, usually prior to graduation. In addition, there is an equally great demand for applied research on products and use-patterns. Publishing research results is one venue that the Urban Entomology Research Community (UERC, which includes university and government research programs) has traditionally used to address questions of product or use-pattern efficacy. Yet the volume of information needed to satisfy the process of registering and regulating new technologies cannot always be addressed solely by the independent research results reported by the UERC. As a result, in-house and private laboratories often provide a substantial portion of the data submitted during the registration process. Data provided by a registrant from scientists under contract or employed by that registrant are often viewed skeptically, whether or not justified, by other members of the UPMC. Therefore, the UERC can provide a much-needed service to the greater UPMC by reviewing and commenting on research pertinent to the regulatory process.

A Regulatory Dilemma

Regulation of the UPMC involved in termite management is accomplished at two levels in the US. The federal government under the Environmental Protection Agency (EPA) is responsible for registering products and label-based use patterns. Those federal labels can be pre-empted at the State level by being more, not less, restrictive. At both levels regulatory officials are faced, during registration of new products, with determining if inherent bias is present in the design and implementation of the experiments used to describe a particular efficacy claim. Although the EPA is staffed to handle such concerns examining experimental protocols is a meticulous and time consuming task and because of the volume of registration requests, this phase of the registration process can become a bottle-neck in the work flow. In contrast, many State regulatory agencies are not staffed with personnel that have an entomological background capable of understanding the nuances of experimental design and statistical analysis. This shortcoming could be addressed by hiring an appropriate number of qualified individuals at the respective agencies but this expedient is often not given priority by organizations that are traditionally under-staffed. As an alternative, many regulators have contacts within the UERC with whom they correspond as the need arises. However, such wide-ranging methods of determining the validity of the science behind product claims often results in opinions that differ, leading to potential conflicting regulatory decisions.

Quest for a Solution

This conundrum was addressed by a dialog between three UPMC member organizations: National Pest Management Association (NPMA), representing the practitioners; Responsible Industry for a Sound Environment (RISE), representing the manufacturers; and the Association of State Pest Control Regulatory Officials (ASPCRO), representing State regulatory agencies. All of these groups, sensing the need to have sound science behind the products used by their respective clientele, began a series of discussions that resulted in the formation of the Termiticide Scientific Review Panel (TSRP) in the summer of 2004.

The intent of the TSRP process is to provide an unbiased review of the scientific validity of experiments intended to measure efficacy and marketing claims for a new termite management product or use-pattern. The TSRP is overseen by a Board comprised of one member from each of the UPMC Associations previously mentioned as being involved in the discussions that led to its formation. The Board Members serve by unanimously selecting 5 scientists from a list compiled by each of the three UPMC associations to serve recommendations are part of the public record and must be included with the registration packet sent to the Federal Government agency responsible for product registration. The report issued by the Panel consists of comments on protocols submitted by the registrant including appropriateness of the experimental design, number of replicates, type and form of data to be recorded and statistical analysis. Data is not reviewed nor does the Panel comment on anything related to efficacy - leaving those decisions to the regulatory review.

The intent of the TSRP process is to provide a level of comfort to the regulatory community that the science behind a product's claim meets an unbiased standard, which is essential to making sound environmental and consumer protection decisions during the registration process. The manufacturer community involved in the process can be assured that the veracity of their products efficacy has the added weight of an independent assessment for the purpose of sales and marketing. The practitioner community also gains a level of comfort with the technology knowing that it was reviewed and deemed to have a sound scientific foundation.

CONCLUSION

Recognition of who comprises the UPMC is the first step in providing lines of communication between the various groups involved in urban pest management. Realizing that all members of the UPMC have the same interest - effective and environmentally sound pest management - is the next step toward opening and maintaining a productive dialog amongst the varied interests within greater UPMC. The UERC has a role to play beyond conducting unbiased research for the UPMC and that would be active involvement with the regulatory community. The TSRP experience is a model of cooperation that benefits all UPMC members and should be considered especially in countries where urban pest management is just now coming under regulatory scrutiny.

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