

By Vernard Lewis

The first exposures to what I saw as 'green' in California dates back to the 1950s. I was in grammar school. I still vividly remember the green, rolling hills along the highways throughout the entire state, when I sat in the back seat of my grandfather's car driving from Oakland and Fresno to the Los Angeles area and back during the winter months. The most impressive area was the drive through the grapevine that particularly caught my attention. I could see that the many twists and turns were a demanding task for my grandfather to safely navigate through. In those days I thought the green hills were a natural phenomenon, part of the way it was, natural movements that always occurred. Later on, when I was already a teenager, I learned that these beautiful green hills were artificially created by imported European grasses that were introduced to cattle and the pastures they fed upon. It wasn't so much a deception of my young mind, but more that my 'green' definition had changed and evolved.

Changes in how the public and important stakeholders perceive pests and their control are rapidly changing.

PCOC / SUMMER 2008

10

of insect predators be considered 'green'? For structural pest control, the drywood termite control industry was initially founded to remove and replace damaged wood not pesticides. Years later, local treatments and fumigants came into the state's arsenal of control methods for drywood termites. Is wood removal and replacement a 'green' method of control?

What is my point? For the structural pest control industry, as in any industry, there has been a long tradition of constant new innovation of products, methods, and services offered to consumers. Yet because of the lack of definitions at that time, many were in fact 'green'! At a time when chlordane was still legally allowed for use in California, sand barriers were proposed and demonstrated for subterranean termite prevention. For drywood termites, in addition to fumigation and local treatments with arsenic dust, alternatives were developed and offered, including liquid nitrogen, electrocution, heat, and microwave.

Innovations and new methods are continuing today with detection devices such as microwave, infrared, X-ray, and acoustic emissions. Other originations on the horizon include the use of plant extracts, molecular genetics, and active ingredients that exploit novel metabolic processes unique to insects. In other words, the structural pest control industry in concert with the Structural Pest Control Board (SPCB), the association, manufacturers, pesticide regulators, and policy makers have continually suggested, developed, and implemented innovations for many of our economically important pests.

The tradition of innovation and cooperation by the industry, the SPCB, and the association continues today and will be tested by recent advertising campaigns featuring structural pest control products and services. For some advertising campaigns and media snippets you often hear 'environmentally safe' or 'environmentally friendly,' associated with the use of the term 'green.' In California there are regulatory impediments to language used in advertising campaigns pertaining to structural pest control. However, the SPCB, industry, the association, and the regulatory community have been proactive to changes in service offerings to consumer wants that include being sensitive to the environment.

Several committees recently have been convened by the SPCB to develop working definitions and criteria for the inevitable changes in consumers' needs and wants. The charge for the Integrated Pest Management (IPM) Committee was to define its use and establish criteria for its acceptance in the state. A second committee convened by the SPCB, advertising and marketing, was charged with the development of a master plan on how structural pest control services will be marketed and advertised to consumers. One additional committee convened by the SPCB was also formed to discuss the water quality, as it pertains to structural pest control as well. The result of this committee was the creation of continuing education requirements for the industry. All its licensees, on the need to consider water quality, required to change the design and implementation of service offerings to consumers. All of these aforementioned committees had broad membership, including policy, regulatory, university, and environmental stakeholders coming and working together in a 'round table' fashion.

Yes, there are markets and opportunities that exist and can be called 'green,' and yes, they undoubtedly are growing in numbers. However, challenges also exist that impede the acceptance and

Today, the term 'green' is used differently and in a much broader context. You hear the word 'green' used as an adjective for just about everything: cars, fuel, plastic, clothing, food, homes, and yes, even pest control.

Depending on whom you talk to, 'green pest control' is considered innovative and new. Is it really new, or has it changed its definition to a change and evolution?

Let's take a closer look at a few examples of the past regarding pest control in the state of California. In agriculture, even before the broad scale development and application of pesticides in the late 1800s, biological control was used in citrus groves. Cottony cushion scale threatened the new and developing citrus industry. Resistance to pesticides predicted a large-scale crop failure; therefore, a beneficial insect was needed to control the harmful species. The Vidalia beetle, a type of ladybug, was discovered to become the rescue of the budding citrus industry. By today's definitions, would the use implementation of green products and practices by the industry and consumers. The first step in the acceptance process is to clearly define 'green' and criteria for its measure that includes input from many stakeholders. Although attempts at defining green as it pertains to structural pest control exist to date they have been limited in scope and left out important stakeholders. Realistically, before 'green' and all its connotations are accepted and adopted by the state's many important stakeholders, dialogue is needed. If a broad base of stakeholders are involved in the process and they do have their say, chances for acceptance at scale are certainly much improved. It is only after formal discussions amongst the many stakeholders, sound research on product field performance, and tests of home and environmental safety, one can finally say truly that 'green pest control' has arrived.

In conclusion, what does the future hold for 'green' as a viable adjective describing structural pest control products and practices in the state of California? No one really knows for sure. Changes in how the public and important stakeholders perceive pests and their control are rapidly changing. With change come opportunities, but also challenges and conflicts. The inputs and outputs of change are complex and can be unpredictable. However, California has met many of the challenges of change before. Almost two decades ago it was inconceivable to have whole-structure treatments other than fumigants. Today, heat is listed as a whole-structure treatment. Almost four decades ago all subterranean termite treatments were accomplished with soil drenches containing chlordane. Today, the use of in-ground baiting and innovative least toxic active ingredients are legal and viable service offerings in the marketplace and are sensitive to the environment. Yes, change does happen, and it can be premeditated, focused, and include many stakeholders. Change will happen again; it always does.

California leads the world in structural pest management innovations, service, regulations, safety and successful services that are profitable while meeting changes in consumer preferences. I am confident that the state's stakeholders will achieve agreement and compromise, and I look forward to my contribution to the processes leading to effective, safe, and environmentally sensitive service offerings presented to consumers in the coming decades.



Vernard Lewis, Ph.D., is a cooperative extension specialist with the Department of Environmental Science, Policy and Management, University of California, Berkeley. He can be reached at vlewis@nature.berkeley.edu.

Selected references used in preparation of this article.

Debach, P. 1964. Biological control of insect pests and weeds. Reinhold Pub., New York, pp. 844.

Hennessy, T. 1993. The first 50 years. Pest Control Operators of California, West Sacramento, CA, 173 pp.

Lewis, V. R. 1997. Alternatives control strategies for termites. Journal of Agricultural Entomology 14(3): 291-307.

Lewis, V. R. 2003. IPM for drywood termites (Isoptera: Kalotermitidae). Journal of Entomological Sciences 38(2): 181-199.

