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BUILDING CONSUMER TRUST WITH INTERNATIONAL PEST MANAGEMENT CREDENTIALING

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Abstract In 2004 the highly-successful Associate Certified Entomologist (ACE) program was developed by the Entomological Society of America (ESA) Certification Corporation (ESACC) as a means of providing a professional credentialing pathway for pest management professionals (PMP) who may not have the formal academic training of an entomologist. The ACE program and its partner program, the Board Certified Entomologist (BCE) are the two most dominant personal credentialing options for PMPs in the United States and around the world. However, they are not the only way that individuals and businesses in the pest control industry can differentiate themselves from the competition. From business credentials like QualityPro—a program offered by the National Pest Management Association (NPMA)—or the Confederation of European Pest Management Association's (CEPA) CEPA-certified directory, to third-party credentials such as Angie's List, today's pest management customer is faced with a dizzying array of credentials to sort through. This paper serves as an exploration of the various pest management-based credentials that exist, the reasons for personal and business credentials, and offers a deeper exploration of the ACE and BCE programs.

Key words Professionalism, certification, ACE, license.

INTRODUCTION

Professional credentialing is one proven way for PMPs to differentiate themselves from their competition. Research has shown that PMPs who hold a personal pest management credential feel high levels of personal satisfaction, feel more respected in the industry, enjoy a feeling of enhanced technical performance, have increased employment opportunities, and can assist their employers in securing more business contracts (McKinley, 2012). Studies have also shown that in general, certification can enhance salary potential, with one study indicating that overall individuals with at least one credential earned 18% more in salary (ICE, 2015).

Professional credentialing has long been an important component of many diverse industries, including automotive mechanics, computer technicians, lawyers, and medical doctors. Historically, entomology has been largely devoid of professional credentialing programs, though not for want of discussion and debate. The desire to create professional standards has often been a heated topic of conversation among entomologists. The controversy arises at least in part due to the inherent push-pull relationship between scientifically-rooted entomology and technologically-based entomology. (Smith, 1989). As evidenced by steadily growing ranks of certified individuals, operationally, today's ACE and BCE programs are far more recognized as a legitimate professional credential by ESA members and others. Both programs are directed by the ESACC Certification Board (CB), managed by the ESA staff, and overseen by the ESACC Governing Board.

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Voluntary credentialing began to emerge as a business practice in the pest management industry in 1936 when the Purdue Pest Management conference—recognized as one of the first such programs in the United States—held its first conference. At that time, ESA leadership was considering what responsibility it had to develop a credentialing program. After decades of debate and discussion, ESA appointed a Standing Committee on Professional Training, Standards, and Status for Entomologists (Reed, 1964). The program's development took the next 13 years, and in 1968 the first certification program in the industry was launched with the adoption of the American Registry of Professional Entomologists (ARPE) program. At its height, approximately 25% of all ESA members were ARPE-certified (Smith, 1989) (Hines, 1975) (Sabrosky, 1969). In 1992, ARPE morphed into the BCE certification, which remains an active program today. Then, as now, the primary purposes of the program were to document professional training, promote ethical standards, and support the visibility of the profession (Cilek, 2010).

From the genesis of the first American entomological societies, there has been a call to better define the profession and professionalism of entomology. The American Association of Economic Entomology (AAEE)—one of the three Societies that merged to become today's ESA—stated in its founding documents "The membership shall be confined to workers in economic entomology. All economic entomologists employed by the general or State Governments or by the State Experiment Stations or by any agricultural or horticultural associations, and all teachers of economic entomology in education institutions may become active members of the association by transmitting proper credentials to the secretary." In other words, membership in AAEE was based on employment differentials rather than interest in the subject or academic credentials. Members were permitted to join who did not meet the standards, but they were only admitted as associate members (Osmun, 1989).

MATERIALS AND METHODS

The word "entomologist" has different definitions for different people. Popular culture would accurately describe an entomologist as a person who studies insects. Historically the ESA has felt that a minimum of a bachelor's degree in the science would be required to attain the title (Palm, 1958). In 1971, in an attempt to quantify the training required to attain entomologist status, ESA and ARPE created these two definitions.

Professional entomologist is a person who by academic training and/or practical experience has acquired a working knowledge in the science of entomology, who is recognized as an entomologist by entomologists, and who is engaged in entomological work as a substantial portion of his career.

Certified entomologist is an entomologist whose record has been reviewed by the committee on Professional Training, Standards and Status of the ESA and who is considered by that Committee to meet its requirements for professional entomologist.

Those definitions stood for the next 42 years. In 2013, the CB modified the ACE Code of Ethics in such a way as to clearly distinguish that, in the views of the Society, an entomologist is a person who has a minimum of a Bachelor's degree in entomology, or a closely-related discipline. All other practitioners certified by the Society are "associate certified," a continuation of the phrasing from the program's founding.

Regardless of business sector or industry, there are four primary types of credentialing and each serves a unique market need. They are:

- 1. Certificate program is one in which a person, after meeting minimum qualifications, voluntarily submits themselves to an organization for a determination of skills, competency, and/ or knowledge. A certificate of accomplishment is generally awarded.
- 2. Certification programs are also voluntary programs that are similarly structured for individuals, but they differ from certificate programs in that they also require ongoing proof of

training and competency to continue to hold the credential. Often this is evaluated through the submission of continuing education units (CEUs).

- 3. Accreditation programs are best defined as certification programs for businesses or organizations.
- 4. Licensure can define either a certificate, certification, or accreditation program, but the key difference is that licensure is mandatory, as defined by some type of a government agency. (Rops, 2011). Most jurisdictions regulate applicators that operate within their borders with a few organizations, such as the Association of Structural Pest Control Regulatory Officials (ASPCRO) serving as quasi-consultative bodies.

From a business accreditation perspective, NPMA's QualityPro was the first dominant business accreditation program to emerge. A 2004 NPMA pest management industry strategic sought to find a way to "raise the level of professionalism in pest management." Out of this plan grew QualityPro as a way to define professional business practices for the industry. The program serves only the North American marketplace and as of this writing there are 518 QualityPro Certified companies with 98% of them (508) based in the U.S.A. NPMA also offers service credentials for QualityPro certified companies. GreenPro (started in 2009) is held by 190 companies, QualityPro Schools (started in 2007) is held by 99 companies, and QualityPro Food Safety (started in 2007) is held by 35 companies. NPMA reports erratic growth for the first decade of the program, but a relatively steady growth of approximately 8.5% since 2012. Other U.S.-based accreditation programs, such as the IPM Institute's GreenShield are focused on specific aspects of pest control.

In 2015, CEPA launched EN16636 'Recommendations for the Provision of Pest Management Services' as well as implemented CEPA-Certified – a scheme to create awareness of and a desire for EN16636. They are both based on the development of a European standard for basic competencies for the operation of pest management companies in the European Union. The standard is an accreditation program and is only available in Europe.

Numerous licensing programs exist for both businesses and individuals. Additionally, a wide array of third-party review sites offer customers additional assurances of contractor competency. However, many of the review sites are not moderated and are thus subject to the capricious whims of the marketplace. Social media websites such as Yelp, Facebook, Porch, Houzz, Angie's List, TalkLocal, Judy's Book, Thumbtack, and HomeAdvisor are all places where customers can review, "like," attach comments or opinions to, or otherwise influence other people's perceptions and knowledge of a business or service individual's profile. These services serve a marketplace need, but are often are limited in their effectiveness to merely providing subject and anecdotal evidence, rather than certified and documented training and experience. However, at least partially due to low entry barriers to join as a member, social media platforms offer huge audiences and can serve as rapid change agents for businesses who receive either favorable or unfavorable reviews. Nearly 1.8 billion people use Facebook at least monthly and at least 1.18 billion people self-identify as daily users. 2013 data recorded 4.5 billion daily "likes" on the platform which is a 67% increase over the previous year (Zephoria, 2017). All of this indicates a vast, growing, and active marketplace with the potential to disrupt business models if not managed carefully.

DATA ANALYSIS

While many pest management certificate programs exist throughout the world, ACE and BCE are the only global and widely-accepted personal certification programs in the industry. BCE has been international from the program's earliest days. ACE began as a U.S.-only program; in 2014 ESA introduced the ACE International (ACE-I) program for non-US based PMPs. The U.S. version of the ACE-I program has grown an average >30% per year since introduction in 2004. (Figure 1).

Today the BCE program requires an advanced academic degree in entomology or a closely-

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related discipline to be considered as an applicant. Those without a degree in the science need to apply for ACE if they wish to become certified by ESA. In each case, however, the application process is similar and includes an application, letters of professional reference, documentation of work history, proof of professional competency, and approval by a program administrator. Once the application is approved, the applicant is permitted to take their examination(s) within one year. A key distinguisher of the ACE and BCE programs is that they are not in and of themselves a preparatory course. Instead, participants engage in self-study and take their examinations when they feel that they are sufficiently prepared. All examinations are administered by a proctor (generally an ACE or a BCE). Once an examinee attains a passing score, they do not need to retake that test again to maintain their certification. Continuing competency is documented via submitted CEUs at three-year intervals.

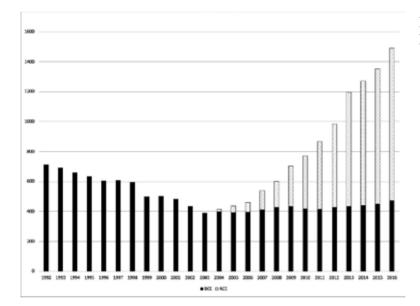


Figure 1. Growth of ACE and BCE since 1992.

CONCLUSIONS

Based on market adoption as a metric for market demand, the growth rate for ACE and ACE-I indicate that this is a credential with long-term potential for widespread adoption. The pest management marketplace is large and growing. In the U.S. alone, the industry is estimated to be approximately \$7.8 billion annually with an estimated 20,000 firms in place and an estimated workforce of over 74,000 (GIE, 2017). The largest 100 firms in North America (by sales volume) posted an additional \$304 million in sales in 2015 over 2014 and currently employ more than 57,000 individuals (BLS, 2017). While not all companies or individuals are qualified candidates for voluntary credentialing programs such as those described herein, the market for credentialing is clearly growing.

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