

PESTICIDE APPLICATOR CERTIFICATION

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PURDUE PESTICIDE PROGRAMS

Introduction

Pesticides are important tools for controlling organisms that limit crop and livestock production, damage property, spread disease, or otherwise detract from our quality of life. However, as with any tool, their misuse can pose a threat to human health and environmental quality. Pesticide applicator certification is a means of ensuring that individuals who apply pesticides professionally have the knowledge to do so in a safe, judicious, and effective manner.

A Brief History of Federal Pesticide Regulation

The first significant federal effort to regulate companies that manufacture pesticides occurred when the U.S. Congress passed the Insecticide Act of 1910. The law, administered by the United States Department of Agriculture (USDA), required that pesticide products conform to the statements printed on their labels.



In the years following World War II, the pesticide chemical industry experienced phenomenal growth due to the wartime development of synthetic pesticides (e.g., DDT). In 1947, Congress enacted the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) as a means of regulating the rapidly evolving industry.

FIFRA 1947 required USDA to register all pesticides distributed via interstate commerce. However, registration was largely a formality and USDA had little real enforcement

power. Manufacturers of pesticides that USDA determined were misbranded, ineffective, or unsafe could obtain a registration under protest and continue to market their product.

In 1964, Congress attempted to address such problems by amending FIFRA and closing the protest registration loophole. This shifted the burden of proof (in enforcement proceedings) from USDA to the manufacturer.

By the mid 1960s, serious environmental and human health concerns led to a public demand for stricter control over pesticide use in the United States. In 1970, the federal government responded by transferring

administrative authority for FIFRA from USDA to the newly created Environmental Protection Agency (EPA).

Pursuing a strong environmental protection policy, the federal government also undertook a complete revision of FIFRA in 1972. Federal authority was extended to address pesticide manufacturing, shipment, use, storage, and disposal.

Major provisions of the new law included the following:

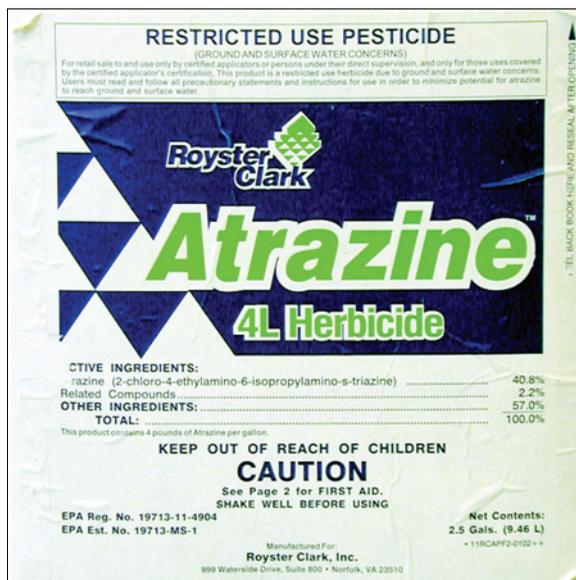
- Pesticides used in the United States must be registered with EPA.
- The pesticide label is a legal document requiring the applicator to follow all directions.
- Pesticides must be classified for either general use or restricted use. Restricted-use pesticides may be applied only by, or under the direct supervision of, a certified applicator.
- Each state should have a compliance law—administered by a state pesticide regulatory agency—that parallels FIFRA and includes provisions applicable to the state.
- Each state pesticide regulatory agency must have an applicator certification program meeting at least the minimum standards established by EPA.

The legislative events of the early 1970s signaled a dramatic shift in federal pesticide policy. The focus moved away from regulation for purposes of *assuring product efficacy* to *reducing risk to man and the environment*. Subsequent amendments to FIFRA have further specified the responsibilities of EPA, but the focus of pesticide control to minimize unreasonable risk to man and the environment remains unchanged.

FIFRA and the Certified Applicator

Pesticide registration is the primary emphasis of FIFRA. FIFRA regulates pesticides in the marketplace via product labels. Industry compliance with the requirements of FIFRA assures the user that products sold in the United States will meet their label claims.

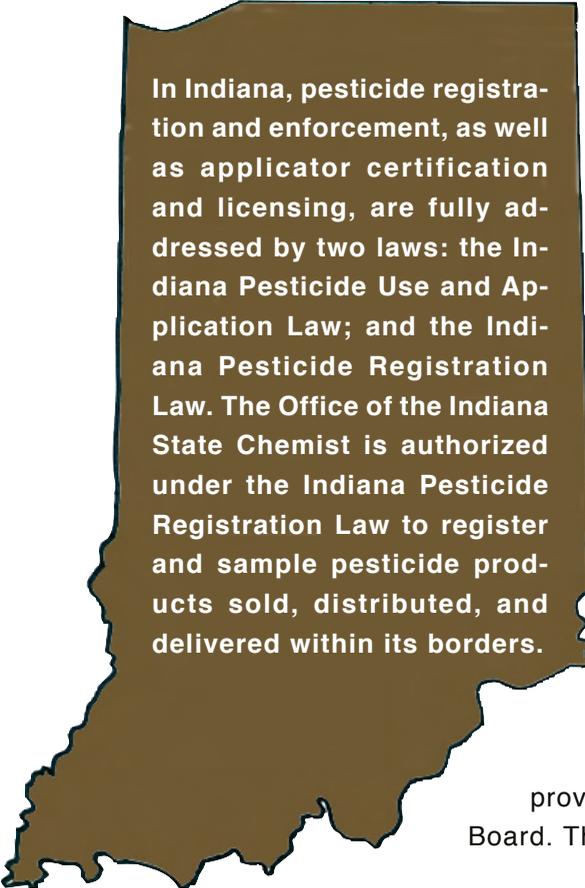
An important component of FIFRA is its provision for a process of applicator certification. Certification complements product registration that designates pesticide products for either general or restricted use. A restricted-use classification is applied to products that, when used in accordance with label directions, *may* cause adverse effects on man or the environment. FIFRA stipulates that applicators who purchase, use, or supervise the use of restricted-use pesticides (RUPs) must be certified to do so. A certified applicator is an individual who has demonstrated the competency necessary to manage the



use of pesticide products so as to minimize associated risks. The actual mechanism of applicator certification (i.e., testing) is left up to the various state pesticide regulatory agencies working under guidelines established by EPA. All restricted-use product labels have an RUP statement at the top of the front panel.

FIFRA considers a pesticide a general-use material when the product, used in accordance with label directions, is not expected to have adverse effects on man or the environment. General-use products may be purchased and used by the general public and are readily available at garden centers, hardware stores, and other retail outlets. The labels on general-use pesticides do not bear any descriptive statement regarding use classification; in fact, by common convention EPA refers to general-use products as “unclassified.”

The concept of applicator certification receives significant support from EPA through legal procedures for administrative review. If EPA determines that the use of a pesticide might pose undue risk to man or the environment, a restricted-use classification generally is considered before implementing the more drastic option of cancellation or suspension. This, in a very real sense, serves to emphasize the importance of applicator certification. Trained, knowledgeable, experienced applicators are regarded as professionals capable of using RUPs in a responsible manner.



In Indiana, pesticide registration and enforcement, as well as applicator certification and licensing, are fully addressed by two laws: the Indiana Pesticide Use and Application Law; and the Indiana Pesticide Registration Law. The Office of the Indiana State Chemist is authorized under the Indiana Pesticide Registration Law to register and sample pesticide products sold, distributed, and delivered within its borders.

Pesticide Applicator Certification and the Office of the Indiana State Chemist

The Office of the Indiana State Chemist (OISC) is the state agency responsible for pesticide regulation and enforcement in Indiana. OISC was first authorized to enforce Indiana pesticide laws under the 1971 Pesticide Act. In 1975, the general assembly enacted the Indiana Pesticide Use and Application Law to comply with FIFRA. OISC was charged with administering this new law.

Guidance and rule making for many of OISC's pesticide regulatory activities are provided in part by the Indiana Pesticide Review Board. The 20 voting members of the board are gover-

nor-appointed and represent regulated industries, the general public, the scientific community, the environmental community, and state governmental agencies involved in pesticide use. The Indiana Pesticide Review Board meets throughout the year to discuss pesticide issues of importance to the citizens of Indiana, to direct working committees in the drafting of pesticide regulations, and to give voice to concerned individuals, associations, and industries regarding current pesticide matters.

The Indiana Pesticide Use and Application Law

Certification of pesticide applicators refers to the procedure (testing) by which an individual becomes eligible for a pesticide applicator license. A license may be applied for only after certification requirements are met. It is not possible to be a licensed pesticide applicator without being certified. The state of Indiana recognizes two types of pesticide applicators: private and commercial. The process for becoming certified (and licensed), as outlined by the Indiana Pesticide Use and Application Law, varies between private and commercial applicators.

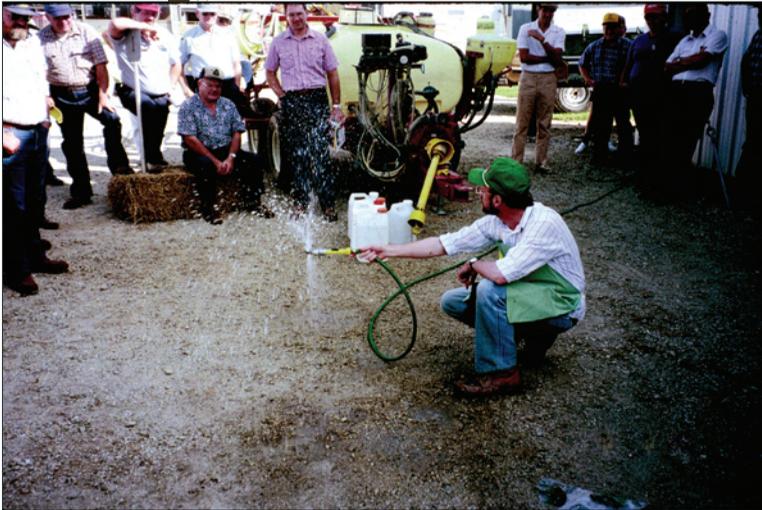
Private Pesticide Applicator Certification and Continuing Education

Pesticide applicators—primarily farmers—who apply pesticides to property that they own, rent, or otherwise control by some form of contractual arrangement for purposes of producing an agricultural commodity are referred to as private applicators. Any private applicator wishing to buy and use (or supervise the use of) restricted-use pesticides must be certified to do so and must have a private applicator permit issued by OISC.

Individuals interested in becoming certified as private applicators are encouraged to attend a one-day core training program conducted by Purdue Pesticide Programs, a function of the Purdue University Cooperative Extension Service. The program reviews the fundamentals of pesticide use: general pest biology, formulation choices, applicator safety, environmental protection, label comprehension, and laws pertaining to pesticide use.

Private applicator certification is attained by passing a closed-book core examination only. Examinations are administered by

Certification and licensing have an immediate impact on a tremendous number of Indiana citizens. There are approximately 15 million acres under agricultural production in the state, with a total cash receipt value of 6.04 billion dollars for all agricultural commodities generated. Almost 15,000 Indiana growers have become certified private pesticide applicators to help meet their management goals. Additionally, there are about 3700 commercial pesticide application businesses, organizations, and agencies that employ over 11,000 commercial applicators serving the needs of Indiana's citizens, agriculture, and industries.



Private applicators are encouraged to contact their local county extension office to learn more about programs that have been approved for recertification.

the Office of the Indiana State Chemist at regional sites and at the West Lafayette campus of Purdue University.

Certified private applicators are issued a permit valid for five years. The private pesticide applicator permit carries an identification number that is unique and nontransferable. *The permit documents that private applicators may legally purchase and use restricted-use pesticides on property under their control.* Note that private pesticide applicator

permit holders cannot legally purchase or use fumigants on their stored commodities. A private applicator who intends to use fumigants on a stored product must first obtain a rider on their permit through an additional examination process. Private applicators *cannot* legally apply pesticides to the property of another, for hire.

Private applicator recertification (i.e., permit renewal) is achieved by retesting at the end of the five-year certification period *or* by documented attendance at three continuing education programs within the five-year period. Private applicators who recertify by attending continuing education programs are not required to retest.

Commercial Pesticide Applicator Certification

Certification of commercial pesticide applicators in Indiana is a legal requirement for individuals who

- apply either general-use or restricted-use pesticides to the property of another for financial compensation (e.g., persons who offer pest management services).
- apply either general-use or restricted-use pesticides for area-wide mosquito control (e.g., mosquito abatement personnel in a county health department).
- apply restricted-use pesticides on the property of their employer as a function of their job (e.g., on-site pest management personnel at a food processing facility).
- apply restricted-use pesticides as an employee of a state or local governmental agency (e.g., fish management on state waters).

Certification of commercial pesticide applicators is generally a two-step process. Individuals seeking certification typically first take a core examination that covers general pest biology, formulation choices, applicator safety, environmental protection, label comprehension, and laws pertaining to pesticide use. The core examination is usually followed by a category exam specific to the applicant's field of professional interest. Category exams typically involve information on pest identification and biology, pesticide application techniques, application equipment and calibration, and category-specific human safety, environmental, and legal concerns. Examinations are administered by the Office of the Indiana State Chemist at regional sites and at the West Lafayette campus of Purdue University. Certification is attained when the applicant passes the core and at least one category exam. No exam may be attempted more than three times within a 12-month period.

There is an exception to the two-step certification process for wood destroying pest inspectors and certain commercial applicators. Wood destroying pest inspectors (category 12) certify by mandatory attendance at a one-day training program in addition to passing the category 12 exam (no core test required). Limited certification (category 13) is available for persons involved in professional pest management where pesticide use is very limited in scope (as determined by OISC). Persons certifying in category 13 take the core exam only.

Certification belongs to the individual who has successfully completed the examination process. Changes in employment do not require retesting unless that person wants to add a new category. Commercial pesticide applicator certification is valid for five years.

The Purdue University Cooperative Extension Service, through Purdue Pesticide Programs, provides core and category-specific training opportunities for persons seeking private and commercial pesticide applicator certification. Those attending training are provided study materials in advance of each program, and the certification exam pertinent to the day's training is offered at the conclusion.

The purpose of training is twofold. Training is intended to prepare applicants for certification exams by addressing testing objectives. In

There are 14 categories of commercial pesticide applicators in Indiana:

- Category 1—Agricultural Pest Management
- Category 2—Forest Pest Management
- Category 3a—Ornamental Pest Management
- Category 3b—Turf Pest Management
- Category 4—Seed Treatment
- Category 5—Aquatic Pest Management
- Category 6—Industrial Weed Management
- Category 7a—Industrial, Institutional, Structural and Health-Related Pest Management
- Category 7b—Termite Control
- Category 7d—Fumigation
- Category 8—Community-Wide Mosquito Management
- Category 11—Aerial Application
- Category 12—Wood Destroying Pest Inspection
- Category 13—Limited Certification

addition, content is delivered in a manner that emphasizes its professional relevance.

Core and category sessions are held at Purdue's West Lafayette campus. Purdue Pesticide Programs staff and other university personnel, as well as persons from state governmental agencies and private industry, serve as instructors. Instructors are selected for their subject matter expertise and communication skills. They assist their audience in building a comprehensive pest management knowledge base and in developing an attitude of professionalism.

Commercial pesticide applicator certification can be renewed by either of two methods: retesting (i.e., retaking the core and/or category exams) or by accumulating continuing certification hours (CCHs).

CCHs are accrued by attending extension, professional, and industrial programs for which credit has been approved by the Office of the Indiana State Chemist. Continuing certification hour requirements vary by category, but no more than half the total number of CCHs required for a category may be acquired at a single program. If the required number of CCHs is earned, certification "continues" automatically for an additional five years and the applicator is not required to retest. The CCH system is a means of encouraging the certified commercial applicator to stay abreast of changes pertinent to broadening job-related skills and professional competency.



Purdue Pesticide Programs' primary commitment is to continually enhance the educational background and skills of the pesticide applicator. A blend of hands-on training (above) and classroom instruction (right) helps prepare applicators for real-life pest

Category 1	Agricultural Pest Management	18
Category 2	Forest Pest Management	12
Category 3a	Ornamental Pest Management	18
Category 3b	Turf Pest Management	18
Category 4	Seed Treatment	6
Category 5	Aquatic Pest Management	12
Category 6	Industrial Weed Management	12
Category 7a	Industrial, Institutional, Structural and Health-Related Pest Management	18
Category 7b	Termite Control	12
Category 7d	Fumigation	12
Category 8	Community-Wide Mosquito Management	12
Category 11	Aerial Application	14
Category 12	Wood Destroying Pest Inspection	6
Category 13	Limited Certification	6

Commercial Pesticide Applicator Licensing

Once certified, a commercial pesticide applicator must become licensed in order to legally purchase, use, or supervise the use of pesticides relating to the terms of his employment. Commercial pesticide applicator licensing refers to the issuance and record of a license carried by the applicator.

All commercial pesticide applicators must be appropriately licensed under one of the following classifications:

- *Licensed for-hire applicators (F)* are employees of a business who assume direct responsibility for the use or supervision of the use of pesticides (both general- and restricted-use products) by the firm on another person's property. Examples include employees of lawn care companies, and residential pest management firms, and agricultural retail outlets.
- *Licensed not-for-hire applicators (NF)* are employees of a nonpublic employer whose duties include the use or supervision of the use of restricted-use pesticides only on the premises of, and only to the property of, the employer. For example, turf managers of privately owned golf courses, quality control supervisors in food processing facilities, and in-house pest management operators working in apartment complexes and hospitals are not-for-hire applicators.
- *Licensed public applicators (PB)* are employees of state or local government whose duties include area-wide mosquito control or the use or supervision of the use of restricted-use pesticides.

Examples include landscape managers for city-owned parks and golf courses, persons working for county mosquito abatement or public health programs, and state and county highway personnel involved in right-of-way vegetation management.

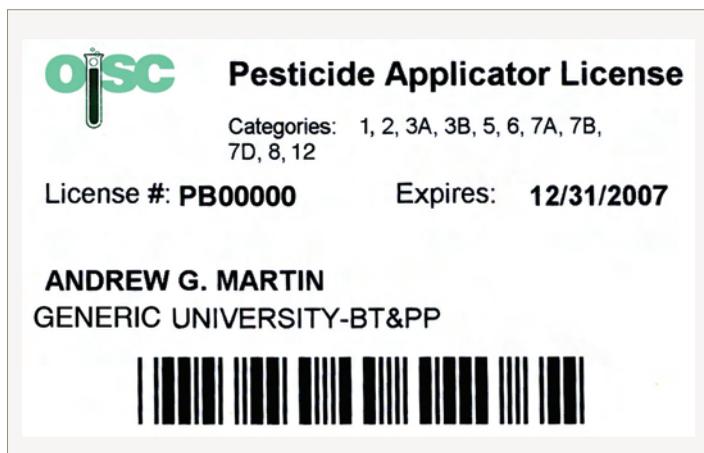
The applicator license serves several purposes:

- It links an applicator to a specific business.
- It confines the applicator to those applications indicated by the certification category(ies) listed on the applicator license, and only while in the employ of the business listed on the license.
- It provides assurance that the applicator is covered by the business's liability insurance.

The applicator license is the property of the applicator's employer. Applicator licenses expire on December 31 and must be renewed annually. License renewal serves as a

tracking mechanism that permits the Office of the Indiana State Chemist to confirm the employment status of licensed applicators.

An applicator license is invalid the moment that an individual leaves the employment of the firm under which they were licensed. Persons who seek future employment with another firm that conducts commercial pesticide application activities may reapply for a new applicator license under the new firm for those categories in which they are certified.



The Office of the Indiana State Chemist is permitted to waive some or all of the certification requirements for persons whose businesses are headquartered outside Indiana but who conduct application activities within the state. Reciprocity is contingent upon the person's home state having substantially the same certification standards as Indiana. Although certain certification requirements may be waived, licensing is required for those out-of-state applicators working in Indiana.

Additional Licensing Requirements

Representatives of the termite control (category 7b) and turf (category 3b) pest management industries and the Office of the Indiana State Chemist agree that, because of the sensitive nature of termite and turf pest management, individuals involved in these activities require documented application experience to qualify for a for-hire license.

Individuals pursuing a category 7b for-hire license can meet the experience requirement by attending a 2-day intensive hands-on structural pest management workshop provided by Purdue Pesticide Programs.

Once the experience requirement is met and the applicant successfully completes the core and category 7b examinations, they may apply for a category 7b commercial for-hire license.

The procedure for obtaining a category 3b commercial for-hire license is similar but not identical to that for wood destroying pest control. A person interested in obtaining a category 3b for-hire license must meet their work experience requirement either by

- working under the direct supervision of a category 3b licensed applicator for 90 days during the months of March through October, or by
- attending a specific 2-day hands-on workshop sponsored by Purdue Pesticide Programs.

The category 3b experience requirement may be waived under certain conditions such as proof of completion of a formal, post-high school (2-year minimum) turf program or one year of active experience as a licensed commercial pesticide applicator in any category. The Office of the Indiana State Chemist must rule on the written waiver request, and cases are examined on an individual basis.

Upon meeting the experience requirement and passing the core and 3b certification exams, the applicant may apply for a category 3b commercial for-hire license.



Supervision of Non-Certified Applicators

With certain qualifications, commercial non-certified applicators may apply restricted-use pesticides or make pesticide applications to the property of another, for-hire, if they do so under the supervision of a certified, licensed applicator. The non-certified applicator must be at least 16 years old, and capable of reading and understanding written instructions, including pesticide labels.

The supervisor must remain on-site with the non-certified applicator unless the non-certified applicator is a technician registered with the Office of the Indiana State Chemist. Certified, licensed applicators who supervise registered technicians (RTs) from a remote location must

- remain available by phone (or other means of voice contact) for consultation with the RT.
- provide the RT with a category-specific site assessment fact sheet (available from OISC website).
- provide the RT with labels of the products being applied.
- make available personal protective equipment as specified on the pesticide label.

Registered Technician Status

A non-certified person may become a registered technician by passing the pesticide applicator core exam and applying for a registered technician credential through the Office of the Indiana State Chemist. Once these requirements are met, the registered technician may—under the direct supervision of a certified applicator—engage in those pest control operations in which the supervisor is certified and licensed.

Technician registration is valid for a period of five years. A registered technician may renew their credential by accumulating at least eight continuing certification hours by attending a minimum of two approved programs within five years of passing their examination.

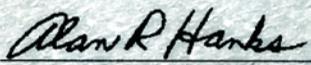
A certified, licensed applicator may not supervise more than ten non-certified employees unless granted a 60-day emergency exemption by the Office of the Indiana State Chemist.

There are two exceptions to the supervision requirements:

- All aerial applicators must be certified and licensed.
- All individuals employed as wood destroying pest inspectors must be certified and licensed.

Commercial For-Hire Business Licensing

Firms engaged in the business of applying pesticides on the property of another, for hire, must hold a commercial, for-hire business license issued by the Office of the Indiana State Chemist. The applicant for a commercial, for-hire business license (or an employee in his hire) must be certified for the type of work conducted by the firm and apply also for a commercial, for-hire applicator license. The business license (for public display) and the applicator license (carried by the applicator) are separate and distinct. In addition to meeting all other certification requirements, an applicant for a business license is required to provide proof of adequate liability insurance. Business licenses must be renewed annually by December 31.

INDIANA STATE CHEMIST & SEED COMMISSIONER Purdue University 175 S University Street West Lafayette, Indiana 47907-2063	COMMERCIAL PESTICIDE BUSINESS LICENSE This authorizes the company listed hereon to engage in for-hire pesticide use business in the categories listed on this form. It is valid in these categories only as long as applicator(s) currently licensed with this business hold valid certification(s) as listed.
VALID CATEGORIES 1A 2 3A 3B 5 6 7A	LICENSE NUMBER: 00000 EXPIRATION DATE: 31-Dec-2004
MARTIN PEST CONTROL 123 W MAIN STREET WEST LAFAYETTE IN 47906	 STATE CHEMIST

Pesticide Application Recordkeeping

Commercial **and** private pesticide applicators must maintain written records of all applications involving restricted-use pesticides for at least two years from the date of application. Recorded information should include the applicator's name and certification number; the name and address of the customer; the date of treatment; acreage treated; crop(s) treated; pest(s) controlled; the pesticide applied (brand name, EPA registration number, name of pesticide manufacturer); and the rate used.

Category 7b certified and licensed applicators must also keep termiticide application records on file for at least five years. Recorded information should include a copy of the treatment contract; a diagram of the treated structure; treatment specifications; the EPA product registration number; dilution rate and total volume applied; an explanation of any deviations from the labeled use instructions; name and registration number of the applicator who performed the treatment (and name and license number of the supervisor where appropriate).

Summary

FIFRA is concerned primarily with pesticide registration but also outlines a format for regulating pesticide use through a process of applicator certification. The individual states are charged with implementing certification programs for individuals who will be using restricted-use products or making applications in certain situations.

In Indiana the pesticide regulatory agency is the Office of the Indiana State Chemist. That agency is responsible for pesticide registration, enforcement, and applicator certification and licensing. The Purdue University Cooperative Extension Service, through Purdue Pesticide Programs and county extension educators, makes pesticide education programs available to growers and commercial applicators.

Applicator certification is more than just a regulatory hurdle. Certification is an important statement to the people of Indiana that persons applying restricted-use products and/or making commercial, for-hire applications are qualified to do so. The certification process also affords applicators the opportunity to participate in an educational process that generates a multitude of benefits. It represents a giant step toward professionalism.

For information on extension-sponsored educational programs, contact the Purdue University Cooperative Extension Service:

- Purdue Pesticide Programs, (765) 494-4566
- PPP on-line at <http://www.btny.purdue.edu/PPP/>
- Local extension educators, (888) 398-4636

For state regulatory information and information on pesticide applicator certification and licensing, contact the Office of the Indiana State Chemist:

- Phone: (765) 494-1594
- OISC on-line, at <http://www.isco.purdue.edu>

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