Since pesticides have become an integral part of agriculture, a succession of federal and state laws has addressed the changing role of pesticides and their regulation. The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) was first approved in 1947 and has undergone several revisions since that time. In Missouri, FIFRA, the Missouri Pesticide Use Act and the Missouri Pesticide Registration Act are the principal statutes governing the use and registration of pesticides, and the Missouri Department of Agriculture's Bureau of Pesticide Control administers these regulations. The Missouri Pesticide Registration Act regulates state registration of pesticides being offered for sale and use in Missouri. The Missouri Pesticide Use Act was signed in 1974 and put into effect in 1976. Its purpose is to provide the legal foundation for Missouri to operate its own pesticide program as provided under terms of FIFRA. The act regulates the use of pesticides and the licensing of pesticide applicators. University Outreach and Extension will provide pesticide applicator training to meet certification requirements. This publication presents selected provisions of FIFRA and the Missouri Pesticide Use Act and is intended solely for general information.

General provisions
The intent of FIFRA is to protect both people and the environment by regulating the use of pesticides. It is the basis for regulations governing the distribution, sale, and use of pesticides in the United States. The U.S. Environmental Protection Agency (EPA), formed in 1970, was given the responsibility of administering FIFRA. A pesticide, as defined by FIFRA, includes any substance or mixture of substances intended for preventing, destroying, repelling or mitigating any pest, and any substance or mixture of substances intended for use as a plant regulator, defoliant or desiccant.

FIFRA requires pesticide manufacturers to register each of their products with the EPA either as a general use or restricted-use pesticide. EPA defines registration as the formal listing of a new pesticide before it can be sold or distributed in intrastate or interstate commerce. Restricted-use pesticides can be used only by certified applicators or non-certified individuals working under the direct supervision of a certified applicator. A restricted-use classification is applied to products that, when used in accordance with label directions, may cause adverse effects to humans or the environment. All restricted-use products carry the following statement at the top of the front panel of the pesticide label:

General-use pesticides may be used by anyone, so long as the pesticide is used only on lands owned or rented by that person or that person's employer. Pesticides that are classified as general use are not expected to cause adverse effects to humans or the environment if they are used in accordance with label directions.

There are several types of licenses as defined by the Missouri Pesticide Use Act. A certified private applicator is an individual who uses or supervises the use of restricted-use pesticides for producing any agricultural commodity on property owned or rented by him or his employer. A private applicator becomes certified by attending a training program provided by University Outreach and Extension. Following training, applicators may then apply to the Missouri Department of Agriculture for their licenses. Private applicators are recertified on a five-year cycle. To recertify, the private applicator may attend the initial certification program, complete the CD-ROM private applicator training program, or read, review and answer the questions found in the private applicator recertification manual.

A certified commercial applicator is authorized to use, supervise the use of, or determine the need for the use of, any pesticide, on the lands of another as a service to the public in exchange for a fee or compensation.

A certified noncommercial applicator is any individual who is authorized to use, or to supervise the use of, restricted-use pesticides only on lands owned or rented by the applicator or the applicator's employer. An example of a certified noncommercial applicator is an employee of a golf course.

A certified public operator is any individual who is authorized to use, or to supervise the use of, any pesticide classified for restricted use in the performance of duties as an official or employee of any agency of the state of Missouri or any political subdivision thereof, or any other governmental agency. Examples of certified public operators are employees of the Missouri Department of Transportation and the University of Missouri.

A licensed pesticide technician is an individual under the direct supervision of a certified commercial applicator, using or determining the need for the use of pesticides in

Restricted-Use Pesticide
For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.
the category of ornamental and turf pest control, the subcategory of general structural pest control or the subcategory of termite pest control.

A pesticide dealer is one who sells at retail, or otherwise makes available to the user, any restricted-use pesticide.

Commercial and noncommercial applicators, licensed pesticide technicians, and public operators must be certified in the pest control category(ies) that relate to their pesticide application job duties. Missouri's pest control categories are shown in the following table.

<table>
<thead>
<tr>
<th>Category number</th>
<th>Category name</th>
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<tbody>
<tr>
<td>1a</td>
<td>Agricultural plant pest control</td>
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<tr>
<td>1b</td>
<td>Agricultural animal pest control</td>
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<tr>
<td>2</td>
<td>Forest pest control</td>
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<tr>
<td>3</td>
<td>Ornamental and turf pest control</td>
</tr>
<tr>
<td>4</td>
<td>Seed treatment</td>
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<tr>
<td>5</td>
<td>Aquatic pest control</td>
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<tr>
<td>5b</td>
<td>Sewer root control</td>
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<tr>
<td>6</td>
<td>Right-of-way pest control</td>
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<tr>
<td>7a</td>
<td>General structural pest control</td>
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<tr>
<td>7b</td>
<td>Termite pest control</td>
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<tr>
<td>7c</td>
<td>Fumigation pest control</td>
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<tr>
<td>8</td>
<td>Public health pest control</td>
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<td>9</td>
<td>Regulatory pest control</td>
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<td>10</td>
<td>Demonstration and research pest control</td>
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<tr>
<td>11</td>
<td>Wood products pest control</td>
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<tr>
<td>D</td>
<td>Pesticide dealer</td>
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</tbody>
</table>

The first step in becoming a certified commercial, noncommercial, or public operator is to successfully pass the general standards of competence (core) examination and the specific category examination which relates to the applicant's professional interest. The core examination covers such topics as pest management principles, laws, pesticide formulations and applicator safety. The specific category examination will also cover some of the same topics as the core exam; however, it will also cover in more detail topics which are only related to that specific pest control category. Successful completion of each examination requires a passing score of 70 percent.

To obtain a pesticide dealer license, the applicant must take and successfully pass the dealer examination with a score of 70 percent. The pesticide certification examinations are administered by the Missouri Department of Agriculture's Bureau of Pesticide Control. Pesticide certification training is provided annually by University Outreach and Extension normally during the winter. Certification training is not mandatory and applicants who attend should also study the appropriate MU study manuals. Those who do not attend training may purchase study manuals from the MU Extension Publications Distribution Center (1-800-292-0969) and prepare for the examinations on their own. After successfully completing the examination process, the second step consists of making application for a certified applicator, operator, or pesticide dealer license by submitting the appropriate certified applicator or pesticide dealer application form, license fee, and other requirements related specifically to the type and category of license applied for.

Commercial and noncommercial applicator and public operator certification can be renewed by either of two methods. Individuals may repeat the examination process or attend a pesticide recertification training program which has been approved by the Missouri Department of Agriculture. Recertification training programs are offered annually in the winter by University Outreach and Extension and on a regular basis by several private organizations. Recertification is required in Missouri once every three (3) year cycle for commercial and noncommercial applicators and public operators. Pesticide dealers are not required to recertify.

1996 amendments to FIFRA

The Food Quality Protection Act (FQPA) was signed into law in August 1996 and represents the first significant amendment to FIFRA since 1988. Following are some of the major provisions of FQPA:

- Periodic review of pesticide registrations. FQPA requires EPA to establish a system for periodic review of all pesticide registrations on a 15-year cycle using new food safety standards mandated under the act.
- Emergency suspension authority. EPA may suspend a pesticide registration immediately. A notice of intent to cancel must be issued within 90 days, or the emergency suspension would expire.
- Minor use pesticides. FQPA enhances incentives for the development and maintenance of minor use registrations through extensions for exclusive use of data, flexibility to waive certain data requirements, and requiring EPA to expedite review of minor-use applications.
- Requires a time-limited tolerance to be established for pesticides that have received registration under Section 18 of FIFRA.

Pesticide record keeping under the Missouri Pesticide Use Act

Certified commercial and noncommercial applicators and public operators. Certified commercial applicators or their employers are required to keep and maintain records for the use of any pesticide(s). Certified noncommercial applicators and public operators are required to keep and maintain records for the use of restricted-use pesticides. The records must be kept for three years in a neat and legible condition. The records must contain the following for each application site:

- Name and license number of the certified applicator or operator
- Name of the noncertified applicator or the name and license number of the pesticide technician using pesticide(s) if applicable
- Application date
- Name and address of the person requesting the pesticide use
- Address or brief description of the application site
- Pest(s) controlled or prevented by the pesticide use
- Complete trade (manufacturer's brand) name(s) from the label(s) of the pesticide(s) used
- The EPA registration number(s) from the label(s) of the pesticide(s) used
- Reasonable estimate of the amount of pesticide(s) used and, if applicable, the actual rate of application expressed in reasonable and understandable terms
- A reasonable estimate of the time, air temperature, and average wind speed and direction at the site of outdoor
Pesticide applications, excluding applications of pesticides in general structural pest control and termite pest control within 10 feet of a building

**Pesticide dealers.** Pesticide dealers are required to keep and maintain records of sales and distribution of restricted-use pesticides for three years in a neat and legible condition. These records must be available for inspection at reasonable times during regular business hours. Records shall contain the following information:

- Pesticide dealer's name and license number
- The trade name, EPA registration number, applicable state special local need (SLN) registration number(s), the amount of each restricted-use pesticide made available at each transaction and the date of the transaction
- Information related to the individual receiving the restricted-use pesticide, including:
  1. The name, address, license number, certification category(ies) and license expiration date of the certified commercial or noncommercial applicator or certified public officer to whom the restricted-use pesticide was made available.
  2. The name, address and permit number of the private applicator with a permit to whom the restricted-use pesticide was made available.
  3. If applicable, the name, address and verified relationship to whom the restricted-use pesticide was made available. The relationship between the certified applicator and noncertified, designated representative to whom the restricted-use pesticide was made available may be verified through one of the following: (1) actually seeing the certified applicator's or operator's original license and an original identification document of the noncertified, designated representative; or (2) actually seeing a photocopy of the certified applicator's or operator's license and a signed statement from the certified applicator or operator authorizing the noncertified, designated representative to take possession of the restricted-use pesticide.
- The name, address, license number and license expiration date of the pesticide dealer to whom the restricted-use pesticide was made available

**Pesticide record keeping under the 1990 Farm Bill**

**Commercial applicators.** Additional record keeping requirements for commercial applicators are included in the 1990 Farm Bill. If a commercial applicator is hired to make an application of a restricted-use pesticide for a private applicator, the commercial applicator shall, within 30 days of the application, provide a copy of the required records to the person for whom the restricted-use pesticide was applied. Certified commercial applicators can hold the records of restricted-use pesticide applications for their clients as long as the client has signed a statement stipulating who is holding the records. Commercial applicators should provide their clients with a copy of the signed statement. Commercial applicators must make these records available to their clients upon request in a timely manner and maintain separate records for each client. Any commercial applicator applying restricted-use pesticides must provide a copy of the records to the customer within 30 days.

**Private applicators.** As of May 1993, certified private applicators must maintain record(s) of federally restricted-use pesticide applications. The record(s) must be maintained for two years following the pesticide application. The record(s) information must have been reported no later than 14 days following the pesticide application. The records must contain the following information:

- The certified applicator's name and certification number
- The month, day and year of the application
- The crop, commodity or site to which the pesticide was applied
- The brand or product name of the federally restricted-use pesticide and the product's EPA registration number
- The total amount applied
- The size of the area treated
- The location of the application

Private applicators may keep the required records in any format. They may be handwritten on individual notes or forms, be computerized, or be maintained in record keeping books. More detailed information and a record keeping form are available in MU publication MP692, *USDA Pesticide Record-Keeping Requirements for Certified Private Applicators of Federally Restricted-Use Pesticides*, at University Outreach and Extension centers.

**Worker protection standard**

In August 1992, EPA announced its final rule revising its regulations regarding protection of workers from exposure to agricultural pesticides. It is directed toward the working conditions of the following two types of employees: (1) pesticide handlers are those who handle agricultural pesticides (mix, load, apply, clean or repair equipment, act as flaggers, etc.) and (2) agricultural workers are those who perform tasks related to cultivation and harvesting. The provisions are intended to accomplish the following:

- Eliminate or reduce exposure to pesticides. Exposure is limited by establishing restricted entry intervals (REI's) for all pesticide products used in the production of agricultural plants and for which REI's have not been set according to current standards.
- Mitigate exposures that occur.
- Inform employees about the hazards of pesticides.

Products affected by the Worker Protection Standard are, with some exceptions, those products registered for use in the production of agricultural plants. It includes any product registered for use in the production of agricultural plants on farms, forests, nurseries and greenhouses. It is important to note that facility owners and operators are ultimately responsible to ensure compliance within the Worker Protection Standard. For more information, request the EPA manual *How to Comply* at local University Outreach and Extension Centers.

**Penalties**

**Criminal penalties - FIFRA.** Violation of FIFRA provisions is a misdemeanor. Upon conviction, a private applicator is subject to a fine of up to $1,000 and/or 30 days imprisonment; a commercial applicator is subject to a fine of not more than $25,000 and/or up to one year imprisonment.

**Civil penalties - FIFRA.** In general, commercial applicators, wholesalers, dealers and retailers may be assessed a
Frequently asked questions

1. How do I obtain a certified commercial applicator license?
You must submit to the Missouri Department of Agriculture a certified applicator or pesticide dealer application complete with a recent (within one year) photograph of the applicant, pass the written certification exams, obtain liability insurance, and pay an annual license fee of $50. The applicant may also be required to submit additional requirements.

2. What are some examples of businesses that require commercial applicator licenses?
- Pest control operators, lawn care firms, custom agricultural applicators, and right-of-way applicators are the major businesses in Missouri that employ commercial applicators.

3. If my business does not apply restricted-use pesticides, do I still need to have a commercial applicator's license?
- Yes. If your commercial business uses any type of pesticide, you must be licensed.

4. Do I need a pesticide applicator license to apply fertilizers?
- No; fertilizers are not pesticides. However, if fertilizers are mixed with pesticides, you must be licensed.

5. Who needs to have a public operator's license?
- Anyone who purchases or uses restricted-use pesticides for the production of agricultural commodities on property he owns or rents or on his employer's property must have a private applicator's license. Homeowners do not need to have a private applicator license.

6. Who needs to have a certified noncommercial applicator license?
- This license is for those who use restricted-use pesticides as direct employees of government agencies including public universities or colleges.

7. Who needs a private applicator license?
- Anyone who purchases or uses restricted-use pesticides for the production of agricultural commodities on property he owns or rents or on his employer's property must have a private applicator's license. Homeowners do not need to have a private applicator license.

8. Do private applicators have to keep records of all pesticides applied?
- No. They are required to keep records of only restricted-use pesticides; however, private applicators should be encouraged to keep records of all pesticides applied because it makes good business sense.

9. Once I pass the commercial applicator certification exams, do I ever have to take them again?
- No. As long as applicators keep their certification valid by attending an approved recertification program, retaking the exams is not necessary. Recertification must be done at least once every three years. Retaking the exams is an option for recertification.

10. Where do I obtain licensing information?
- Missouri Department of Agriculture
- Bureau of Pesticide Control
- P.O. Box 630
- Jefferson City, MO 65102
- Telephone: (573) 751-2462
- www.state.mo.us/mda

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