Part 2: Pesticide Laws

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Pesticides are substances or mixtures of substances used to prevent, destroy, repel, or control undesirable organisms. Pesticides include herbicides for weeds, insecticides for insects, fungicides for fungi, rodenticides for rodents and many other substances. There are many federal and state laws that control the use of pesticides. If you use pesticides in a way not allowed by the law, you can be fined or, in worst cases, subject to criminal penalties. Here are the major laws that regulate the use of pesticides. Note: There have been recent changes in these pesticide laws and regulations: 1) Certification of Pesticide Applicators; 2) Worker Protection Standards; 3) Reporting Pesticide Spills; 4) Pesticide Recordkeeping Requirement; 5) Chemigation; 6) Posting.

**Key Questions About Pesticide Laws**

- What activities do pesticide laws cover?
- Classifying a pesticide as Restricted Use is an alternative to doing what with the pesticide?
- What is pesticide applicator certification and why do we have it?
- What federal and state government agencies enforce pesticide laws?
- What new changes have been made to pesticide laws and regulations?

**Federal Laws**

**FIFRA**

One of the most important laws for pesticide applicators is the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). It regulates the way pesticides are used in the United States and requires that pesticide applicators be certified. Listed below are the main activities involving pesticides that are regulated by FIFRA.

The laws are regulated and enforced at the national level by the U.S. Environmental Protection Agency (EPA) and at the state level by the Minnesota Department of Agriculture under an agreement with the EPA.

If you violate FIFRA, you are subject to civil and possibly criminal penalties. Civil penalties may be as much as $5,000 for each offense. However, before the EPA or the state can fine you, you have the right to ask for a hearing in your own city or county. Criminal penalties may be fines as high as $25,000 or one year in prison, or both.

**Classification of pesticides**

Manufacturers must register every pesticide with the EPA. When the pesticide is registered, each use of the pesticide is classified by the EPA. There are two classifications:

**Unclassified Pesticides** are those pesticides that present less potential
danger to humans or the environment when applied according to label directions.

**Restricted Use Pesticides (RUP)** are those pesticides that may harm humans and/or the environment even when used as directed on the label.

Some formulations of a pesticide may be “restricted use,” while others may not. See Appendix A for a list of Restricted Use Pesticides.

**Certification of pesticide applicators**

Under FIFRA, an applicator must be certified in order to purchase or use RUP pesticides. Certification requirements may differ between states with the applicator’s category.

The EPA has set minimum national standards of competency for the different categories of pesticide applicators. In Minnesota, a certification procedure that meets national standards is administered by the Minnesota Department of Agriculture. The Minnesota Extension Service provides the training programs for Minnesota applicators under an agreement with EPA and MDA as authorized by federal and state law. There are different training, certification and licensing requirements for commercial, noncommercial, and private pesticide applicators. It is a good idea for everyone who supervises, handles, or applies any pesticide to be certified, even if they are not required to be by law. See State Laws, page 2 - 10, for Minnesota’s pesticide applicator’s certification program.

**Worker Protection Standard**

The Worker Protection Standard (WPS) is a federal rule under FIFRA which authorizes the USEPA to take steps to reduce illness and injury due to pesticide exposure for agricultural employees. The WPS applies to businesses, farms, greenhouses, nurseries, forests, and other commercial producers of plants as well as to pesticides used in research of these plants. Under the WPS, employers are required to provide employees and, in some cases, themselves and their family members with:

- Information about pesticide exposure;
- Protection against pesticide exposure; and
- Mitigation of pesticide exposure.

This section will help you decide if you or persons you work with are covered by the WPS.

**Pesticide uses covered by the WPS**

Most pesticides used in the production of agricultural plants on farms, nurseries, greenhouses, and forests are covered by the WPS. This includes pesticides used:

- on plants,
- in the soil, or
- in the planting medium the plants are (or will be) grown in.

Both General Use and Restricted Use pesticides are covered by the WPS.

**NOTE:** The WPS does NOT cover pesticides used for post-harvest applications; production of livestock and other animals; pastures;
rangelands; control of vertebrate pests; maintenance of turf, landscapes, or ornamentals; home fruit and vegetable gardens; rights-of-way; attractants or repellents in traps; mosquito abatement or other similar government-sponsored wide-area public pest control programs; education or demonstration purposes; research uses of unregistered pesticides; and structural pest control.

To tell if a pesticide is covered by the WPS, look for the section titled “Agricultural Uses Requirements” under the Direction for Use area on the pesticide labeling. Some pesticides labels may include uses of the product that are covered by WPS and other uses that are not. It is up to you to be sure to follow WPS requirements for all WPS-covered uses of a pesticide.

**Employees covered by the WPS**

Employees covered by the WPS are considered to be either handlers or workers. A WPS **handler** is anyone employed (including self-employed as on family-owned farms, greenhouses, and nurseries) by an establishment to:

- Mix, load, transfer, or apply pesticides.
- Handle open containers of pesticides.
- Act as a flagger for pesticide application.
- Clean, handle, adjust, or repair the parts of mixing, loading, or application equipment that may contain pesticide residues.
- Assist with the application of pesticides, including incorporating the pesticide into the soil after the application has occurred.
- Enter a greenhouse or other enclosed area after application and before the inhalation exposure level listed on the product labeling has been reached or one of the WPS ventilation criteria has been met.
- Enter a treated area outdoors after application of any soil fumigant to adjust or remove soil coverings, such as tarpaulins.
- Perform tasks as a crop advisor during application, during the restricted entry interval (REI), or before any inhalation exposure level or ventilation criteria listed on the labeling has been reached or one of the WPS ventilation criteria has been met.
- Dispose of pesticide and pesticide containers covered by WPS.

A person is NOT a handler if she or he ONLY:

- Handles pesticide containers that have been either triple- or pressured-rinsed or cleaned according to instructions on the pesticide labeling, or handles unopened pesticide containers.

A WPS **worker** is anyone who is:

- Employed (including self-employed) for any type of compensation, and
- Does tasks, such as harvesting, weeding, or watering, that relate to the production of agricultural plants on farms, forests, nurseries, or greenhouses.

An employee may be considered a handler one time and a worker another
time depending on which tasks the employee is doing. Production and crop advisors, consultants, and their scouts are considered handlers under the WPS.

**Note:** Owners of agricultural establishments (farms, greenhouses, nurseries, and forests) and members of their immediate family who are handlers or workers are exempt from many—but not all—WPS requirements. See the Worker Protection Standard “How to Comply Manual” for more information.

**Employers covered by the WPS**
WPS requires employers of handlers and workers to perform certain duties for their handler and worker employees. WPS requirements for employers differ somewhat for worker and handler employees. Some of WPS requirements are straightforward; others are more complex. See the WPS “How to Comply Manual” for more detailed information about WPS requirements. To get the most current information on WPS requirements, contact the Minnesota Department of Agriculture or the Minnesota Extension Service.

**All employers are required to provide:**
- Information about pesticide applications and safety at a central location on the agricultural establishment,
- Pesticide safety training for workers and handlers,
- Employee decontamination sites,
- An information exchange between employers of commercial applicators (owners of the for-hire services) and operators of agricultural establishments contracting for pesticide application services, and
- Emergency assistance for pesticide exposure.

**In addition, employers of handlers are responsible for:**
- Application restrictions and applicator monitoring,
- Specific instructions for handlers (product specific safety information, PPE, etc.).
- Equipment safety, and
- Personal protective equipment (PPE) including providing for its use, care, cleaning, and disposal.

**And, employers of workers are responsible for:**
- Restrictions during application,
- Worker restricted entry intervals after application, and
- Giving notice about applications (posting and oral notification).

**Product-specific WPS information such as the REI and PPE requirements can be found on pesticide labeling of WPS-covered products. General WPS requirements that apply to all pesticide uses covered by the WPS are not listed on the label.**

WPS covered handlers and workers who are currently certified and
licensed through the Pesticide Applicator Training program are exempt from the WPS pesticide safety training requirement.

Information about WPS and WPS requirements can be found in the manual: Worker Protection Standards for Agricultural Pesticides—How to Comply: What Employers Need to Know.

For information regarding WPS requirements, any recent changes to WPS requirements, how to obtain the WPS “How to Comply Manual,” WPS training items, and other WPS support materials contact your local county extension office or Minnesota Department of Agriculture field staff person, or contact:

Steve Poncin, Pesticide and Fertilizer Management Division
Minnesota Department of Agriculture
625 Robert Street North
St. Paul, MN 55155-3529
tel. (651) 201-6121

Dean Herzfeld, Minnesota Extension Service
Department of Plant Pathology
495 Borlaug Hall
1991 Upper Buford Circle
St. Paul, MN 55108
tel. (612) 624-3477

OSHA Requirements

An employer with 11 or more employees is required to keep records and make reports to the Occupational Safety and Health Administration (OSHA) in the federal Department of Labor. The records must include all work-related deaths, injuries, and illnesses. You do not have to record minor injuries needing only first aid treatment. However, a record must be made if the injury involves any of the following:

- Medical treatment.
- Loss of consciousness.
- Restriction of work or motion.
- Transfer to another job.

Pesticide Recordkeeping Requirement

In Minnesota all certified private applicators must now keep a record for each restricted use pesticide (RUP) application they make. This includes private applicators who are crop farmers, producers of fruit and vegetables, livestock growers, greenhouse and nursery growers, sod growers, and others.

This requirement took effect in the spring of 1993. It is the result of a new USDA rule created under a provision of the Food Agriculture, Conservation, and Trade Act of 1990 (better known as the “Farm Bill”). The information that must be recorded is not very different from what is recommended for good farm records as part of an integrated pest management or farm financial management program.

The following information is now required to be recorded for all applications of RUP by private applicators:
Brand or product name of RUP applied.

EPA registration number of RUP applied (from the label).

Total amount of RUP applied (of the product, not just the active ingredient) given in any usual unit of measure (acre, linear feet, bushel, cubic feet, square feet, number of animals treated) as normally expressed on the pesticide label. For banding, weed wicks, or orchard “middles” applications the total site or field size must be recorded, not just the strips actually treated. For example: if you apply a 15” herbicide band on 30” rows in an 80-acre field, the area treated is 80 acres, not 40 acres.

Location of the application. One of four options can be used:

1) County, range, township, and section number system.

2) Personal identification system using maps and/or written description that accurately and clearly identifies the location of the RUP application.

3) An identification system used by a USDA agency such as map systems used by ASCS or SCS.

4) Legal property description.

Size of the area treated.

Crop, commodity, stored product, or site to which the RUP was applied.

Month, day, and year the RUP was applied.

Name and certification number of the applicator who applied the RUP.

Under the rule, RUP applications taking place in one day with total treated areas of less than 1/10th acre have fewer information requirements. You need to record only:

Brand or product name.

EPA registration number.

Total amount of the RUP applied.

“Spot application” for “location,” followed by a concise description of the location and treatment. (Example: Spot application; noxious weeds were sprayed throughout fields 5 and 6.)

Month, day, and year of application.

This spot treatment clause does not apply to RUP applications in greenhouses or nurseries. All the required information must be kept for RUP applications in greenhouses and nurseries.

The information is to be recorded within 14 days of the RUP application and must be kept for two years from the date of application. The rule requires private applicators to keep the original records and to allow access to the records when requested. The information may be recorded in any form, including handwritten notes, or in a computer or other existing farm recordkeeping system. There is no official form that must be used, but the Minnesota Extension Service does have a fact sheet that can be used as
an example: AG-FS-0915 Pesticide Application Record.

The actual applicator is responsible for making and keeping the RUP application record. Commercial applicators who apply RUP's for private applicators must give a copy of RUP application record to their customers within 30 days after application. Commercial applicators may hold the records of restricted use pesticide applications for their customers if the customer has signed a statement that the commercial applicator may hold the records. Commercial applicators must make these records available to their customers upon request in a timely manner. They must maintain separate records for each client.

Private applicators do not have to submit the records to anyone. Under the rule, private applicators do have to give USDA, MDA, and health care providers access to the records. The USDA and Minnesota Department of Agriculture may inspect private applicators for recordkeeping compliance.

The rule also allows prompt access to the records by licensed health care professionals who are providing medical treatment or first aid to someone who may have been exposed to the RUP for which the record is maintained. If a licensed health care professional determines it to be a medical emergency, access to the records of the RUP relating to the medical emergency is to be provided immediately. Under the rule anyone who has access to these records must keep all information strictly confidential at all times.

The USDA National Agricultural Statistics Service (NASS) will be conducting a voluntary national agricultural RUP use survey. EPA will survey nonagricultural uses of RUP's by certified commercial applicators. Any certified applicator contacted by NASS may refuse to participate in the survey without penalty. All data collected by the NASS survey will be kept anonymous, confidential, and cannot be used for regulatory action against a survey participant.

Federal fines and penalties were established under the USDA FACT Act. It provides for fines up to $500 for the first offense and fines over $1,000 for subsequent offenses. People who have access to the records and break confidentiality are also subject to penalty.

**Shipments of Pesticides**

Rules for shipping pesticides and other dangerous substances across state lines are issued by the U.S. Department of Transportation (USDOT). These rules tell you which pesticides are dangerous to humans and create a health hazard during transportation.

If you haul pesticides between states, you need to know these rules.

- Pesticides must be in their original package. Each package must meet USDOT standards.

- The vehicle must have a correct hazardous material placarding when transporing certain pesticides pesticides in quantity (see appendix E).

- Pesticides may not be hauled in the same vehicle with food products.

- You must contact USDOT right away after any accident in which someone is killed or injured badly enough to go to a hospital, or the damage is more than $50,000.

- You must tell USDOT about all spills during shipment.
State and local laws may require you to take further precautions. Check with the Department of Transportation or the Minnesota Department of Agriculture.

**Aerial Application of Pesticides**

Application of pesticides from planes is regulated by the Federal Aviation Administration (FAA) and by the state. The FAA judges the flying ability of pilots and the safety of the aircraft. FAA rules also state that an aerial applicator may not apply any pesticide except as the label directs. In Minnesota all commercial aerial applicators and those non-commercial aerial applicators who use RUP's must be certified to apply pesticides in Category B: Aerial. Contact the Minnesota Department of Agriculture for more information.

**Pesticide Residues in Agricultural Products**

Plants differ in the amount of pesticides they absorb and retain. Any pesticide that stays in or on raw farm products or processed food is called a residue. The amount of residue allowed on these products is determined by the EPA under regulations authorized by the federal Food, Drug, and Cosmetic Act.

The EPA sets residue tolerances. A tolerance is the concentration of a pesticide that is judged safe for human use. Tolerances are expressed in “parts per million” (ppm) or “parts per billion” (ppb). One ppm equals one part (by weight) of pesticide for each million parts of farm or food products. For example, using pounds as a measure, 50 ppm would be 50 pounds of pesticide in a million pounds of the product. A pesticide may have different tolerances on different foods. For example, it might be 50 ppm on grapes and 25 ppm on apples.

If too much residue is found on a farm or food product, the product may be seized or condemned. The quality of meat and poultry, including pesticide contamination, is checked by the U.S. Department of Agriculture.

To make sure you are not breaking the law, follow label directions exactly. The label will tell you how many days before harvest it is safe to apply pesticides. This is called the “preharvest interval.”

**Reporting of Pesticides Stored on the Farm**

The federal Superfund Amendments and Reauthorization Act (SARA) regulates the cleanup of hazardous waste sites in the United States. One part of this act, known as SARA Title III Section 302, requires that people who use and store certain hazardous materials notify their State Emergency Response Commission (SERC). This notification helps state and local emergency response personnel respond to fires, spills, and accidents that may involve hazardous materials.

SERC must be notified if you store, or plan to store, any product on the EPA’s “Extremely Hazardous Substances List.” The list shows the “threshold planning quantity” for each material. Notification is needed only if the amount stored is more than the threshold planning quantity. A number of commonly used pesticides are on this list. For more information about how private applicators need to comply with this rule contact the State Emergency Response Commission:
In Minnesota, pesticides are regulated under the Minnesota Pesticide Control Laws as enacted and amended by the Legislature. These state laws are found in Chapter 18 of the Minnesota State Statutes. The Minnesota Department of Agriculture is the main administrator and enforcer of these laws. Minnesota laws cover many areas of pesticide use including: protection of the environment; pesticide sales, storage, and facilities; applicator training and licensing; and much more.

**Pesticide Applicator Certification**

In Minnesota, there are six types of pesticide applicators:

**General use applicators** are persons who can purchase and apply general use pesticides. Certification and licensing are NOT required for these applicators.

**Private applicators** are persons who apply pesticides on land or in buildings which they own or rent for farming purposes. Only private applicators who are certified may apply restricted use pesticides. **Note:** This manual is intended for people in this category. **Private applicators in Minnesota who are not certified may not apply RUPs even when supervised by someone who is certified.**

**Non-commercial applicators** are persons who apply pesticides as an employee of a company, institution, or unit of government. Non-commercial applicators must be certified if they plan to apply RUPs. Examples include county employees who spray road ditches and employees of golf courses.

**Note:** employees applying pesticides for a pesticide application service company, such as lawn spraying and farm custom application, must be certified as commercial applicators.

**Commercial applicators** are persons who apply pesticides for hire or as a service where money is paid. All commercial applicators must be certified to apply both general use and restricted use pesticides.

**Aquatic pest control operators (APCAs)** are “for hire” applicators applying pesticides to aquatic environments (other than for mosquito control).

**Structural pest control applicators (SPCAs)** are “for hire” structural and building applicators who apply pesticides for management of insects, rodents and many other structural pests.

To become a certified private pesticide applicator in Minnesota, you must complete and pass an open book test (available in your county extension office). If you have passed you will be issued a temporary card. The temporary card may be used until you receive the Private Pesticide Applicator Training identification card from the Minnesota Department of Agriculture.
Agriculture. On the card is your private pesticide applicator certification number. To buy restricted use pesticides you must show this card or the certification number to verify that you are currently certified.

A recent Minnesota regulation change has made it possible for private applicators to order and pay for restricted use pesticides before they become certified as private applicators.

- Uncertified persons may order and pay for RUPs at any time.
- Purchasers of RUPs must provide to the RUP retailer proof of current certification of either the purchaser or the applicator of the RUPs before the purchaser can take delivery of the RUPs (physical possession).
- Once proof of certification of the purchaser or applicator is provided to the retailer, uncertified persons—such as a spouse, other family members, or an employee—may take delivery of the RUP from the retail dealer.
- A private applicator does not need to be certified to hire a commercial applicator to apply RUPs.
- All applicators of RUPs must be certified at the time of RUP application.

A private applicator’s certification lasts until March 1 following the third calendar year of certification. This means everyone certified any time in 2007 will have their private certification expire March 1, 2010. Here are some other examples:

- Herman Norcross was certified on January 12, 2007. His certification will expire March 1, 2010.
- Jane Rothsay becomes certified on February 17, 2005. Her certification will expire March 1, 2008.

Check the permanent private pesticide applicator certification card you received from the Minnesota Department of Agriculture. It will indicate when your current certification will expire. If you lost your certification card and wish to have a replacement, contact the Minnesota Department of Agriculture. State law requires a $5.00 fee to replace a card.

In 2002 the Minnesota State Legislature made a minor change (number 3 below) to the state pesticide control laws addressing the type of pesticide applicator certification needed for employees on farms, orchards, nurseries, greenhouses and other operations producing a commodity. State law requires persons who are private applicators to be certified when using a RUP to produce an agricultural commodity: (1) for traditional exchange of services without financial compensation (when no money changes hands such as a barter for services between neighbors); or (2) on a site owned, rented, or managed by the person or the person’s employees; or (3) When the private applicator is one of two or fewer employees and the owner or operator is a certified private applicator or is licensed as a non-commercial applicator.
Under the newly revised third clause above, if there are two or fewer non-family member employees applying RUPs on a farm, nursery, greenhouse, orchard and so on for production of a commodity, then the employee applicators can be certified as private applicators—rather than non-commercial applicators—if the owner or operator is also a certified private or licensed non-commercial pesticide applicator. On the other hand, if a farm, orchard, nursery, greenhouse and so on has three or more non-family employees who apply RUPs, then all the non-family member employee applicators must be certified as non-commercial pesticide applicators.

**Reporting Pesticide Spills**

Pesticides spills must be reported to the Minnesota Department of Agriculture. If the spill occurs on a public highway, you should also notify local, county, or state police.

The Minnesota Pesticide Control Law requires people involved in, or responsible for, an incident involving a pesticide—such as flood, fire, tornado, motor vehicle accident, poisoning, exposure, spills, or leaking containers—to report it immediately to the Minnesota Department of Agriculture.

The 1993 Minnesota state legislature made changes in pesticide spill reporting requirements. The law now sets minimum amounts for which an applicator does not have to report a pesticide spill.

**Note:** Under Minnesota law all incidents (releases, spills, etc.) involving agricultural chemicals must be immediately reported by the responsible party or property owner to the Minnesota Department of Agriculture Incident Response Program. The only exceptions are incidents that meet all of these conditions:

1) the responsible party or property owner is a licensed commercial or certified private applicator, AND

2) the total amount of pesticide involved in the incident at the site during the year is less than can be legally applied to one acre of cropland; AND

3) the incident was not into or near public water or groundwater.

An agricultural chemical incident must be reported to be eligible for Agricultural Chemical Response and Reimbursement Account (ACRRA) reimbursement of cleanup costs.

See Part 7—Safe Handling of Pesticides for more information on pesticide spills and how to report them.

**Posting Pesticide-treated Fields**

There are three cases that may require private applicators to post pesticide treated fields or sites in Minnesota: posting to comply with the Worker Protection Standard, posting to comply with pesticide label directions, and posting to comply with Minnesota state chemigation law (for pesticides applied through irrigation systems). The 1995 Minnesota State Legislature eliminated the general state posting law affecting farmers. Farmers and others still must post pesticide treated fields if required to do so by the Worker Protection Standard, Minnesota state
chemigation law, or the pesticide label directions.

**Posting to comply with Worker Protection Standard (WPS) requirements**

The WPS requires agricultural employers (in farms, greenhouses, nurseries, and forestry) to notify employees of pesticide applications that occur on the farm or business and the pesticide’s restricted entry intervals (REIs). REI is the time interval from pesticide application until workers can enter a pesticide-treated area. (The WPS has special REI requirements for greenhouse and nursery pesticide applications. See the WPS “How to Comply Manual” for more information.) Under WPS there are a few exceptions where early entry into treated areas—that is, before the REI expires—is allowed (see the WPS “How to Comply Manual” for more information). REIs for WPS-covered pesticides are listed on the pesticide label. REIs range from 12 hours to 48 hours. However, there are a few REIs that extend for 72 hours in drier climates including some of the far west and northwest portions of Minnesota.

In most cases, WPS requires employers to either 1) tell their employees (orally notify) which fields are being treated with pesticides, how long the REI is in effect for each field, and to stay out of the treated areas until the REI is over, OR 2) post the treated fields. A few pesticide labels will include the following WPS statement: “Notify workers of the application by warning them orally and by posting signs at entrances to treated areas.” In this case an employer must notify employees **both orally and by posting** pesticide-treated areas. Most of the pesticides with this label statement are those with a Danger-Poison signal word. Self-employed farmers with no employees other than immediate family members are exempt from the WPS employer-provided worker notification requirement and do not have to post fields to comply with WPS (see the WPS “How to Comply Manual” for more information about this exemption).

Here is how to post a field to comply with WPS (see the WPS “How to Comply Manual” for more information).

- **Posted warning signs** must be at least 14” by 16” in size and the letters must be at least 1” in height.

- **Signs** must have a background color that contrasts with red.

- **The words “Danger” and “Peligro,” plus “Pesticides” and “Pesticidas,” must be at the top of the sign, and the words “Keep out” and “No Entre” must be at the bottom of the sign.** Letters for all words must be clearly legible.

- **Additional information** such as the name of the pesticide and the date of application may appear on the warning sign if it does not detract from the appearance of the sign or change the meaning of the required information.

- **Signs** must be visible from all usual points of worked entry to the treated area, including at least each access road, each border with any labor camp adjacent to the treated area, and each footpath and other walking route that enters the treated area.

- **Signs cannot be posted sooner than 24 hours before the pesticide application and must be taken down within three days after the REI is over.**
The person responsible for posting the warning sign under WPS is the employer or owner/operator of the farm, not the pesticide applicator.

Information regarding WPS posting and where WPS warning signs can be purchased is available at county extension offices and the Minnesota Department of Agriculture.

**Posting required by the pesticide label**
A few pesticide labels may require posting of pesticide-treated fields or sites for some or all uses of that pesticide not covered by the WPS. As is always the case, all pesticide label directions must be followed, including this posting requirement.

**Posting required by state chemigation law**
State posting requirements are different for chemigation. See Part 9—Chemigation in this manual for information about how to post chemigated fields.

**Chemigation**
Chemigation is the application of pesticides through irrigation systems. Concern about water contamination and other issues has led to changes in the regulation of pesticide applicators who chemigate. For more information on chemigation and chemigation permits, laws, and regulations see Part 9—Chemigation in this manual.

**Waste Pesticides and Container Disposal**
Some pesticide wastes are listed under federal and state hazardous waste laws. Waste pesticides must be disposed of properly. In Minnesota, disposal of excess pesticides is under control of the Minnesota Department of Agriculture. Local governments play a role in waste pesticide removal. For more information see the web site:

www.mda.state.mn.us/appd/wastepest/default.htm

The disposal of solid and hazardous waste is regulated by the Minnesota Pollution Control Agency (PCA). The PCA also controls the burning of trash. See Part 7—Safe Handling of Pesticides for how to dispose of pesticide containers and residues.

**Pesticides in Aquatic Environments**
In addition to the pesticide laws regulated by the Minnesota Department of Agriculture, the use of pesticides in lakes and other aquatic environments is also regulated by the Minnesota Department of Natural Resources. To apply pesticides in aquatic environments may require additional permits, certification in aquatics pesticide applicator category, and compliance with a number of other laws and regulations. Contact the Minnesota Department of Natural Resources’ Ecological Services Section for more information.
Summary

There are many federal and state laws that control the use of pesticides. If you use pesticides in ways not allowed by law, you may be fined or even put in prison. These uses include application, shipment, storage, and disposal of pesticides.

Under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), all pesticides must be classified as general use or restricted use. State law requires that all commercial applicators be certified and that all non-commercial and private applicators who buy and apply restricted use pesticides (RUP) be certified.

The main federal agency involved with pesticides is the Environmental Protection Agency (EPA) and the main state agency is the Minnesota Department of Agriculture. In addition, there are several other federal and state agencies that have regulations about pesticide use. On the next page is a list of federal and state agencies and the types of pesticide use under their jurisdiction.

Some areas where there have been recent changes in pesticide laws and regulations are:

- Certification of pesticide applicators.
- New worker protection standards.
- Reporting pesticide spills.
- New pesticide recordkeeping requirement.
- Chemigation.
- Posting pesticide-treated fields.

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<tr>
<td>Minnesota State Emergency Response Commission (SERC)</td>
<td>Emergency response planning for hazardous chemical accidents and releases</td>
</tr>
<tr>
<td>Minnesota Pollution Control Agency (PCA)</td>
<td>Disposal of hazardous and solid wastes</td>
</tr>
<tr>
<td>Minnesota Department of Transportation (MNDOT)</td>
<td>Regulation of transportation of pesticides on public roadways</td>
</tr>
</tbody>
</table>

**Useful Websites**

The following is a list of useful websites. Please note that websites change frequently and may be replaced. The availability of each of these websites was checked prior to publishing this edition of the manual; however, that availability may have changed since then. We apologize for any inconvenience you may experience accessing these sites.

**University of Minnesota Extension Service:**
http://www.extension.umn.edu/

- Crop management:
  http://www.extension.umn.edu/crops/

- Minnesota Health, Environmental and Pesticide Safety, with links to the PAT website:
  http://www.extension.umn.edu/pesticides/

- Pesticide Applicator Training page at Professional Education and Conference Planning:
  http://www.conferences.umn.edu/mn/pat/

**Minnesota Department of Agriculture**
http://www.mda.state.mn.us/

- Pesticides registered for sale in Minnesota:
  http://www.kellysolutions.come/mn/pesticideindex.htm

- “A to Z” index to MDA:
  http://www.mda.state.mn.us/newatoz.htm

- Search for Minnesota private pesticide applicators:
  http://www.mda.state.mn.us/privapp/

**Minnesota pesticide control laws (18B):**
http://www.revisor.leg.state.mn.us/stats/18B/