
Pesticide Regulations

John W. Taylor, Jr.

The pesticides available to nursery managers are constantly changing; new products enter the market while others depart because of new formulations, changes in market share, or new regulations. Currently, Federal pesticide regulation is found primarily in three acts—the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) of 1972, as amended; the Resource Conservation and Recovery Act (RCRA) of 1976; and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980.

Federal Insecticide, Fungicide, and Rodenticide Act

This law defines the conditions for developing, registering, and using pesticides and has been amended several times. The 1978 amendment produced significant changes in the requirements for registration, classification, and use of pesticides. The requirements for registration mainly affect pesticide manufacturing companies and will not be addressed here. The 1978 amendment gave States broader authority and responsibility for registering pesticides. States automatically have authority to register pesticides for use within the State for special local needs. Formerly, States had registration authority only with approval of the U.S. Environmental Protection Agency (EPA). Now, however, EPA may disapprove State registration if the use differs from Federal registration, if it creates an imminent health hazard, or if the State has authorized the use on crops where EPA has not established adequate crop tolerances or residue levels. Two other separate, but closely related, areas in FIFRA have also been amended—classification of pesticides

and applicator certification. To make maximum use of the State programs for training and certification of applicators of restricted-use pesticides, EPA is authorized to classify pesticide uses by regulation as a separate part of the registration process. Designation of restricted-use pesticides supports State applicator certification programs, in which almost all States train and certify applicators of restricted-use pesticides. Restriction of pesticide use also provides EPA an alternative way to reduce pesticide risks besides outright cancellation of an applicator's registration. The provisions of FIFRA are legally binding. Violations of the provisions in the act carry both civil and criminal penalties. Private applicators who violate the act are subject to civil or criminal penalties of up to \$1,000. Commercial applicators are liable for civil penalties up to \$5,000 and criminal penalties of up to \$25,000 and 1 year in prison. FIFRA explicitly gives States the primary responsibility for enforcing requirements of the act. FIFRA also requires that commercial applicators keep records on their employment of restricted-use pesticides. The content and length of time the application records must be kept vary from State to State, but 2 years is generally the maximum that records must be kept. State enforcement agencies have the authority to make unannounced visits during normal business hours to inspect the records of commercial applicators.

The 1978 amendments also clarified an issue of broad concern—the legality of pesticide uses or practices not addressed in the label direction. The following pesticide-use practices have been specifically excluded from the definition of “use inconsistent with the label” and are, therefore, permissible:

1. Application of the pesticide at less than the labeled dosage, concentration, or frequency.
2. Application of the pesticide to control an unnamed target pest, as long as the crop, animal, or site is included on the label.
3. Pesticide applied using methods not specifically prohibited by the label wording.
4. Application of pesticide(s) with fertilizers, if not prohibited by the label.

This act was amended by the Food Quality Protection Act (FQPA) of 1996, which sought to resolve inconsistencies between the two major pesticide statutes, FIFRA and the Federal Food Drug and Cosmetic Act (FFDCA). Historically, FIFRA was used as a guide for the registration of pesticides in the United States and prescribes labeling and other regulatory requirements. FIFRA is designed to prevent unreasonable adverse effects on human health or the environment, whereas the FFDCA guides the establishment of tolerances (maximum legally permissible levels) for pesticide residues in food. The primary objectives of the FQPA are—

1. Mandate a single, health-based standard for all pesticides in all foods.
2. Provide special protection for infants and children.
3. Expedite approval of “safer” pesticides.
4. Create incentives for the development and maintenance of effective crop protection tools for American farmers.
5. Require periodic reevaluation of pesticide registrations and tolerances.

Although the FQPA was originally focused on food use pesticides, the risks associated with each pesticide were evaluated across all registered uses of each pesticide, and across all pesticides with a “similar” mode of action, and a “risk cup” which represented the total exposure allowed from all these sources was developed. If the “risk cup” “overflowed,” then the registrant, in order to maintain registration of the material, had to reduce the risk until it met the EPA’s acceptable level. This is the point at which minor use—nonfood pesticides such as those used in forest tree nurseries—became involved as registrations were removed to reduce composite risk. Implementation of the requirements has significantly affected, and will continue to affect, the range of pesticide choices available to manage pests in forest tree nurseries.

Resource Conservation and Recovery Act

The second Federal regulation governing pesticide use is the Resource Conservation and Recovery Act of 1976. RCRA is designed to extensively monitor hazardous wastes. The act identifies solid wastes that are hazardous and sets forth requirements that govern their handling, storage, and disposal. This law applies to all hazardous wastes unless they are specifically exempted. The EPA administers the act with assistance from the Materials Transportation Bureau of the U.S. Department of Transportation. The major provisions of the act for controlling hazardous wastes include—

1. A definition of “hazardous waste.”
2. A manifest system to monitor hazardous waste from its generation to its disposal. This system is frequently called “cradle to grave tracking.”
3. A permit requirement for facilities that treat, store, or dispose of hazardous waste.
4. A requirement that every State must have a hazardous waste program.

Any installation that stores, disposes of, transports, or offers to transport hazardous waste must obtain an EPA identification number from the Regional EPA Administrator. Once the “waste” designation has been applied to any pesticide on EPA’s hazardous waste list or residues of these pesticides resulting from a spill cleanup, they can be stored for only 90 days before disposal. Otherwise, a storage permit must be obtained from the Regional EPA Administrator. People transporting hazardous wastes for offsite disposal must prepare a shipping manifest that contains certain specific information as described in Section 3010 of RCRA.

Specific pesticide waste regulations were developed by EPA in the Code of Federal Regulations (CFR 260-266 and 122-124) and became effective in October 1980. Pesticides listed in subpart D of Part 261 of the act are not classified as hazardous wastes until the decision is made to dispose of them or they are stored pending disposal. Pesticides that have been determined to be excess are still considered pesticides. Pesticide containers that have been triple rinsed are not considered hazardous wastes under these regulations and can be disposed of either at approved landfills or by burial.

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act established what is known as the “Superfund” for cleaning toxic wastes. This law was enacted in 1980 and is codified in Title 42 of the United States Code, beginning in section 96D.

The Superfund, initially \$1.6 billion, was set up to pay for cleaning up spills of hazardous materials and the disposal areas themselves. The act specifies who is liable for reimbursing the fund. It also requires that spills be reported.

There are some basic differences between RCRA and CERCLA. RCRA is not self-implementing. Rather than telling companies what they must do, Congress directed EPA to formulate regulations that would control company activities. CERCLA’s approach is very different—it establishes liabilities and obligations and does not require promulgation of regulations to be effective. A second important difference between the two bills relates to the time periods they are designed to control. Whereas CERCLA is designed primarily to determine liability arising out of historic waste management practices, RCRA is designed to affect current hazardous waste management activities. Another difference is that although the principal burden of implementing CERCLA rests with the Federal Government, the requirements of RCRA are primarily a State responsibility, subject to EPA approval.

These laws affect nurseries when pesticides classified as hazardous are disposed (RCRA), or when problems arise (CERCLA). Nursery managers who have questions regarding this subject can contact the hazardous waste management officials in their State. Pesticides may be used safely and effectively to control nursery pests, but careful attention must be paid to both the Federal and State laws governing their use. Questions regarding

the legal use of pesticides should be directed to the proper pesticide control official.

State Pesticide Regulations

In addition to the three Federal laws, States also have regulations governing the purchase, use, and disposal of pesticides. Before any pesticide use project is

initiated in any State, a responsible official must determine that all applicable State pesticide regulations are being followed.

Selected References

Taylor, Jr., J.W. 1989. Pesticide regulations. In: Cordell, C.E.; Anderson, R.L.; Hoffard, W.H.; Landis, T.D.; Smith, Jr., R.S.; Toko, H.V., tech. coords. Forest nursery pests. Agriculture Handbook 680. Washington, DC: USDA Forest Service: 22–23.