

Federal Laws and Regulations Affecting Farm Safety

Jack L. Runyan, Ph.D.
Food and Rural Economics Division
Economic Research Service
U.S. Department of Agriculture

Abstract

In 1997, there were 705 work-related fatal injuries and 50,544 work-related nonfatal injuries on U.S. farms. Operators and family members accounted for about 72 percent of the fatal injuries and 43 percent of the nonfatal ones. Efforts to improve farmworker safety have generally been grouped into education, legislative, and engineering activities. The purpose of this paper is to describe Federal legislative activities that relate to worker safety.

The Federal government has several laws covering the working conditions of hired farmworkers. Three of them regulate workplace safety and health conditions. The Fair Labor Standards Act is the primary legislation controlling the employment and well being of child labor. The Occupation Safety and Health Act covers a wide range of safety issues in all work places, but has some farm-related exemptions. Finally, the Federal Insecticide, Fungicide, and Rodenticide Act covers a wide range of pesticide related issues.

Although farm operators and family members are exempt from coverage under most Federal safety laws and regulations relating to agriculture, they should be aware of both prohibited and recommended practices that apply to their operations. Keeping operators informed on legislative changes is one challenge for farm safety specialists.

Introduction

Farming, by its very nature, creates an environment conducive to injuries and illnesses and presents safety problems not found in most other industries. The home and worksite are the same location for most farm operations, and children play on and around machinery and animals. Farmers and their family members experience the potential for greater exposure to hazards associated with animals, machinery, tools, and chemicals. Farming is usually not performed in packages of 40-hour weeks but in an erratic tempo dictated by weather, season, and climate. Thus, during planting and harvesting periods, farmers, their family members and hired laborers (especially production laborers) may work long hours, experience fatigue, and therefore, be less cautious while operating equipment and handling livestock. Farmers and farm laborers receive little formal safety training, and often work alone and/or far from assistance should an injury occur. Emergency services in many rural areas are distant from the farm and often are not equipped to handle the more severe farm injuries (Murphy 1992, and Runyan 1993).

According to data reported in the 1997 Census of Agriculture, there were 705 work-related fatal injuries and 50,544 work-related nonfatal injuries on U.S. farms (U.S. Department of Agriculture

1997). Operators and family members accounted for about 72 percent of the fatal injuries and 43 percent of the nonfatal ones. In the 1992 Census of Agriculture, 673 work-related fatal injuries and 64,813 work-related nonfatal injuries were reported (Runyan 1998). The number of fatal injuries in 1997 was about 5 percent higher than in 1992, although the number of nonfatal injuries fell by 22 percent.

Efforts to improve farmworker safety have generally been grouped into education, legislative, and engineering activities (Aherin, Murphy, and Westaby, 1990). The purpose of this paper is to describe Federal legislative and regulatory activities as they relate to farm safety.

The Federal government has several laws covering the working conditions of hired farmworkers (Runyan, 2000). Three of these regulate workplace safety and health conditions. The Fair Labor Standards Act is the primary legislation controlling the employment and well-being of child labor in all work places, including farms. The Occupation Safety and Health Act covers a wide range of safety issues in all work places, but has some farm-related exemptions. Finally, the Federal Insecticide, Fungicide, and Rodenticide Act addresses a wide range of pesticide-related issues.

Fair Labor Standards Act

The Fair Labor Standards Act of 1938 (FLSA), specifically bans "oppressive child labor." According to FLSA, "oppressive child labor" is the employment of a minor in an occupation for which he or she does not meet the minimum age standards of the Act. The minimum age has generally been set at 18 years for all occupations, except in agriculture (exhibit 1). As shown in exhibit 1, minimum age requirements differ between non-agriculture and agriculture based on the type of work activity, conditions, and parental permission. In addition to minimum age, FLSA restricts the activities that young workers can perform. The Secretary of Labor has been given the responsibility for deciding which occupation are hazardous, and as shown in exhibit 2, many occupations in agriculture have been declared hazardous. The material in this exhibit would be useful information for farm operators whose non-adult children work with them.

The last item under the agricultural employment listing ("children of farm owners or operators may be employed by their parents at any time and in any occupation on a farm owned or operated by their parents") is an indication of Congress' reluctance to place restrictions on working conditions for family members. However, this provision suggests the need for additional care when farm operators teach their children about operating equipment safely.

Some States also have laws that restrict the use of child labor in agriculture. Some of the State restrictions are the same as the Federal laws, some restrict daily or weekly hours (or both) for minors under the age of 18 in agricultural employment, and some have specifically adopted standards for agriculture that are more stringent than those of the Federal government (U.S. Department of Labor, 2000). However, 17 States either exempt agricultural employment or do not identify it as a covered industry under the State's child labor laws (U.S. Department of Labor, 2000).

Occupational Safety and Health Act

The Occupational Safety and Health Act (OSHA) was enacted in 1970 to assure safe and healthful working conditions for U.S. workers. The employer's duty is to furnish each employee with employment and a workplace free from recognized hazards causing or likely to cause death or serious harm (Runyan, 2000). The employer is also responsible for complying with occupational safety and health standards set forth in the law. Employees have duties under OSHA that require them to comply with those standards and all rules, regulations, and orders issued after the law's passage that apply to their own actions (Runyan, 2000).

The U.S. Department of Labor's regulations place every employer, unless specifically exempt, under OSHA coverage. The major agricultural-related provisions of OSHA cover temporary labor camps, tractor roll-over protection (ROPS), guarding of farm field equipment, storage of anhydrous ammonia, field sanitation, hazard communication (excluding pesticides), cadmium usage, and logging operations. These provisions are summarized in table 2.

Two exemptions greatly reduce the coverage of agricultural employment. First, members of the immediate family of the farm employer are not considered employees and are excluded from coverage. So far OSHA has not defined "immediate family." Second, Congress usually attaches riders to annual appropriations bills for the U.S. Department of Labor that exclude from OSHA protection all agricultural workers in agricultural operations employing 10 or fewer non-family workers within the past 12 months, and having no temporary labor camps in the last 12 months (table 1). The U.S. Department of Labor has interpreted this to mean that whenever a farm operation has more than 10 workers employed on any 1 day, the operation is subject to OSHA regulation. In 1997, about 9 percent of U.S. farms employed 10 or more workers (U.S. Department of Agriculture, 1997). These farms employed about half of the hired farmworkers in 1997 (U.S. Department of Agriculture, 1997). Thus, OSHA regulations apply to less than 10 percent of farm employers, about half of the hired farmworkers, and none of the operators and their immediate family members. However, the safety practices discussed in the OSHA regulations should be recommended reading material for everyone who works in agriculture. Twenty-three States have OSHA-approved State plans (OSHA, 2000). The regulations affecting farm safety in most of these State plans are identical, with some exceptions, to the Federal regulations. For example, in California and Oregon, any establishment that hires workers for hand labor in fields is covered by the field sanitation standard. Oregon also has a standard covering the use of orchard ladders.

Federal Insecticide, Fungicide, and Rodenticide Act

The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), enacted in 1947, and amended several times, places several requirements on the labeling, manufacturing and distribution of pesticides. In 1972, the Federal Environmental Pesticide Control Act was enacted, which required the Administrator of the Environmental Protection Agency (EPA) to ensure that the labeling and classification of pesticides protected farmers, farmworkers, and other persons coming in contact with pesticides or pesticide residues. EPA's most recent attempts to meet this requirement are the Worker Protection Standard (WPS) and the Certification of Pesticide

Applicators Standard (CAS) which were issued in 1992. The WPS applies to all operators of farms, forests, nurseries, and greenhouses producing agricultural plants (food, feed, and fiber plants, trees, turfgrass, flowers, shrubs, ornamentals, and seedlings); operators who hire or contract for services of workers; and anyone who applies pesticides to agricultural plants and crop advisors on any farm, forest, nursery, or greenhouse (National Archives and Records Administration, 1998). WPS has no small farm exemptions or exemptions based on a minimum number of farm employees. The CAS requires an individual applying restricted-use pesticides to be certified by a certifying agency as competent and thus authorized to use or supervise the use of restricted-use pesticides. The provisions of WPS and CAS are shown in table 3.

Operators and their immediate family members (spouse, children, stepchildren, foster children, parents, step parents, foster parents, brothers and sisters) are exempt from all but two WPS and CAS provisions. One of these provisions prohibits anyone, except a properly trained and equipped handler from entering an area during pesticide application. The other provision prohibits entry into a treated area before the restricted-entry interval specified on the pesticide labeling has expired, except for activities with no pesticide contact, short-term activities (no hand labor, no more than 1 hour in a 24-hour period, no entry during first 4 hours after application), during an agricultural emergency, or an exception requiring agency approval. Anyone performing these activities must be properly equipped as specified in the pesticide labeling. These exemptions mean that operators do not have to provide themselves and their immediate family members with protective equipment, notification of pesticide applications, safety training, and decontamination sites and emergency assistance. However, the provisions in the WPS and CAS regulations from which operators and their immediate family members are exempt would be useful reading material for everyone who uses pesticides. This represents another area in which we can stress the need for safe operations.

Both WPS and CAS require that operators and immediate family members, as well as all others, who handle pesticides assure that no pesticide is applied so as to contact, either directly or through drift, any worker or other person, other than an appropriately and equipped handler.

Most FIFRA activities have been delegated to the States. Many of the States have adopted the Federal WPS and others have adopted standards that are more restrictive than the Federal standard. Standards adopted in Arizona and California are two examples of more restrictive regulations.

California's standard requires that employers of pesticide handlers have a written training program for their employees and that handlers be trained every year, rather than every 5 years. Cards used to certify U.S. EPA training are not accepted in California. Workers must be trained before they can enter treated fields. Employers must have a hazard communication program (including Material Safety Data Sheets) in place. They must also provide periodic cholinesterase blood tests under certain conditions. Employers must also provide a written respiratory protection program at the work site. They must require people working alone with pesticides labeled "dangerous" to have contact with another person every 2 hours during daylight and every hour at night. Contractors must be notified about areas of pesticide applications and areas where entry is restricted (California Code of Regulations n.d., and California Environmental Protection Agency n.d.).

Arizona's standard requires that contractors be notified of areas where pesticides are being, or are about to be, applied, areas under restricted entry, and location of the central posting of pesticide safety material (Arizona 1998). The pesticide safety training includes how to file a complaint with the Arizona Department of Agriculture.

Summary

Farm operators, their family members, and hired workers can be exposed to activities and agents that can cause fatal, permanent, long-term, or short-term injuries and illnesses. Farmworkers sometimes work under conditions that may limit their awareness of the dangers of operating equipment and handling livestock. The Federal government has enacted legislation and promulgated regulations that protect most nonfarm workers, but provide only limited protection for hired farmworkers and almost no protection for farm operators and their family members.

-- The child labor provision of the Fair Labor Standards Act has generally set the minimum age at 18 years for all occupations, except agriculture. In agriculture, anyone under 16 years of age is not allowed to be employed in occupations declared hazardous by the Secretary of Labor. This provision does not apply to children of farm owners or operators.

-- The Occupational Safety and Health Act requires employers to furnish each employee with employment and a workplace free from recognized hazards causing or likely to cause death or serious harm. However, immediate family members of the farm employer and farms employing less than 11 workers are exempt from coverage.

-- The Worker Protection Standard (WPS), for reducing exposure to pesticides, applies to all operators of farms, forests, nurseries, and in greenhouses used in the production of agricultural plants; operators who hire or contract for services of workers; and those who apply pesticides to agricultural plants and crop advisors on any farm, forest, nursery, or greenhouse. WPS has no small farm exemptions or exemptions based on a minimum number of farm employees.

Operators and their immediate family are exempt from some of the provisions.

-- The Certification of Pesticide Applicators Standard (CAS) requires an individual applying restricted-use pesticides to be certified by a certifying agency as competent and thus authorized to use or supervise the use of restricted-use pesticides. As is the case in the WPS, operators and their immediate family are exempt from some of the provisions.

Farm operators and family members are exempt from most Federal safety laws and regulations. However, raising the awareness of farm operators and family members to both the prohibited and the recommended safe practices would be an important goal. Some of the prohibited and recommended practices may seem absurd to some operators (Seiz and Downey, 1999). Thus, raising the awareness of farm operators will be one of the challenges for promoters of farm safety.

References

Aherin, R.A., Murphy, D. J., and Westaby, J.D. (1990). Changing farm worker behavior: A literature review of injury control strategies. American Society of Agricultural Engineers, 1990

international winter meeting.

Article 10, Title 3, Chapter 3 Arizona Administrative Code (1998).

[Http://agriculture.state.az/Rules/administrative_rules_laws.htm](http://agriculture.state.az/Rules/administrative_rules_laws.htm).

California Code of Regulations (Title 3. Food and Agriculture) (n.d).

<http://www.cdpr.ca.gov/docs/inhouse/calcode/030302.html>.

California Environmental Protection Agency (n.d.). Pesticide Safety Information (Series A and Series N). Sacramento: Department of Pesticide Regulation.

Murphy, D J. (1992). Safety and health for production agriculture. St. Joseph, MI: American Society of Agricultural Engineers.

National Archives and Records Administration (1998). Code of federal regulations: Title 40. Washington, DC: Government Printing Office.

Runyan, J. L. (1993). A review of farm accident data sources and research. (Publication No. BLA-125). Washington, DC: U.S. Dept. of Agriculture.

Runyan, J.L. (1998). Injuries and fatalities on U.S. farms. (Publication AIB No.739). Washington, DC: U.S. Dept. of Agriculture.

Runyan, J.L. (2000). Summary of federal laws and regulations affecting agricultural employers, 2000. (Publication AHB No.719). Washington, DC: U.S. Dept. of Agriculture.
<http://www.ers.usda.usda/epubs/pdf/ah719>.

Seiz, Robert C. and Eleanor Pepi Downey. Safety and health attitudes and concerns in migrant and non-migrant farm families. Paper presented at Pennsylvania State University-Economic Research Service, U.S. Department of Agriculture Conference: " The Dynamics of Hired Farm Labor: Constraints and Community Response." October 25-26, 1999.

Title 40: Code of Federal Regulations.

U.S. Department of Agriculture (1997). 1997 Census of Agriculture. Washington, DC: National Agricultural Statistics Service.

<http://www.nass.usda.gov/census/>.

U.S. Department of Labor (1998). Enforcement exceptions and limitations under the appropriations act. (OSHA Directive No. CPL 2-0.51J). Washington, DC: U.S. Dept. of Labor.
http://www.osha-slc.gov/OshDoc/Directive_data/CPL_2-0_51j.htm.

U.S. Department of Labor (2000). Report on the youth labor force. Washington, DC: U.S. Dept. of Labor.

<http://stats.bls.gov:80/opub/rylf/rylfhome.htm>.

U.S. Department of Labor (OSHA 2000). Directory of States with Approved Occupational Safety and Health Plans. <http://www.osha-slc.gov/fso/osp/>.

Table 1. Occupational Safety and Health Administration (OSHA) enforcement exceptions and limitations under the Appropriations Act.			
OSHA Activity	Farms with 10 or fewer employees and no temporary labor camp activity within 12 months	Farms with more than 10 employees or a farm with an active temporary labor camp within 12 months	Non-farm employer with 10 or fewer employees in SICs* with a lost workday injury rate below the national private sector rate
Programmed safety inspections	Not permitted	Can inspect	Cannot inspect
Programmed health inspections	Not permitted	Can inspect	Can inspect
Employee complaint	Not permitted	Can inspect	Can inspect
Fatalities/catastrophes and accidents	Not permitted	Can inspect	Can inspect
Imminent danger	Not permitted	Can inspect	Can inspect
Investigations to determine if employee was fired as a result of making a complaint	Not permitted	Can inspect	Can inspect
Consultation and technical assistance	Not permitted	Permitted	Permitted
Education and training	Not permitted	Permitted	Permitted
Conduct surveys and studies	Not permitted	Permitted	Permitted

* Specific Standard Industrial Classifications (SICs) are contained in Appendix A of Enforcement Exceptions and Limitations under the Appropriations Act, OSHA Directive No. CPL 2-0.51J, May 28, 1998.

Source: Enforcement Exceptions and Limitations under the Appropriations Act, OSHA Directive No. CPL 2-0.51J, May 8, 1998.

Table 2. Occupational Safety and Health Act of 1970: Summary of the applicability to agriculture and penalties for violations (Runyan 2000).

Provisions	Exemptions for agriculture	Basis for agricultural exemptions	Enforcement Responsible agency
Temporary labor camps			
Must meet standard developed for site, shelter, water supply, toilet facilities, lighting, refuse disposal, construction and operation of kitchens, dining hall, and feeding facilities, insect and rodent control, first aid, and reporting of communicable disease	None	Penalties based on the severity of the conditions and on the firm's history of OSHA violations.	Occupational Safety and Health Administration (OSHA), U.S. Department of Labor
Field sanitation			
Agricultural employers operating qualifying establishments are required to provide employees who do hand labor operations in the field with potable drinking water, toilet facilities, and handwashing facilities, to maintain these facilities, to inform employees of the importance of specific hygiene practices, and to allow reasonable use in the field without cost to the employees.	Partial	<ol style="list-style-type: none"> 1. Limited to hand fieldwork. 2. Ten or fewer employees at all times during the past 12 months. 3. Do not have to provide toilet and handwashing facilities when employees will be working fewer than 3 hours (including transportation time). 4. Farms where only immediate family members are employed. 	Same as above
Hazard communication			

<p>Agricultural employers are required to establish a hazard communication program to provide employees with information about the hazardous chemicals, other than pesticides, to which they might be exposed.</p>	<p>Partial</p>	<p>Same as above</p>	<p>Same as above</p>
<p>Cadmium</p>			
<p>Agricultural employers are required to monitor the air in areas where employees are exposed to cadmium, and if level of exposure is above minimum allowed, employees must be notified, and provided with necessary protective equipment</p>	<p>Partial</p>	<p>Same as above</p>	<p>Same as above</p>
<p>Logging operations</p>			
<p>Agricultural employers who have logging operations, as defined by the standard, must provide specific training on hazards and work practices, first aid and CPR. They must also assure that personal protective equipment, tools and machinery are provided, maintained, and utilized in a safe manner.</p>	<p>Partial</p>	<p>Same as above</p>	<p>Same as above</p>
<p>Other key provisions</p>			

<ol style="list-style-type: none"> 1. Rules governing storage and handling of anhydrous ammonia. 2. Safety requirements for slow-moving vehicles (less than 25 m.p.h.). 3. Roll-over protective structures for tractors used in agricultural operations. 4. Safety devices for farm field equipment, farmstead equipment, and cotton gins. 5. Post notices informing employees of OSHA protections and obligations and how to get copies of the act or specified standard. 6. Post citations near location of violation where they will be readily seen by affected employees. 7. Post annual summary of occupational injuries and illnesses. 8. Notify nearest OSHA area office within 48 hours of any accident that is fatal to one or more employees or results in the hospitalization of three or more employees. 9. Maintain records of occupational injuries and illnesses for 5 years at end of year in which they occur. 10. Insure the ready availability of medical persons for advice on matters of workplace health. 11. Provide a person (or persons) aid supplies readily available. 12. Provide a suitable emergency facility within the work area for the quick drenching of eyes and body. This facility would be for use of any person who may be exposed to injuries or corrosive materials on the job. 	<p>Partial</p>	<p>Same as above</p>	<p>Same as above</p>
--	----------------	----------------------	----------------------

Table 3. Worker Protection Standard: Summary of the applicability to agriculture and penalties for violations. (Runyan 2000)

Provisions	Exemptions for agriculture	Basis for agricultural exemptions	Enforcement Responsible agency
Labeling			
Requires everyone applying pesticides to obey instructions printed on the pesticide container's label.	None	None	U.S. Environmental Protection Agency
Worker Protection Standard Penalties			
<ol style="list-style-type: none"> 1. Only appropriately trained and equipped handlers allowed in area during pesticide application. 2. Workers may enter a treated area before the restricted entry interval (REI) has expired only if the worker will have no contact with pesticide residue, will not be performing hand labor, or is entering for a short term, emergency, or specifically excepted tasks. 3. Workers must be provided with protective equipment in proper working order. 4. Workers must be notified of pesticide applications, treated areas must be posted, and/or oral warnings must be given to workers as directed by labeling. 5. Workers must have received safety training during the past 5 years before being allowed to enter a treated area during an REI. 6. Pesticide safety poster must be on display in a central location. 7. Decontamination site must be provided and maintained if workers are required to enter treated area during REI and ensuing 30 days. 8. Emergency assistance must be provided to any worker when there is reason to believe the worker was poisoned or injured by pesticides. 	Partial	Limited to crop production. operator and immediate family	Both civil and criminal on Owner or a case-by-case basis for any violation exempted from some but not all provisions
Pesticide Handler Protection Standard			

<ol style="list-style-type: none"> 1. Handler must provide information to handler applying any pesticide. 2. Only appropriately trained and equipped handlers allowed in area being treated. 3. Handler employee must have knowledge of label, safe use of equipment, and posted information before starting handling activity. 4. Handler fumigating in a greenhouse must be in continuous voice or visual contact with another handler. 5. Handlers must use protective equipment specified on the label for use with the product 6. Handlers must be provided with a decontamination site 7. Emergency assistance must be provided to any worker when there is reason to believe the worker was poisoned or injured by pesticides. 	<p>Partial</p>	<p>Owner or operator and immediate family</p>	<p>Both civil and criminal on a case- by-case basis for employees prior to any violation.</p>
--	----------------	---	---