The Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) mandates that the U.S. Environmental Protection Agency (EPA) regulate the use and sale of pesticides to protect human health and preserve the environment. First passed by Congress in 1947, FIFRA has been significantly revised numerous times in the intervening years. In its current form, FIFRA requires the EPA to register (license) all pesticides distributed or sold in the U.S. Companies wishing to market a pesticide must show that use of the product in a specified manner will not “generally cause unreasonable adverse effects on the environment”. As defined by FIFRA, this phrase requires the EPA to take into account the economic, social, and environmental costs and benefits of the use of any pesticide to determine whether it will cause any unreasonable risk to humans or the environment. The EPA must also ensure that there is no human dietary risk from pesticide residues on any food inconsistent with defined standards.

Major Provisions of FIFRA

Under FIFRA, the EPA must register all new pesticides used in the United States (with a few exceptions). FIFRA sets out the process and standards by which pesticides are registered and categorized, and provides for emergency exemptions, suspension and cancellation of registration, re-registration, and licensing of pesticide-producing establishments. It also includes requirements for pesticide labels and for certification of pesticide applicators. Below are some of FIFRA’s specific requirements:

Registering Pesticides

- When applying for registration, pesticide manufacturers are often required to submit a series of environmental, health, and safety data on the product.

- After a pesticide is registered, the applicant or “registrant” must also notify the EPA of any newly uncovered facts concerning adverse environmental or health effects. *Such adverse effects include reports from healthcare providers about suspected illnesses related to the product.*

- The EPA must classify the pesticide as either “general” or “restricted” use. "Restricted use" pesticides are those that may cause unreasonable adverse effects even when used as directed on the product labeling. Restrictions may relate to methods of application, amounts to be used, geographic areas of use, and species of targeted pests. Use of these pesticides is limited to pesticide applicators who meet certain training requirements, or to those under the supervision of a certified applicator.
• Growers can request “emergency exemptions” when they have identified a problem situation that existing pesticide use registrations will not alleviate. Requests are usually made for pesticides that have been registered for use on other crops. If the emergency use seems valid and the risks are acceptable, EPA, in conjunction with state pesticide agencies, can allow unregistered use of a pesticide for a limited period of time.

Pesticide Labels and Tolerances

• The EPA determines what information is to be included on the pesticide label for each registered product. Labels communicate important safety information, including warnings and precautionary statements, exposure symptoms, first aid information, and emergency decontamination instructions. They also contain information about how and under what conditions pesticides can be applied, mixed, stored, loaded or used; when treated fields can be re-entered after application; and when crops can be harvested.

• For pesticides used on raw agricultural products, the EPA sets a “tolerance” - the maximum amount of a pesticide residue that can be on a raw product when it is used and still be considered safe.

Recordkeeping

• FIFRA requires that certified applicators of restricted use pesticides keep records noting the name of the pesticide, the approximate date it was applied, the amount, and the location of the application for two years after a pesticide was used.  

• The record and pesticide label information must be provided to a health care professional if they determine the information is necessary to provide medical treatment or first aid to an individual who may have been exposed to pesticides.

Re-registration and Cancellation

• Once registered, pesticides are subject to continued scrutiny. The EPA periodically reviews pesticide registrations in light of new data, with a goal of review every 15 years.

At any time, the EPA may propose cancellation of a registration and initiate cancellation proceedings if there is evidence that a pesticide does not comply with FIFRA, or if it generally causes unreasonable adverse effects on the environment.

Risks from Exposure to Pesticides

Approximately one billion pounds of pesticide active ingredients are used annually in the U.S., and over 16,000 pesticide products are on the market. Exposure to pesticides can cause short- and long-term illness and sometimes fatalities. Workers become exposed through spills, splashes, defective, missing or inadequate protective equipment, direct spray, drift or contact with pesticide residues on the crops or soil. Families can also be injured when farmworker children play in treated
fields, when workers inadvertently take home pesticide residues on their hair, skin or clothing or when pesticides drift onto outdoor play areas and get tracked into homes.\textsuperscript{4} Even low levels of pesticide exposure over time can lead to chronic health effects such as cancer, infertility, birth defects, endocrine disruption, neurological damage and even death.\textsuperscript{5} Recent studies document negative health effects – including lower IQ in children – from exposure to organophosphate pesticides that are currently approved for agricultural use.\textsuperscript{6} Although pesticide poisonings are not tracked nationally, the EPA has estimated that 10,000-20,000 physician-diagnosed pesticide poisonings occur each year among farmworkers.\textsuperscript{7}

**FIFRA and Farmworkers**

FIFRA requires that the impact of pesticides on farmworkers’ health be taken into account in the registration process. In order for the EPA to register a pesticide under FIFRA, the agency must determine that the pesticide’s use will not “cause unreasonable adverse effects on the environment”. To make this determination, the EPA uses a “risk-benefit” analysis that balances the economic, social, and environmental risks and benefits, including the potential harmful health effects of a pesticide for applicators and farmworkers. When a pesticide poses risks to human health based on scientific studies, EPA will require that farmworkers adopt mitigation measures, including personal protective equipment and application systems that reduce applicators’ contact with the pesticide. When these measures fail to protect farmworkers’ health, EPA determines that the pesticide poses a “risk of concern.”

However, under the FIFRA standard, even a pesticide that poses a “risk of concern” to farmworkers can be registered for use if switching to an alternative would pose a burden to chemical companies or farmers that outweighs the risks to humans and the environment. Thus, while the FIFRA standard gives EPA the authority to restrict the use of pesticides with harmful health effects, it allows for circumstances in which toxic pesticides are approved despite demonstrated risks for farmworkers.

FIFRA also authorizes the EPA to issue regulations to protect worker health, including the Worker Protection Standard.\textsuperscript{8}

For more information on FIFRA, see [http://www.epa.gov/agriculture/lfra.html](http://www.epa.gov/agriculture/lfra.html).

**Notes**

\textsuperscript{1} 7 USC §136(bb)

\textsuperscript{2} 7 USC §136i-1


\textsuperscript{5} For example, see Mills, P. 2001. Cancer Incidence in the United Farmworkers of America 1987-


8 7 USC §136w(a)

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