

Pesticide Labels, Applications and Regulations

The pesticide applicator should be thoroughly trained in the uses and hazards of the materials being used. The applicators are responsible for preventing adverse effects to the public, to pets and domestic animals, to property, to the environment and to himself and other applicators. In addition, the application must achieve effective results on the pest problem being treated.

Labels

By definition the label is the information printed on or attached to the pesticide container. Labeling includes the label and all other written, printed or graphic material accompanying the pesticide.

The importance of reading the label cannot be stressed too much. The information that appears on the label represents some of the most expensive literature available. The research and development that lead to the wording on a label frequently costs millions of dollars and takes many years to complete. The information on the label is the best literature available on the safe and proper use of the chemical. The most important moments in pest control are the time spent in reading the label.

Please refer to the chapter on Labels and Labeling in the manual entitled *Applying Pesticides Correctly* for a discussion of the basic information that appears on every pesticide label. The following is a discussion of terms that are found on labels frequently used by the pest control industry.

Some information appears on the labels of the insecticides used by pest control operators that is rather specific to the industry. This information is extremely important since the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) states it is illegal to use any pesticide in a manner inconsistent with its labeling. A specific example where this information is important to the pest control industry involves the use of pesticides in food-handling establishments. You can only use those insecticides that bear directions on their labels for use in food-processing establishments. Typical labels have

wording such as "Food Areas: limited to crack and crevice treatment only. Application of this product in the food areas of food-handling establishments other than as a crack and crevice treatment is not permitted." Some important definitions of terms that appear in labeling with respect to use on food-processing areas are as follows.

Applications

Food

Food is considered as:

- (1) Articles used for food or drink for man or other animals (includes pet food, bird seed and feed for cattle, horses, swine, poultry, etc.)
- (2) Chewing gum
- (3) Articles used for components of any such articles

Food Processing Facilities

An area or place other than a private residence in which food is held, processed, packaged, stored and distributed in bulk. These places can include dairies, meat processing facilities, bakeries, grain storage facilities and food product warehouses. A comprehensive listing of food processing facilities is found later in the chapter. (Restaurants, school lunchrooms, bars, hospitals, etc., are **not** included under food processing facilities.)

Nonfood Areas

Include garbage rooms, lavatories, floor drains (to sewers), entries and vestibules, offices, locker rooms, machine rooms, boiler rooms, garages, mop closets and storage (after canning or bottling).

Food areas include areas for receiving, serving, storage, packaging (canning, bottling, wrapping, boxing), preparing (cleaning, slicing, cooking, grinding), edible waste storage and enclosed processing systems (oils, dairies, edible oils, syrups).

Residual Insecticides

Include products applied to obtain insecticidal effects lasting several hours or longer and which are applied as general, spot or crack and crevice treatments. Residuals include the common insecticides such as Baygon, Diazinon and Dursban. Also included are pyrethrins and DDVP. These are usually thought of as nonresidual materials; however, certain formulations with higher than normal concentration, applied as coarse sprays, provide insecticidal effects lasting several hours or longer and are therefore considered residual by EPA.

There are three types of residual applications recognized by EPA: general, spot and crack and crevice. Each may be used in certain areas of food-handling establishments, and they are defined as follows.

General

Application to broad expanses of surfaces such as walls, floors and ceilings or as an outside treatment. This is permitted only in nonfood areas using only those insecticides so registered.

Spot

Application to limited areas on which insects are likely to occur, but which will not be in contact with food or utensils, and will not ordinarily be contacted by workers. These areas may occur on floors, walls and bases or undersides of equipment. For this purpose, a "spot" will not exceed two square feet. In order for spot treatments to be justified, there must be a surface on which insects are likely to occur. A "spot" may be round or long and narrow. This indicates that a considerable area could be treated, but in practice the area must be limited to places where insects are present or are likely to occur.

Crack and Crevice

A crack and crevice treatments is the application of small amounts of insecticides into cracks and crevices in which insects hide or through which they may enter a building. Such openings commonly occur at expansion joints, between different elements of construction and between equipment and floors. These openings may lead to voids such as hollow walls,

equipment legs and bases, conduits, motor housing, junction or switch boxes. The crack and crevice treatment includes the use of sprays, dusts or baits. It permits the use of products in food areas as long as the insecticide is placed only into cracks and crevices. It does not permit treatment of surfaces. In some cases, a pin-stream spray may be an acceptable application method, but a better approach may be to make application with an insertion tube directly into cracks and crevices.

Pesticide Regulations

Pesticides are regulated nationally by EPA through the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). Within Arkansas the Arkansas State Plant Board has responsibility for regulating all pesticide applications.

If pesticides are misused, then other state agencies can become involved. These agencies include the Departments of Health, Environmental Quality, Labor, Transportation, etc. The responding agency depends on the exact misuse that occurs. Therefore, proper application is critical to both food worker and business safety.

Pesticide Residues

For a pesticide to be used on or in a food or feed product it must either have a tolerance or be exempt from a tolerance. Excessive residues can cause both food and worker safety problems. Residues can occur from direct application to the product in the processing area, application to equipment, direct application to product being held in a storage area, space sprays which contaminate the product and application to the product before it arrives at the processing facility. The latter can occur either in production or in transit.

EPA is becoming increasingly concerned about residue detection – not the level but the fact that residue can be detected. Part of the concern is a result of EPA shifting policy to consider human exposure from sources of exposure to a pesticide. Thus, a pesticide which has a wide use will have a higher potential for greater exposure to humans. This exposure includes food, air, water, etc. Therefore, any

insect management program in a food processing area must include more than just the use of pesticides.

Pesticide Tolerances

Pesticide tolerances are set by EPA but they are authorized by the Federal Food, Drug and Cosmetic Act (FFDCA). Pesticide tolerances can be “in or on” raw agricultural products or in processed products. In 1996, Congress passed the Food Quality and Protection Act (FQPA) which did away with the Delaney clause and redefined how pesticide tolerances would be established. Two major changes were the requirement that EPA consider all exposures (air, water, food, etc.) from a pesticide and the requirement EPA consider aggregate effects from pesticides. The latter means all risks from cholinesterase-inhibiting insecticides would be considered when establishing a tolerance for one cholinesterase-inhibiting insecticide.

Although EPA sets tolerances, the Food and Drug Administration (FDA) enforces tolerances for food and feed while USDA enforces tolerances for meat and meat by-products. Therefore, pesticide applications in a food processing facility must be done with great care to minimize potential for food contamination or excess pesticide residues which may lead to illegal tolerances in the finished product. If the food contains any poisonous substance (pesticide) which is not approved or exists above the approved level, then the product is adulterated and must be destroyed.

Site Names

Pesticide labels are the law and must be followed to obtain proper use of the pesticide. One of the pieces of information on a pesticide label is where the pesticide can be used. These use areas are called “sites.” Sites have various names, with some being specific and others general. A specific site would be “flour warehouse” compared to a general site as “warehouses.” If a pesticide label has specific sites, that pesticide can only be used for those sites even if other pesticides, with the same ingredients, have other sites listed on their labels. You must use a pesticide according to the label from which you obtained the pesticide. If you

make a spray from two pesticide containers, you will use the restrictive portion from each label.

Use of a pesticide on sites that are not listed on the label is considered misuse of the pesticide and is a violation of the label and law. Such use could result in illegal residues and/or food safety concerns.

Even though a site name is on the label, the user must read further into the label to ensure that the pesticide can still be used on that site in a manner that will control the pest. At times the site name will be on the label, but the pesticide use will be restricted to a certain type of application.

A listing of EPA sites which one may run into for food processing areas is provided below under the heading “Pesticide Use Site Groups.” These are names EPA considers when registering a pesticide. You are likely to see such wording or similar wording on pesticide labels. You must understand what the site wording means or misapplication can occur.

Pesticide Use Site Groups

The following use sites are from the Code of Federal Register 40 Part 158 Appendix A. These site listings are used by companies and EPA to determine specific tests required for registering a pesticide. Therefore, similar site names are used on pesticide labels. These site names on labels are both restrictive and broad. For example, the site name “fruits” would include all fruits, whereas the site name “flour mill machinery” would limit the pesticides use to only flour mill machinery and not other machinery in food processing plants.

Processed or Manufactured Products, and Food or Feed Containers or Dispensers

Food and feed containers, dispensers and processing equipment

Airtight storages – large (empty/full)

Airtight storages – small (empty/full)

Fumigation chambers

Bins

Elevators

Storage areas – (empty/full)

Processing or handling equipment and machinery (other than food processing)

Commercial and Industrial Uses

Food and feed processing plants

- Bakeries
- Bottlers
- Canneries
- Dairies, creameries, milk processing plants
- Feed mills, feed stores
- Fresh fruit packing and processing
- Meat processing
- Poultry processing
- Wineries, wine cellars
- Flour mills, machinery, warehouses, bins and elevators
- Egg processing
- Candy and confectionery plants
- Sugar processing, cane mills, etc.
- Cider mills
- Dry food products plants
- Tobacco processing
- Air treatment for processing and transportation of foods
- Beverage processing
- Nut processing
- Cereal processing
- Seafood processing
- Vegetable oil processing
- Spice mills
- Vinegar processing
- Farinaceous processing (noodles, etc.)
- Mushroom processing
- Dried fruit processing
- Pickle processing
- Ice plants
- Chocolate processing
- Fruit juice processing

Eating establishments (all)

- Food handling areas
- Food serving areas
- Eating establishment nonfood areas
- Air treatment for eating establishments
- Food storage equipment (coolers, refrigerators, etc.)
- Eating and serving utensils (spoons, etc.)
- Food marketing, storage and distribution
- Food dispensing and vending equipment
- Food stores, markets, stands
- Meat and fish markets
- Food catering facilities
- Food marketing, storage and distribution equipment and utensils

When selecting a pesticide for use in a food use area, one needs to assess whether the site is on the label and if the food area is under USDA inspection service. If the site is under USDA inspection, then the applicator must follow

USDA requirements as well as EPA label requirements. If the USDA requirements are not followed, both the applicator and facility can be in big trouble.

There are other regulations that may affect where you can use a particular pesticide. These include state regulations, USDA regulations and company policy.

State regulations may prohibit use of certain pesticides or restrict their use in certain areas. It is the applicators responsibility to obtain information on any such state requirements. Such regulations can vary from more stringent use requirements to prohibiting the use of certain pesticides. Remember, state requirements often vary between states. Questions regarding regulations specific to Arkansas should be addressed to the Arkansas State Plant Board, #1 Natural Resources Drive (P.O. Box 1069), Little Rock, AR 72203-1069, phone (501) 225-1598.

USDA regulations can come in various forms, but they mainly are associated with USDA inspection services such as the Federal Meat Inspection, Federal Equipment and Sanitation Division (FESD), Federal Grain Inspection Service (FGIS), Food Safety and Inspection Service (FSIS) and others. Any pesticide used in federally inspected meat processing plants must be on USDA's FESD list and approved by the plant's federal inspector. Be certain you understand the regulations of each USDA section and how it applies to the facility you are working.

Company policy is an aspect an applicator needs to determine before signing a contract. Some companies do not allow use of certain registered pesticides. If this would be the case, you need to be aware of the situation and determine beforehand if you can service the account without the use of those pesticides. Examples could include not allowing any pesticide that EPA has classified as a B1, B2 or C carcinogen.

USDA Meat Plants

For USDA meat processing plants, the Pest Management Professional (PMP) must go through the USDA inspector to obtain a list of pesticides that can be used within that plant. This list changes every year.

The USDA inspector will provide the PMP with the list. The plant will have an approved

pest control plan and will provide the PMP with a list of materials to use. The PMP will provide the plant with a list of pesticides, from the approved list, the PMP will use. The PMP's list will be filled out on the plant's forms.

Residuals cannot be used in production areas. Production areas are defined as areas where the product is being handled and is exposed.

Residuals cannot be used where they may be "carried" into the production area. "Carried" can include transported on shoes, hands or through air currents. Thus, this may include restrooms and offices.

Residuals **can** be used in production areas **if** they are (1) used as a crack and crevice treatment **and** the crack and crevice is sealed after application. The Arkansas State Plant Board, (501) 225-1598, and the Arkansas Department of Health, (501) 661-2000, are contacts for further information.

You may obtain the list of chemicals from the Government Printing Office by purchasing *List of Proprietary Substances and Nonfood Compounds, Authorized for Use Under USDA Inspection and Grading Programs*, Miscellaneous Publication Number 1419.

When selecting a pesticide for use in a food use area, one needs to assess whether the site is on the label and if the food area is under USDA inspection service. If the facility is under USDA inspection, then the applicator must follow USDA requirements as well as EPA label requirements. If the USDA requirements are not followed, both the applicator and facility can be in big trouble.

Safety

Pesticide safety is the responsibility of the employer and the applicator. The applicator is responsible for the safety of other applicators, employees of the food processing facility and the safety of the food product.

Safety information can be obtained from the pesticide label, pesticide Material Safety Data Sheet (MSDS), technical information received from the company and other sources. Other sources of safety information include applicator association material such as the National Pest Control Association, American Institute of Baking, Pest Control Technology, etc.

It is the applicator's responsibility to ensure the safe application of any pesticide. This includes making a survey of the facility before conducting an application. During the inspection, the applicator should consider all possibilities that may occur before, during and after the application. You should consider practices the facility is undertaking which may affect the pesticide. This would include use of detergents and cleaning materials, pesticide applications the facility is doing itself, sanitation, etc. When treating food-serving areas, you should consider if the pesticide will be present on the tables and in the air when food is served. If so, you may need to select another pesticide. When treating storage areas, the applicator should insure that the application will not leave residue on containers in which food may be placed. Determine the facilities cleanup procedures to ensure that the cleanup will not negate the pesticide application. It is best to develop both a safety checklist and an inspection checklist. This will help ensure a safer application.