

GLOSSARY

Active ingredient: The chemical in a pesticide product that kills or controls the target pest.

Acute exposure: Short-term exposure to a substance which can be instantaneous but usually less than 24 hours.

Acute toxicity: Adverse effects (poisoning) occurring within 24 - 48 hours post-exposure, usually from a single dose.

Administrative controls: Methods of controlling employee exposures by job rotation, work assignment, or time periods away from the hazard.

Advocacy: Activities for the purpose of protecting the rights of others while supporting the client's responsibility for self-determination; involves informing, supporting, and affirming a client's self-determination in health care decisions.

Agency for Toxic Substances and Disease Registry (ATSDR): Federal agency mandated to prevent exposure and adverse health effects associated with exposure to hazardous substances from waste sites, unplanned releases, and other sources of environmental pollution.

Agent: Causative factor invading a susceptible host through an environment favorable to produce disease, such as a biologic or chemical agent.

Aggregate: Population or defined group.

Aggregate exposure: The sum of exposures from all sources, including residues in food and drinking water, occupational exposures, and residential and other non-occupational exposures.

Aggregates at risk: Workers who engage in similar work activities or who have similar exposures that increase their potential for contracting a particular health problem.

Anticipatory guidance: Providing advice to clients before an event and discussing potential problems or risks so clients will be aware and may be able to prevent the occurrence of the problem.

Attack rates: A type of incidence rate defined as the proportion of persons exposed to an agent who develop the disease, usually for a limited time in a specific population.

Attributable risk: Statistical measure that estimates the reduction in the occurrence of a particular disease that could be affected by elimination of a specific causal agent.

Bait: A formulation with a low percentage of active ingredient mixed with food or another pest-attractive substance.

Bioconcentration: Tendency of a substance to be stored, or concentrated, in particular tissue, usually the fatty tissues of an organism.

Biodegradable: The ability to break down or decompose under natural conditions or processes.

Brand name: The name under which a manufacturer or distributor markets a pesticide product.

Case-control study: An epidemiologic study design in which subjects with a specified disease or condition (cases) and a comparable group without the condition (controls) are enrolled and assessed for the presence or history of an exposure or characteristic.

Case finding: Careful, systematic observations of people to identify present or potential problems.

Case study: A written analysis of program development and implementation throughout the life of the program; a historical depiction of the program.

Causality: The relationship of one factor to outcome such that the presumed causal factor produces or contributes to the occurrence of some outcome.

Chemical contamination: Contamination of food, either deliberately or accidentally, by chemical substance.

Chronic exposure: Repeated exposure that occurs over time which may be several months to years.

Chronic toxicity: Adverse effects (oncogenicity, teratogenicity, neuropathies, etc.) occurring as a result of repeated exposures over time to small doses; effects may not be seen for days to years after exposure.

Closed cab system: An application vehicle with a compartment that forms a boundary between the space surrounding the operator and the outside environment. This boundary effectively eliminates free passage of air, dust, pesticides, or other substances into the area around the operator.

Clustering: A phenomenon representing a grouping in the population of cases of illness (or injury).

Cohort study: An epidemiologic study design in which subjects without an outcome of interest are classified according to past or present (or future) exposures or characteristics

and followed over time to observe and compare the rates of some health outcome in the various exposure groups.

Common name: The accepted short name for the official chemical name of a substance or compound.

Community assessment: Process of critically thinking about the community and getting to know and understand the community as a client. Assessments help identify strengths and resources.

Confounding: A bias that results from the relation of both the outcome and study factor (exposure or characteristic) with some third factor not accounted.

Cross-sectional study: An epidemiologic study in which health outcomes and exposures or characteristics of interest are simultaneously ascertained and examined for association in a population or sample, providing a picture of existing levels of all factors.

Cumulative exposure: The sum of exposures to different pesticides with a common mode of action.

Detoxification: Process of allowing time for the body to metabolize and/or excrete accumulations of a drug. Often called *social* detoxification if the withdrawal symptoms are not life-threatening and do not require medication, or *medical* detoxification if the symptoms require medical management. Also used to describe enzymatic alteration of toxic chemical to less toxic product.

Disinfectant: An agent that kills or controls bacteria, molds, and mildews.

Dose: A term used to express the amount of a chemical or of ionizing radiation energy absorbed in a unit volume or an organ or individual. Dose rate is the dose delivered per unit of time.

Dose-response relationship: Correlation between the amount of exposure to an agent or toxic chemical and the resulting effect on the body. A basic concept of the science of toxicology.

Dust: A formulation with a low percentage of active ingredient plus a very fine, dry, inert carrier made from talc, chalk, clay, nut hulls, or volcanic ash. Designed to be applied in the dry form.

Emulsifiable concentrate: A formulation with a liquid active ingredient with one or more petroleum-based solvents and an agent that allows the product to form an emulsion when mixed with water.

Engineering controls: Methods of controlling employee exposures by modifying the source or reducing the quantity of contaminants released into the workroom environment.

Environmental health: Aspect of community health concerned with those forms of life, substances, forces, and conditions in the surroundings of people that may exert an influence on their health and well-being. The study of environmental conditions in relation to human health.

Epidemic: The occurrence of an infectious agent or disease within a specific geographic area in greater numbers than would normally be expected.

Epidemiology: The study of the distribution of states of health and of the cause of deviations from health in populations and the application of this study to control the health problems.

Exposure: The intake into the body of a hazardous pollutant. The primary routes of exposure to substances are inhalation, dermal, ingestion.

Exposure monitoring: Often done by or with the aid of an industrial hygienist, it is the quantitative assessment of worksite exposures to hazards that are recognized, suspected, or reasonably predictable, based on other preliminary hazard-identification methods.

Fumigant: A pesticide whose pesticidal action occurs in the gaseous state.

Fungicide: A pesticide that kills or controls diseases caused by fungi.

Ground water: The supply of fresh water under the surface of the earth that feeds springs, wells, and aquifers.

Half-life: The time it takes certain materials to lose half their strength.

Hazard: The potential for harm or damage to people, property, or the environment. Hazards are classified as physical, chemical, biological, psychological, or mechanical.

Hazardous waste: By-products of society that can pose a substantial or potential hazard to human health or the environment when improperly disposed of or managed. Hazardous waste possesses a least one of four characteristics: it may ignite easily; it may be corrosive, capable of dissolving metals, other materials or burning the skin; it may be reactive or unstable, or may undergo rapid or violent chemical reactions with water or other materials; it may be toxic, capable of causing serious illness or other health problem.

Hazardous waste landfill: A land disposal site for hazardous waste. Sites are selected to minimize the chance of release of hazardous waste into the environment. There are about 30 commercial hazardous waste landfills in the United States.

Health risk reduction: Application of selected interventions to control or reduce risk factors and minimize the incidence of associated disease and premature mortality. Risk reduction is reflected in greater congruity between appraised and achievable ages.

Herbicide: A pesticide that kills or controls unwanted vegetation, or weeds.

Host: A living organism, human or animal, in which an infectious agent can exist under natural conditions.

Hypersensitivity: Reactive response mediated by macrophages and sensitized T-lymphocytes.

Incidence rate: The frequency or rate of new case of an outcome in a population; provides an estimate of the risk of disease in that population over the period of observation.

Incineration: A treatment technology involving destruction of waste by controlled burning at high temperatures.

Inert ingredient: Component(s) of a pesticide for which no pesticidal action is claimed by the registrant (manufacturer). Inert ingredients are incorporated into the product to dilute it, to make it easier to handle or apply, or to increase its effectiveness against the target pest. Inert ingredients may have adverse effects on humans and/or the environment.

Insecticide: A pesticide that kills or controls insects and related arthropods, such as mites and ticks.

Integrated pest management (IPM): A sustainable approach to pest control that combines the use of biological, cultural, physical, and chemical tactics to maximize control of the pest while minimizing adverse effects on human health and the environment.

Interaction: Result achieved from the combined effects of two or more risk factors compared to the expected result of one factor alone.

Latent period: The time that elapses between exposure and the first manifestation of damage.

Levels of prevention: A three-level model of interventions based on the stages of disease, designed to prevent, halt, or reverse the process of pathologic change as early as possible, thereby preventing damage.

Lifestyle risk: Factors that predispose a family to ill health that are caused by the personal health behaviors of the members.

Mixing/loading: Preparing a pesticide for application. Includes dilution of the purchased product with water or other diluent, and pouring or loading the product, diluent, and

sometimes other substances such as fertilizers or additional pesticides into the application equipment.

Morbidity: Relative disease rate, usually expressed as incidence or prevalence of a disease.

Mortality: Relative death rate; the proportion of deaths at a particular time and place.

MSDS (Material Safety Data Sheet): Developed by the product manufacturer, the MSDS provides information such as physical data (melting point, boiling point, flash point etc.), toxicity, health effects, first aid, reactivity, storage, disposal, protective equipment, and spill/leak procedures for the product. The MSDS is designed to furnish both workers and emergency personnel with the proper procedures for handling or working with the substance. Information in the MSDS is based on the concentrate, and care should be used when extrapolating to diluted product or residues.

Occupational health: The state in which a worker is able to function at an optimum level of well-being at the worksite; reflected by higher employee productivity, and increase in work attendance, a reduction in workers; compensation claims, and an increase in longevity in employment status.

Occupational health hazards: Dangerous processes or materials within a work environment that result in harm to an employee.

Personal protective equipment (PPE): Devices and clothing worn to protect the human body from contact with pesticides or pesticide residues. The U.S. EPA determines what, if any, PPE must be worn when using a particular product. The pesticide product label identifies the correct PPE for specific tasks, such as mixing, loading, applying, or reentering treated areas.

Pesticide: Any substance that is used to control pests by killing them; repelling them; interfering with their mating, reproduction or feeding; or effecting other means of control. The term "pesticide" is general and includes insecticides, herbicides, fungicides, rodenticides, fumigants, repellents, etc.

Preharvest Interval (PHI): The amount of time that must be waited before harvesting a crop treated with a pesticide. The PHI is important in allowing the pesticide and metabolites time to degrade to a level at or below tolerance.

Prevalence: The proportion of existing cases of a health outcome in a population at a particular time.

Primary prevention: Actions that reduce the incidence of disease by promoting health and prevention disease processes from developing.

Rates: Measures of the frequency of a health event in a defined population during a specified period of time.

Regulations: Specific statements of law that relate to and clarify individual pieces of legislation.

Reproductive effects: Adverse effects on the reproductive system, including lowered sperm count, infertility, impotence, etc.

Residue: The part of a pesticide that remains in an organism or the environment after application.

Restricted entry interval (REI): The amount of time that must be waited before a worker can reenter a treated area without specific PPE. The REI is important in allowing the pesticide and metabolites time to dry and/or be degraded and thus less available for absorption by the workers.

Restricted Use Pesticide (RUP): A pesticide determined by EPA to present a potential hazard to human health or the environment even when used according to label directions. Pesticides classified as RUP may be purchased and used only by certified applicators who have received training in the proper handling of such pesticides, or by persons under their supervision.

Risk assessment: (a) Assessing the probability of developing a disease. (b) The qualitative and quantitative evaluation performed in an effort to define the risk posed to human health and the environment by the presence or potential presence and/or use of specific pollutants.

Risk reduction: Helps individuals and groups maximize their self-care activities. The goal is to prevent disease or detect it at its earliest stages.

Rodenticide: A pesticide that kills or controls rodents such as rats and mice.

Screening: The application of a test to people who are as yet asymptomatic for the purpose of classifying them with respect to their likelihood of having a particular disease.

Secondary prevention: Programs, such as screening, designed to detect disease in the early stages (early pathogenesis), before clinically evident signs and symptoms, in order to intervene with early diagnosis and treatment.

Sentinel health event - occupational (SHE-O): A preventable disease, disability, or untimely death that is occupationally related and whose occurrence may: 1) provide the impetus for epidemiologic or industrial hygiene studies; or 2) serve as a warning signal that materials substitution, engineering control, personal protection, or health care may be required.

Surveillance: Systematic and ongoing observation and collection of data concerning disease occurrence in order to describe phenomena and detect changes in frequency or distribution.

Temporal relationship: The relationship between the occurrence of the exposure to an agent and development of disease.

Tertiary prevention: Programs directed toward persons with clinically apparent disease, with the aim of ameliorating the course of disease, reducing disability, or rehabilitating.

Tolerance: Amount of a pesticide residue that can legally remain in or on any food (animal or plant) that is to be eaten by humans or livestock. The tolerance is specific for each pesticide/crop, pesticide/meat, or pesticide/meat byproduct combination.

Ultra-low-volume concentrate: A pesticide formulation that may approach 100% active ingredient and is designed to be used as is or diluted with only a very small quantity of water.

Wettable powder: A dry, finely ground pesticide formulation designed to be mixed with water before application.

Workers' Compensation: A publicly funded insurance system that provides for lost wages, medical costs, and rehabilitation for persons who experience an occupational injury or illness.