

MAINTENANCE GUIDEBOOK VII TERMITE, INSECT, AND RODENT CONTROL GLOSSARY

GENERAL INFORMATION:

For further definition of terms consult:

- The Federal Insecticide, Fungicide, and Rodenticide Act, as amended. Public Law 92-516 October 21, 1972, as amended by Public Law 94-140 November 28, 1975 and Public Law 95-396 September 30, 1978.
- *Federal Register*, November 7, 1990, Part II Environmental Protection Agency 40 CFR Part 171 Certification of Pesticide Applicator; Proposed Rule.
- Regional Offices of the EPA.
- State Lead Agency for the State Plan for Commercial and Private Applicators.
- Federal Agency Secretary's Office (For federal employees using restricted pesticides in performance of official duties).
- Indian Governing Body or Indian Reservation Recertification Plan Administrator.
- Local, State, and National Pest Control Associations.

ABSORPTION—The process by which a chemical or fluid is taken into the systems of human beings, plants, and animals.

ACARICIDE—A pesticide used to control mites and ticks. A miticide is an acaricide.

ACTIVE INGREDIENT—The chemical or chemicals in a pesticide responsible for killing, poisoning, or repelling the pest. (Listed separately in the ingredient statement.)

ACUTE TOXICITY—The ability of a pesticide to cause injury within twenty-four hours following exposure. LD₅₀ and LC₅₀ are common indicators of the degree of acute toxicity. (See also Chronic Toxicity.)

ADJUVANT—A substance added to a pesticide to improve its effectiveness or safety. Same as additive. Examples: penetrants, spreader-stickers, and wetting agents.

ADSORPTION—The process by which chemicals are held or bound to a surface by physical or chemical attraction. Clay and high-organic soils tend to adsorb pesticides.

AEROSOL—A material stored in a container under pressure. Fine droplets are produced when the material dissolved in a liquid carrier is released into the air from the pressurized container.

ALGAE—Simple aquatic plants that contain chlorophyll and are photosynthetic.

ALGICIDE—A pesticide used to kill or inhibit algae.

ANTI-SIPHONING DEVICE—A device attached to the filling hose that prevents backflow or backsiphoning from a spray tank into a water source.

ANTICOAGULANT—A chemical that prevents blood clotting. An active ingredient in some rodenticides.

ANTIDOTE—A treatment used to counteract the effects of pesticide poisoning or some other poison in the body.

ARACHNID—A wingless arthropod with two body regions and four pairs of jointed legs. Spiders, ticks, and mites are in the class Arachnida.

ARTHROPOD—An invertebrate animal characterized by jointed body and limbs. It is usually covered by a hard exoskeleton covering that is molted at intervals. For example, insects, mites, and crayfish are in the phylum Arthropoda.

ATTRACTANT—A substance or device that lures pests to a trap or poison bait.

AVICIDE—A pesticide used to repel or kill birds.

BACTERIA—Microscopic organisms, some of which are capable of producing diseases in people, plants and animals. Some bacteria are beneficial.

BACTERICIDE—Chemical used to control bacteria.

BAIT—A food or other substance used to attract a pest to a pesticide or a trap.

BAND APPLICATION—Application of a pesticide in a strip alongside or around a structure, a portion of a structure, or any object.

BARRIER APPLICATION—See band application.

BENEFICIAL INSECT—An insect that is useful or helpful to people, such as insect parasites, predators, or pollinators.

BIOLOGICAL CONTROL—Management of pests using beneficial arthropods as predators, parasites, and disease-causing organisms which may occur naturally or are introduced to reduce pest populations.

BIOMAGNIFICATION—The process by which one organism accumulates chemical residues in higher concentration from other organisms which they have consumed.

BOTANICAL PESTICIDE—A pesticide produced from chemicals found in plants. Examples are nicotine, pyrethrins, and strychnine.

BRAND NAME—The name, or designation of a specific pesticide product or device made by a manufacturer or formulator. (A marketing name.)

CALIBRATE, CALIBRATION OF EQUIPMENT OR APPLICATION METHOD—Measurement and adjustment to control the output or rate of dispensing pesticides.

CARBAMATES (N-Methyl Carbamates)—A group of pesticides containing nitrogen, formulated as insecticides, fungicides, and herbicides. The N-Methyl Carbamates are insecticides and inhibit cholinesterase in animals.

CARCINOGENIC—The ability of a substance or agent to induce malignant tumors (cancer).

CARRIER—An inert liquid, solid, or gas added to an active ingredient for delivering a pesticide to the target effectively. A carrier is usually water, oil, or other solvent, used to dilute the formulated product for application.

CERTIFIED APPLICATORS—Individuals who are certified by the state to use or supervise the use of restricted-use pesticides.

CHEMICAL NAME—The scientific name of active ingredients found in formulated products. This complex name is derived from the chemical structure of the active ingredient.

CHEMICAL CONTROL—Pesticide application to kill pests.

CHEMOSTERILANT—A chemical compound capable of preventing animal reproduction.

CHEMTREC—The Chemical Transportation Emergency Center which has a toll-free number (800-424-9300) for providing 24-hour information only for chemical emergencies such as a spill, leak, fire, or accident.

CHLORINATED HYDROCARBON—A pesticide containing chlorine, carbon, and hydrogen. Many are persistent in the environment, such as Chlordane and DDT. Few are registered for use in the U.S.

CHOLINESTERASE, ACETYLCHOLINESTERASE—An enzyme in animals that helps regulate nerve impulses. This enzyme is depressed by N-Methyl carbamate and organophosphate pesticides.

CHRONIC TOXICITY—The ability of a pesticide chemical to cause injury or illness (beyond twenty-four hours following exposure) when applied in small amounts repeatedly for a longer period of time. (See also **Acute Toxicity**.)

COMMERCIAL APPLICATOR—A state-certified applicator who for compensation uses or supervises the use of pesticides classified for restricted use for any purpose or on any property other than that producing an agricultural commodity.

COMMON NAME—A name given to a pesticide's active ingredient by a recognized committee on pesticide nomenclature. Many pesticides are known by a number of trade or brand names, but the active ingredient has only one recognized common name.

COMMUNITY—The different populations of animal or plant species that exist together in an ecosystem (See also **Population and Ecosystem**.)

COMPETENT—Individuals properly qualified to perform functions associated with pesticide application. The degree of competency (capability) required is directly related to the nature of the activity and the associated responsibility.

CONCENTRATION—Refers to the amount of active ingredient in a given volume or weight of formulated product.

CONTACT PESTICIDE—A pesticide that causes death or injury to pests when in contact with it. The chemical does not have to be ingested. It is often used to describe a spray applied directly on a pest.

CONTAMINATION—The presence of an unwanted substance (sometimes pesticides) in or on a plant, animal, soil, water, air, or structure.

CULTURAL CONTROL—A pest control method that includes changing human habits, such as sanitation, changing work practices, or cleaning or garbage pick-up schedules.

DECONTAMINATE—To remove or break down a pesticidal chemical from a surface or substance.

DEGRADATION—A process by which a chemical compound or pesticide is reduced to simpler compounds by the action of microorganisms, water, air, sunlight, or other agents. Degradation products are usually, but not always, less toxic than the original compound.

DEPOSIT—The amount of pesticide on a treated surface after application.

DERMAL TOXICITY—The ability of a pesticide to cause acute illness or injury to human beings or animals when absorbed through the skin (see **Exposure Route**.)

DESICCANT—A type of pesticide that draws moisture or fluid from a plant or arthropod pest, causing it to die. Certain desiccant dusts destroy the waxy outer coating that holds moisture within an insect's body.

DETOXIFY—To render a pesticide's active ingredient or other poisonous chemical harmless.

DIAGNOSIS—The positive identification of a problem and its cause.

DILUENT—Any liquid, gas, or solid material used to dilute or weaken a concentrated pesticide.

DISINFECTANT—A chemical or other agent that kills or inactivates disease-producing microorganisms. Chemicals used to clean or surface-sterilize inanimate objects.

DOSE, DOSAGE—Quantity, amount, or rate of pesticide applied to a given area or target.

DRIFT—The airborne movement of a pesticide spray or dust beyond the intended target area.

DUST—A finely ground, dry pesticide formulation containing a small amount of active ingredient and a large amount of inert carrier or diluent such as clay or talc.

ECOSYSTEM—The pest-management unit. It includes a community (of populations) with the necessary physical (harborage, moisture, temperature), and biotic (food, hosts) supporting factors that allow a population of pests to persist.

EMULSIFIABLE CONCENTRATE—A pesticide formulation produced by mixing or suspending the active ingredient (the concentrate) and an emulsifying agent in a suitable carrier. When added to water, a milky emulsion is formed.

EMULSIFYING AGENT (EMULSIFIER)—A chemical that aids the suspension of a liquid in another that normally would not mix together.

EMULSION—A mixture of two liquids which are not soluble in one another. One is suspended as very small droplets in the other with the aid of an emulsifying agent.

ENCAPSULATED FORMULATION—A pesticide formulation with its active ingredient enclosed in tiny capsules of polyvinyl or other materials; principally used for slow release. The enclosed active ingredient moves out to the capsule surface as pesticide on the surface is removed (volatilizes, or rubs off).

ENDANGERED SPECIES—Individual plants or animals with a population that has been reduced to the extent that it is near extinction and that has been designated to be endangered by a federal agency.

ENTRY INTERVAL—See **Re-entry Interval**.

ENVIRONMENT—Air, land, water, plants, people, animals, and the interrelationships which exist among them.

EPA—ENVIRONMENTAL PROTECTION AGENCY—The federal agency responsible for ensuring the protection of people and the environment from potentially adverse effects of pesticides and other contaminants.

EPA ESTABLISHMENT NUMBER—A number assigned to each pesticide-production plant by the EPA. The number indicating the plant at which the pesticide product was produced must appear on all labels of that product.

EPA REGISTRATION NUMBER—An identification number assigned to a pesticide product when it is registered by the EPA for use. The number must appear on all labels of pesticide products.

ERADICATION—The complete elimination of a (pest) population from a designated area.

EXPOSURE ROUTE OR COMMON EXPOSURE ROUTE—The manner—dermal (through the skin), oral (through the mouth), or inhalation/respiratory—in which a pesticide may enter an organism.

FIFRA—The Federal Insecticide, Fungicide, and Rodenticide Act; a federal law and its amendments that controls pesticide registration and use.

FLOWABLE—A pesticide formulation in which very finely ground solid particles are suspended (not dissolved) in a liquid carrier.

FOG TREATMENT—A pesticide in aerosol-sized droplets (under 40 microns). Not a mist or gas. After propulsion, the fog droplets fall on exposed surfaces.

FORMULATION—The pesticide product as purchased, containing a mixture of one or more active ingredients, carriers (inert ingredients), with other additives making it easy to store, dilute, and apply.

FUMIGANT—A pesticide formulation that volatilizes, forming a toxic vapor or gas that kills in the gaseous state, penetrating voids to kill pests.

FUNGICIDE—A chemical used to control fungi.

FUNGUS (plural=fungi)—A group of small, often microscopic, organisms in the plant kingdom which cause rot, mold, and disease. Fungi need moisture or a damp environment (wood rots require at least 19 percent moisture). Fungi are extremely important in the diet of many insects.

GENERAL-USE (UNCLASSIFIED) PESTICIDE—A pesticide which can be purchased and used by the general public. (See also **Restricted Use Pesticide**.)

GRANULE—A dry pesticide formulation. An active ingredient is either mixed with or applied as a coating to an inert carrier to form a small, ready-to-use, low-concentrate chemical which normally does not present a drift hazard. Pellets differ from granules only in their precise uniformity, larger size, and shape.

GROUNDWATER—Water source located beneath the soil surface from which springs and well water are drawn (see also **Surface Water**.)

HABITAT MODIFICATION—Removing food, water, shelter, and other conditions that support pests, or excluding access by pests to the site.

HARBORAGE—Shelter that provides the basic needs, including a safe place for the pest population.

HAZARD—See **Risk**.

HERBICIDE—A pesticide used to kill or inhibit plant growth.

HIGH-RISK PERSON—A person who has some condition that may put him or her at risk from exposure to pesticides. Such persons include children, the elderly, pregnant women, newborns, asthmatics, the neurologically impaired, the environmentally ill (EI), and those with multiple chemical sensitivity (MCS).

HOST—Any animal or plant on or in which another lives for nourishment, development, or protection.

IGR, INSECT GROWTH REGULATOR JUVENOID—A pesticide which mimics insect hormones that control molting and the development of insect systems affecting the change from immature to adult (see **Juvenile Hormone**.)

INERT INGREDIENT—An inactive material without pesticidal activity in a pesticide formulation.

INGREDIENT STATEMENT—A portion of the label on a pesticide container that gives the name and amount of each active ingredient and the total amount of inert ingredients in the formulation.

INHALATION—Taking a substance in through the lungs (breathing in). (See **Exposure Route**.)

INSECT GROWTH REGULATOR—See **IGR**.

INSECTICIDE—A pesticide used to manage or prevent damage caused by insects.

INSECTS, INSECTA—A class in the phylum Arthropoda characterized by a body composed of three segments and three pair of legs.

INSPECTION—A process for detecting pests, pest damage, and evidence of pest activity in a managed site. (See **Monitoring**.)

INTEGRATED PEST MANAGEMENT—See **IPM**.

IPM—Integrated Pest Management. A planned pest-control program in which methods are integrated and used to keep pests from causing economic, health-related, or aesthetic problems. IPM includes reducing pests to a tolerable level. Pesticide application is not the primary control method, but is an element of IPM, as are cultural and structural alterations. IPM programs stress communication, monitoring, inspection, and evaluation (keeping and using records).

JUVENILE HORMONE—A hormone produced by an insect that inhibits change or molting. As long as juvenile hormone is present the insect does not develop into an adult, but remains immature.

LABEL—All printed material attached to or on a pesticide container.

LABELING—The pesticide product label and other accompanying materials that contain directions for use, which pesticide users are legally required to follow.

LARVA (plural=larvae)—The developmental stage of insects with complete metamorphosis that hatches from the egg. A mature larva becomes a pupa (some invertebrates have larvae, but they are not urban pests).

LC₅₀—Lethal concentration. The concentration of a pesticide, usually in air or water, that kills 50 percent of a test population of animals. LC₅₀ is usually expressed in parts per million (ppm). The lower the LC₅₀ value, the more acutely toxic the chemical.

LD₅₀—Lethal dose. The dose or amount of a pesticide that can kill 50 percent of the test animals when eaten or absorbed through the skin. LD₅₀ is expressed in milligrams of chemical per kilogram of body weight of the test animal (mg/kg). The lower the LD₅₀, the more acutely toxic the pesticide.

LEACHING—The movement of a substance with water downward through soil.

METAMORPHOSIS—A change in the shape or form of an animal. Usually used when referring to insect development.

MICROBIAL DEGRADATION—Breakdown of a chemical by microorganisms.

MICROBIAL PESTICIDE—Bacteria, viruses, fungi, and other microorganisms used to control pests. Also called biorationals.

MICROORGANISM—An organism so small that it can be seen only with the aid of a microscope.

MITICIDE—A pesticide used to control mites (see **Acaricide**.)

MODE OF ACTION—The way in which a pesticide exerts a toxic effect on the target plant or animal.

MOLLUSCICIDE—A chemical used to control snails and slugs.

MONITORING—Ongoing surveillance. Monitoring includes periodic inspection and record-keeping. Monitoring records allow technicians to evaluate pest population suppression, identify infested or non-infested sites, and manage the progress of the pest-management program.

MSDS—Material Safety Data Sheet required by Department of Labor to be provided by manufacturers to those that request information on chemical substances.

NECROSIS—Death of plant or animal tissues which results in the formation of discolored, sunken, or necrotic (dead) areas.

NONTARGET ORGANISM—Any plant or animal other than the intended targets of pesticide application.

NYMPH—The developmental stage of insects with gradual metamorphosis that hatches from the egg. Nymphs become adults.

ORAL TOXICITY—The effect of a pesticide resulting in injury or acute illness when taken by mouth.

ORGANOPHOSPHATES—A large group of pesticides that contain phosphorus and inhibit cholinesterase in animals.

PARASITE—A plant, animal, or microorganism living in, on, or with another living organism for the purpose of obtaining all or part of its food.

PATHOGEN—A disease-causing organism.

PERSONAL PROTECTIVE EQUIPMENT—Devices and clothing intended to protect a person from exposure to pesticides, including items like long-sleeved shirts, long trousers, coveralls, hats, gloves, shoes, respirators, and other safety items as needed.

PEST MANAGEMENT—See **IPM**.

PEST—An undesirable organism including any insect, rodent, nematode, fungus, weed, or some terrestrial and aquatic plants and animals, virus, bacteria, or micro-organism which the Administrator declares to be a pest under FIFRA, Section 25(c)(1).

PESTICIDE—A chemical or other agent used to kill, repel, or otherwise control pests or to protect from a pest.

pH—A measure of acidity/alkalinity of a liquid: acid below pH7 (down to zero); basic or alkaline above pH7 (up to 14).

PHEROMONE—A substance emitted by an animal to influence the behavior of other animals of the same species. Some are synthetically produced for use in insect traps.

PHOTODEGRADATION—Breakdown of chemicals by the action of light.

PHYSICAL CONTROL—Habitat alteration or changing the infested physical structure, such as by caulking holes, cracks, tightening around doors, windows, moisture reduction, ventilation, and other means.

PHYSIOLOGICAL SENSITIVITIES—Human physiological reaction from exposure in the environment to perhaps minute amounts of chemicals that produce an adverse response.

PHYTOTOXICITY—Injury to plants caused by a chemical or other agent.

POINT OF RUNOFF—The point at which a spray starts to run or drip from the surface to which it is applied.

POISON CONTROL CENTER—A local agency, generally a hospital, which has current information on the proper first-aid techniques and antidotes for poisoning emergencies. Such centers are listed in telephone directories.

POPULATION—Individuals of the same species. The populations in an area make up a community (see **Ecosystem**.)

PORT—Small sealable hole that allows injection of pesticidal material into a wall or other void in a structure.

PRECIPITATE—A solid substance that forms in a liquid and settles to the bottom of a container; a material that no longer remains in suspension.

PREDATOR—An animal that attacks, kills, and feeds on other animals. Examples of predaceous animals are hawks, owls, snakes, spiders, lady-bird beetles, and other insects.

PROFESSIONAL—One who is trained to conduct an efficient operation and able to make judgments based on training and experience.

PROPELLANT—The inert ingredient in pressurized containers that forces an active ingredient from the container.

PUPA (plural= pupae)—The developmental stage of insects with complete metamorphosis when major changes from larval to adult form occurs.

QUALIFIED APPLICATOR—An applicator who is certified (and licensed in some states) to apply restricted-use pesticides in the state. Qualification may also include training or experience.

RATE OF APPLICATION—The amount of pesticide applied to a plant, animal, unit area, or surface; usually measured per acre, per 1,000 square feet, per linear foot, or per cubic foot.

RE-ENTRY INTERVAL—The length of time following an application of a pesticide during which entry into the treated area is restricted. Also known as **Entry Interval**.

REGISTERED PESTICIDES—Pesticide products which have been registered by the Environmental Protection Agency for uses listed on the label.

REPELLENT—A compound that keeps insects, rodents, birds, or other pests away from plants, domestic animals, buildings, or other treated areas.

RESIDUAL PESTICIDE—A pesticide that continues to remain effective on a treated surface or area for an extended period following application.

RESIDUE—The pesticide active ingredient or its breakdown products which remain in or on the target after treatment.

RESTRICTED-USE PESTICIDE—A pesticide that can be purchased and used only by certified applicators or persons under their direct supervision. A pesticide classified for restricted use under FIFRA, Section 3(d)(1)(C).

RISK—A probability that a given pesticide will have an adverse effect on people or the environment in a given situation.

RMSF—Rocky Mountain Spotted Fever is an acute infectious rickettsial disease transmitted to humans by the American dog tick.

RODENTICIDE—A pesticide used to control rodents.

RUNOFF—The movement of water and associated materials on the soil surface. Runoff usually proceeds to bodies of surface water.

SANITATION—The practice of removing undesirable substances that support a pest or pest population (for instance, food or water).

SIGNAL WORDS—Required wording which appears on every pesticide label to denote the relative toxicity of the product. Signal words are DANGER-POISON, DANGER, WARNING, or CAUTION.

SITE—Areas of actual pest infestation. Each site should be treated specifically or individually.

SOIL INJECTION—The placement of a pesticide below the surface of the soil, a common application method for termiticides.

SOIL DRENCH—To soak or wet the ground surface with pesticide. Large volumes of pesticides are usually needed to saturate the soil to a sufficient depth.

SOIL INCORPORATION—The mechanical mixing of a pesticide product with soil.

SOLUTION—A mixture of one or more substances in another substance (usually a liquid) in which all the ingredients are dissolved. Example: sugar in water.

SOLVENT—A liquid which will dissolve another substance (solid, liquid, or gas) to form a solution.

SPACE SPRAY—A pesticide which is applied as a fine spray or mist to a confined area.

STOMACH POISON—A pesticide that must be eaten by an animal in order to be effective; it will not kill on contact.

SURFACE WATER—Water on the earth's surface such as rivers, lakes, ponds, and streams. (See **Groundwater**.)

SUSPENSION—A pesticide mixture consisting of fine particles dispersed or floating in a liquid, usually water or oil. Example: Wettable powders in water.

TARGET—Plants, animals, structures, areas, or pests toward which the pesticide or other control method is directed.

TECHNICAL MATERIAL—Pesticide active ingredient in pure form, as it is manufactured by a chemical company. It is combined with inert ingredients or additives in formulations such as wettable powders, dusts, emulsifiable concentrates, or granules.

TOXIC—Poisonous to living organisms.

THRESHOLD—A level of pest density. The number of pests observed, trapped, or counted that can be tolerated without an economic loss or aesthetic injury. Pest thresholds in urban pest management may be site specific. For example, different numbers of cockroaches may be tolerated at different sites (hospitals and garbage rooms would have different thresholds).

TOLERABLE LEVELS OF PESTS—The presence of pests, at certain levels, is tolerable in many situations. Totally eliminating pests in certain areas is sometimes not achievable without major structural alterations, excessive control measures, unacceptable disruption, or unacceptable cost. The tolerable level in some situations will be near zero. Urban pest-management programs may have lower tolerable levels of pests than agricultural programs.

TOXICANT—A poisonous substance such as the active ingredient in a pesticide formulation.

TOXICITY—The ability of a pesticide to cause harmful, acute, delayed, or allergic effects. (The degree or extent that a chemical or substance is poisonous.)

TOXIN—A naturally occurring poison produced by plants, animals, or microorganisms. Examples: the poison produced by the black widow spider, the venom produced by snakes, the botulism toxin.

UNCLASSIFIED PESTICIDE—See **General-Use Pesticide**.

URBAN—A Standard Metropolitan Area (SMA) or a town of 2,500(+) occupants.

URBAN PEST MANAGEMENT—Management of pest infestations that are normally problems in urban areas. Urban pest management involves reducing pest populations to tolerable numbers in and around residences, in structures, and those pests that cause health-related problems. Urban pest management may or may not focus on reducing economic injury, but it always deals with health or aesthetic injuries.

USE—The performance of pesticide-related activities requiring certification including application, mixing, loading, transport, storage, or handling after the manufacturing seal is broken; care and maintenance of application and handling equipment; and disposal of pesticides and their containers in accordance with label requirements. Uses not needing certification are long-distance transport, long-term storage, and ultimate disposal.

VAPOR PRESSURE—The property which causes a chemical to evaporate. The higher the vapor pressure, the more volatile the chemical or the more easily it will evaporate.

VECTOR—A carrier, an animal (such as an insect, nematode, mite) that can carry and transmit a pathogen from one host to another.

VERTEBRATE—Animal characterized by a segmented backbone or spinal column.

VIRUS—Ultramicroscopic parasites composed of proteins. Viruses can only multiply in living tissues, and they cause many animal and plant diseases.

VOID—Space inside walls or other inaccessible space that may harbor pests.

VOLATILITY—The degree to which a substance changes from a liquid or solid state to a gas at ordinary temperatures when exposed to air.

WATER TABLE—The upper level of the water-saturated zone in the ground.

WETTABLE POWDER—A dry pesticide formulation in powder form that forms a suspension when added to water.

ZONE—The management unit, an area of potential pest infestation made up of infested sites. Zones will contain pest **food, water, and harborage**. A kitchen-bathroom arrangement in adjoining apartments might make up a zone; a kitchen, storeroom, and loading dock at food-service facilities may make up another. Zones may also be established by eliminating areas with little likelihood of infestation and treating the remainder as a zone. A zone will be an ecosystem.

END OF GLOSSARY