

Glossary

Abdomen

- The end part of an insect's body, which contains the digestive and reproductive organs.

Antennae

- Two long thin growths on the heads of insects, crustaceans etc. They are often called feelers. Animals might use their antennae to feel, smell, taste and even to hear.

Aphids

- Small, soft-bodied, translucent insects, color green, red, brown or black, which suck plant juices. Found on shoots, under leaves and on flower buds. Can stunt or deform leaves or flowers. Sticky residue ("honeydew") usually present, which attracts ants.

Armyworms

- Defoliating caterpillar common to agricultural crops

Auditory communication

- Communication that relies on hearing

Backpack sprayer

- spray unit with plastic containers on a backpack frame. Used by individual operator to apply chemicals, such as herbicides.

Blade

- Especially a leaf of grass or the broad portion of a leaf as distinct from the petiole

Botrytis

- *Botrytis cinerea*, a mold or fungus that attacks grapes or strawberries in humid climate conditions

Carnivore

- A carnivore is an animal that eats meat

Cast Skins

- Discarded exoskeleton as a result of molting

Chewed areas

- Portions of plant tissues that have been eaten (or defoliated) by insects

Chinch bugs

- Small insect of Turfgrass, common to St. Augustine grass

Clover

- a plant of the genus *Trifolium*

Community

- A characteristic group of plants and animals living and interacting with one another in a specific region under similar environmental conditions

Community garden

- Common garden area where individuals share plots to grow fruits, vegetables, or flowers. Usually located within city limits

Complete metamorphosis

- Developmental process of an insect in which each life stage is different from the previous

Compound Eye

- The eye of most insects and some crustaceans, which is composed of many light-sensitive elements, each having its own refractive system and each forming a portion of an image.

Consumer

- An organism (herbivores) that obtains nutrients and energy by eating other organisms (plants)

Control

- a relation of constraint of one entity by another. A method used to decrease pest populations below tolerable levels

Crabgrass

- grasses with creeping stems that root freely; a pest in lawns

Crop canopy

- The uppermost layer of an agricultural or ornamental resource (crop)

Crop dusting – The process of applying pesticides to a crop through aerial applications (by airplane)

Crop emergence

- The point at which plants of a crop break the soil surface

Cultural control

- Using non-chemical methods to control a crop pest, including mechanical cultivation for weed control, crop rotation to avoid buildup of disease, and plant variety or hybrid selection for resistance to nematodes. Includes altering the resource to make a situation unfavorable to pests

Cutworms – Defoliating caterpillars of agricultural crops

Dandelion

- any of several herbs of the genus *Taraxacum* having long tap roots and deeply notched leaves and bright yellow flowers followed by fluffy seed balls

Decomposer

- Any of various organisms that feed on and break down organic substances

Direct Damage

– Damage to a resource caused usually immediately and precisely by a pest

Discolored areas – Chlorotic or necrotic regions on the leaves of plants. Plants exhibit a color other than normal due to some environmental pressure

Disease

- a state in which a function or part of the plant is no longer in a healthy condition. A pathogen or deficiency that has caused physiological dysfunction

Dollar spot

– Common disease of Turfgrass

Drench test – Applying copious amounts of water to determine soil water potential. Applying excessive amounts of pesticide to a soil substrate to manage pests

Drift

- a force that moves something along. Pesticides carried by wind, water, or some other environmental factor away from the target area

Ecology

- The study of the relationships between living organisms and their environment.

Ecosystem

- The system of interactions between living organisms and their environment.

Energy

- The gaining of life supporting nutrition from eating or through sunlight. The capacity to do work.

Environment

- The sum total of all the external conditions that affect an organism, community, material, or energy.

Field Crop

– Agricultural commodities grown on large tracts of land. Common examples: potatoes, cotton, corn, alfalfa, soybeans

Frass

– Insect feces, looks like small black specks

Fruit

- The ripened reproductive body of a seed plant.

Fungicides

– Pesticides intended to manage fungi

Fungus Gnats

– Common mosquito-like pests of greenhouses

Golf course

- course consisting of a large landscaped area for playing golf

Gradual Metamorphosis

– Insect developmental process in which each life stage resembles the previous. All life stages resemble the adult

Habitat

- The place or environment where a plant or animal naturally or normally lives and grows.

Head

- a dense clusters of flowers or foliage

Herbivore

- Animal that eats plants.

Host

– resource that provides some nutritional value for pests. Usually a plant

Indirect damage

– Damage to a resource that is not immediate and usually is not seen

Insect breeding

– The process by which insects reproduce, either sexually, asexually, or through cloning

Insecticides

- Substances used to manage insects and prevent infestation.

Insects

- Member of the class Insecta in the phylum Arthropoda. Members have three body regions and three pairs of legs.

Labial palps

– Structures located near the labium; modified suction structures

Labium - The second maxilla; the lower lip; a compound structure which forms the floor of the mouth in mandibulate insects.

Labrum

- The upper lip, which covers the base of the mandible and forms the roof of the mouth.

Landscape pests

– Insects or diseases detrimental to landscaped areas

Lawn

- A field of cultivated and mowed grass.

Lawn insects – Arthropods that are either beneficial or detrimental to and reside in lawns

Leaf

- An organ found in most vascular plants; it consists of a flat lamina (blade) and a petiole (stalk). Many flowering plants have additionally a pair of small stipules near the base of the petiole.

Leaf spot

- A bacterial disease causing necrotic lesions on leaves

Legs

- Appendages used for mobility

Livestock

- Animals raised to provide food and dairy products

Malformed

– Disfigured, curled, cupped or otherwise abnormal leaves or other plant parts

Mandibles

- The second set of mouthparts in insects; in layman's terms: the jaws; used by ants for chewing, biting and manipulating objects.

Maxillae

– Insect mouthparts used to manipulate food

Maxillary palps

– sensory organs of the maxillae

Mealybugs

– Cotton-like insects that feed on plant juices. Common in homes and greenhouses

Miticides

– Pesticides designed for managing mites

Monitoring

- A planned, systematic, and ongoing process to gather and organize data, and aggregate results in order to evaluate performance. A critical step in an IPM program

Morphology

- The study of form and structure of animals and plants and their fossil remains. A developmental process.

Nematode

- Nematodes are invertebrates comprising the parasitic roundworms. They are characterized by a smooth narrow cylindrical unsegmented body tapered at both ends.

Niche

- The status of an organism within its environment and community affecting its survival as a species.

Olfactory communication

– Communication through smell

Omnivore

- An organism that eats a diversity of food types, including animals and plants.

Pathogens

- Any virus, microorganism, or other substance that causes disease; an infecting agent.

Persistence

- Stability of chemical compounds in the environment. Persistence is an important negative criterion in the ecological assessment of chemicals.

Pest

- Any form of plant or animal life, or any pathogenic agent, injurious or potentially injurious to plants, plant products, or that is injurious or a nuisance to the well-being of man.

Pesticide efficacy

– Amount of effect a pesticide produces. Its potency

Pesticide movement

– The mobility of a pesticide through the environment, on wind, in water, adsorbance in soil, through food chains

Pesticide safety

– Proper use and handling of pesticides according to the label

Pesticide selection

– Choice of pesticide for a particular situation with consideration of safety for humans, animals, beneficial organisms and necessity and cost

Pesticides

- Chemicals that kill or inhibit the growth of organisms that people consider undesirable.

***Phytophthora* root rots**

– Fungus that causes root death

Poison

- Any substance that causes injury or illness or death of a living organism

Poison control center

– Organization educates about the safe handling of toxins

Population

- A group of organisms of the same species populating a given area.

Powdery mildew

- Fungal disease of grape wines which, unlike most fungal diseases, thrives in dry climates. Appears as a white powder on the upper surface of leaves

Predator

- An animal that hunts and kills other animals for food.

Prevention

– Actions taken to prohibit pests

Prey

- Animal hunted or caught for food.

Producer

- Any organism which brings energy into an ecosystem from inorganic sources.

***Pythium* root rots** – Fungus that causes root death

Residue

- Trace of a pesticide and its metabolites remaining in or on any commodity, animal, plant or environmental component. The term may be applied to contaminants of natural, industrial or environmental origin, but particularly in relation to crops at harvest time.

Resistant variety

– Organisms that have a high tolerance for, or the ability to withstand pest infestations

***Rhizoctonia* blight**

– Fungal pathogen that causes necrotic lesions on leaves and stems

***Rhizoctonia* root rots**

– Fungus that causes root death

Root zone

- The portion of a soil profile in which plant roots occur.

Row crop

– Agricultural commodities grown parallel in fields, common examples are potatoes, and corn

Runoff

- That part of precipitation, snow melt, or irrigation water that drains or flows off the land into streams or other surface waters. This precipitation can carry pesticides

Safety

- Freedom from danger; a property of a device or process which limits the risk of accident below some specified acceptable level.

Scale

– Insect that feed on plant phloem, immobile, and protected by an outer covering

Scouting

– Important in a monitoring program, observing for pests, pest densities, pest locations, and other detriments

Shore flies

– Insect similar to Fungus gnats, common in green houses

Signs

– The biological evidence left by pests, fecal material, cast skins, eggs

Soil Sample

– Method of removing a portion of soil for testing

Speckled yellow spots

– Stippling caused by an insect. Insects with piercing-sucking mouthparts cause this damage

Spider mites

– Small arachnids that are common pests to greenhouses

Spiracles

– Small breathing holes located on the insect body for respiration.

Spurge

- Any of numerous plants of the genus *Euphorbia*; having milky often poisonous juice.

Sticky cards

- Index cards lubricated with adhesive, used for monitoring insect populations

Sweep net

- Net used to sample insect populations in a field

Symptoms

- Physical evidence left by a pest, chewed leaves, stippling, windowpane appearance, wilting, etc

Thorax

- The middle segment of an insect. Includes the legs and wings if present

Thrips

- Thrips are very small insect pests that attack a number of different plants species, ranging from onions to pears.

Time

- The fourth element to the pest tetrahedron

Tobacco mosaic virus

- Virus transmitted by Thrips, causes severe plant death

Tolerance

- The ability to experience exposure to potentially harmful amounts of a substance or pest population without showing an adverse effect.

Tomato Spotted Wilt Virus

- Virus transmitted by Thrips, causes severe plant death

Turfgrass

- Manicured greens for athletic fields, golf courses, and cemeteries

Vegetable

- Edible seeds, roots, stems, leaves, bulbs, tubers or nonsweet fruits of any of numerous herbaceous plant

Weeds

- A plant growing in a place where it is not desirable

White grubs

- The larval stage of insects, usually beetles that develop below the soil surface

Whiteflies

- Small winged arthropods, common greenhouse pests

Windowpane appearance

– The epidermal layer of leaves has been eaten by insects usually in round or square shapes. Looks like small windows in leaves

Wings

- Appendages used for flight. Insects with wings have either one or two pair.