

## Beekeeping Jargon and Terms

**Abdomen** – the posterior region of the body of the bee that contains the crop, digestive tract, sting and reproductive tract

**Absconding swarm** – an entire colony of bees that abandons hives because of disease, wax moth or small hive beetle infestation, excessive heat, flooding, lack of resources, pesticide poisoning, etc.

**Acarine disease** - The name of the disease caused by the tracheal mite (*Acarapis woodi*).

**Afterswarm** - a small swarm which may leave the hive after the first or primary swarm has departed. These afterswarms usually have less bees associated with them than the primary swarm.

**American foulbrood** – a severe brood disease of honey bees caused by a spore-forming bacterium, *Paenibacillus larvae*. The spores can remain viable for > 50 years, which makes outbreaks of this disease difficult to control

**Apiary** – commonly called a bee yard; this is a place where colonies are kept by a beekeeper

**Apiculture** – the science and art of raising honey bees

*Apis mellifera* L. - scientific name of the honey bee found in the United States

**Bee bread** – the mixture of pollen, culturing bacteria and honey that bees store in cells of brood comb to be used a nutritional source of amino acids, sterols, vitamins and minerals by nurse bees feeding larvae

**Bee brush** – a brush or whisk broom used to gently remove bees from combs or other hive equipment

**Bee blower** - an engine with attached blower used to dislodge bees from combs in a honey super by creating a high-velocity, high-volume wind.

**Bee escape** – a device used as a one-way exit for passively removing bees from honey supers

**Bee space** – three-eighths inch space between combs and hive parts in which bees will not build comb and only deposit small quantities of propolis. Bee spaces are used as corridors for bee movement throughout the nest. Gaps larger than the bee space are filled with burr comb; spaces smaller than the bee space are filled with propolis by the bees

**Beeswax** – complex mixture of fats and hydrocarbons secreted by 4 pairs of glands on the ventral side of the abdomen of worker bees. It is the material from which combs are made, and it has a melting point of 143.6-147.2°F

**Boardman feeder** – a device for feeding bees that consists of an inverted jar with an attachment device that holds it in place at the hive entrance. This kind of feeder can trigger robbing by bees, which is why many beekeepers prefer internal feeders like division board or top feeders

**Bottom board** – floor of the hive; can be screened or solid

**Brace or Bridge comb** – unwanted comb that bees use to fill gaps larger than the bee space. Often these combs anchor combs either to other combs or to hive surfaces making it difficult to remove the frames

**Brood** – immature bees; **uncapped** brood are the eggs and larvae; **capped** brood are mostly pupae

**Brood chamber** – the lower portion of a hive that contains the egg-laying queen and the combs containing brood; some people use two deep hive bodies to hold the brood chamber

**Brood food** – a white jelly secreted by nurse bees to feed developing honey bee larvae; developing queen larvae are fed a special brood food called **royal jelly**

**Burr comb** – a bit of wax built upon a comb or a wooden part of a hive that is not connect to any other part. Most often burr comb can be found on bottom boards as knobs of comb

**Capped brood** – or sealed brood are those areas of brood in which the adult workers bees have placed wax caps onto the brood cells so that the non-feeding stages of bee development are protected during the non-feeding stages of metamorphosis. Usually, the caps are placed onto brood during the last larval instar before pupation

**Cappings** – a thin layer of wax used to cover fully ripened cells of honey. Beekeepers use knives to slice this layer of wax from combs (or rollers to puncture it) so that the honey can be extracted by centrifugation

**Castes** – a term used by scientists to describe social insects of the same species and sex that differ in morphology or behavior. In honey bees, there are two castes, workers and queens. The drones are a different sex and therefore not included under the term “caste”

**Cell** – the hexagonal compartment of comb built by honey bees

**Chilled brood** – bee larvae or pupae that have died after exposure to cold. Typically, this occurs in the spring when a colony is growing fast and on cold nights there are not enough bees to cover and keep the entire brood-nest warm

**Chunk honey** - honey cut from frames and placed in jars along with liquid honey.

**Clarifying** - removing visible foreign material from honey or wax to increase its purity.

**Clarifying Tank** - any tank or holding vessel that is use to temporarily store honey while the wax and other material separate from the honey.

**Cluster** – a large group of bees hanging together, one upon another

**Colony** – the group of bees living in a hive; usually has one queen, thousands of workers and perhaps several hundred drones

**Comb** - a mass of six-sided cells made by honey bees in which brood is reared and honey and pollen are stored; composed of two layers united at their bases.

**Comb foundation** - a commercially made structure consisting of thin sheets of beeswax with the cell bases of worker cells embossed on both sides in the same manner as they are produced naturally by honey bees.

**Comb honey** - honey produced and sold in the comb. It is produced either by cutting the comb from the frame or when the comb is built in special frames which allow for its easy removal.

**Creamed honey** - honey which has crystallized under controlled conditions to produce a tiny crystal and a smooth texture. Often a starter or seed is used to help control the crystallization.

**Crimp-wired foundation** - comb foundation which crimp wire is embedded vertically during the manufacturing of the foundation. The wire increases the strength of the foundation.

**Cross-pollination** - the transfer of pollen from an anther of one plant to the stigma of a different plant of the same species.

**Crystallization** - the formation of sugar crystals in honey. Also called granulation

**Cut-comb honey** - comb honey cut into various sizes, the edges drained, and the pieces wrapped or packed individually

**Draw out** – refers to comb building by bees; beekeepers say that the workers “draw out” the comb from the foundation

**Decoy hive** - a hive placed to attract stray swarms. Sometimes called swarm traps. It is often baited with either old combs and/or a lure of lemon grass oil, which contains a component of a pheromone used by bees to mark acceptable hive locations

**Dextrose** - one of the two principal sugars found in honey; forms crystals during granulation. Also known as glucose

**Dividing** - separating a colony to form two or more colonies.

**Division board feeder** - a wooden or plastic compartment which is hung in a hive like a frame and contains feed for bees.

**Double screen** - a wooden frame with two layers of wire screen to separate two colonies within the same hive, one above the other. An entrance is cut on the upper side and placed to the rear of the hive for the upper colony.

**Drawn combs** - cells which have been built out by honey bees from foundation in a frame.

**Drifting of bees** - the failure of bees to return to their own hive in an apiary containing many colonies. Young bees tend to drift more than older bees, and bees from small colonies tend to drift into larger colonies.

**Drones** – the male bees that do not work; their primary function is to mate with queens from other colonies; mating occurs in the air at several miles from the home hive

**Drone comb** - comb measuring about four cells per linear inch that is used for drone rearing and honey storage

**Drone layer** - an infertile or unmated laying queen or worker

**Dysentery** - a condition of adult bees characterized by severe diarrhea and usually caused by starvation, low-quality food, confinement due to poor weather conditions, or *Nosema* infection

**European foulbrood** - an infectious disease which only affects the brood of honey bees and is caused by a bacterium, *Streptococcus pluton*. This bacterium does not form spores, and the disease is usually considered less serious than American foulbrood.

**Extracted honey** - honey removed from the comb

**Extractor** - a machine which removes honey from the cells of comb by centrifugation

**Feeders** – any number of devices used to feed sugar syrup to bees when they need it; some feeders hang inside the hive; some are placed over the hole in the inner cover; and some are placed at the colony entrance

**Feral Bees** – honey bees living in trees where they are not managed by beekeepers

**Fermentation** - the process of yeast utilizing sugar as a food, and as a byproduct, produce alcohol. Honey with < 17.0% moisture will not ferment regardless of the level of sugar-tolerant yeast within the honey

**Fertile queen** - a queen, which has been inseminated, naturally or artificially, and can lay fertilized eggs

**Field bees** - worker bees generally two to three weeks old that work to collect nectar, pollen, water, and propolis for the colony

**Follower board** - a thin board the size of a frame that can be inserted into a hive to reduce the space available to the bees. This is done to help smaller colonies that may have trouble keeping the brood nest warm

**Foundation** – a sheet of plastic or beeswax in which a hexagon pattern has been imprinted; bees will build a comb from a sheet of foundation; each sheet of foundation is secured to a frame; the size of the foundation is matched to the size of the wooden frame that will hold it

**Frames** – wooden holders in which foundation is anchored that enables combs, which are built within the framed area, to be removed from the hive; frame sizes need to be matched to the size of the hive body in which they will be used

**Fructose** - a simple sugar found in honey. It and sucrose are the primary sugars found in ripe honey

**Fume board** - a rectangular cover the size of a super which has an absorbent material on the underside. A chemical repellent is placed on the material to drive the bees out of supers for honey removal

**Fumigilin-B** - an antibiotic used in the prevention and suppression of *Nosema* disease

**Glucose** - see "Dextrose."

**Grafting** - removing a worker larva from its cell and placing it in a queen cup in order to have it reared into a queen

**Grafting tool** - a needle or probe designed for transferring larvae from worker cells to a queen cups during the queen rearing process

**Granulation** - the formation of sugar crystals in honey which may cause it to turn solid

**Hive** – is the home in which bees live; the modern movable framed hive was developed by Rev. L. L. Langstroth in 1851

**Hive bodies** – refers to the wooden sections that are stacked to make a hive; there are different sizes; **deeps** are 9 5/8 inches tall; **mediums** are 6 5/8 inches tall; and **shallows** are 5 11/16 inches tall

**Hive tool** - a metal device used to open hives, pry frames apart, and scrape wax and propolis from the hive parts

**Honey** – the sugar-rich food that is derived from concentrated nectar; the water content of nectar should be 16-18%; aroma and tastes of different honeys is based on plant oils and resins from the source of the nectar

**Honeydew** - a sweet liquid excreted by aphids, leafhoppers, and some scale insects that is collected by bees, especially in the absence of a good source of nectar.

**Honey Flow** – a period of intense blooming of food plants in which the bees collect abundant quantities of nectar; hives can gain pounds of nectar weight every day during a heavy flow

**Honey house** - building used for extracting honey and storing equipment

**Hive stand** - a structure that supports the hive

**Honey stomach** - a specially designed organ in the abdomen of the honey bee used for carrying nectar, honey, or water

**Inner Cover** – a device placed between the top super and the lid; it helps keep the bees from gluing the lid; it also provides an air space for insulation during the winter; the hole in the inner cover can also be used as a port for feeding bees

**Increase** - to add to the number of colonies, usually by dividing those on hand

**Instrumental insemination** - the introduction of drone spermatozoa into the genital organs of a virgin queen by means of special instruments

**Invertase** - an enzyme produced by the honey bees which transforms the disaccharide sucrose into two monosaccharides, dextrose and levulose

**Larva (plural, larvae)** - the second stage of bee metamorphosis; a white, legless, grub-like insect

**Laying worker** - a worker which lays infertile eggs, producing only drones, usually in colonies that are hopelessly queenless.

**Levulose** - see "Fructose"

**Mating flight** - the flight taken by a virgin queen while she mates in the air with several drones

**Mead** - honey wine

**Migratory beekeeping** - the moving of colonies of bees from one locality to another during a single season to take advantage of two or more honey flows

**Nectar** - a sweet and often fragrant liquid secreted by the nectaries of plants for attracting animals. Nectar is the raw product of honey

**Nectar flow** - a time when nectar is plentiful and bees produce and store surplus honey

**Nectar guide** - color marks on flowers believed to direct insects to nectar sources

**Nectaries** - the glands of plants which secrete nectar, located within the flower or on other portions of the plant (extra-floral nectaries as in cotton)

**Nosema** - a disease of the adult honey bee caused by the protozoa *Nosema apis* and *Nosema ceranae*. *N. apis* destroys the gut of the bee, and severe infections result in malnutrition and dysentery. *N. ceranae* affects the gut as with *N. apis*, but it also affects tissues throughout the body of the entire bee

**Nucleus** - a hive of bees which consists of fewer frames than a typical hive and may be smaller in size. A nucleus usually consists of two to five frames of comb and used primarily for starting new colonies or rearing or storing queens; also called and commonly referred to a **nuc**

**Nurse bees** - young bees, three to ten days old, which feed and take care of developing brood

**Observation hive** - a hive made largely of glass or clear plastic to allow for the observation of bees at work

**Package Bees** – refers to a cage of bees that contains 3 ½ lb. of adult honey bees and a caged queen; this is a standard way of mailing bees for starting a colony; the package also contains a can of sugar syrup that feeds the bees during transit

**PDB (Paradichlorobenzene)** - crystals used to fumigate stored combs against wax moth.

**Pheromones** - chemical substances secreted from glands and used as a means of communication. Honey bees secrete many different pheromones

**Play flight** - short flight taken in front of or near the hive to acquaint young bees with their immediate surroundings

**Pollen** - the male reproductive cell bodies produced by anthers of flowers. It is collected and used by honey bees as their source of protein

**Pollen basket** - a flattened depression surrounded by curved hairs, located on the outer surface of a bee's hind legs and adapted for carrying pollen to the hive

**Pollen substitute** - any material such as soybean flour, powdered skim milk, brewer's yeast, or a mixture of these used in place of pollen as a source of protein to stimulate brood rearing. Typically feed to a hive in early spring to encourage colony expansion

**Pollen supplement** - a mixture of pollen and pollen substitutes used to stimulate brood rearing typically in early spring to encourage colony expansion

**Pollen trap** - a device for removing pollen loads from the pollen baskets of incoming bees

**Pollination** - the transfer of pollen from the anthers to the stigma of flowers

**Primary swarm** - the first swarm to leave the parent colony, usually with the old queen (see secondary swarm or afterswarm)

**Propolis** - sap or resinous materials collected from trees or plants by bees and used to strengthen the comb and to seal cracks; also called bee glue

**Pupa** - the third stage in the development of the honey bee, during which it changes (pupates) from a larva to an adult bee

**Queen** – the large female bee that lays all of the eggs in a colony. She may live several years

**Queen cage** - a small cage in which a queen and three to five worker bees are confined for shipping and introduction into a colony

**Queen cell** - a special elongated cell in which the queen is reared. It is above an inch or more long and hangs down from the comb in a vertical position

**Queen clipping** - removing a portion of one or both front wings of a queen to prevent her from flying

**Queen excluder** - metal or plastic device with spaces that permit the passage of workers but restrict the movement of drones and queens to a specific part of the hive.

**Robbing** – two uses of the term; (1) when a beekeeper harvests honey from colonies; (2) when colonies of honey bees begin stealing food from each other (something to avoid)

**Royal jelly** - a highly nutritious glandular secretion of young bees, used to feed the queen and young brood

**Sacbrood** - a viral disease which affects the larva of honey bees

**Scout bees** - worker bees searching for a new source of pollen, nectar, propolis, water, or a new home for a swarm of bees

**Secondary swarm** - a smaller swarm which may occur after the primary swarm has occurred

**Skep** - a beehive made of twisted straw without movable frames

**Slumgum** - the refuse from melted comb and cappings after the wax has been rendered or removed

**Smoker** - a device in which materials are slowly burned to produce smoke (not flames) which is used to subdue bees. It is important to use a material that produces a cool smoke as not to harm the bees

**Solar wax melter** - a glass-covered insulated box used to melt wax from combs and cappings by the heat of the sun

**Spur embedder** - a handheld device used for embedding wires into foundation with the purpose of reinforcing the foundation

**Stinger** - the modified structure of a worker honey bee used as a weapon of offense. Honey bees have a barbed stinger which stays embedded in the recipient of sting cause the bee to later die

**Stored Pollen** – also called bee bread; refers to those areas on brood combs in which pollen is packed and stored for food; the pollen provides essential amino acids, some sterols and minerals needed by nurse bees so that they can secrete brood food

**Sucrose** - principal sugar found in nectar. It is a disaccharide

**Sugar syrup** – this is usually a 50:50 weight-to-weight of granulated table sugar (sucrose) dissolved in water; the syrup is commonly fed to bees when they are short on stored food

**Super** - any hive body, or smaller box, used for the storage of surplus honey which the beekeeper will harvest. Normally it is placed over or above the brood chamber

**Supercedure** - the natural replacement of an established queen by a newly reared queen in the same hive

**Supering** – sequential addition of supers to hives as the colony grows and stores food during a honey flow

**Surplus honey** - honey removed from the hive which exceeds that needed by bees for their own use.

**Swarm** – a large group of bees collected on a tree branch or other object; the group usually contains a mated queen

**Swarming** – a form of colony reproduction in which the old queen leaves the nest with half to two thirds of the adult worker bees to find a new home; they usually do this in March, April and May in our area

**Swarm Cells** – refers to queen cells that are placed at the bottoms of combs in a colony that prepares to swarm; a queen will emerge from one of these cells and kill the other queens before they have a chance to emerge; this young queen will mate in a few days and become the new queen in a colony that has swarmed

**Terramycin** - an antibiotic used to prevent American and European foulbrood. Also called oxytetracycline

**Uncapping knife** - a knife used to shave or remove the cappings from combs of sealed honey prior to extraction. These can be heated by steam or electricity

**Uniting** - combining two or more colonies to form one larger colony

**Virgin queen** - a queen which is not mated

**Wax glands** - glands that secrete beeswax, which are in pairs on the underside of the last four abdominal segments

**Wax moth** - larvae of the moth, *Galleria mellonella*, which can seriously damage brood and empty combs

**Winter cluster** - a ball-like arrangement of adult bees within the hive during winter

**Workers** – sterile females of the hive that do all of the work; these are the ones that sting

**Worker comb** - comb measuring about five cells to the inch, in which workers are reared and honey and pollen are stored