

Inland Empire Beekeepers Association

Glossary of Beekeeping Terminology

A

Abscond

The action of bees leaving the hive suddenly with few or no remainders. This should not be confused with swarming; it is often due to problems such as poor ventilation, high temperatures, mite problems, pests or other intolerable problems.

Acarine

A label for infestation of bees by tracheal mites.

Acarapis woodi

A mite, called the Tracheal mite, which infests the honey bees' breathing or tracheal system; sometimes called Acarine Disease, this refers to bees that are heavily infested with the Tracheal mite.

Adulterated honey

Any product labeled "Honey" or "Pure Honey" that contains ingredients other than honey but does not show these on the label.

Alarm pheromone

A chemical (iso-pentyl acetate) substance released near the worker bee's sting, which alerts other bees to danger; has a slight banana sent.

American Foul Brood (AFB)

A brood disease of honey bees caused by the spore-forming bacterium, *Bacillus larvae* and characterized by a ropy or gummy condition of affected larvae. It is the most widespread and destructive of the brood diseases, afflicting queen, drone, and worker larvae alike. It is highly contagious and has a long life span.

Anaphylactic shock

Constriction of the muscles surrounding the bronchial tubes of a human, caused by hypersensitivity to venom and resulting in sudden death unless immediate medical attention is received.

Anther

From the Greek anthros (flower), referring to the pollen-bearing portion on top of the stamen or male part of a flower.

Antenna (pl -ae)

One of two long segmented sensory filaments located on the head of the bee, which enable bees to smell and taste.

Apiary

The area or location as to where bees and hives are kept, sometimes referred to as a beeyard.

Apiculture

The science, study and art of keeping bees.

Apiphobia

The acute fear of bees or anything related to bees.

Apis mellifera

The scientific name of the native European bee that is kept for its honey and wax in most parts of the world has developed into several races differing in size, color, disposition, and productivity; subspecies include: *a. m. ligustica* (Italian); *a.m. caucasia* (Caucasian); *a.m. carnica* (Carniolan); and *a.m. intermissa* (African).

Apistan

A miticide used to control Varroa mites.

Apitherapy

A division of therapy that uses bees and bee products for therapeutic and medical purposes.

B**Bacillus larvae**

The bacterium that causes American foulbrood (AFB).

Bee Bread

Pollen that has been collected by honey bees and then mixed with honey which is stored within a cell of the comb. This is a high protein feed for both developing larva and bees.

Bee Glue

See Propolis

Bee Escape

A device constructed to permit bees to pass one way, but prevent their return; used to clear bees from supers or other uses.

Bee Go

Benzaldehyde: A colorless nontoxic liquid aldehyde C_6H_5CHO that has an odor like that of bitter almond oil, which occurs in many essential oils; usually made from toluene; used to drive bees out of honey supers

Beekeeper

Someone who keeps bees

Beeyard

The area or location as to where bees and hives are kept, more properly called an apiary.

Bee Space

3/8 inch (9.5mm). The critical space that must be kept to prevent bees from filling the space with propolis or burr comb. The bee space is commonly thought of as a void greater than 1/4in and smaller than 3/8in. The bee space may vary depending on the size of the specific bee or race.

Beehive

A container used by a beekeeper for the purpose of keeping a colony of bees. It is commonly a form of box or crate, but may be a skep, hollowed log, clay pot, etc. Typically but not necessarily, the combs are removable (frames, top bars) to assist management. Unmanaged bees live in a nest.

Beeswax

A substance that is secreted by bees by special glands on the underside of the abdomen, deposited as thin scales, and used after mastication and mixture with the secretion of the salivary glands for constructing the honeycomb. After the bee forms it into comb, beeswax is glossy and hard but plastic when warm, insoluble in water but partly soluble in boiling alcohol and in ether, and miscible with oils and fats. Beeswax is a mixture consisting of the palmitate of myricyl alcohol and other higher esters, free cerotic acid, and hydrocarbons. Its melting point is from 143.6 to 147.2 degrees F. This is the primary building material used by bees, and the main structure of comb.

Boardman feeder

A wooden or plastic device that fits into the entrance of a bee hive and holds a quart jar that can be filled with syrup or water.

Bottom Board

The floor of a beehive that all the other components build upon.

Bottom Supering

The act of placing honey supers under all the existing supers, directly on top of the brood box. The theory is the bees will work it better when it's directly above the brood chamber; as opposed to **TOP Supering** which would be just putting the honey supers on top of the existing supers.

Brace Comb

The sections of seemingly random comb that connect hive parts together. Brace Comb is a form of Burr Comb.

Brood

A general term to refer to immature bees that not yet emerged from their cells. Brood can be in the form of eggs, larvae, or pupae of different ages.

Brood Chamber

Section of the hive where brood is being raised and where the queen would normally be laying eggs. May include one or more hive bodies and the combs within.

Brood Nest see Brood Chamber

Brood Food

A highly nutritious glandular secretion from the worker bee that is used to feed both brood and the queen

Build Up

The natural seasonal increase of bee population within a colony that coincides with the start of the main nectar flow

Burr Comb

Any section of comb that is not a part of the main comb piece within the frame or hanging from the top bar.

C

Capped Brood

Immature bees whose cells have been sealed over with a brown wax cover by other worker bees; inside, the non-feeding larvae are isolated and can spin cocoons prior to pupating.

Capping

- 1 A thin layer of wax that covers cells containing honey.
- 2 The thin air permeable layer of wax that covers the cell of bee brood.

Caste

A name for the existence of different classifications of bees of a specific family. Includes Queen, Drone and Worker.

Carnolian Bees

A darkish race of honey bee *Apis mellifera carnica* named for Carniola, Austria but originating in the Balkan region; They are gentle, do not propolize, and are winter hardy.

Caucasian Bees

A dark race of honey bee *Apis mellifera caucasica*, originating in the Caucasus mountains; gentle but tend to propolize excessively.

Cell

A single hexagonal prismatic chamber that makes up comb. Cells are used to store honey, pollen, nectar and developing brood.

Cell Cup see Queen Cup

Chalk Brood

A disease affecting bee larvae, caused by a fungus *Ascosphaera apis*, larvae eventually turn into hard, chalky white “mummies”.

Chilled Brood

Bee larvae and pupae that have died from exposure to cold. This typically occurs in spring when the colony is expanding rapidly and on cold nights there aren't enough bees to keep the brood warm.

Chimney Effect

The tendency for bees to fill only the center frames of honey supers; sometimes happens when bees are given too much room too fast.

Chronic Paralysis Virus aka CPV

Symptoms: bees trembling, unable to fly, with K-wings and distended abdomens. One variety called the hairless black syndrome, is recognized by hairless, black shiny bees crawling at the hive entrance.

Chunk Honey

Honey in the comb, but not in sections, frequently cut and packed into jars then filled with liquid honey.

Clarifying

Removing visible foreign material from honey or wax to increase its purity.

Cleansing Flight

The flight made by a bee to cleanse its digestive track after a long period of confinement.

Clipping

The practice of taking part of one or both wings off of a queen both for discouraging or slowing swarming and for identification of the queen.

Cloak Board

A device to divide a colony into a queenless cell starter and reunite it as a queenright cell finisher without having to open the hive

Cluster

- 1 A mass of bees, often referring to a swarm or collection.
- 2 The huddling action taken by the bees within a colony during cold weather

Cocoon

A thin silk covering secreted by larval honey bees in their cells in preparation for pupation.

Colony

The aggregate of worker bees, drones, queen, and developing brood living together as a family unit in a hive or other dwelling

Colony Collapse Disorder

A recently named problem where most of the bees in most of the hives in an apiary disappear leaving a queen, brood and only a few bees in the hive with plenty of stores.

Comb

A double sided configuration of hexagonal cells made of beeswax in which eggs are laid, and honey and pollen are stored.

Comb, drawn

Wax foundation with the cell walls drawn out by the bees, completing the comb.

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 in the wax combs, usually produced and sold as a separate unit, such as a wooden section 4-1/2" square, or a plastic round ring.

Creamed honey

Honey that has undergone controlled granulation to produce a finely textured candied or crystallized honey which spreads easily at room temperature. The honey may have been pasteurized. This usually involves adding fine "seed" crystals and keeping at 57° F (14° C).

Crush and Strain

Simple technique to extract honey in which combs are gathered in a straining device (kitchen strainer, bucket with holes in the bottom, etc.) which allows honey to drain into a container below.

Cut-comb honey

Comb honey cut into various sizes, the edges drained, and the pieces wrapped or packed individually

D**Dearth**

A period of time when there is no available forage for bees, due to weather conditions (rain, drought) or time of year.

Deformed Wing Virus (DWV)

A virus spread by the Varroa mite that causes crumpled deformed looking wings on fuzzy newly emerged bees.

Dextrose

Also known as glucose (grape sugar), it is a simple sugar (or monosaccharide) and is one of the two main sugars (three trace) found in honey; forms most of the solid phase in granulated honey.

Diatase

A starch digesting enzyme in honey adversely affected by heat; used in some countries to test quality and heating history of stored honey.

Disease resistance

The ability of an organism to avoid a particular disease; primarily due to genetic immunity or avoidance behavior.

Dividing

Separating a colony to form two or more units.

Division board feeder

A wooden or plastic compartment which is hung in a hive like a frame and contains sugar syrup to feed bees.

Dorsal-Ventral Abdominal Vibrations Dance

A dance used to recruit forages. Also used on queen cells about to emerge and possibly other times.

Double screen

A wooden frame, 1/2 to 3/4 inch thick, 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 Comb

Combs which contain completed cells.

Drifting

The movement of bees that have lost their location and enter other hives; common when hives are placed in long straight rows where returning foragers from the center hives tend to drift to the row ends.

Drone

The male honeybee which comes from an unfertilized egg (and is therefore haploid) laid by a queen or less commonly, a laying worker.

Drone brood or drone comb

Brood, which matures into drones, reared in cells larger than worker brood.

Drone congregating area (DCA)

A specific area to which drones fly waiting for virgin queens to pass by; it is not known how or when they are formed, but drones return to the same spots year after year.

Drone layers

A drone laying queen or laying workers.

Drone laying queen

A queen that can lay only unfertilized eggs, due to age, improper or no mating, disease or injury.

Drone mother hive

A hive which is encouraged to raise a lot of drones to improve the drone side of mating queens. The selection is based on hive characteristics such as hygienic traits, low Propolus use, high honey production and low swarming tendencies.

Dwindling

Any rapid decline in the population of the hive. The rapid dying off of old bees in the spring; sometimes called spring dwindling or disappearing disease.

Dysentery

An abnormal condition of adult bees characterized by severe diarrhea (as evidenced by brown or yellow streaks on the front of the hive or top of the frames) and usually caused by long confinement (from either cold or beekeeper manipulation), starvation, low-quality food, or nosema infection.

E**Eggs**

The first phase in the bee life cycle, usually laid by the queen, is the cylindrical egg 1/16in (1.6 mm) long; it is enclosed with a flexible shell or chorion. It resembles a small grain of rice.

Eight frame

Boxes that were made to take eight frames. Usually between 13 3/4" and 14" wide depending on the manufacturer.

Entrance Reducer

A device used to limit in and out traffic to a hive.

European Foul Brood (EFB)

An infectious disease which only affects the brood of honey bees and is caused by the bacteria *Streptococcus pluton*.

Extraction

Removal of honey from comb. Typically refers to use of an Extractor but also includes non-mechanical methods such as crush and strain.

Extractor

A centrifugal device in which frames can be drained of honey.

F**Feral Bees**

Term is used to describe honeybees that are not managed by a beekeeper.

Feral Hive

Term used to describe a situated colony of feral bees not managed by a beekeeper aka Nest.

Fermentation

The process of yeast utilizing sugar as a food, and as a byproduct, produce alcohol. Honey typically does not have enough moisture for fermentation to occur. Fermented honey is toxic to honey bees

Fertile Queen

A fertile queen is one that has mated with a drone (or drones) and has a supply of spermatozoa in her spermatheca.

Fertilized

Usually refers to eggs laid by a queen bee, they are fertilized with sperm stored in the queen's spermatheca, in the process of being laid.

The segment of the hive that bees used to store pollen, nectar and honey.

Field Bees

Worker bees which are usually 21 or more days old and work outside to collect nectar, pollen, water and propolis; also called foragers.

Forage

Natural food source of bees (nectar and pollen) from wild and cultivated flowers.

Foulbrood

Generic term to describe bacterial disease that effect only brood and no adult bees. See American Foulbrood and European Foulbrood

Foundation

A thin sheet of wax or plastic that is embossed to be used as a guide for comb creation by the bees.

Frame

Four pieces of wood forming a rectangle, designed to hold honey comb, consisting of a top bar, two end bars, and a bottom bar (one or two pieces); usually spaced a bee-space (3/8") apart in the super.

Fructose

Fruit sugar, also called levulose (left handed sugar), a monosaccharide commonly found in honey that is slow to granulate. One of the five sugars which comprise honey.

Fumagillin

Bicyclohexyl-ammonium fumagillin, whose trade name is Fumadil-B (Abbot Labs), is a whitish soluble antibiotic powder discovered in 1952; it is mixed with sugar syrup and fed to bees to control Nosema disease.

Fume board

A rectangular frame, the size of a super, covered with an absorbent material such as burlap, on which is placed a chemical repellent to drive the bees out of supers for honey removal

G

Glucose

Also known as dextrose, it is a simple sugar (or monosaccharide) and is one of the two main sugars found in honey; forms most of the solid phase in granulated honey. One of the five sugars which comprise honey.

Grafting

Removing a worker larva from its cell and placing it in an artificial queen cup in order to have it reared into a queen.

Granulate

The process by which honey, a super-saturated solution (more solids than liquid) will become solid or crystallized; speed of granulation depends of the kinds of sugars in the honey, the crystal seeds (such as pollen or sugar crystals) and the temperature. Optimum temperature for granulation is 57° F (14° C).

Guard Bee

Worker bees about three weeks old, which have their maximum amount of alarm pheromone and venom; they challenge all incoming bees and other intruders.

Guarding

The action of a bee which detects invaders and examines entering bees.

H

Hive

Home site for an individual colony of honey bees

Hive Body

A segment of the hive that creates a chamber for the building of comb and storage of collected resources. Usually referring to the size of a box being used for brood.

Hive Stand

A structure serving as a base support for a beehive; it helps in extending the life of the bottom board by keeping it off damp ground. Hive stands may be built from treated lumber, cedar, bricks, concrete blocks etc.

Hive Tool

A metal device used to open hives, pry frames apart, and scrape wax and propolis from the hive parts.

Honey

A sweet viscid material produced by bees from the nectar of flowers, composed largely of a mixture of sugars dissolved in about 17 percent water. It contains small amounts of mineral matter, vitamins, proteins, and enzymes.

Honey bound

A condition where the brood nest of a hive is being backfilled with honey. This is a normal condition that is used by the workers to shut down the queen's brood production. It usually happens just before swarming and in the fall to prepare for winter.

Honeydew

A sweet liquid excreted by aphids, leaf hoppers, and some scale insects that is collected by bees, especially in the absence of a good source of nectar. Can be toxic for bees and may cause diarrhea.

Honey Flow

A period of time when an abundance of nectar is available to be collected and converted into honey.

Honey house

A building used for extracting honey and storing equipment.

Honey stomach

A specially designed organ in the abdomen of the honey bee used for carrying nectar, honey, or water.

Honey supers

Refers to boxes of frames used for honey production. From the Latin "super" for above as a designation for any box above the brood nest.

Hot (temperament)

Bees that are overly defensive or outright aggressive.

I

Israeli Acute Paralysis Virus aka IAPV

The virus which has been blamed for CCD. First discovered in Israel where it was quite devastating to colonies.

Increase

To add to the number of colonies, usually by dividing those on hand. See Split.

Infertile

Incapable of producing a fertilized egg, as a laying worker or drone laying queen. Unfertilized eggs develop into drones.

Inner Cover

An insulating cover fitting on top of the top super but underneath the outer cover, with an oblong hole in the center.

Instrumental insemination or AI or II

The introduction of drone spermatozoa into the spermatheca of a virgin queen by means of special instruments

Invertase

An enzyme in honey, which splits the sucrose molecule (a disaccharide) into its two components dextrose and levulose (monosaccharides). This is produced by the bees and put into the nectar to convert it in the process of making honey.

Italian bees

A common race of bees, *Apis mellifera ligustica*, with brown and yellow bands, from Italy; usually gentle and productive, but tend to rob.

J

K

KTBH

A Kenya Top Bar Hive has sloping sides.

Kashmir Bee Virus

A widespread disease of bees, spread more quickly by Varroa, found everywhere there are bees.

L

Langstroth

Modern hive management originated in the writings of L.L. Langstroth, minister (1810-95), who recognized the significance of bee space and box sizes of standardized dimensions. Efforts to improve on the original have led to size variations between and within countries but the principles of bee space remain the same.

Langstroth hive

The basic hive design of L.L. Langstroth. In modern terms any hive that takes frames that have a 19" top bar and fit into a box 19 7/8" long. Widths vary from five frame nucs to eight frame boxes to ten frame boxes and from Dadant deeps, Langstroth deeps, Mediums, Shallows and Extra Shallow. But all would still be Langstroths.

Larva

The second stage of development in the life cycle of the bee, starting the 4th day from when the egg is laid until it's capped on about the 9th or 10th day.

Laying Worker

An unfertilized, non queen female bee that is capable of laying drone eggs. This is often the result of a hive remaining queenless for a period of time.

Levulose

Also called fructose (fruit sugar), a monosaccharide commonly found in honey that is slow to granulate.

M

Malnourished Hive

A colony of bees that is lacking the proper nutritional requirements to produce brood.

Mandibles

The jaws of an insect; used by bees to form the honey comb and scrape pollen, in fighting and picking up hive debris.

Marked Queen

A queen bee that has been marked with a spot of paint or had a disk adhered to her abdomen.

Mating flight

The flight taken by a virgin queen while she mates in the air with several drones.

Mating nuc

A small nuc for the purpose of getting queens mated used in queen rearing. These vary from two frames of the standard size used by that beekeeper for brood, to the mini-mating nucs sold for that purpose with smaller than normal frames.

Medium

A box that is 6 5/8" in depth and the frames are 6 1/4" in depth. AKA Illinois AKA Western AKA 3/4 depth.

Melissococcus pluton

New name for the bacterium that causes European Foulbrood. The old name was Streptococcus pluton.

Migratory cover

An outer cover used without an inner cover that does not telescope over the sides of the hive; used by commercial beekeepers who frequently move hives. This allows hives to be packed tightly against one another because the cover does not protrude over the sides.

Miticide

A chemical or biological agent which is applied to a colony to control parasitic mites.

Moisture content

In honey, the percentage of water should be no more than 18.6; any percentage higher than that will allow honey to ferment.

Movable frames

A frame constructed in such a way to preserve the bee space, so they can be easily removed; when in place, it remains unattached to its surroundings.

N

Nasonov

A pheromone used given off by a gland under the tip of the abdomen of workers that serves primarily as an orientation pheromone. It is essential to swarming behavior and nasonoving is set off by disturbance of the colony.

Nectar

A liquid rich in sugars, manufactured by plants and secreted by nectary glands in or near flowers; the raw material for honey.

Nectar flow

The mass gathering of nectar from flowers by bees.

Newspaper method

A technique to join together two strange colonies by providing a temporary newspaper barrier.

Nosema

An illness that affects the digestive track in bees. A widespread adult bee disease caused by a one-celled spore-forming organism which infects the bee gut lining.

Nuc

See Nucleus Hive

Nucleus Hive

A small colony of bees housed within a smaller hive container.

Nurse Bee

Young bees, usually three to ten days old, which feed and take care of developing brood. Young hive bound bee that feeds and cares for larva.

O

Observation Hive

A hive made largely of glass or clear plastic to permit observation of bees at work.

P

Package bees

A quantity of adult bees (2 to 5 pounds), with or without a queen, contained in a screened shipping cage.

Parasitic Mite Syndrome aka Bee Parasitic Mite Syndrome

A set of symptoms that are caused by a major infestation of Varroa mites. Symptoms include the presence of Varroa mites, the presence of various brood diseases with symptoms similar to that of foulbroods and sac brood but with no predominant pathogen, AFB-like symptoms, spotty brood pattern, increased supersedure of queens, bees crawling on the ground, and a low adult bee population.

Paralysis aka APV aka Acute Paralysis Virus

A viral disease of adult bees which affects their ability to use legs or wings normally.

Pheromone

A chemical scent produced to establish a basic form of communication or to stimulate a response.

Phoretic

In the context of Varroa mites it refers to the state where they are on the adult bees instead of in the cell either developing or reproducing.

Piping

A series of sounds made by a queen, frequently before she emerges from her cell. When the queen is still in the cell it sounds sort of like a quack quack quack. When the queen has emerged it sounds more like zoot zoot zoot.

Pollen

The dust-like male reproductive cells (gametophytes) of flowers, formed in the anthers, and important as a protein source for bees; pollen is essential for bees to rear brood.

Pollen basket

An anatomical structure on the bee's legs where pollen and propolis is carried.

Pollen substitute

A food material which is used to substitute wholly for pollen in the bees' diet; usually contains all or part of soy flour, brewers' yeast, wheat, powdered sugar, or other ingredients. Research has shown that bees raised on substitute are shorter lived than bees raised on real pollen.

Proboscis

The mouthparts of the bee that form the sucking tube or tongue

Propolis

Plant resins collected, mixed with enzymes from bee saliva and used to fill in small spaces inside the hive and to coat and sterilize everything in the hive. It has antimicrobial properties. Often referred to as bee glue.

Pupa

The final stage in a brood bee's metamorphosis.

Q

Queen

The fertile female bee that once mated should be capable of producing male and female offspring. Recognized by other bees by her special pheromones (odors).

Queen Cell

A cell in which a queen is reared, having an inside diameter of about 1/3", hanging downward an inch or more in length.

Queen cup

A cup-shaped cell hanging vertically from the comb, but containing no egg; also made artificially of wax or plastic to raise queens

Queen Excluder

A device made of wire, wood or zinc (or any combination thereof) having openings of .163 to .164 inch, which permits workers to pass but excludes queens and drones; used to confine the queen to a specific part of the hive, usually the brood nest.

Queen Right

A term used to describe a hive or colony of bees that has a producing queen.

Queen Mandibular Pheromone aka Queen substance aka QMP

A pheromone produced by the queen and fed to her attendants who share it with the rest of the colony that gives the colony the sense of being queen right. Chemically QMP is very diverse with at least 17 major components and other minor ones. The pheromone produced by the queen bee that alerts a colony to the fact that it is queen right. Newly emerged queens produce very little of this. By the sixth day they are producing enough to attract drones for mating. A laying queen makes twice that amount. QMP is responsible for inhibition of rearing replacement queens, attraction of drones for mating, stabilizing and organizing a swarm around the queen, attracting a retinue of attendants, stimulating foraging and brood rearing, and the general moral of the colony. Lack of it also seems to attract robber bees.

R

Raw honey

Honey that has not been finely filtered or heated.

Requeen

To replace an existing queen by removing her and introducing a new queen.

Retinue

Worker bees that are attending the queen.

Reversing

The act of exchanging places of different hive bodies of the same colony; usually for the purpose of nest expansion, the super full of brood and the queen is placed below an empty super to allow the queen extra laying space.

Robbing

Stealing of nectar, or honey, by bees from other colonies which happens more often during a nectar dearth.

Royal Jelly

A highly nutritious, milky white secretion of the hypopharyngeal gland of nurse bees; produced by worker bees to feed to the youngest larva and to the queen throughout the larva stage and then throughout its mature life.

S

Sac brood

A brood disease of bees caused by a filterable virus which interferes with the molting process; the dead larva resembles a bag of fluid.

Screened Bottom Board

A bottom board with screen (usually #8 hardware cloth) for the bottom to allow ventilation and to allow Varroa mites to fall through.

Scout Bee

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.

Shallow

A box that is 5 11/16 or 5 3/4" deep with frames that are 5 1/2" deep.

Skep

A beehive without moveable combs, usually made of twisted straw in the form of a basket; its use is illegal in all the states in the U.S as the combs cannot be inspected.

Slum gum

The refuse from melted combs and cappings after the wax has been rendered or removed; usually contains cocoons, pollen, bee bodies and dirt.

Small Hive Beetle

A recently imported pest whose larvae will destroy comb and ferment honey.

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 using the heat of the sun.

Spermatheca

A small sac connected with the oviduct (vagina) of the queen bee in, which is stored, the spermatozoa received in mating with drones.

Spiracles

Openings into the respiratory system on a bee that can be closed at will. These are on the sides of the bee. They are considerably smaller than the Trachea they protect. The first thoracic spiracle is the one that is infiltrated by the tracheal mites as it is the largest. If you throw bees in water they will shut their spiracles completely to prevent drowning. When closed the spiracles are air tight.

Split

To divide a colony for the purpose of increasing the number of hives.

Stinger

An organ belonging exclusively to female insects developed from egg laying mechanisms, used to defend the colony; modified into a piercing shaft through which venom is injected. Honey bees have a barbed stinger which stays embedded in the recipient of a sting. After stinging, the bee will soon die.

Sucrose

Principal sugar found in nectar.

Sugar syrup

Feed for bees containing sucrose or table (cane or beet) sugar and hot water in various ratios. Usually 1:1 in the spring and 2:1 in the fall.

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.

Supering

The act and process of adding hive bodies to a hive in an effort to collect excess harvestable honey.

Supers

From the Latin "super" for above as a designation for any box above the brood nest.

Supercedeure

Rearing a new queen to replace the mother queen in the same hive; shortly after the daughter queen begins to lay eggs, the mother queen often disappears.

Surplus honey

Any extra honey removed by the beekeeper, over and above what the bees require for their own use, such as winter food stores.

Swarm

A temporary collection of bees, containing at least one queen that split apart from the mother colony to establish a new one; a natural method of propagation of honey bee colonies.

Swarm cell

Queen cells usually found on the bottom of the combs before swarming.

T**TBH**

The Top Bar Hive is a method to manage bees with removable combs which rely on top bars rather than frames for the combs. There is usually no allowance for bee space so the bars represent a continuous cover. There are no standard dimensions as there are for Langstroth hives. See also KTBH, TTBH

Telescopic cover

A cover with a rim that hangs down all the way around it usually used with an inner cover under it.

Terramycin

Called oxytet in Canada and other locations. It is an antibiotic that is often used as a preventative for American and a cure for European foulbrood diseases. An antibiotic used for the treatment of bacterial disease.

Thorax

The central region of an insect to which the wings and legs are attached.

Top supering

The act of placing honey supers on TOP of the top super of a colony in expectation of a honey flow as opposed to putting it under all the other supers, and directly on top of the brood box, which would be BOTTOM supering..

Tracheal Mites

A mite that infests the trachea of the honey bee. Resistance to tracheal mites is easily bred for.

Trophallaxis

The transfer of food or pheromones among members of the colony through mouth-to-mouth feeding. It is used to keep a cluster of bees alive as the edges of the cluster collect food and share it through the cluster. It is also used for communication as pheromones are shared. One very important one is QMP (Queen Mandibular Pheromone) which is shared by trophallaxis throughout the hive to let the hive know they are queen right.

U

Uncapping knife

A knife used to shave off the cappings of sealed honey prior to extraction; hot water, steam or electricity can heat the knives.

V

Varroa destructor

Used to be called Varroa Jacobsoni. An external mite parasite on honeybees.

Veil

A protective netting that covers the face and neck; allows ventilation, easy movement and good vision while protecting the primary targets of guard bees.

Virgin Queen

An unmated queen

Vitellogenin

In the context of bees, this is a protein that is in the fat bodies of bees that results in greater longevity. There is a much higher amount in winter bees as opposed to summer bees. There is a feedback loop in the colony where vitellogenin and juvenile hormone mutually suppress each other. This causes bees raised in the fall or leading up to swarming to have higher levels of vitellogenin and therefore longer lives than at other times.

W

Wax glands

The eight glands located on the last 4 visible, ventral abdominal segments of young worker bees; they secrete beeswax flakes.

Wax moth

Larvae of the moth *Galleria mellonella*, which can seriously damage brood and empty combs.

Western

A box that is 6 5/8" in depth and the frames are 6 1/4" in depth.

Winter Cluster

A tightly packed cluster of bees that forms to maintain warmth during the colder winter months.

Winter hardiness

The ability of some strains of honeybees to survive long winters by frugal use of stored honey.

Worker

Infertile female bee whose reproductive organs are only partially developed, responsible for carrying out all the routine of the colony.

Worker comb

Comb measuring about five cells to the inch, in which workers are reared and honey and pollen are stored.

X**Y****Z**