



Welcome to the Heart of Illinois Beekeepers Association Beginner Beekeeper Class 2025

Congratulations in taking your first steps in becoming a beekeeper!

This document has been prepared for your convenience and includes reference material as well as the schedule for the beginner beekeeper class.

The Heart of Illinois Beekeepers Association are here to help you navigate the exciting journey of beekeeping.

In addition to the 2025 course, you are encouraged to view the past YouTube class videos via the playlist link below. The playlist also contains Q&A sessions from 2021 and 2022 which may help to answer common new beekeeper questions.

Beginner Beekeeper Playlist: <https://bit.ly/401ro3N>



CLASS SCHEDULE

Introduction to Beekeeping Workshop 2/1/2025

8:30 – 9:00	Participants Check In
9:00 – 9:15	Introductions (Sean Rennau)
9:15 – 9:55	Woodenware costs (Mark Kilty)
9:55 – 10:10	BREAK
10:10 – 11:00	Bee Biology (Rebecca Cox)
11:00 – 12:00	Beekeeping Year-Month by Month (Rollyn Aberle)
12:00 – 1:00	Lunch
12:30 – 1:00	Diseases & Pests (Luke Harvey) Beekeeping & the law (TBD) Registering hive with State of IL Wildlife Prairie Park
1:00 – 1:30	Diseases and pests (Jim Wellwood)
1:30 – 2:15	Package Installation (Jim Wellwood)
2:15 – 2:30	BREAK
2:30 – 3:30	Breakout Sessions Panel – (Sean/Mark)
3:30 – 4:00	Door prizes, Closing

Beehive Components

The modern bee hive is like a highly efficient multistoried factory with each "story" having a specific function. These "stories" work together to provide a home for bees and a honey factory for the beekeeper.

A. Hive Cover - Telescoping cover "telescopes" over the sides of the top super to protect the hive. Galvanized covering.

B. Inner Cover - Creates a dead air space for insulation from heat and cold.

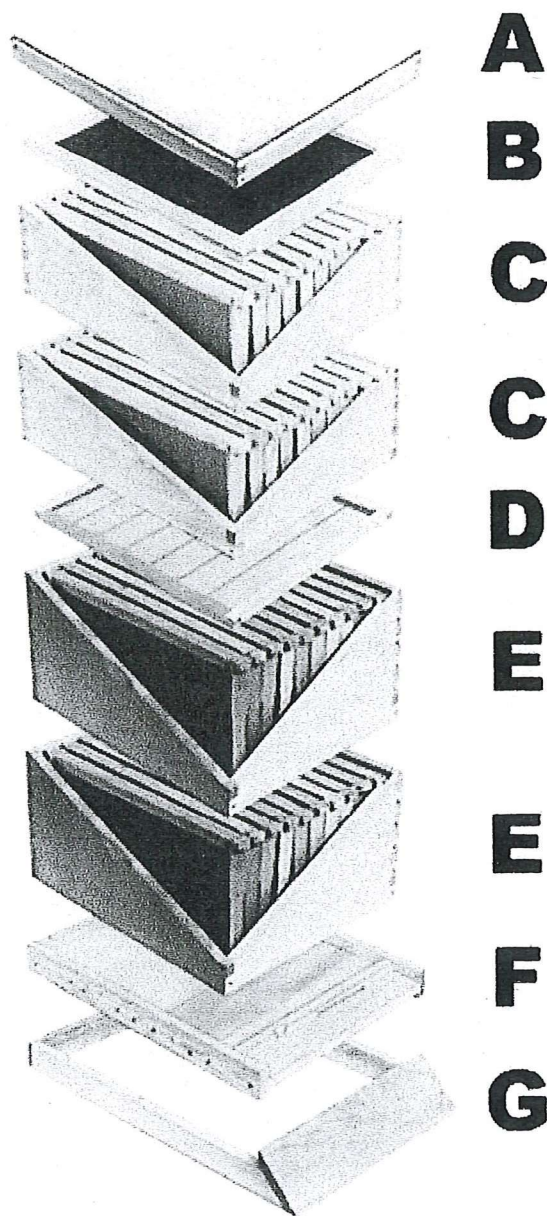
C. Shallow Supers - Consist of Super, Frames and Beeswax Foundation for "surplus" honey storage. Bees store their extra honey in the frames for the beekeeper to remove. 6-5/8" or , 5-11/16" supers, or even hive bodies may be used.

D. Queen Excluder - Keeps the queen bee in the brood chambers as she is too large to pass through the excluder. Prevents her from laying eggs and raising brood in honey supers placed above the excluder.

E. Hive Bodies - Consists of Body, Frames and Beeswax Foundation. "Brood Chambers" are the bees' living quarters. Queen lays eggs in these chambers and brood is raised. Honey is also stored for the bees' food.

F. Bottom Board - Forms the floor of the hive. Shown with wooden entrance reducer in place to keep mice and some cold out during winter.

G. Hive Stand - Supports the hive off the ground to keep hive bottom dry and insulate hive



Glossary of Terms

Bee brush: A soft brush or whisk (or handful of grass) used to remove bees from frames.

Beehive: A box or receptacle with movable frames, used for housing a colony of bees.

Bee space: A space big enough to permit free passage for a bee but too small to encourage comb building, and too large to induce propolizing activities; measures 5/16 to 3/8 inch.

Bee suit: A pair of coveralls, usually white, made for beekeepers to protect them from stings and keep their clothes clean; some come equipped with zip-on veils.

Bee tree: A tree with one or more hollows occupied by a colony of bees.

Bee veil: A cloth or wire netting for protecting the beekeeper's head and neck from stings. Most often attached to a hat or helmet.

Beeswax: 1. 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. Its melting point is from 143.6 to 147.2 degrees F. 2. a wax obtained as a yellow to brown solid by melting a honeycomb with boiling water, straining, and cooling and used especially in polishes, modeling, and making patterns.

Bottom board: The floor of a bee hive.

Brood: Immature stages of bees not yet emerged from their cells; the stages are egg, larvae, pupae.

Brood chamber: The part of the hive in which the brood is reared; may include one or more hive bodies and the combs within. Also called a 'brood box.'

Brood nest: The part of the hive interior in which brood is reared; usually the two bottom boxes. Sometimes called the "hive body."

Burr comb: Small deposits of comb built throughout the hive to close down large spaces or holes to a proper 'bee space.'

Cappings: The thin wax covering over honey; once cut off of extracting frames they are referred to as cappings and are a source of premium beeswax.

Cell: The hexagonal compartment of a honey comb.

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

Comb: The wax portion of a colony 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 4½-inch square, or a plastic round ring.

Drone: The male honeybee which comes from an unfertilized egg (and is therefore haploid) laid by a queen.

Extracted honey: Honey removed from combs by means of a centrifugal force; the combs remain intact.

Feeder: A jar used to supply sugar syrup to bees as a supplemental source of food. Feeders may be purchased that are attached to the front of the hive with the opening inserted into the hive opening, or may be devised by using quart or gallon jars with several very small holes punched into the lid. The filled jar is inverted and placed over the opening in the inner cover, inside an empty hive box and the hive cover placed over that.

Foundation wax: Thin sheets of beeswax embossed or stamped with the base of a worker cell on which bees will construct a complete comb (called drawn comb); also referred to as comb foundation, it comes wired or unwired.

Foundation, wired: Comb foundation which includes evenly-spaced vertical wires for added support; used in brood or extracting frames.

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 apart in the super.

Gloves: Leather cloth or rubber gloves worn while inspecting bees

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

Hive: A manmade home for bees including a bottom board, hive bodies (boxes), frames enclosing honey combs, and covers.

Hive body: Usually two or more wooden boxes containing frames.

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 staples: Large C-shaped metal nails, hammered into the wooden hive parts to secure bottom to supers, and supers to super before moving a colony.

Hive tool: A flat metal device with a curved scraping surface at one end and a flat blade at the other; used to open hives, pry apart, and scrape frames.

Honey extractor: A machine which removes honey from the cells of comb by centrifugal force. Smaller, hand-cranked machines are available for small home-sized operations.

Honey supers: Refers to hive bodies used for honey production.

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

Outer cover: The last cover that fits over a hive to protect it from rain; the two most common kinds are telescoping and migratory covers.

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

Propolis: The very sticky substance secreted by honeybees used to close and seal small spaces. Also referred to as 'bee glue.'

Queen: A fully developed mated female bee responsible for all the egg laying of a colony; recognized by other bees by her special pheromones (odors).

Queen cage: A special cage in which queens are shipped and/or introduced to a colony, usually with 5 or 6 young workers called attendants, and a candy plug.

Queen cage: candy: Candy made by kneading powdered sugar with invert sugar syrup until it forms a stiff dough; used as food in queen cages.

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.

Radial extractor: A centrifugal force machine to throw out honey but leave the combs intact; the frames are placed like spokes of a wheel, top bars towards the wall, to take advantage of the upward slope of the cells.

Smoker: A metal container with attached bellows which burns organic fuels to generate smoke; used to control aggressive behavior of bees during colony inspections.

Sugar syrup: Feed for bees, containing sucrose or table (cane) sugar and hot water in various ratios.

Super: A hive box in which bees store honey; usually placed over or above the brood nest for honey production.

Supering: The process of placing honey supers on a colony in preparation for a honey flow.

Swarm: A 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 bees.

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.

Veil: A protective netting that covers the face and neck; allows ventilation, easy movement, and good vision.

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

Safety in the Bee Yard

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Beekeeping in general is a very safe activity. Still, beekeeping presents a number of dangers of which the beekeeper should be aware. Prevention of harm is always to be valued above cure. What follows are typical hazards that every beekeeper should guard against.

Bee Stings. For most beekeepers, bee stings are merely a nuisance. Nonetheless, bee stings can be a real life-threatening hazard for beekeepers non-beekeepers alike who are allergic. This subject has been covered in considerable detail elsewhere and will not be covered here, but non-allergic beekeepers should be certain to work and maintain bees in such a way that those who are allergic are less likely to be stung.

Burns. Though admittedly rare, burns can pose a considerable problem for beekeepers. Burns are most likely to occur when a beekeeper comes into close contact with the heat of the smoker. It is best to purchase a smoker that has a protective grate that surrounds the chamber that contains the burning embers. Sunburn can also pose a threat to beekeepers. Skin overexposed to the sun during the course of a day may result in sunburn; skin overexposed to the sun during the course of many years may result in early aging of the skin and even a serious form of skin cancer known as melanoma. Chemical burns are also a possibility for those working with liquid acids.

Cuts and Contusions. Cuts from hive tools are a real possibility. Well maintained hive tools are sharp, and should a hive tool slip and hit flesh when being pounded on, it can cut. Trapping a hive tool between a component of the beehive and oneself can also lead to cuts. Contusions are injuries that result without breaking through the skin. Such injuries can cause swelling and leave the skin bruised. Contusions may result from pinching and crushing. When moving portions of the hive, use caution. Do not drop or set down items too quickly. Beehives with a large number of supers can become unstable and fall, especially "sky scraper" hives. When bumped or over filled with honey, these skyscrapers may come tumbling down much to the surprise of the beekeeper. If a beekeeper is beneath the falling hive, hundreds of pounds of honey-filled frames might fall on him causing crushing, broken bones, and worse. Before any hive becomes too high and potentially unstable, it is a wise idea to remove full supers for extraction.

Eye Damage. It is commonly suggested that ultraviolet radiation may be responsible for eye damage related to cataracts and a rare form of cancer. To avoid problems in this area, wear sunglasses that reject nearly 99% of impinging UV radiation. Wear broad-rimmed helmets to help protect the eyes and face from UV radiation and the subsequent sunburns of head and neck. Eye damage also can result from flying projectiles. Power tools used for cutting grass spin quickly and can kick up projectiles. Should a stone or similar item be picked up and thrown by a power tool, they have the potential for causing eye damage. When working with power tools in the apiary to cut grass, weeds, or wood, using either safety glasses, goggles, or a face shield is essential to protecting eyesight.

Fire. Where there is smoke there is fire. When lighting a smoker, never light it inside a vehicle. Carefully extinguish the smoker's contents when finished. When emptying a smoker, make absolutely certain that the embers are out before leaving the apiary so that a fire is not started. Be careful if driving a vehicle with a catalytic converter through dry grass and brush. Such converters can easily set dry grass and brush afire.

Heat-Related Illnesses. Heat cramps, heat exhaustion, and heat stroke are of significant concerns for beekeepers, especially when there is a high temperature and humidity in combination. Heat-related illnesses can result mostly at these times when the heat index soars. Heavier full-body bee suits, while providing some degree of protection against bee stings, may increase the incidence of heat-related illnesses by restricting cooling air flow around the body. Protect yourself by working at a slower pace on hot, humid days, and periodically retire to a cool place. Eat less food and drink plenty of cool liquids.

Lyme Disease. The deer tick is responsible for transmitting Lyme disease bacteria to humans in the northeastern and north-central United States. Deer ticks are very small, and most victims who come down with Lyme disease cannot recall ever having been bitten by a tick. Deer ticks are active throughout the year, but mostly in warmer climates. Because of the deer tick's propensity for "ambushing" warm-blooded victims, it would serve the beekeeper well to keep the grass in apiaries relatively short. Other preventive measures for unkempt areas include the wearing of long-sleeved shirts and pants, tucking pant legs into boots or socks or using leg straps, avoiding tall grass and underbrush, and checking oneself regularly for the presence of ticks. Applying an insect repellent containing DEET also may be effective against ticks. A Lyme disease vaccine is now available. A decision for its use should be made on the basis of individual risk, taking into account both geographic location and a person's activities and behaviors relating to tick exposure.

Muscle Strain. Moving hives and hive components can be back-breaking work. Deep supers can weigh as much as 70 pounds or more when completely filled with honey. Unfortunately, the human body is not well designed to lift such weights. The arms, backbone, and legs essentially constitute a lever of small mechanical advantage that can subject the back muscles to a tremendous amount of stress. Muscle strain results from attempting to lift heavy items, lifting them improperly, or simply working too hard. In back strain the muscles are either stretched beyond their usual limits, or are torn as a result of too much stress. The pain results from damage to blood vessels, which causes bleeding in the affected area. The bleeding irritates nerve endings, causing pain. Such muscle strain can result in an inability to work normally, and the resulting pain can last days or weeks. When lifting heavy hive components, use the proper lifting technique. It generally consists of planting the feet squarely upon the ground and some distance apart. Squat -- do not lean forward -- keeping the back as straight as possible. Get a good grip on the object and lift slowly; do not jerk the object upward or twist the trunk of the body as the item is lifted. Set the object down in reverse order.

Pesticide Exposure. Beekeepers use a variety of pesticides to manage mites and the small hive beetle. Inappropriate use of various chemicals can result in exposure by any of four different ways: absorption, inhalation, ingestion or injection from puncture wounds. When handling toxic compounds, wear latex gloves to prevent absorption of chemicals through the skin. Leather or cloth gloves may absorb these toxins and, if used over a long time, may result in a long term exposure. Even if beekeepers use gloves, they should wash their hands after using these chemicals and before eating or smoking tobacco products. Touching food with contaminated hands transfers the poison to the food, which is then ingested. Keep food away from toxins. Label all pesticide containers properly, and do not use food approved containers to store chemicals. Beekeepers should be absolutely certain to follow label directions when working with pesticides. Never contaminate honey intended for human consumption by unprincipled use of pesticides.

Coping with Bee Stings

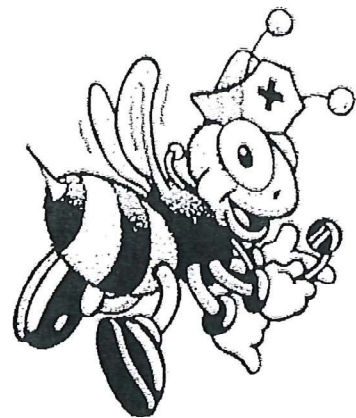
Copyright 2012 Carl J. Wenning

Bee Stings – If you work with bees, one thing is certain. You WILL get stung. To many beekeepers stings are nothing more than a nuisance – a nuisance well worth putting up with in light of the joy of keeping bees and the golden rewards. Most novice beekeepers are truly amazed by the gentleness of bees. That bees can be quite gentle is evidenced by the fact that many experienced beekeepers work their hives with little protection other than a bee veil. Bees die after they sting, and will generally sting only when they perceive that the colony is threatened. Bees away from the hive rarely sting unless provoked.

Reactions to Bee Stings – There are basically three major types of reactions to bee stings. Bee stings can range from nothing more than a minor irritation to life-threatening allergic reactions. Most beekeepers will have mild local reactions where, after a few minutes or hours, the symptoms associated with the bee sting disappear. Strong local reactions also can occur, most frequently in those who have had few encounters with defensive bees. Fortunately, these individuals usually show mild local reactions after a year of beekeeping. Unfortunately, some people exhibit life-threatening reactions that can lead to death if not properly and immediately treated. Refer to the accompanying handout *Normal and Allergic Reactions to Insect Stings* for additional details.

Managing Bee Stings – The first thing to do after being stung is to remove the stinger. Once a honeybee stings, she pulls away from the sting site leaving a venom sack which continues to pump venom into the wound. Remove this venom sack and the stinger by scraping underneath the venom sack. This often can be accomplished with the use of a fingernail or a hive tool. What ever you do, don't squeeze the venom sack as it will discharge venom into the sting site increasing the pain and other after effects. Many beekeepers will take a nonprescription antihistamine after being stung. This can reduce swelling. Some will apply topical remedies such as soothe swabs that help reduce the pain of the sting more quickly. Some beekeepers also keep on hand epinephrine inhalers that can be purchased across the counter in the event that an unexpected allergic reaction occurs. Those who are known to be allergic to insect stings will frequently carry the EpiPen injector.

Avoiding Bee Stings – Common sense and experience will go a long way toward helping the novice beekeeper avoid or reduce the number of stinging incidents. Keep the following factors in mind as you work your bees. Following these rules will do more than just about anything else to help you avoid or reduce the number of bee stings: (1) move slowly and deliberately around your bees, (2) avoid squeezing and crushing bees, (3) avoid working the hive on hot and humid days, (4) don't swat at flying bees, (5) don't stand in front of the hive entrance – work your hives from the side, (6) always wear appropriate protection including veil, bee suit, gloves, and boots, (7) avoid wearing dark-colored clothes, (8) use your smoker wisely, (9) smoke any sting site, and (10) work your bees at midday when foragers are afield.





Bee Smoker Information

Whether you are a new beekeeper or a seasoned veteran, you have just purchased the highest quality Bee Smoker available. With proper care, it will give you years of trouble free service.

If you are a new beekeeper, your new Dadant and Sons Bee Smoker will be a pleasure to use. But, it may take some practice and experimentation on fuel selection and lighting to get the most efficiency out of it.

Smoking honeybees should be a gentle procedure for both the bees and the beekeeper. The object is not to burn or drive the bees out of the hive with massive amounts of heat or smoke, but to use as little smoke as possible to gently calm the bees.

The smoke produced from your smoker interferes with the bees detection of the alarm pheromone (*isopentyl acetate*) that the bees produce when an intruder comes to their hive.

The bees respond to the smoke by eating as much honey as possible and become very calm. When the smoke

leaves the hive, the bees shortly revert to normal activities.

For best results use Dadant and Sons Smoker Fuel item number M00809. It is a natural fiber that produces good cool smoke.

The following items may also be used, but burn somewhat hotter:

- Corn cobs
- burlap (washed to remove pesticides)
- baler twine (natural, not plastic)
- pine needles
- fine wood chips
- small twigs
- dry rotten wood
- dry tree leaves
- untreated straw
- uncolored paper (rolled)
- corrugated cardboard (rolled)
- sumac bobs
- wood pellets

Open the hinged top of your smoker. Look inside and check that the smoker grate (round piece with the holes) is securely seated on the bottom of the smoker. This grate supports the smoker fuel to provide good burning and is removable for easy smoker cleaning. If in shipping, this piece has loosened and is not in its proper position, simply push it back in place with your hand. Now add the smoker fuel you have chosen and fill to about half of your smoker's volume and light it. Pump the bellows gently to help the fuel start burning briskly. If not using Dadant & Sons Smoker Fuel, add enough green leaves or green grass to fill smoker and pack down, using your hive tool. This mixture will produce a cool, dense, moist smoke. Close the smoker lid securely. Pump the bellows occasionally when you are not actively using the smoker to ensure the proper consistent burning of the smoker fuel.

Please note and follow the additional cautions listed on this leaflet for successful and enjoyable use.

Caution- Treat your Bee Smoker with respect. It can cause fires, destruction of property, burns, and injury. Do not let children play with a Bee Smoker-lighted or unlighted. Never puff a Bee Smoker in anyone's face. Danger of sparks, dust, etc. in the eyes and setting a bee veil on fire. Handle a Bee Smoker by the bellows only. Do not allow loose embers or sparks to blow or fall into grass, leaves, pine needles, etc. If flames appear, stop puffing the bellows. Keep away from and never place a hot or burning Bee Smoker near flammable or combustible materials, such as gasoline, paint, benzaldehyde, gloves, veils, etc. When you dump a Bee Smoker make sure that the burning or smoldering fuel is completely extinguished. When transporting in a truck or car, make sure the fire is out or nozzle is plugged to stop draft and smoker is in a metal container that can not tip over. Be sure to extinguish a Bee Smoker before storing in any building or vehicle. Use good judgement and common sense.

Equipment Prices

Item Description	Price Each	Vendor	Quantity	Subtotal
Complete Hive - 10 Frame	\$143.59	HillCo	1	\$143.59
Assembled Deep Hive Body with Frames - 10 Frame	\$69.99	HillCo	1	\$69.99
Assembled Medium Super with Frames - 10 Frame	\$66.59	HillCo	1	\$66.59
Standard Nuc Box - 5 Frame (with frames)	\$66.59	HillCo	1	\$66.59
Large Frame Feeder - for deep boxes	\$16.59	HillCo	1	\$16.59
HillCo Bee Smoker - 10"	\$39.99	HillCo	1	\$39.99
Deluxe Hive Tool	\$14.59	HillCo	1	\$14.59
Square Beekeeper Veil	\$21.59	HillCo	1	\$21.59
Varroa EasyCheck	\$19.25	Amazon	1	\$19.25
			Subtotal	\$458.77
You May Also Want				
Frame Gripper	\$11.59	HillCo		
Bee Brush	\$10.59	HillCo		
Vented Bee Jacket or Suit	\$81.59-112.59	HillCo		
Leather Gloves	\$14.59	HillCo		
Nitrile Gloves (50 pack)	\$9.99	Harbor Freight		
Mouse Guard	\$2.99	HillCo		
Smoker Fuel	\$0-20.00	Various		
Propane Torch Kit	\$19.99	Menards		
Racheting Tie Down	\$3.99	Harbor Freight		

Time Commitment of Beekeeping by Operation Size

The approximate number of hours and frequency of visits needed to work all colonies in hobbyist, sideline, and commercial beekeeping operations. The labor estimates in this table are likely overestimated, and represent the typical maximum time needed. The number of hours in each category for each season reflects the amount of time spent managing the largest number of colonies for hobbyist (10 colonies) and sideline (250 colonies) beekeepers and about 700 colonies for commercial beekeepers. The latter represents the approximate maximum number of colonies a single individual can expect to maintain on a full time basis without additional assistance. The amount of time required per visit per size of operation is not linear. Larger beekeeping operations tend to streamline work, requiring less time per colony visit.

Season	Hobbyist Beekeeper ~1-10 colonies	Sideline Beekeeper ~11-250 colonies	Commercial Beekeeper ~251+ colonies
Spring	Up to three hours needed to work 10 colonies every 7 – 10 days throughout the season	Up to 50 hours needed to work 250 colonies once every 7– 10 days throughout the season	Up to 120 hours needed to work 700 colonies every 7 – 10 days throughout the season
Summer	Up to three hours needed to work 10 colonies once every two to three weeks throughout the season	Up to 50 hours needed to work 250 colonies every two to three weeks throughout the season	Up to 120 hours needed to work 700 colonies once every two to three weeks throughout the season
Fall	Up to three hours needed to work 10 colonies once every four to six weeks throughout the season	Up to 50 hours needed to work 250 colonies once every four to six weeks throughout the season	Up to 120 hours needed to work 700 colonies once every four to six weeks throughout the season
Winter	Up to three hours needed to work 10 colonies once every six to eight weeks in a mild climate and three to four months in a colder one throughout the season	Up to 50 hours needed to work 250 colonies once every six to eight weeks in a mild climate and three to four months in a colder one throughout the season	Up to 120 hours needed to work 700 colonies once every six to eight weeks in a mild climate and three to four months in a colder one throughout the season
Notes:	<i>Infrequent night and weekend work: This is necessary only when moving colonies, or making weekends the days that colonies are worked. Infrequent travel may occur if bees are moved for honey production or pollination purposes. Hobbyists often do not move their colonies.</i>	<i>Frequent night and weekend work: Sideline beekeepers usually engage in typical migratory beekeeping practices, requiring bees to be moved at night. Furthermore, they typically have a full time job other than beekeeping making weekend work common. Frequent travel is necessary.</i>	<i>Extremely frequent night and weekend work. Commercial beekeepers spend a lot of time on the road, moving colonies for honey production and crop pollination purposes.</i>

**ILLINOIS DEPARTMENT OF AGRICULTURE
 APIARY INSPECTION SECTION
 P.O. BOX 19281 - FAIRGROUNDS
 SPRINGFIELD, IL 62794-9281**

<u>For Agency Use Only</u>	
Registration No. _____	_____
Registration Date _____	_____

APPLICATION FOR APIARY REGISTRATION

TO ALL BEEKEEPERS IN THE STATE OF ILLINOIS:

In compliance with the Illinois *Bees and Apiaries Act*, every person keeping bees must register with the Illinois Department of Agriculture. There is no charge for registration. To register, complete and return this form to the address listed above.

Mr/Mrs/Ms _____
 (Circle one)

MAILING ADDRESS _____

CITY _____ STATE _____ ZIP _____

TELEPHONE _____ COUNTY of RESIDENCE _____

EMAIL ADDRESS _____

SIGNATURE _____ DATE _____

* Please consider registering your colonies on DriftWatch at www.driftwatch.org.

APIARY LOCATION INFORMATION

An apiary is any place where one or more colonies of bees are kept. Location of all apiaries must be listed.

Please provide **GPS (Global Positioning System) Coordinates** which are required for registration. They can be obtained from the website <https://www.getlatlong.net>. Address and Legal Description (example below) are also helpful.

EXAMPLE OF LEGAL DESCRIPTION: (CAN BE OBTAINED FROM YOUR COUNTY PLAT BOOK OR SIDWELL BOOK IN THE COUNTY RECORDER'S OFFICE OR THROUGH THE GPS TAX BOOK IN THE COUNTY ASSESSOR'S OFFICE)

1/4 1/4 SECTION SW	1/4 SECTION SE	SECTION 27	TOWNSHIP 17 NORTH	RANGE 5 WEST	P.M. 3RD
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Number of Colonies	County	Name of Township	GPS Coordinates, Address and Legal Description (Section, Township, Range)	Landowner or Name of Person at Premises Where the Colonies Are Kept

IMPORTANT NOTICE: This state agency is requesting disclosure of information that is necessary to accomplish the statutory purpose as outlined under the Illinois Compiled Statutes, Chapter 510, Act 20. Failure to provide this information shall prevent this form from being processed. This form has been approved by the State Forms Management Center.



BeeHive Inspection Form

Better Documentation, Better Bees

Company: _____ Bee Yard: _____

Beekeeper: _____ Insp. Date: _____

Apiary Details

Weather:

Temperature:

Humidity:

Hive Repairs

1

2

3

4

Inspection Sheet

of

Beekeepers Initials

Record Tips:

Strength **Activity**

- | | |
|-------------|-------------|
| 1. Strong | 1. Heavy |
| 2. Moderate | 2. Moderate |
| 3. Weak | 3. Light |

Temper **Odour**

- | | |
|----------|----------|
| 1. Calm | 1. Sweet |
| 2. Tense | 2. Sour |
| 3. Angry | 3. Foul |

Example: Stores

- 2FH - 2 frames honey
- 9FH - 9 frames honey
- 1FP - 1 frame pollen

Feed Added

- 4L11: 4L 1:1 simple syrup
- 2L21: 2L 2:1 simple syrup
- 2PP: 2 pollen patties

Form Version: 1.05

1 Hive ID: _____ Strength: Deeps: Supers:

Eggs Brood Drones Queen Honey Pollen Activity: Stores:

 Temper: Odour:

Varroa / Count	SHB	Wax Moth	Nosema	Dysentery	Chalk/Sac	AFB	EFB
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Treatment:

Feed Syrup: Pollen: Swarm Cell: Split: → Hive ID:

Notes:

To Do: Date:

2 Hive ID: _____ Strength: Deeps: Supers:

Eggs Brood Drones Queen Honey Pollen Activity: Stores:

 Temper: Odour:

Varroa / Count	SHB	Wax Moth	Nosema	Dysentery	Chalk/Sac	AFB	EFB
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Treatment:

Feed Syrup: Pollen: Swarm Cell: Split: → Hive ID:

Notes:

To Do: Date:

3 Hive ID: _____ Strength: Deeps: Supers:

Eggs Brood Drones Queen Honey Pollen Activity: Stores:

 Temper: Odour:

Varroa / Count	SHB	Wax Moth	Nosema	Dysentery	Chalk/Sac	AFB	EFB
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Treatment:

Feed Syrup: Pollen: Swarm Cell: Split: → Hive ID:

Notes:

To Do: Date:

4 Hive ID: _____ Strength: Deeps: Supers:

Eggs Brood Drones Queen Honey Pollen Activity: Stores:

 Temper: Odour:

Varroa / Count	SHB	Wax Moth	Nosema	Dysentery	Chalk/Sac	AFB	EFB
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Treatment:

Feed Syrup: Pollen: Swarm Cell: Split: → Hive ID:

Notes:

To Do: Date:

Anatomy of a Varroa EasyCheck®



Why and how to monitor my hives?

Main objective: Avoid a critical level of varroa mite infestation

TIME OF MONITORING	OBJECTIVE
Early spring	Early detection makes it possible to plan effectively and assess the need for an early springtime treatment without honey supers.
During a honey flow*	Detect a massive varroa build-up and plan possible intermittent treatment between honey flows.
Late July – August	Choose the best-suited late-season treatment depending on the level of infestation. <i>This check is really important, as it will help you to compare the infestation rate before/after treatment, and thus the efficacy of your mite treatment.</i>
September – October - December	Ensure effectiveness of autumn treatment and assess the need for additional treatment in winter (when brood is absent) or early next spring.

*Particularly in areas where there are large number of hives belonging to different beekeepers.

TIME OF THE YEAR	INFESTATION LEVEL
Early spring	≥ 1%
Between two honey flows	> 2%
End of season: July - August (before treatment)	> 3%
Winter (after treatment)	≥ 2%

Treatment required!

DID YOU KNOW? A 3% infestation can cut honey yield by up to 13 kilos/year (28 pounds).¹ Varroa infestation does not only impact the health, but also the hive productivity.



¹ Maisonnasse, et al, 2014. A study conducted by INRA found that a 3% Varroa infestation cuts honey production by 5 kilos (11 lbs) of lavender honey per flow, or as much as 13 kilos (28 lbs) per year.

VARROA MONITORING 3 monitoring methods reunited in the same tool!



Alcohol wash



Sugar roll



CO2 injection



**New
3 in 1**

PATENTED

Non contractual photo - The expendables (alcohol, sugar, CO2 injector and cartridges) are to be purchased separately
US PATENT n° US10,959,410, B2..

www.varroa-easycheck.com



Want to become a varroa mite expert?
Download our Varroa Guide
www.varroa-easycheck.com

VETO-PHARMA
12-14 rue de la Croix Martre
91120 PALAISEAU - FRANCE
info@vetopharma.com
www.veto-pharma.com

Véto-pharma
Committed to apiculture

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Committed to apiculture



ALCOHOL WASH

Alcohol wash consists of immersing a sample of bees into alcohol and then gently shaking the EasyCheck to detach the phoretic mites so they can be counted.



- Fast, easy and inexpensive. *The liquid can be re-used for up to 10 counts.*
- The most consistent in terms of delivering accurate results. Recognized as the most accurate, reliable, and economical option for beekeepers.¹⁻²

1 - Honey Bee Health Coalition - Tools for Varroa Management 7th edition, Page 7
2 - Efficiency of Varroa monitoring methods, the benefits of standardized monitoring devices. Ludovic de Feraudy, Dr. Ulrike Marsky & Ph.D. Jiri Danihlik. - Apimondia 2019 proceeding.



POWDERED SUGAR ROLL

With this method, the bees are rolled with powdered sugar, causing the mites to separate from the bees. The EasyCheck is then gently shaken, causing the sugar and the mites to pass through the white basket's holes.



- Inexpensive.
- Keeps the sample of bees alive.



The monitoring result may vary depending on the experience of use and air humidity (agglomeration of sugar).



CO₂ INJECTION

In the CO₂ method, bees and mites are rendered unconscious by exposure to carbon dioxide gas. The sample of anesthetized bees is then gently shaken in the EasyCheck, causing the mites to fall from the bees.



- Fast.
- Keeps the sample of bees alive.
- Research conducted in Europe indicates results similar in accuracy to alcohol wash.¹



Requires the purchase of the Varroa EasyCheck Injector + CO₂ cartridges refills.

1 - Efficiency of Varroa monitoring methods, the benefits of standardized monitoring devices. Ludovic de Feraudy, Dr. Ulrike Marsky & Ph.D. Jiri Danihlik. - Apimondia 2019 proceeding.



CHECK OUT OUR STEP-BY-STEP TUTORIALS, PICTURES AND VIDEOS

ON WWW.VARROA-EASYCHECK.COM

2023 Schedule of Events

February 7, 2025 6:30pm

Swarm Traps, Woodenware Review, HIBA Budget

Guest Speaker – Mark Kilty

March 7, 2025 6:30pm

Bee disease review, Mel Disselkon method of splitting colonies, other splitting methods

Guest Speaker – Jim Wellwood, Illinois Apiary Inspector

April 11, 2025 6:30pm

North American Honey Bee Expo

Guest Speaker – Luke Harvey

May 9, 2025 6:30pm

Topic TBD

Guest Speaker – TBD

June 7, 2025, 8:30am – 1:30pm

Field Day – Wildlife Prairie Park

Guest Speakers TBD

Mead Making Demonstration & Sampling with Erica Taylor & Nick Dunne

Hive openings with Apiary Manager Steven Schmidt

Raffle and door prizes available

August 8, 2025 6:30pm

Hive Treatment

Guest Speaker – Luke Harvey

September 12, 2025 6:30pm

Hive Winterization, Cookoff, Election

Guest Speakers – Mark Kilty

October 10, 2025 6:30pm

Fall Banquet, Potluck, Honey Contest, Elections

All meetings held at Peoria County Farm Bureau unless otherwise noted

Beekeeping Course Survey

INSTRUCTIONS: At the end of the day, please take a few minutes to help us improve the quality of our beekeeping course. Please answer the following questions, and turn over your completed form to one of the presenters. Thanks in advance for your help with this project! Have a safe trip home.

Where did you find out about this beekeeping course? (circle response)

Beekeeping Journal

Newspaper

Radio/Television

A Friend

Newsletter

Other (specify) _____

What did you like most about this beekeeping course?

What did you like least about this beekeeping course?

Which subject(s) would you like to hear more about?

Which subject(s) would you like to hear less about?

How might we change things to improve next year's beekeeping course other than those recommendations you provided above?

Generally speaking, how well satisfied were you with this beekeeping course? (circle response)

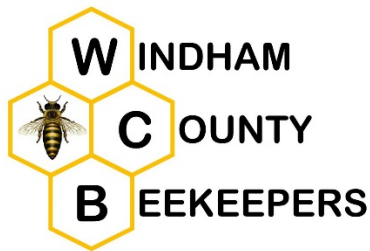
Very Satisfied

Somewhat Satisfied

Somewhat Disappointed

Very Disappointed

Feel free to write any additional comments on the back of this sheet. Again, thanks for helping us to improve next year's Beekeeping Course.



Bee Math

Queen Colors: Will you raise good bees?

International Queen Marking Colors

Color	For Year Ending in:
White (or Gray)	1 or 6
Yellow	2 or 7
Red	3 or 8
Green	4 or 9
Blue	5 or 0

Adapted from Piedmont Beekeepers Association website

Queen, Worker, Drone Math

Estimated days until:

Caste	Hatch	Cap	Emerge
Queen	3	9	16
Worker	3	9	21
Drone	3	11	24

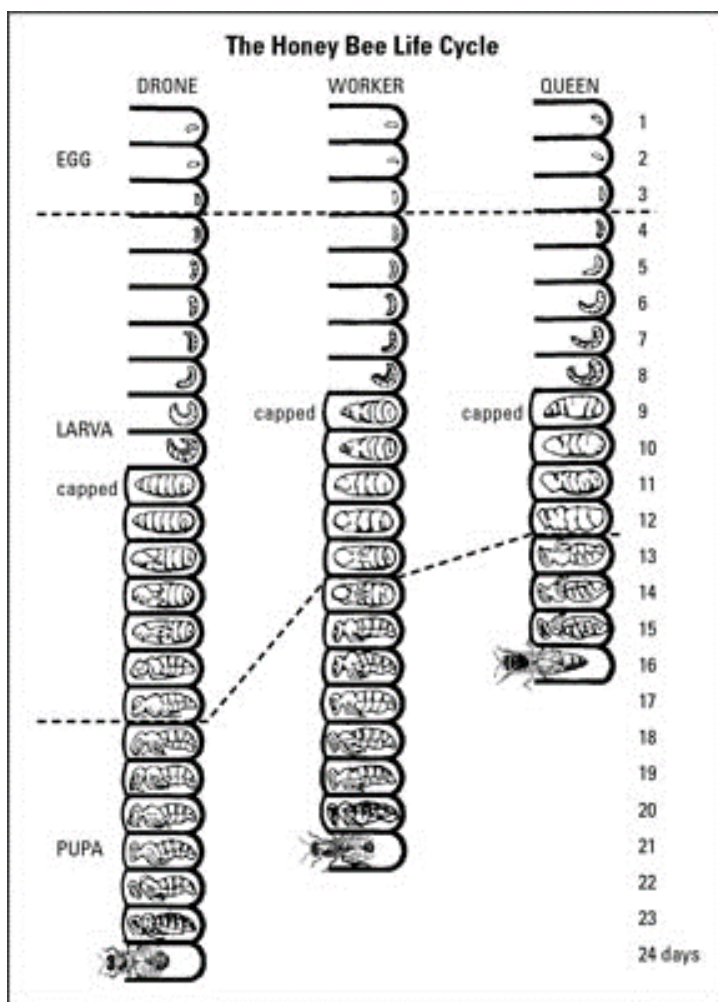
Adapted from Bush Farms for WCB

Queen Bee

Queen Bee Metamorphosis

Stage	Day
Egg	Hatches on day 3
Larva (several moltings)	3-8.5
Queen cell capped	~8.5
Pupa	~8 until emergence
Emergence	~15.5-17
Nuptial flight(s)	~20-24
Egg laying	~23+
Capped brood	~32+

Adapted from Bee Pride for WCB



Source: The Terroir of Honey blog

Worker Bee Chores

Chores of Worker Bees

Day	Chore	Day	Chore
1	Cleaning cells	13	Building comb
2	Keeping brood warm	14-17	Transporting food within hive
3-5	Feeding older larvae	18-19	Undertakers
6-11	Feeding younger larvae	20-21	Guards
12	Producing wax	22+	Foragers

Adapted from Bee Pride for WCB



WeisBatty Bees

Jeff Battaglini, weisbatty@gmail.com

Italian (A.m. ligustica): these honey bees are yellow-brown in color with distinct dark bands. This race originally hails from the Appenine peninsula in Italy. They are good comb producers, and the large brood that Italian bees produce results in quick colony growth. They maintain a big winter colony, however, which requires large stores of food. You can help offset this by feeding them before the onset of winter.

Carniolan (A.m. carnica): These bees are dark in color with board gray bands. They originally hail from the mountains of Austria and Yugoslavia. This type exhibits a strong tendency to swarm. Carniolans maintain a small winter colony, which requires only small stores of food.

Caucasian (A. m. caucasica) Caucasian bees are mostly gray in color and are extremely adaptable to harsh weather conditions. They hail from the Caucasian Mountains near the Black Sea. They make extensive use of propolis to chink-up drafty openings, which can make quite a sticky challenge for the beekeeper. Caucasian bees also are prone to robbing honey, which can create a rather chaotic beeyard. They can also fall victim to Nosema disease, so be sure to medicate your Caucasian bees with Fumidil-B every spring and autumn.

Buckfast (hybrid): The Buckfast bee was creation of Brother Adam, a Benedictine monk at Buckfast Abby in the United Kingdom. Brother Adam earned a well-deserved reputation as one of the most knowledgeable bee breeders in the world. The precise heritage of the Buckfast bee seems to have been known only by Brother Adam – and sadly he dies in 1996 at the impressive age of 98. He mixed the British bee with scores of bees from other races, seeking the perfect blend of gentleness, productivity, and disease resistance. The Buckfast bee's resulting characteristics have created quite a fan club of beekeepers from all around the world. The Buckfast bee excels at brood rearing, but exhibits a tendency, however, toward robbing and absconding from the hive.

Russian: In the 1990's, efforts to find a honey bee that was resistant to varroa and tracheal mites led USDA researches to Russia, where a strain of honey bee seemed to have developed a resistance to the pesky mites. Indeed the Russian bees seem to be far better at coping with the parasites that have created so much trouble for other strains of bees. These bees have a tendency to curtail brood production when pollen and nectar is in short supply, resulting in a smaller winter colony – a helpful trait that leads to better success when it comes to over-wintering in cold climates. I've had good success with Russian bees. Since 2000 Russians have been available from some bee breeders. They are worth considering.

Starline(Hybrid): This bee was derived as a hybrid strain of Italians and in the only commercially available hybrid race of Italians. It is regarded as productive at pollinating clover, so some people refer to the Starline as the clover bee. At this time this line is no longer available.

Midnight (hybrid): The double hybrid bee called Midnight is trademarked by York Bee Company in Gesup, Georgia. The Midnight bee makes heavy use of propolis, which can make inspecting a colony of Midnight bees a sticky challenge for the beekeeper. This bee is a hybrid combination of both the Caucasian and Carniolan races.

(over)

Africanized (hybrid): This bee is not commercially available, nor desirable to have. I mention it here because its presence has become a reality throughout South America, Mexico, and parts of the southern United States. The list of bee races is not complete without a nod to the so-called Killer Bee. This bee's aggressive behavior makes it difficult and even dangerous to manage.

Side note: More well know beekeepers feel that the African breed is slowly breeding their aggressive traits into many southern states breeding beekeepers including package producers. A word of caution is in order if you decide to buy your packages from the southern producers. Please check out the southern producer carefully by making sure they are testing their bees to make sure the African traits are not present.

Heart Of ILLinois Beekeepers recommend that you get your bees from producers above the Kentucky border.

Some recommended local producers are listed below:

Website :www.illinoisqueeninitiative.com This website has several Illinois queen & package producers listed. Excellent source for Queens & Nucs

Long Lane Bee farm:honeybeesonline.com

Reference: Beekeeping for Dummies by Howland Blackiston, The Beekeepers handbook by Diana Sammataro.

Mason County Bee Club

Open to all

Meets 2nd Tuesday of the month February-October 6:00 p.m.

HEART OF ILLINOIS BEEKEEPERS

www.hoibeeps.org

[Facebook.com/hoibeeps](https://www.facebook.com/hoibeeps)

January

Check your hives and remove any snow or ice that blocks good ventilation:

If you have a good work space now is a good time to build hive boxes, frames, foundation, and any other articles you may need later in the spring as you prepare your hives. Use these cold months to build and repair Bee keeping equipment.

February

Hive inspections and bee survival are the topics of the day:

Check your hives for weight. What you are looking for is light hives that are low on honey so that you can feed your bees. This is the time of the year when bees are getting low on food/honey and need nutrition. Feeding honey is best, but if you have none then fondant or a candyboard is the next best thing. The key to your direction is the survival of your bees.

March

Re-vitalizing the hives and nurturing weak hives back to survival tolerances:

This month is extremely critical to the life of the bees. This is primarily the month when bees will usually starve to death. Pick a warm day and open the hives and check for honey and if it is low - feed them. You must realize that the bees will be starting to fly heavily during this month and will expend more energy and use more energy to warm the hive if the weather suddenly turns cold. The combination of low honey stores, more energy looking for food, and more energy used to warm the hive is a recipe for disaster/starvation. Insuring the bees have food is paramount.

If the weather is warm open the hive and checker board the brood chamber with empty brood frames to make sure the bees have enough room to grow the hive and to prevent swarming. Keep in mind that this is paramount month to strategize hive planning.

April

Inspect Hives make a plan to split strong hives and optimize honey production:

By this time bees are in full honey production. Time to open the hives. Inspect the hives for pests and diseases and maybe add a honey super to the hive. Read the bees and note if the queen is laying and the pattern. Also note if the bees are bringing in pollen and that all the indicators are there to show that the hive is normal compliance from Queen egg laying to honey production. April may be cool, so the bees may be off to a slow start which is why reading them is so important as you may not need that extra super yet.

May

Watch for swarming, maintain a strong honey production presence and ready equipment for splits and swarms:

The hives should be buzzing with activity by now. They should smell of honey and wax and when you open the hive you should be seeing nectar and pollen stores. Also check the brood pattern the queen is producing to evaluate your queen. Look at the bee's behavior and any indicators of swarming. If these indications are noted - reverse boxes to create the illusion of more space for the bees. Just this simple act will quell the swarming tendency in the bees giving them the illusion of more bee space. Also note if there is any indication of or presence of queen cells which may be an indicator of swarming. If queen cells are present it may be a good time to establish nucs with the bees in your hive and queen cells you have found. You should see the beginning of capped honey and may want to add supers now. A good hive should be well on its way to full honey production.

June

Optimize the bee environment for honey production and let it go:

The hives should be in full production. Need to check for good brood patterns which indicate a healthy queen and note hive weight and crowding and if these indicators are there add supers and reverse boxes as needed. If you have really heavy hives you might consider taking some honey during this time.

Also remember the time of the year - it is warm and the temperature in the hives may be getting to the extreme so remove the reducers and give the bees the advantage of all the ventilation available to them.

July

Leave the hives along - requeen as necessary - start winter preparation:

Capping nectar and honey should be in full production.

Inspect hives for good ventilation so the bees can cool the hives.

Check hives for crowding and split as necessary. Add supers as necessary as bees are starting to build major honey supplies for the winter give them the room they need.

Toward the end of July the bees are in winter prep mode - storing honey and sealing the hive. Split strong hives now and combine weak hives to insure winter survival.

Your hives are in full production now and no hives should have entrance reducers in them.

August

Watch for weak hive development and have a plan for the fall for feeding and combining weak hives:

This is when nectar flow will start to die out as well as pollen. If the weather is good honey production will still be high and with wildlife at its peak, predators such as yellow jackets and mice are on the prowl. Time to inspect the hives and replace the entrance reducers or maybe install some wire cloth to protect the hives from ground predators being that the hives should be nearly full of honey. With low nectar flow bees will be more actively looking for food so mostly just leave the bees alone after setting up their protection and let them make honey. Check pollen stores to evaluate the hive and depending on indications you may want to place a drone cell foundation frame that can aid in mite control. *Alcohol wash for mite load.*

September

The last chance to take honey but insuring that the bees have enough food to survive the winter:

This is the last month for a late season nectar flow from goldenrod and the last of the wild flowers that are blooming. If food is scarce due to drought or just no food is available, start feeding your bees to insure winter survival. This is the last chance to take honey but guard against taking too much for if this is the case, the bees will starve by spring

October

Last chance for winter prep - setting up your hives to meet winter head on:

Getting into the last of the decent weather so during this month check the hives and patch holes on deteriorated hives as necessary to keep the winter weather out. Open the hives and check for pest and insure that there are adequate honey reserves for the winter. Moving reserved honey where needed and feeding bees where necessary.

November

Feed the bees that need it, check for predators, and let the bees seal themselves in to meet winter:

Feed the bees as long as the bees can use the sugar syrup and install mouse protection and mouse guards and insure that the entrance reducer is attached at this time. The winter setup should now be completed. The bees will button up their hives as winter approaches.

December

You have done all you can and now it is up to the bees:

The bees are in for the winter and the hives are sealed. Do not open the hives during the winter.

If you did your due diligence with your hives the bees should be as well prepared for winter as they can be.

So during this month of December sit back and relax. Repair bee equipment, bee suits, read your bee magazines, and most of all - enjoy the fruits of your labor.....the honey

Bee Sources

Riverview Road Apiary (Luke Harvey)

Riverview Road Apiary will be offering 5-frame nucs this April! The bees will be Italian mutts which are gentle and productive. All nucs are inspected both by our local inspector and the state inspector where they originate. **5 frame nucs are \$200** in a plastic Pro Nuc box. **Pick up date shared once confirmed.**



Honey Pimp Apiaries

Packages and nucs available! **Packages are \$135** with pickup in **Bloomington on April 15**, and **5 frame nucs are \$195** with availability in **early May or after.**

You can find our ordering info as well as some thoughts on how to choose between a package or nucs on Tom's website via the link to the right.

Any questions text or call 630-728-1400 – Tom is located in Bloomington.



HillCo

Packages and nucs available! **Packages are \$139** with pickup at John Hill's facility in **Minonk on April 12, April 19 or May 17.** HillCo's **5 frame nucs are \$195** with pickup on approximately **April 19** in Mononk.



Other sources of bees are also available, and the HOI Beekeepers association does not directly recommend any specific supplier. Any purchased bees should be properly inspected by a state inspector and packaged bees should typically be turned over to the purchaser less than 24 hours after being packaged at their apiary of origin.