Introduction to Beekeeping Workshop
1/30/2020
Agenda

Time:	
8:30 - 9:00 am	Participants Check In (Pam Tomka, Janet Hart, Mark Kilty, Luke Harvey, Sean Rennau)
9:00 - 9:15 am	Introductions (Sean Rennau)
9:20 - 9:50 am	Hive Components (Steve Schmidt)
9:50 - 10:10 am	Break
10:10 - 11:00 am	Bee Biology (Trudy Yazujian)
11:05 - 12:00 pm	A Year of Beekeeping (Rebecca Somogyi)
12:00 - 1:00 pm	Lunch
1:00 - 1:30 pm	Diseases and Pests (Luke Harvey)
1:30 - 2:00 pm	Package Installation (Jim Wellwood)
2:00- 2:20 pm	Break
2:20 - 3:45 pm	Break-out sessions (Mentors)
3:45 - 4:00 pm	Door prizes, Last questions, Closing (Sean Rennau)

Heart of Illinois
Beekeepers Association
Mentors program

BEE MENTORS GUIDELINES:

1. Beekeeper for at least 2 full years
2. Attended one new beekeeper class and at least two additional bee seminars
3. Not afraid to access confirmable appropriate information for new bees.
4. Willing to call at least three new beekeepers and visit two if necessary.
5. Should practice hygienic bee equipment practices to avoid improper contamination.

NEWBEES GUIDELINES:

1. Not afraid to ask a question or request a visit from a HIBA Mentor
2. Note; " the only dumb questions are the ones you don't ask!"

MENTORS	PHONE	CITY, COUNTY
1. BILL BAKER	309-696-1948	GREENVALLEY, TAZEWELL
2. ADAM CLARK	309-620-0180	Morton, Tazewell
3. KARL FIGG	309-573-8522	Germantown Hills, Woodford
4. DANNY HART	309-231-5556	Brimfield, Peoria
5. MARK KILTY	309-678-2831	East Peoria, Tazewell
6. DALE MARTIN	309-446-9220	Brimfield, Peoria
7. DAVID MOECHNIG	319-505-0595	Farmington, Fulton
8. JEFF STRUNK	309-229-9121	Morton, Tazewell
9. MICHAEL PEIL	309-369-9742	Peoria, Peoria
10. DANIEL PRYOR	309-543-6406	Havanna, Mason
11. STEVE SCHMIDT	309-495-1883	Peoria, Peoria
12. MARK SHERMAN	309-635-4805	Peoria, Peoria
13. LUKE HARVEY	309-229-9873	Chillicothe,Peoria

CODE-HIBAMent2018

WHERE TO BUY	WHAT THEY HAVE	WHAT THEY COST	ORDER DEADLINE	PICKUP DATE
Supplier :HONEY PIMP APAIRIES Location: BLOOMINGTON, IL Text to commuicate CONTACT; TOM PANKONAN Ph.630-728-1400 Web:Honeypimpapiaries@gmail.com Source: Not Available	3 LB packages w/italian cross Queen 5 frame Nucs-Carnolian Cross	$130.00 Cash/Pickup $200.00 Cash/Pickup	CHECK WITH TOM Pankonen	APRIL
SUPPLIER; Sasse's APAIRY Location: Chestnut, IL ELIZABETH SASSE Ph.217-615-8511 elizabeth@sassesapiary.com www.Facebook.com/Sassesapiary source:Georgia/Gardners apiaries	3 LB -Italian/Carniolian	$127.00/Pickup	Friday March 20th	APRIL 9th
SUPPLIER:FARM & Fleet Location: Morton, IL Contact: Karen /Ag department ph.309-263-0232 www.farm&fleet.com source;Kelly/Kentucky	3 LB-Italian/Marked Queen	Packages;$199.99 Delivered	Friday February 27th	Delivered by UPS April 20 to May 1
Supplier:Dadant & sons Location:Hamilton, IL Contact-Arlan Ph.1-888-922-1293 www.dadant.com Source:Roberts Apairies	3 LB package/Marked Queen	$179.99 Delivered $127.95 Pickup	Monday February 12th	Delivered by USPS April 9th
Supplier:HERITAGE HONEY BEE Location:Sullivan Wisc. Contact : Tim Wilbanks Ph.319-321-2494 Email:timwilbanksbees@gmail.com www.heritagehoneybee.com source:Heritage Bee/Georgia	3 Lb package/Marked queen 2 LB package	$130.00/Pickup/Local $112.00/Pickup/Local	Friday February 27	April 8th Pick up point COUNTRY FEED & SUPPLIES PRINCEVILLE, IL

Pickup dates are tenative based on weather and the supplier of the packages bees. Your supplier will contact you if the date changes.

These are suggested local sellers for Honey Bees. The Heart of Illinois Beekeepers Assocation takes no responsibility for the life span of these packages or Nucs.

Package Bee/Queen Order Form 2020

2020 Prices:

3 lb. Package with Queen:	
Qty 1 – 9	$127.00
Qty 10 – 24	$123.00
Qty 25+	$118.00
Extra Queen Bee	$32.00

Our bees and queens are Italian/Carniolan hybrid cross, sourced out of Georgia and are certified free of Hive Beetle. Queens are mated and proven. Marking and clipping options are not available.

Bees will be available for pickup on **Thursday, April 9th, 2020 between 9:00 am and 7:00 pm, CST**.

Subject to factors beyond our control, bees *may* be available for earlier pick up on Wednesday, April 8th; if this situation arises this will be communicated to you via email.

All orders must be submitted and paid in full by Friday, March 20th, 2020. If you have any questions please contact us at:

Sasse's Apiary LLC
c/o Elizabeth Sasse
1070 2000th Ave.
Chestnut, IL 62518
(217) 615-8511
elizabeth@sassesapiary.com

For additional copies of this form, please visit www.Facebook.com/SassesApiary or www.sassesapiary.com

Note: Pickup dates may be subject to change due to uncontrollable factors inherent in any agricultural product. Sasse's Apiary LLC will not be responsible for packages and queens after pick-up. Failure to pick up packages and queens on the approved delivery date/time will result in the possible forfeiture of purchase. Any problems resulting from your packages are at the responsibility of the purchaser and the supplier of the packages and queens. The bees are Italian/Carniolan hybrid cross and are certified by the state of Georgia to be Hive Beetle free. The purchaser agrees not hold liable Sasse's Apiary LLC, or any of its employees, for any problems that may occur prior to and following pick-up of order. By submitting your order you certify that you understand and agree to the above terms. If you have any questions or concerns, please contact us in advance of the pickup date so that we may discuss them.

Please make checks/money orders payable to **Sasse's Apiary LLC**.
A paid receipt will be sent once your order and full payment are processed.
Your bees will not be reserved until full payment is received.

Pick Up Location:
Sasse's Apiary, 1070 2000th Avenue, Chestnut, IL 62518

Please send completed copy of this form with payment.
Please retain a copy of completed form for your records.

Name: _____ Email Address: _____

Address: _____ City: _____ State: _____ Zip: _____

Phone Number: _____ Alternate Phone: _____

# of 3 lb. Packages (Qty 1-9): _____ x $127.00 = $_____

# of 3 lb. Packages (Qty 10-24): _____ x $123.00 = $_____

# of 3 lb. Packages (Qty 25+): _____ x $118.00 = $_____

# of Extra Queens: _____ x $32.00 = $_____

Total $_____

Pick-up date: 4/9/2020
Pick-up time: 9am-7pm
Pick-up Location:
1070 2000th Ave.
Chestnut, IL 62518
Ph: (217) 615-8511

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.

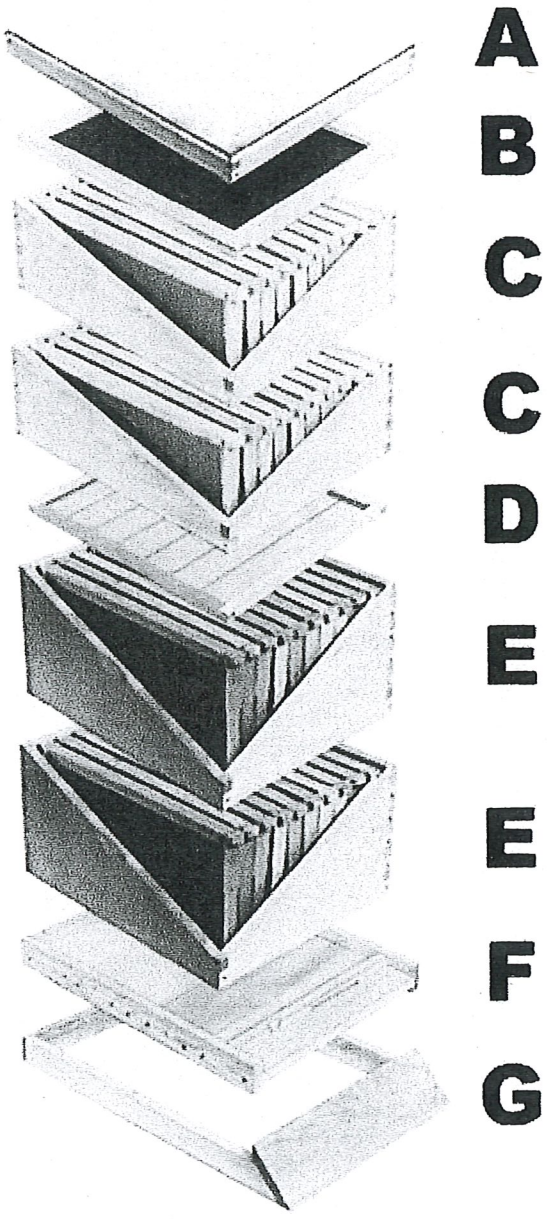
C. Shallow Supers - Consist of Super, Frames and Beeswax Foundation for "surplus" honey storage. Bees store their extra honey in the frames for the beekeeper to remove. 6-5/8' or , 5-11/16" supers, or even hive bodies may be used.

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



To contact us: Phone 217.847.3324, Fax 217.847.3660, e-mail Dadant@dadant.com

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.

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

Safety in the Bee Yard

Copyright 1999, 2012 Carl Wenning

Beekeeping in generally 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 as 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-rimed 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 suites, 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.

The Ten Commandments of Beekeeping

by Carl J. Wenning, copyright 1999, 2012

(Adapted from Keith Delaplane, *Honey Bees and Beekeeping,* 1993)

I. **Thou shalt use only standard beekeeping equipment.** The Langstroth hive is the best arrangement of hive body and frames that we have today. It permits unprecedented access to the bees and their brood, and allows for complete interchangability of parts. The modern hive respects bee space and permits regular monitoring of the colony for diseases and parasites. Traditional straw skeps, log gums, and clay pots are not permitted by law because they do not allow this access.

II. **Thou shalt be considerate of non-beekeeping neighbors.** Be careful where you place your hives. Though it is legal to keep bees in town in most areas, consideration of your neighbors who might have small children, who are afraid of bees, or who are allergic to bees stings is paramount to successful and enjoyable beekeeping. Caution your neighbors if you plan to put a hive in your backyard, and avoid putting the hive in a place where bee flight paths cross sidewalks and play areas. Provide water for your bees so they don't bother others. Free honey can help sweeten an uncertain situation.

III. **Thou shalt requeen regularly.** Requeening regularly can go a long way toward maintaining productive colonies. Requeening can maximize both brood and honey production, and is helpful in suppressing swarming and certain diseases. It is generally considered best to requeen with stock produced by commercial suppliers of bees as queens produced by your own colonies will rarely result in superior breeding.

IV. **Thou shalt control diseases and parasites.** Every beekeeper should get to know his bees and the diseases and parasites that can affect them. Certain bee diseases such as foulbrood can be spread easily from colony to colony which can have disastrous effects. Get to know the signs of the more common bee diseases: American and European foulbrood, chalkbrood, sacbrood, and Nosema. Be aware of the debilitating effects of parasites such as varroa and tracheal mites. Get to know your medications (Terramycin, Fumadil B, Apistan) and be aware of how one can use grease patties and menthol. Apply these medications according to instructions so that you won't kill bees, produce resistant diseases and pests, or contaminate honey intended for human consumption.

V. **Thou shalt maximize colony populations before the main nectar flows.** It can be an expensive mistake to build up the size of your bee colony on the main nectar flows rather than for the main nectar flows. Requeening, disease control, and feeding sugar syrup and pollen substitute can help achieve this objective. Control swarming by keeping young queens, reversing hive bodies during the spring, and supering appropriately. Don't tolerate marginal colonies. Requeen, medicate, and supply frames of brood to weak colonies, or merge them with other colonies. Remember, one large colony will produce more than twice as much as two half the size.

Dadant
51 S. 2nd Street
Hamilton, IL 62341
217-847-3324

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.***

PRICES FROM DADANT 2017 CATALOG

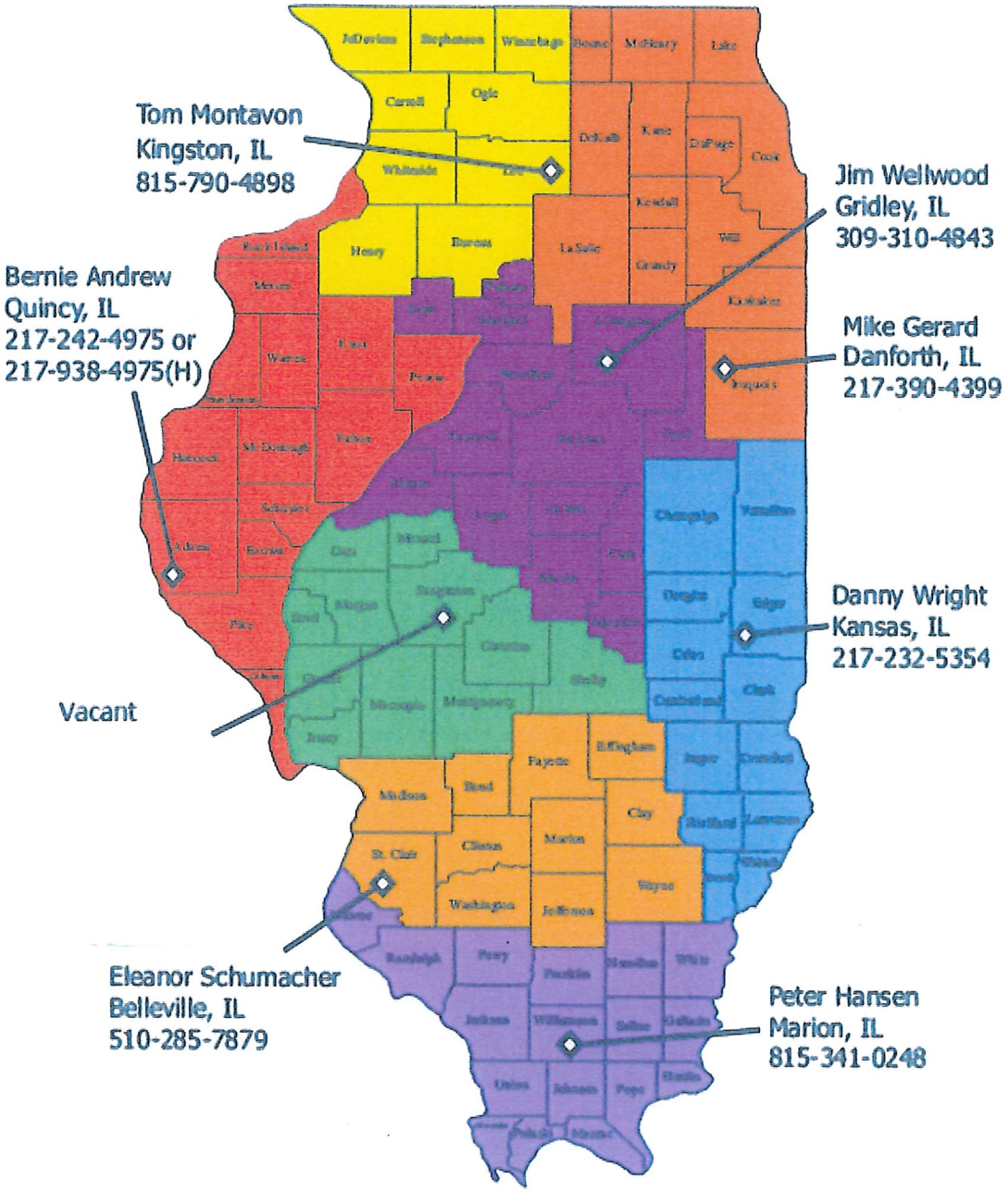
ITEM DESCRIPTION	PRICE EACH	PAGE NUMBER	ITEM NUMBER	QUANTITY	SUBTOTAL
HIVE BODIES SELECT-10 frame	21.48	p-17	B51201	2	$42.96
9-1/8" Frames	$1.27	P-17	B75110	20	$25.34
Plasticell Black Foundation	$1.09	P-17	F37000B	20	$21.80
6-5/8" medium boxes-10 frame	16.17	P-18	B31201	2	$32.34
Plasticell Yellow Wax Foundation	0.96	P-18	F37200	20	$19.20
6-5/8" frames	1.27	P-18	B76110	20	$25.34
CYPRESS BOTTOM BOARD	$27.50	P-31	M60040	1	$27.50
Telescoping cover/Inner cover	$30.08	P-33	B11101	1	$30.08
Vented Inner cover	$13.08	P-33	B15501	1	$13.08
Entrance Reducer	$1.13	P-28	B93101	1	$1.13
Metal Mouse guard	$2.83	P-28	M00851	1	$2.83
4 jar feeder	$5.41	P-56	M00825	1	$5.41
Sub Total					$247.01
		You also need			
Frame Grip	$12.99	P-27	M00748	1	$9.82
Hive tool	$10.45	P-26	M00856	1	$10.45
Bee Brush	$5.25	P-27	M00751	1	$5.25
Smoker-4 x7 Stainless Steel	$41.15	P-25	M00927	1	$41.15
Economy Vented suit	$99.25	P-49	V01261	1	$99.25
Pair of leather gloves	$11.50	P-55	M011361	1	$11.50
Sub total					$177.42
Grand total					$424.43

Table 1: The *approximate* number of hours and frequency of visits needed to work all colonies in hobbyist, sideline, and commercial beekeeping operations*. 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 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 once 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	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.	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.	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 tried to overestimate the labor time needed in an effort to show the typical maximum time needed

2018 APIARY INSPECTION DISTRICTS



Illinois Department of Agriculture
Division of Natural Resources

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

For Agency Use Only

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.

NAME _____

MAILING ADDRESS _____

CITY _____ STATE _____ ZIP _____

TELEPHONE _____ COUNTY of RESIDENCE _____

SIGNATURE _____ DATE _____

APIARY LOCATION INFORMATION

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

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	1/4 SECTION	SECTION	TOWNSHIP	RANGE	P.M.
SW	SE	27	17 NORTH	5 WEST	3RD

Number of Colonies	County	Name of Township	Address of **and** Legal Description of the apiary (GPS Coordinates)	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.

IL 406-0286 (rev 12/08)

Gardening for Honey Bees

By Kathleen M. Prough
Indiana DNR, Div. of Entomology & Plant Pathology

You don't need a large property to start a garden to attract honey bees, or native bees. Take a piece of the lawn that gets 5 to 6 hours of sunlight and turn it into a garden. Think big and start small. Start with a few plants and add more each year. Increase the garden area each year with more plants or propagate the ones you have. If you run out of garden space start giving plants or seeds to neighbors.

When starting the garden strive for several things:

Abundance- Clump plants so the bees can find and visit many flowers in one location. This provides a worthwhile food stop! Coneflowers in a large clump will attract honey bees and all types of native bees and butterflies.

Sequence – Plant for bloom succession. You need a succession of overlapping blooming from spring to fall. Learn when specific plants bloom so you get a good overlap.

Diversity - Select plants that will provide pollen as well as nectar. Bees need diverse pollen and nectar sources for balanced diet. Don't forget trees and shrubs that can provide pollen and nectar.

Pesticide use - If possible, do not use pesticides! Insecticides can kill beneficial insects as well as the insect you are trying to kill. Herbicides may kill plants (dandelions and Dutch white clover) that bees can get pollen and nectar from. So, do not go for that perfect lawn with no weeds in it.

Plant traits that may attract bees:

Flower color- bright white, yellow, blue or UV
Flower shape- shallow, have a landing platform, tubular, single flower top
Nectar guides present- guides the bees into the plant
Nectar is present- usually fresh, mild and a pleasant smell
Pollen- often sticky and scented

Observe the bees closely to learn the plants from which they collect nectar and pollen. Introduce these into your garden. Try some native plants. Know if cultivated plants are hybrids. Some hybrids have been bred for flower size and no longer provide nectar or pollen for bees. Learn the plants preferred soil type (wet/dry, acid/neutral), how much sun or shade they need, and hardiness zone for the plant. Know how tall they get so they do not overpower shorter plants. Some plants may need room to spread and some require precautions so they do not get out of control.

Keep records of dates when plants are in bloom, what time a day you see bees on the plants, what you see the bees getting- pollen or nectar. Know also what other plants are in the area that the bees can forage. Drive around and notice when the trees and plants are blooming.

The following pages list plants that may attract honeybees and native bees. Start out with a few of these plants and add others as you build your garden. Add bushes in the back of the garden. Small trees may be included in the garden. Large trees are better planted somewhere else in your yard. There are a few bee plants that will grow in the shade, but most are sun-loving plants.

Pollen and Nectar Plants of Indiana

The following list of nectar and pollen plants is not all-inclusive.
Some plants may not grow well in certain areas due to climate or water needs of plants.

Abbreviation meanings: **N** = Nectar source **P** = Pollen source
NA = Native plant **I** = considered invasive or a weed

Trees	Blooms	additional information
Alder (*Alnus incana*)	March	P
American Mountain Ash (*Sorbus americana*)	May - June	P, NA
Apple (*Malus spp.*), fruit and crabapple varieties	April-May	N, P
Basswood (*Tilia americana*), Also called Linden	June	N, P, NA
Black Locust (*Robinia pseudo-acacia*)	May – June	N, P, NA, I
Chokeberry (*Aronia sp.*), Black or red chokeberry	May - June	N, NA
Catalpa (*Catalpa spp.*)	May - June	N, P, NA
Chestnut (*Castanea dentata*)	May - June	P
Common Hackberry (*Celtis occidentalis*)	April – May	N, P, NA
Elm (*Ulmus spp.*)	March – April	P, NA
Hawthorn (*Crataegus spp*)	April –May	N, P
Hazelnut (*Corylus spp.*)	March – April	P
Honey locust (*Gleditsia triancanthos*)	May – June	N, P
Hop Tree (*Ptelea trifoliata*)	June – July	N
Korean Evodia or Bee-bee tree (*tetradium daniellii*)	June - August	N
Maple (*Acer spp.*)	March – April	P, NA
Oak (*Quercus spp.*)	March - April	P, NA
Pear (*Pyrus spp.*) Fruit tree- *P.communis*	April – May	N
Persimmon (*Diospyros viginiana*)	May – June	N
Prunus spp., Plum, Cherry, Peach	April – May	N, P
Redbud (*Cercis canadensis*)	March - April	N, P
Sassafras (*Sassafras albidum*)	April	N, P, NA
Sumac (*Rhus spp.*)	March - June	N, P, NA, I
Sycamore (*Platanus occidentalis*)	April – May	P, NA
Tulip Poplar (*Liriodendron tulipifera*)	May – June	N, P, NA
Walnut (*Juglans spp.*)	April – May	P
Willow (*Salix spp.*)	March - April	N, P

Shrubs & Brambles	Blooms	Additional Information
Boxwood (*Buxus microphylla*)	March – April	N
Blueberry (*Vaccinium corymbosum*)	May – June	N
Blackberry & Raspberry (*Rubus spp.*)	May – June	N, P
Blue Mist Bush (*Caryopteris x* Longwood blue)	July – September	N
Button Bush (*Cephalanthus occidentalis*)	June – July	N, NA
Butterfly Bush (*Buddleia spp.*)	July – September	N, I
Clethra, Summersweet (*Clethra alnifolia*)	July – August	N
Cotoneaster (*Cotoneaster spp.*)	May – June	N, P
Devils-Walkingstick (*Aralia spinosa*)	July – August	N
Elderberry (*Sambucus canadensis*)	June-July	P
Gooseberry (*Ribes uva-crispa*)	April	N, I
Holly (*Ilex spp.*)	April – June	N, P

Pussy Willow (*Salix spp.*)	March – April	N, P, NA
Redvein Enkianthus (*Enkianthus campanulatus*)	May - June	N
Rose (*Rosa spp.*)	June –September	P
Serviceberry (*Amelanchier arborea*)	April – May	N, NA
Viburnum (*Viburnum spp.*)	May June	N

Perennials, Annuals for Gardens	**Blooms**	**Additional Information**
Ageratum (*Eupatorium spp*)	June- September	N
Allyssum (*Lobularia maritima*)	June – September	N, P
Anise Hyssop (*Agastache foeniculum*)	July – frost	N, NA
Asparagus (*Asparagus officinalis*)	May – June	P
Asters (*Aster spp.*)	September – frost	N, P, NA
Smooth Aster, New England Aster, Woods light blue		
Autumn Joy (*Sedum spectabile*)	August – September	N, P
Basil (*Ocimum spp.*)	June - September	N
Beardtongue/foxglove (*Penstemon digitalis*)	June	N, NA
Black -eyed Susan (*Rudbeckia hirta*)	June – July	N, NA
Blazing Star (*Liatris spicata*)	July – August	N, NA
Blue False Indigo (*Baptisia australis*)	June	N, P, NA
Boneset (*Eupatorium spp.*)	August- September	N, P, NA
Joe-Pye weed, white snakeroot		
Borage (*Borago officinalis*)	June – Frost	N, P
Brown-eyed Susan (*Rudbeckia fulgida*)	July – August	N, NA
Butterfly weed (*Asclepias tuberosa*)	July – August	N
Candytuft (*Iberis sempervirens*)	May	N
Carolina Lupine (*Thermopsis villosa*)	June – August	N
Canola (*Brassica napus* L.)	May – June	N, P
Cosmos (*Cosmos spp.*)	August – September	P
Catnip/Catmint (*Nepeta cataria*)	June – September	N
Chives (*Allium schoenoprasum*)	May – September	N, P
Creeping Phlox (*Phlox stolonifera*)	May – June	N
Crocus (*Crocus vernus*)	March – April	P
Cucumber (*Cucumis sativus*)	June - August	N, P
False Sunflower (*Heliopsis helianthoides*)	July – August	N, P
Germander (*Teucrium canadense*)	June - September	N, NA
Giant Hyssop (*Agastache sp.*)	July – August	N, NA
Globe Thistle (*Echinops ritro* or *bannaticus*)	August	N
Goldenrod (*Solidago spp.*)	September – October	N, P, NA
S. caesia, S. canadensis,		
Grape Hyacinth (*Hyacinthus muscari*)	April	N
Hyacinth (*Hyacinthus orientalis*)	April	N, P
Lamb's Ear (*Stachys byzantina*)	May	N
Lavender (*Lavendula spp.*)	June – September	N
Leopards Bane (*Doronicum cordatum*)	April – May	N, P
Lungwort (*Pulmonaria spp.*)	May	N
Mexican Sunflower (*Tithonia grandiflora*)	August-September	N
Mints (*Mentha spp.*)	July – September	N, I
Mustard (*Brassica spp.*)	April – June	N, P
Mustard, broccoli, cauliflower, cabbage		

Obedient Plant (*Physostegia virginiana*)	July - September	N, NA, I
Orange Coneflower (*Rudbeckia ful. var. fulgida*)	July – October	N
Oregano (*Origanum vulgare*)	June – September	N
Parsley (*Petroselium spp.*)	July – August	N
Pot marigold (*Calendula officinalis*)	June – September	N, P
Purple Coneflower (*Echinacea purpurea*)	July - August	N, NA
Purpletop Vervain (*Verbena bonariensis*)	July – Frost	N
Rosemary (*Rosmarinus officinalis*)	June – July	N
Russian sage (*Perovskia artiplicifolia*)	July – September	N
Salvia (*Salvia spp.*)	May – June	N, NA
Sneezeweed (*Helenium autumnale*)	August – September	N, NA
Speedwell (*Veronica spp.*, V. *spicata, V. longifolia*	May - June	N
Spider flower (*Cleome spp.*)	August- October	N
Sunflower (*Helianthus annuus*)	June – September	N, P
Strawberry (*Fragaria spp.*)	May – June	N, P
Thyme (*Thymus spp.*)	June - July	N.
Valeriana/garden heliotrope (*Valeriana officinalis*)	June – July	N, I, NA
Wild Blue Phlox (Phlox *divaricata*)	May – June	N
Zinnia (*Zinnia spp.*)	August - October	N

Agricultural crops	**Blooms**	**Additional Information**
Alfalfa (*Medicago sativa*)	July – August	N, P
Blueberry (*Vaccinium corymbosum*)	May – June	N
Buckwheat (*Fagopyrum esculentum*)	August- September	N, P
Fruit trees (apples, peaches, pears, plums)	April-May	N, P
Soybean (*Glycine soja*)	July – October	N
Strawberry (*Fragaria spp.*)	May – June	N, P
Sweet corn (*Zea mays*)	June – July	P
Pickles (*Cucumis spp.*)	June - August	N, P
Pumpkin (*Cucurbita spp.*)	July – Frost	N, P
Melons (*Cucumis melo*), Cantaloupes & Muskmelons	June – frost	N, P
Spearmint (*Mentha spicata*)	June – August	N
Watermelon (*Citrullus lanatus*)	June – July	N, P

Other Plants Bees may Visit	**Blooms**	**Additional Information**
These plants may be seen in prairie/native planting or open cropland. Some are considered weeds to lawn and agriculture. They may not be ideal for a home garden.		
Alsike Clover (*Trifolium hybridum*)	May – July	N, P
Birdsfoot trefoil (*Lotus corniculatus* L.)	June – August	N, I
Blue Weed (*Echium vulgare*)	June – August	N
Blue Vervain (*Verbena hastata*)	July – August	N, NA
Bronze Bugle (*Ajuga reptans*)	May- June	N, P, I
Cat-Tail (*Typha latifolia*)	July	P
Common Milkweed (*Asclepias syriaca*)	July – August	N
Chick weed (*Stellaria media*)	April – July	N, P, I
Culver's Root (*Veronicastrum virginicum*)	June – August	N, NA
Cup plant (*Silphium perfoliatum*)	July –September	N, P, NA

Dandelion (*Taraxicum officinale*)	March – October	N, P
Figwort (*Scrophularia spp.)*	June - September	N, NA
Great Blue Lobelia (*Lobelia siphilitica*)	July - October	N, NA
Henbit (*Lamium amplexicaule*)	March – April	N, I
Horehound (*Marrubium vulgare*)	July	N
Horsemint (*Monarda fistulosa*)	July - September	N, I
Ironweed (*Vernonia fasciculata*)	July – October	N, NA, I
Jerusalem Artichoke (*Helianthus tuberosus*)	July - October	N, NA, I
Mallow (*Malva alcea fastigiata*)	June - September	P
Marsh milkweed (*Asclepias incarnata*)	July – August	N
Mountain Blue (*Centaurea montana*)	August – frost	N, I
Mountain Mint (*Pycnanthemum virginianum*)	August – frost	N
Prairie Coneflower (*Ratibida pinnata*)	June – July	N, NA
Queen of the Prairie (*Filipendula rubra*)	July	N, NA
Self-Heal (*Prunella vulgaris*)	June – August	N
Smartweed (*Polygonum spp.*)	August – September	N, P, I
Wild Mustered (*Synapis arvensis*)	April - June	N, P, I
White Dutch clover (*Trifolium repens*)	June – August	N, I
White Sweet clover (*Melilotus alba*)	May – August	N, I
Yellow Sweet clover (*Melilotus officinalis*)	May – August	N, I
Tickseed (*Bidens spp.*)	June - October	N, P, NA, I
Vetch (*Vicia spp.*)	June – July	N, P, I

Other information on plants for bees & wildflowers:
Gardening for Native Bees in North America: http://www.ars.usda.gov/Main/docs.htm?docid=12050
Illinois Wildflower: http://www.illinoiswildflowers.info/

Reference:

Dirr, Michael A. (1990). *Manual of Woody Landscape Plants, Their Identification, Ornamental Characteristics, Culture, Propagation and Uses.* Champaign Illinois: Stipes Publishing Company.

Pellett, Frank C. (1947). *American Honey Plants.* New York: Orange Judd Publishing Company.

Phillips, Ellen & Burrell, Colston C. (1993). *Rodale's Illustrated Encyclopedia of Perennials.* Emmaus, Pennsylvania: Rodale Press.

Tew, James E. *Some Ohio Nectar and Pollen Producing Plants,* Fact Sheet HYG-2168-98. Wooster, OH: Ohio State University Extension.

ENTOMOLOGY and PLANT PATHOLOGY
DNR

TITLE 8: AGRICULTURE AND ANIMALS
CHAPTER I: DEPARTMENT OF AGRICULTURE
SUBCHAPTER b: ANIMALS AND ANIMAL PRODUCTS (EXCEPT MEAT AND POULTRY INSPECTION ACT REGULATIONS)

PART 60
BEES AND APIARIES ACT

Section

AUTHORITY: Implementing and authorized by the Bees and Apiaries Act [510 ILCS 20]

SOURCE: Rules and Regulations Relating to the Bees and Apiaries Act, filed March 4, 1970, effective March 15, 1970; amended May 18, 1971, effective May 28, 1971; amended January 18, 1974, effective February 1, 1974; codified at 5 Ill. Reg. 10447; Part repealed, New Part adopted at 6 Ill. Reg. 7385, effective July 1, 1982; amended at 20 Ill. Reg. 2390, effective January 25, 1996; amended at 26 Ill. Reg. 8803, effective June 7, 2002.

Section 60.10 Definitions

"Bee Parasites" means the parasitic bee mites and other parasitic bee pests including but not limited to Varroa destructor (varroa mite), Tropilaelops clareae and Aethina tumida (small hive beetle).

"Exotic Strain of Bees" means any African or Africanized honey bees or any developed strain of bee not known to be present ordinarily in the State that may present a hazard to beekeeping and/or the public.

"Infestation" means the presence of bee parasites or exotic strains of bees.

"Moved (Movement, Move)" means shipped, offered for shipment to a common carrier, received for transportation or transported, moved or allowed to be moved, by any person by any means. Movement and move shall be construed accordingly.

"Quarantine" means a circumstance in which bees, colonies, bee equipment or honey is restricted to the existing location, unless allowed to be moved or the honey extracted and removed under permit or compliance agreement with the Director.

"Registration Certificate" means a certificate provided by the Department to a beekeeper upon acceptance of the application for registration. The certificate shall be numbered and show each beekeeper's name and mailing address.

"Scientific Permit" means a document issued by the Department to allow

the movement of regulated articles to a specified destination for scientific purposes.

(Source: Amended at 26 Ill. Reg. 8803, effective June 7, 2002)

Section 60.20 Registration; Colony Identification

a) Any person acquiring ownership or possession of bees shall within ten (10) days of such acquisition file an application for registration with the Department.

b) Any person moving bees into this State from another state or country shall within ten (10) days after arrival file an application for registration with the Department.

c) Any person owning or possessing bees in the State shall during the month of November of each year file with the Department an application for registration to renew his or her current registration.

d) Application for registration will be made on forms available from the Department. The registration information shall include:

1) The beekeeper's name, mailing address, county of residence, phone number and date.

2) The county name and exact location (such as township, section number, road number, street address, etc.) where the bees are kept.

3) The current number of colonies at each location.

4) The name of the landowner of each site where apiaries are maintained.

e) The Department will issue to beekeepers a registration certificate after the Department receives the application. All registration certificates will remain valid unless cancelled by the Department when it is determined that a beekeeper is no longer keeping bees or at the registrant's request.

f) All apiaries shall be identified. This identification shall consist of the State abbreviation "IL" followed by the beekeeper's Illinois registration number in weatherproof lettering not less than one-half inch in height. The number shall be displayed prominently on the front of a hive.

g) All bees or colonies not registered with the Department shall be declared a nuisance. The beekeeper shall have 30 days in which to register. Failure to comply within 30 days will result in abatement of the nuisance.

h) There shall be no registration fees.

(Source: Amended at 20 Ill. Reg. 2390, effective January 25, 1996)

Section 60.30 Inspection

a) Every beekeeper shall when requested by the Department provide the location of all bees, colonies and bee equipment owned or in his or her possession.

b) The Department may require that the beekeeper assist in locating and handling bees, colonies and bee equipment so that inspection may be properly performed.

(Source: Amended at 20 Ill. Reg. 2390, effective January 25, 1996)

Section 60.40 Equipment

a) Any hive from which all frames or honeycomb cannot be readily removed for inspection including cross-comb hives or any hive in any situation where adequate or efficient inspection is difficult, impractical, or impossible is hereby declared a nuisance.

b) When such a nuisance is declared, the colony owner and/or beekeeper shall be notified in writing via certified mail to cease the use of such hives. Compliance must be effected within 90 days from the receipt of the notice by the beekeeper.

c) When the beekeeper has failed to comply within the 90 day period, the Department will issue a notice to the colony owner and/or beekeeper ordering the nuisance to be abated. The nuisance must be abated with 7 days from the date of receipt of the notice by the beekeeper.

(Source: Amended at 20 Ill. Reg. 2390, effective January 25, 1996)

Section 60.50 Diseased or Parasitized Colonies; Exotic Strains

a) Any colony of bees within the State found to be affected with American foulbrood disease shall be abated. All combs, frames, honey and bees must be abated by burning in a pit at least 18 inches deep and then covering the ashes with at least 6 inches of soil. Hive bodies, supers, bottom boards, inner covers and outer covers may be salvaged by sanitizing with a scorching flame. Unless otherwise approved by the Department, abatement by burning shall be accomplished by the beekeeper no later than 10 days after receiving written notice from the Department that American foulbrood disease has been detected in honeybee colonies.

b) Bees, colonies or items of bee equipment can be moved within or into the State if treatment for the control of bee parasites using United States Environmental Protection Agency approved substances has been initiated not more than 30 days prior to movement.

c) No person shall possess exotic strains of bees within the State. Any colony within the State found to contain exotic strains of bees shall be abated. Colonies or package bees accepted from any area known to be infested with exotic strains of bees must be certified by the USDA or any state apiary inspection program as being European by using any USDA approved identification method.

d) The regulation of bees or colonies in an Africanized honey bee area shall be in accordance with the European Honey Bee State Certification Procedure of the Model Honey Bee Certification Plan

(November 20, 1991) as approved by the National Association of State Departments of Agriculture (1156 - 15th Street N.W., Suite 1020, Washington, DC 20005) and the United States Department of Agriculture Interagency Technical Working Group on the Africanized Honey Bee (Agricultural Research Service, National Program Staff, Beltsville, MD 20705).

e) Incorporations by reference do not include any amendments or editions beyond the date specified and may be viewed and/or copied at the Department's Springfield office.

(Source: Amended at 26 Ill. Reg. 8803, effective June 7, 2002)

Section 60.60 Permits

a) No person shall move bees, colonies or used bee equipment from one county to another within the State, or into this State from any other state or country, without notifying the Department in person, in writing or by telephone at least ten days prior to such movement to allow issuance of a permit.

b) The permit shall specify the following information:

1) Beekeeper's name and mailing address.

2) The apiary registration number as assigned or other unique identification codes and/or marks or similar information.

3) The origin of the bees or equipment being moved.

4) The number of colonies or nature of equipment being moved.

5) The destination of the bees or equipment being moved.

6) The date when movement will be made.

7) The date of treatment for bee parasites.

c) A permit shall be issued if bees or equipment being moved from county to county or into the State of Illinois have been inspected within 90 days before the date of shipment. The person moving the bees or equipment into Illinois shall furnish to the Department an inspection certificate signed by an authorized inspector, entomologist, or other responsible official identifying all bee diseases and bee parasites and any controls that were implemented.

(Source: Amended at 20 Ill. Reg. 2390, effective January 25, 1996)

Section 60.70 Quarantine

a) The area to be quarantined will be designated by commonly accepted and readily identifiable boundaries (i.e., counties). Boundaries shall be changed by the Director to include contiguous areas if it has been determined the harmful disease, parasite or exotic strain has spread into that area.

b) A quarantine will include specific restrictions on or requirements for movement into, out of, or through the quarantine area.

c) A quarantine will specify the articles to be regulated and, if required, those exempted.

d) A quarantine will specify the measures to be undertaken to control or eradicate the harmful disease, parasite or exotic strain.

e) The Director may stop, inspect and seize, destroy, or otherwise dispose or order disposal of regulated articles found in violation of a quarantine.

f) If the Director determines that the harmful disease, parasite or exotic strain for which a quarantine has been implemented has been controlled or eradicated according to the Department's recommendation, he or she shall cancel a quarantine.

(Source: Amended at 20 Ill. Reg. 2390, effective January 25, 1996)

Section 60.80 Administrative Rules (Repealed)

(Source: Repealed at 20 Ill. Reg. 2390, effective January 25, 1996)

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

For Agency Use Only
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.

NAME _____

MAILING ADDRESS _____

CITY _____ STATE _____ ZIP _____

TELEPHONE _____ COUNTY of RESIDENCE _____

SIGNATURE _____ DATE _____

APIARY LOCATION INFORMATION

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

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	1/4 SECTION	SECTION	TOWNSHIP	RANGE	P.M.
SW	SE	27	17 NORTH	5 WEST	3RD

Number of Colonies	County	Name of Township	Address of **and** Legal Description of the apiary (GPS Coordinates)	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.

IL 406-0286 (rev 12/08)

3/2017
REV. 1.0

HEART OF ILLINOIS BEEKEEPERS ASSOCIATION

Inspection Form

Hive ID# _____ Contact # _____

Hive Owner _____ Yard Name _____

Hive Information (Step 1 of 5)

Inspection Date	
Hive Strength %	
Eggs Sited	Yes / No
Queen Sited	Yes / No
Capped Brood	Yes / No
Uncapped Brood	Yes / No

Weather (Step 2 of 5)

Conditions (fair, rain, etc.)	
Temperature (Farenheight)	
Percent Humidity	
Wind Speed and Direction	
Pressure (mb)	
Pressure	Rising Falling Steady

Hive Conditions (Step 3 of 5)

Temper	Calm Nervous Angry
Population	Heavy Moderate Low
Queen cells	Yes / No
Odor	Normal / Foul
Laying Pattern	Excellent / Fair Poor (spotty)
Hive Condition	Brace Comb Excess Propolis
Equipment Condition	Good / Fair Poor / Damaged
Foundation Type	Wired / Plastic Drone Cell / Platicell

Diseases / Treatments (Step 4 of 5)

Chalkbrood	
Nosema	
Euro Foulbrood	
Small Hive Beetle	
Tracheal Mites	
American Foulbrood	
Varoa Mites	Light / Moderate / Heavy

CheckMite+™	Fumagilin-B
Mite Away ™	Terra-Pro
Terramycin ™	Mite-A-Thol ®
Formic Acid	Hivastan
Api-Life VAR	Apistan ®
Tylan ®	

Other Feedings	

Other Meds	

Feeding / Stores (Step 5 of 5)

Honey Stores	High / Average / Low
Pollen Stores	High / Average / Low

HFCS-55	Api Go
Mixed Sugar	MegaBee
Honey B Healthy	Vita Feed Gold
Fresh Pollen	Ener-G-Plus
Vita Feed Green	
Other	

Inspection Notes

KEEP INSPECTION SHEET BETWEEN INNER COVER AND OUTER COVER

APIARY INSPECTION SUPERVISOR'
Steve Chard, Illinois Department of Agr

NEW IDOA DIRECTOR

Most likely, you have already heard the news that Governor Bruce Rauner has named Mr. Philip Nelson as the new Director of the Illinois Department of Agriculture. Director Nelson's first day on the job was January 19. Director Nelson is a farmer that operates a combination grain/livestock farm in LaSalle County and was formerly President (14th) of the Illinois Farm Bureau from 200: through 2013. During his tenure at IFB, he worked closely with past IDOA Directors Chuck Hartke, Tom Jennings and Bob Flider on numerous agricultural issues. That gives Mr. Nelson a distinct advantage as far as being familiar with IDOA programs. I will brief the Director on the importance of Illinois' Apiary Industry and on the Department's Apiary Inspection Program as soon as possible. Please join us in welcoming Director Nelson to his new post.

ILLINOIS SPECIALTY CROPS, AGRITOURISM AND ORGANIC CONFERENCE

The Department was invited by the Illinois Specialty Growers Association to participate in a session on pollinator protection at their annual conference in early January. I had the opportunity to give a presentation on the importance of honeybees to humankind, Illinois' Apiary Industry, the Department's Apiary Inspection Program and problems plaguing honeybee health. There was great attendance at the session and many questions asked. It's always good to be able to spread the word on the importance of honeybees to other groups.

POLLINATOR PROTECTION

Speaking of pollinator protection, the Department is participating in the development of the USEPA Federal Pollinator Protection Strategy to protect pollinators such as honeybees. The goals of the Strategy are to develop a nationwide pollinator action plan by December 2014, have pollinator protection plans available to growers, pesticide applicators and beekeepers where appropriate for the 2015 growing season and require all applicable pesticide labels to reference pollinator protection plans by the 2016 growing season. This pollinator protection initiative is driven by the issuance of a Presidential action memorandum on June 20, 2014. The Department is currently awaiting guidance from USEPA on when the pollinator protection plans will be made available to growers, pesticide applicators and to beekeepers.

MOVING PERMITS – QUEENS

In response to the request of the Illinois Queen Initiative (IQI) and others, the Department has created a new moving permit policy for transporting queens across county or state lines. This was shared with you in a previous ISBA Bulletin. This policy is intended to facilitate the sale or exchange of queens, queen cells and frames of brood and at the same time, prevent the spread of diseases and pests of the honeybee. The new policy has been approved by the ISBA Officers/Board of Directors and IQI. It became effective January 1, 2015 and is shown below.

The Department will follow the steps below for issuing general moving permits to producers selling/exchanging queens, queen cells and frames of brood:

- Queen Producers will notify their respective Department Apiary Inspector by February of each year that they plan to exchange or sell queens across county or state lines.

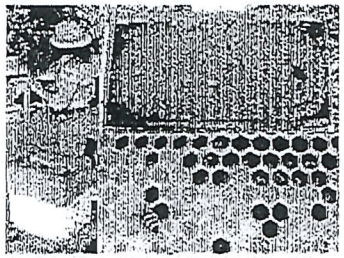
Sampling Colonies for *Varroa destructor*

An extremely important tool for gaining control of Varroa mites!

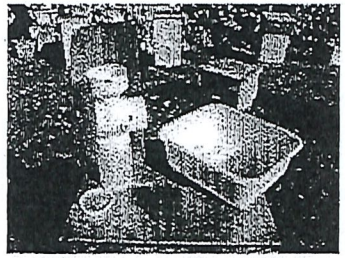
University of Minnesota Instructional Poster #168, Katie Lee, Gary S. Reuter, and Marla Spivak Department of Entomology
www.BeeLab.umn.edu

WHY SAMPLE in a standard way?

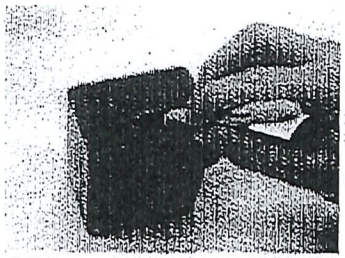
- Be informed: know thy enemy
- Decrease use of miticides
- Reduce chemical residues in hive
- Save time and money
- Develop regional treatment thresholds
- Breed queens from colonies with low mites



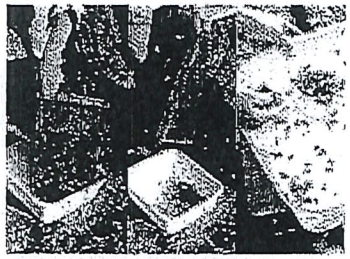
1. **Sampling a Colony:** Sample 300 adult bees from one frame containing brood (eggs, larvae or pupae).



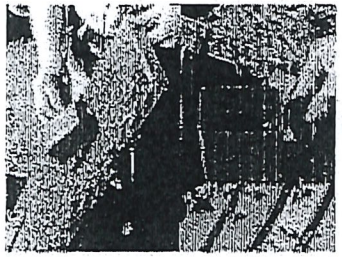
2. 300 bees occupy a volume of 0.42 cup or 100 ml. Be carefull Bees are small, so small changes in volume leads to large changes in the number of bees (i.e. 0.33 cup = 200 bees, and 0.5 cup = 400 bees).



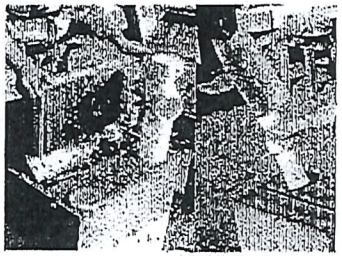
3. To make your own cup, add 0.42 cups or 100 ml of water to a cup. Mark a line at the water. 0.42 cups = 1/3 cup + 1 tbsp +1 1/14 tsp .



4. Use one of 3 methods to collect bees: Method 1: Rap a brood frame into a wash-bin bucket. Use your cup to scoop out 300 bees. Rap cup on a hard surface to be sure the bees are at the marked line. Add or subtract bees as needed.

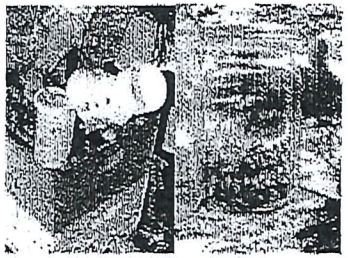


5. Method 2: If your cup is rectangular, run the cup gently down the backs of the bees, causing them to tumble into the cup. Rap the cup on a hard surface to be sure the volume of bees is at the marked line.

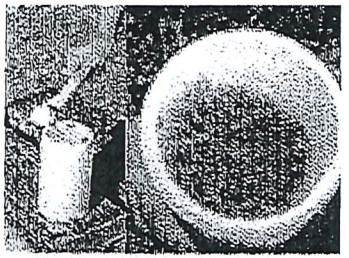


6. Method 3: Use the divice called "Gizmo" to sample. It is available from the Walter T Kelly Beekeeping Company or you can build it using the plans online (www.BeeLab.umn.edu).

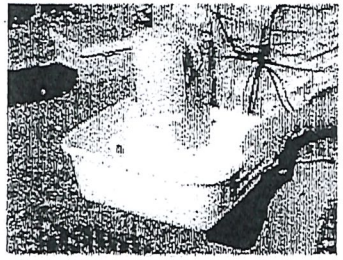
7. Gizmo has a volume built in to measure 300 bees. Out of the three methods, Gizmo is most accurate, but the other two methods can work as well if the bees are consistantly at the marked line.



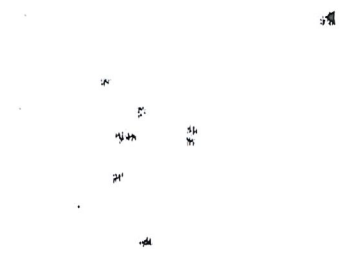
8. Once the bees are measured, you can use powdered sugar to dislodge the mites. First, dump the 300 bees into a jar with a size 8 hardware mesh cover.



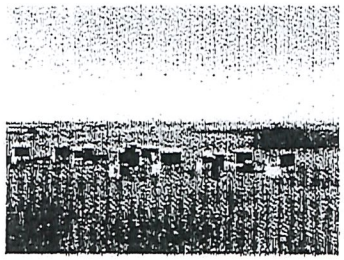
9. Add about 2 Tbsp (one hive tool scoop) of powdered sugar. Add more sugar if the bees are not coated in white. **Let the bees set for at least one minute in the shade.** Don't hurry this!



10. Shake the jar into a white dish for one minute to dislodge mites from bees. Shake HARD. It is important to remove as many mites as possible. Replace the sugar-coated bees bees in the colony where they will be cleaned.



11. Add enough water to the dish to dissolve the sugar. Count the mites. This is **mites per 300 bees.** The mites will be regular-shaped reddish-brown ovals. You can sometimes see their legs kicking.



12. **Sampling an Apiary:** Sample a total of eight colonies using using one of the methods described above. Sample every fifth colony – loop back if need be.

#Mites per 300 adult bees	Colony Infestation	#Mites per 8 300 adult bee samples	Apiary Infestation
1	1%	8	1%
3	2%	24	2%
5	3%	40	3%
7	5%	56	5%
9	6%	72	6%
11	7%	88	7%
13	9%	104	9%
15	10%	120	10%
17	11%	136	11%

If you are a hobby beekeeper, consider treating at a 10-12% mite infestation. If you are a commercial beekeeper, you may want to use a lower threshold.

For more information on how this sampling procedure was derived and treatment thresholds, please read the article in American Bee Journal, December 2010, or in J. Economic Entomology, 2010; vol 103 (4): pp. 1039-1050.

13. **Calculate:** Convert **mites per 300 bees** to percent infestation of the whole colony (mites on adults plus those hidden in pupae) by using this conversion chart or formula [(**mites per 300 bees** ÷ 3) × 2]. For example, if you find 15 mites in your test sample, then (15 ÷ 3) x 2 = 10% total mite infestation.

Table 1: The *approximate* number of hours and frequency of visits needed to work all colonies in hobbyist, sideline, and commercial beekeeping operations*. 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.

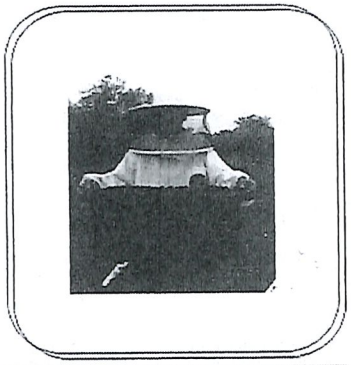
Season	Hobbyist Beekeeper ~1 – 10 colonies	Sideline Beekeeper ~11 – 250 colonies	Commercial Beekeeper ~251+ colonies
Spring	Up to three hours needed to work 10 colonies every 7 – 10 days throughout the season	Up to 50 hours needed to work 250 colonies every 7 – 10 days throughout the season	Up to 120 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 once 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	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.	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.	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 tried to overestimate the labor time needed in an effort to show the typical maximum time needed

Heart of Illinois Beekeepers Association

We are the Heart of Illinois Beekeepers Association (HIBA), dedicated to the development of good beekeeping management and practices, the pollination of agricultural crops, the production of honey and honey related food products and the general education for and about honeybees. HIBA serves Peoria, Tazewell, and Woodford counties and the surrounding areas.

Beekeeping is an exciting, family friendly hobby or a full blown career, amateurs and professionals alike meet and discuss the latest in beekeeping, diseases and pests, hive management, honey production and public interest in bees, honey and Mother Nature.



President: Mark Kitty
(309) 699-7018 midwestcarpet@live.com

VP: Sean Rennau
312-217-9274
sean.d.rennau@gmail.com

Secretary: Andrea Clark
(309) 265-8198 andrea_clark82@yahoo.com

Treasurer: Dale Martin
(309)446-9220 dalefmartin@juno.com

Communications: Mike Peil
(309) 369-9742 michaelpeil@mac.com

Membership Benefits

Enjoy the adventure of beekeeping with the confidence that you aren't alone. As a member of the Heart of Illinois Beekeepers' Association, you can learn, teach and share your experiences as a beekeeper.
The benefits of membership include:

How-To Sessions
The Heart of Illinois Beekeepers Association (HIBA) meets regularly, February through October. Meeting topics are timely corresponding to what is happening in your own apiary.

Newsletter
Members receive the Heart of Illinois Beekeepers' newsletter before each regular meeting as well as the Illinois State Beekeepers' Association Bulletin every other month.

Decades of Experience
Originally founded as the Tazewell Beekeeper's Association in the early 1900's, the Heart of Illinois Beekeepers Association name has existed since 1982. HIBA has a wide range of members across central Illinois, a mix of experienced and new beekeepers alike, and provides a great opportunity to network and learn from others and build great friendships along the way.

Commitment to Education
The Association promotes and encourages good beekeeping practices by enhancing the knowledge base of novice and intermediate beekeepers. HIBA also promotes production and use of honeybee products, and advances public education about the honeybee and honey.

HIBA is affiliated with the Illinois State Beekeepers' Association (ISBA). The ISBA holds two annual meetings (summer and fall). Your membership with HIBA includes membership with ISBA.

Heart of Illinois Beekeepers Association

Beekeeping in Central Illinois

Website: www.hoibees.org

www.facebook.com/hoibees

2018 Schedule of Events

Beginning Beekeeper Class
January 27, 9 am to 4 pm
United Presbyterian Church
2400 W Northmoor Rd,
Peoria Snow date: Feb 3rd

February 9, 6:30
Tazewell County Exension, Pekin

March 9, 6:30pm
Woodford County Extension, Eureka, IL

April 20, 6:30pm
Peoria County Farm Bureau, Peoria, IL

May 11, 6:30pm
Tazewell County Extension, Pekin, IL

June 16, 9:00 am
Field Day at Wildlife Prairie Park

July 7 - 15
Heart Of Illinois Fair, *Peoria*

August 14,
HIBA's Day at Illinois State Fair, *Springfield*

September 14, 6:30pm-
Peoria County Farm Bureau, Peoria, IL

October 19, 6:00pm-
HIBA Annual Banquet- Fairview Farms

Queen bee surrounded by attendants.

Heart of Illinois Beekeepers Association

January 27th, 2018
United Presbyterian Church
2400 W Northmoor Rd, Peoria

HIBA Members $50.00
Non Members $50.00 (includes HIBA membership)

8:30 to 9:00 Registration and Welcome

9:00 - 9:15 Intro's, So you want to be a beekeeper?

9:20 -10:05 Bee Biology,Bee Stings - Normal & Allergic
Queens, From Eggs to Adult Bees

10:10 - 11:00 Types of Hives and Equipment

Langstroth, Top Bar
Installing and feeding package bees
Installing NUCS
Preventing and capturing swarms

11:00 to 11:15 Break

11:15 - 12:00 Diseases, Pests

12:00 to 12:55 Lunch

1:00 - 1:40 Installing Packages, Treating Mites

1:45 - 2:45 A Year in Beekeeping

2:45 to 3:05 Break

3:05 - 3:55 Small Group Tables, Buying bees, Pesticides, Checking for Mites, General questions about Beekeeping

4:00 Door Prizes, Last Questions, Adjourn

SNOW DAY IF NEEDED: FEBRUARY 3RD SAME LOCATION AND TIME

Check your data, make sure email is correct, cut here and mail with check.

HIBA Membership Application

Name _____

Address _____

_____

_____

Phone _____

E-mail _____

County _____

Would you like meeting notices emailed to you? Yes No

HIBA Membership Dues $20.00

Beginning Beekeeping Class

Member $50

Non-Member $50

Includes HIBA membership _____

New / Renewal
American Bee Journal
☐ / ☐

1 year/2 year
$23.80 $45.05 _____

TOTAL _____

Make checks payable to HIBA and mail to:

Dale Martin, Treasurer, HIBA,
10401 N Maher Rd
Brimfield, IL 61517

*Beekeeping Journals Available to HIBA members at a 25% discount.

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 you 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

bees@bushfarms.com

All of the numbers about the life cycle of bees may seem irrelevant, so let's put them in a chart here and talk about what they are useful for.

Caste	Hatch	Cap	Emerge		
Queen	3½ days	8 days +-1	16 days +-1	Laying	28 days +-5
Worker	3½ days	9 days +-1	20 days +-1	Foraging	42 days +-7
Drone	3½ days	10 days +-1	24 days +-1	Flying to DCA	38 days +-5

If you find eggs, and no queen how long ago do you KNOW there was a queen? At least there was one three days ago and possibly is one now. If you find just hatched larvae and open brood but no eggs when was there a queen? Four days.

If you put an excluder between two boxes and come back in four days and find eggs in one and not the other, what do you know? That the queen is in the one with eggs.

If you find a capped queen cell, how long before it should have emerged for sure? 9 days, but probably eight.

If you find a capped queen cell, how long before you should see eggs from that queen? 20 days.

If you killed or lost a queen, how long before you'll have a laying queen again? 24 days because the bees will start from a just hatched larvae.

If you start from larvae and graft, how long before you need to transfer the larvae to a mating nuc? 10 days. (day 14)

If you confine the queen to get the larvae how long before you graft? Four days because some won't have hatched at the beginning for day 3.

If you confined the queen to get the larvae how long before we have a laying queen? 28 days.

If a queen is killed and the bees raise a new one how much brood will be left in the hive just before the new queen starts to lay? None. It will take 24 or 25 days for the new queen (raised from a four day old) to be laying and in 21 days all the workers will have emerged and in 24 days all the drones will have emerged.

If the queens starts laying today how long before that brood will be foraging for honey? 42 days.

If a hive just swarmed today, how long before the new queen is laying? Assuming this was the primary swarm, it usually leaves the day the first queen cell gets capped. So that means a new

queen will emerge in 8 days. That queen may leave with another swarm or the workers may allow her to kill all the others and stay. Assuming she kills all the others (which are staggered in age, so they will emerge at different times if they do afterswarm) then she should be laying most likely two weeks later. So that's about three weeks give or take a week. (two to four weeks).

You can see how knowing how long things take helps you predict where things are going or where things have been.

Sometimes you just have to figure best and worst case. For instance, an uncapped queen cell with a larvae in it is between four and eight days old (from the egg). A capped queen cell is between eight and sixteen days old. By looking at the tip of the cell you can tell one that is just capped (soft and white) from one that is about to emerge (brown and papery and often cleaned down to the cocoon by the workers). A soft white queen cell is between eight and twelve days old. A papery one is between thirteen and sixteen days old. The queen will emerge at sixteen (fifteen if it's hot out). She'll be laying by twenty eight days usually.

Michael Bush

bees@bushfarms.com

Copyright 2006 by Michael Bush

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 Caniolan races.

(over)

Africanized (hybid): 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.

HEART OF ILLINOIS BEEKEEPERS
www.hoibees.org
Facebook.com/hoibees

Mason County Bee Club
Open to all
Meets 2nd Tuesday of the month February-October 6:[redacted] p.m.

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 of you have none then fondant or a candyboard is the next best thing. The key to you 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 broad chamber with empty broad 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.

[redacted]

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 be magazines, and most of all - enjoy the fruits of your labor.....the honey