

What do I want out of  
this Class?



Do I have what it takes?

# Am I a Bee Haver or Bee Keeper?

---

- Time Commitment
- Maintenance
  - Frequent/often early in spring
  - Routine in summer
  - Frequent in fall
  - Mite counts
  - Hive treatments
- Expense

# Am I a Bee Haver or Bee Keeper?

---

- Be cognizant of neighboring hives
- Do not be a disservice to the bees
- You will fail at some point
- Cost
- Mentor guidance
- Get involved in local club

# History of *Apis Mellifera*



The **western honey bee** or **European honey bee** (*Apis mellifera*) is a species of honey bee. The genus name *Apis* is Latin for "bee", and *mellifera* means "honey-bearing".



# Honeybees around America

---



- First Honeybees to America in 1622
- First documented apiary, Newbury 1640
- Spread with Settlers and via Swarms
- Per Thomas Jefferson, 1784, to Native Americans: ‘White Man’s Flies’

# Eureka! 1851



Lorenzo Langstroth clarifies *bee space*, the  $\frac{1}{4}$  to  $\frac{3}{8}$ " needed between frames for bees to build comb.

The Langstroth Movable Frame Hive is the first and most important invention in creating a commercial beekeeping industry.

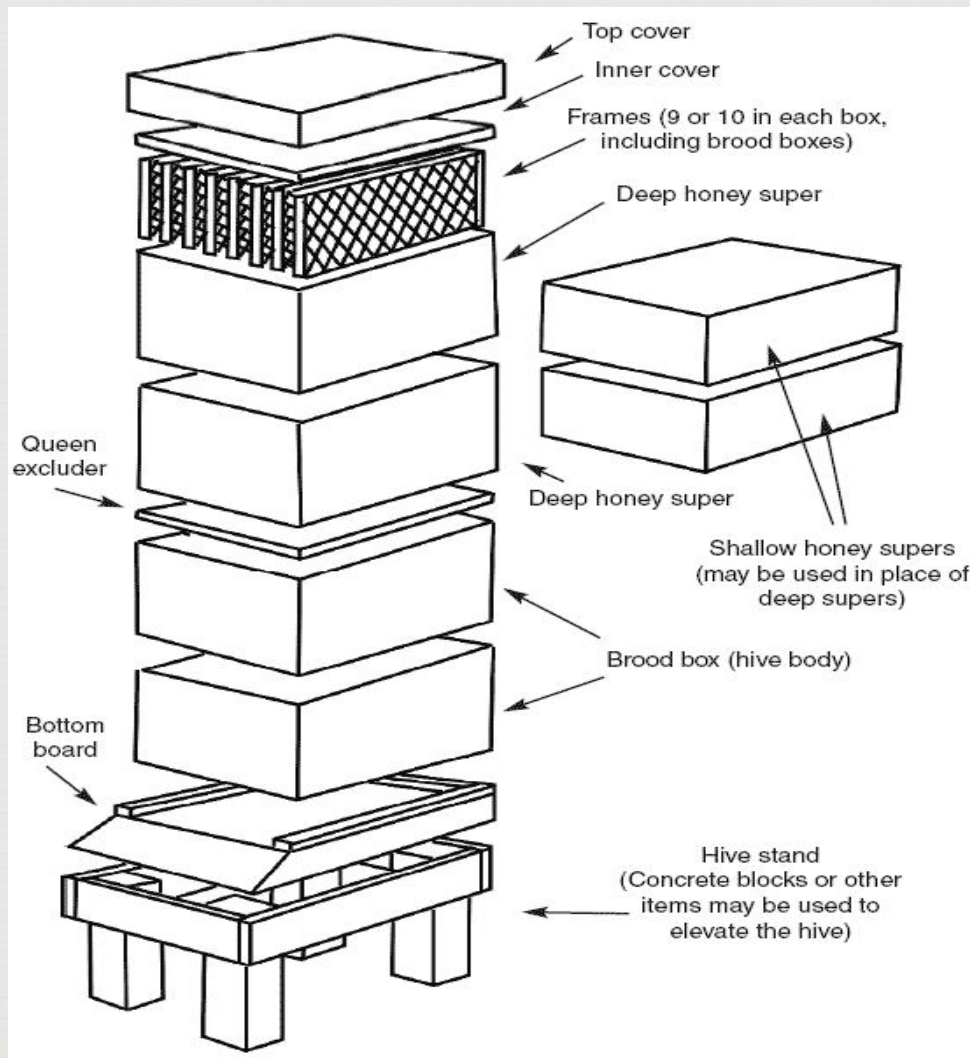


# Honeybees around America



- Langstroth Movable Frame Hive - 1851
- Honeybees to California 1860's
- 2 Million lbs of honey in CA in 1884
- What was a scarce product became an abundant commodity by 1880!

# Still Called Langstroth Hives



- Moveable frame hives are the law of the land in the United States.



# 1980'S



Varroa Mites: First found in this country in 1987



Tracheal Mites: First found in this country in 1984 – no longer an issue

# 2000's



- Increased public awareness of Honeybees in the ecosystem and their role in pollination of food crops!
- Increased literary interest in Bees and Beekeeping
  - *The Secret Life of Bees*
  - *Vanishing of the Bees*
  - *Queen of the Sun*
- Increase in “grow local” and awareness of the benefits of eating local food.
- High increase of allergies and food and chemical sensitivities.

# State of Affairs



# Health of our Honeybees



- ❑ Backyard and suburban gardening.
- ❑ Varroa Mites: Arrived in the country in approximately 1987 and wiped out the entire population of feral hives.
- ❑ Health of our honeybees. The perfect storm: our agricultural system and varroa mites.
- ❑ Varroa Collapse is when in opportunistic viruses and bacteria cause the health of the hive to decrease and collapse.
- ❑ Colony Collapse is when an entire colony disappears.
- ❑ Tropilaelaps Mites Awareness – Could be here in a year or two.

# Health of our Honeybees



- ❑ Problems began in 2005. Colony Collapse.
- ❑ Pesticides are substances meant for attracting, seducing, destroying, or mitigating any pest.
- ❑ Pesticides: insecticides, miticides, fungicides, herbicides and fertilizers, and any other chemical, whether synthetically made or naturally occurring.
- ❑ Agriculture system as it stands today: Mono culture, GMOs, Hybridization, pesticides, pollination of crops.

# Health of our Honeybees

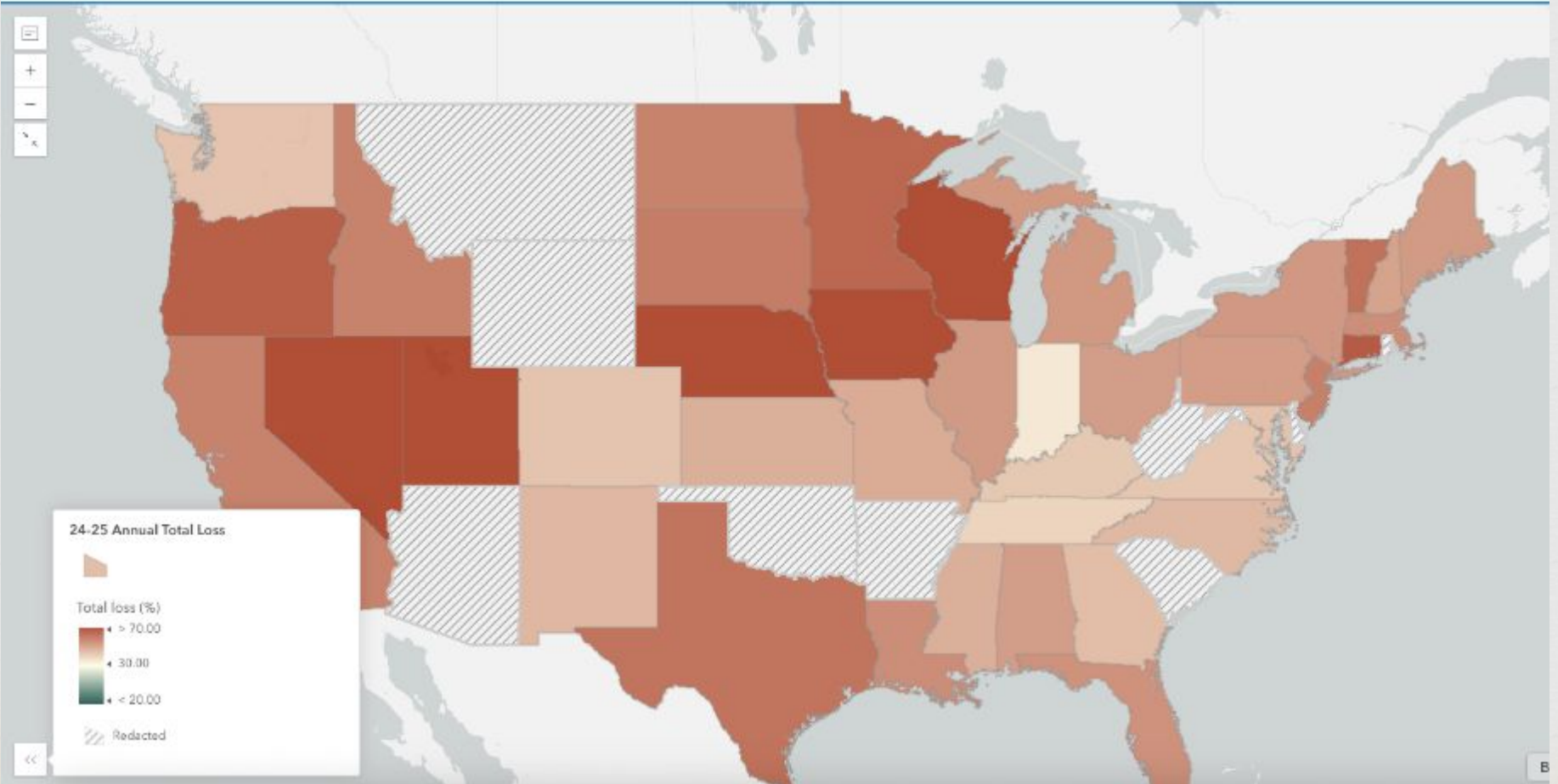


- What is being done today:
  - Government agencies to protect the honey bee and reduce pesticides in our agricultural system and back yards gardening.
  - Local and state government working reducing pesticides.
    - State Representatives
    - Mass Farm Bureau
    - Mass Beekeepers Association

# apiaryinspectors.org 2025 Data

[2024-2025 US Beekeeping Survey: Honey Bee Colony Loss and Management](#)

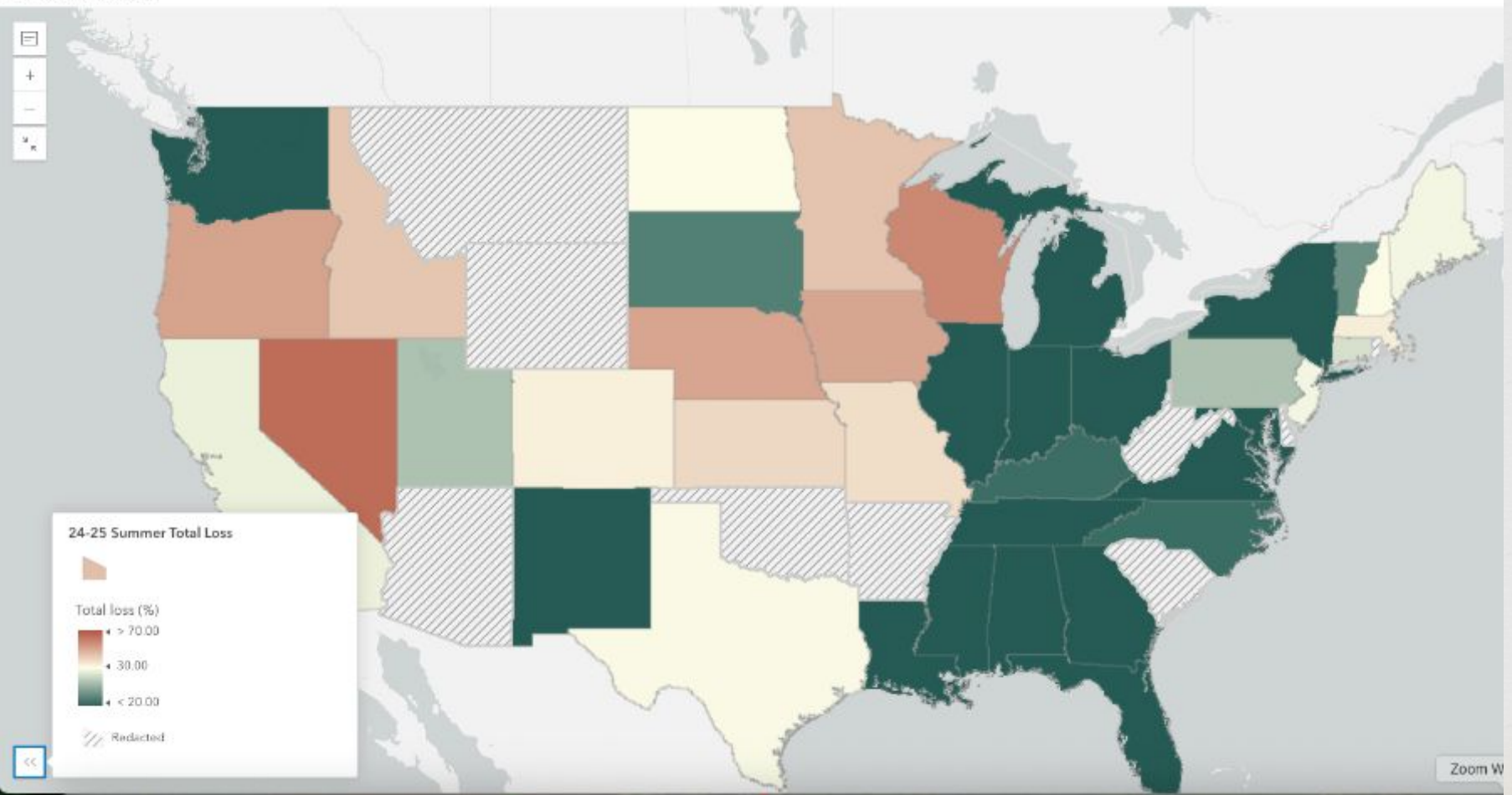
Annual Loss Rates



# apiaryinspectors.org 2025 Data

[2024-2025 US Beekeeping Survey: Honey Bee Colony Loss and Management](#)

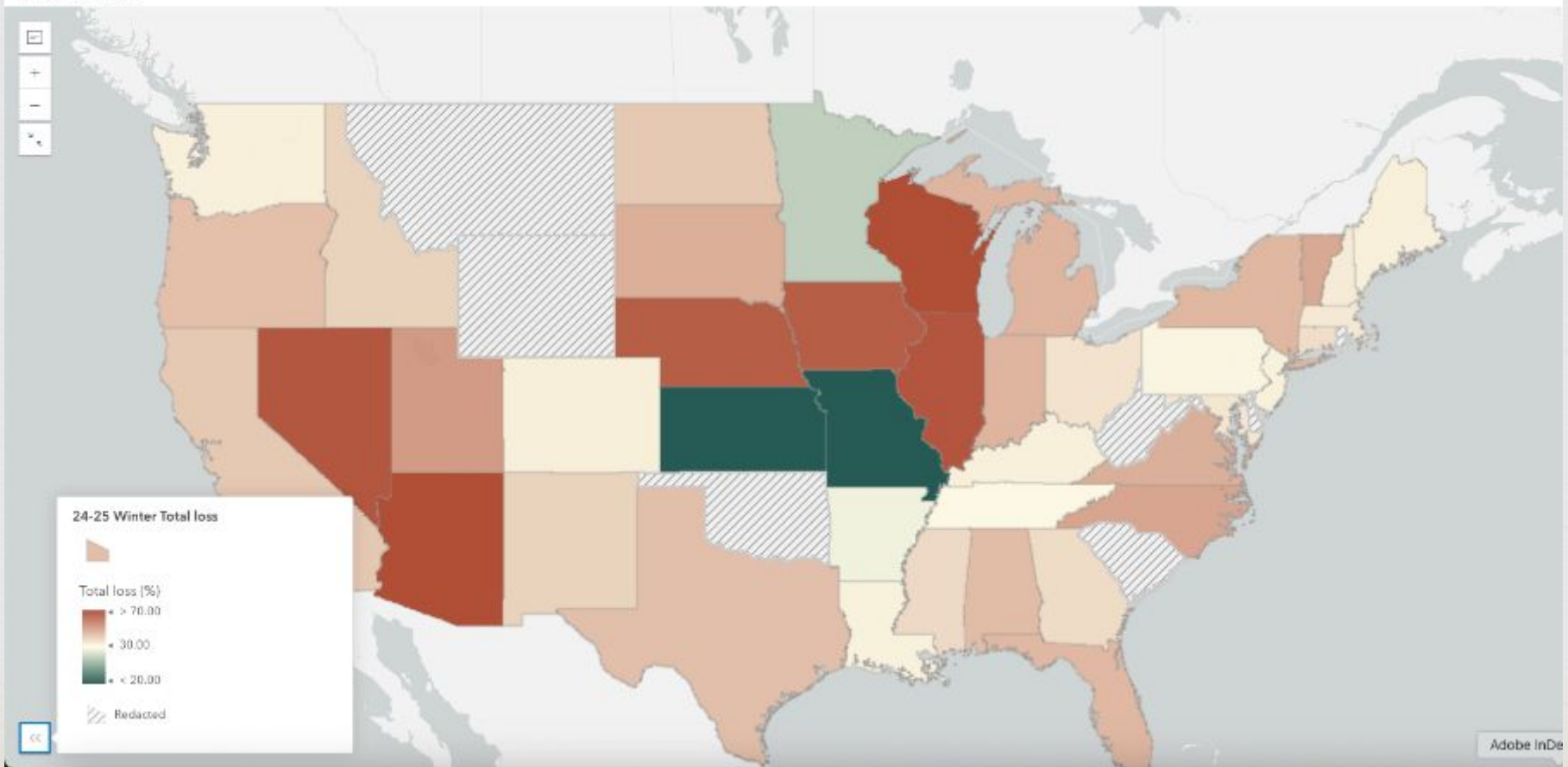
Summer Loss Rates



# apiaryinspectors.org 2025 Data

2024-2025 US Beekeeping Survey: Honey Bee Colony Loss and Management

Winter Loss Rates



# Benefits of Beekeeping



- Local pollination and crop production
- Local honey & Allergy mitigation
- Public awareness of plight of pollinators
- Improves local environment

# Becoming a Beekeeper



# A BEE OR NOT A BEE...



# Becoming a Beekeeper!



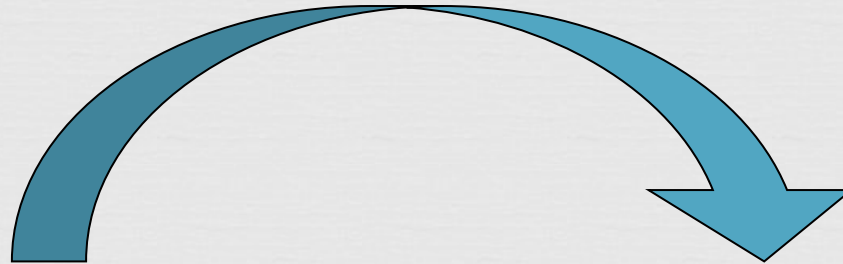
- We still need to cover the following things:
  - 9 guidelines to being a good beekeeper
  - Apiary Laws & Inspections
  - Glossary of Terms
  - Mentoring and mentoring guidelines.
  - Next weeks class: Bee Biology, Equipment Ordering, and ordering bees.

# Becoming a Beekeeper! TESTS



- First test starts next week.
  - Check web site for test.
  - Online answers (download after you take the test)
  - Bring test to class to review
  - Ask questions.. .You are learning a new hobby and a new language.
  
- Don't always believe what you read online!!

# Bee School Graduation



Picture  
yourself  
here



2016 Class

# Guidelines to Beekeeping



# Nine Basic Guidelines

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



## **Thou Shall:**

- 1. use only standard beekeeping equipment.**
- 2. be considerate of non-beekeeping neighbors.**
- 3. control diseases and parasites.**
- 4. do your mite counts.**
- 5. maximize colony populations for the main nectar flows and in preparation of winter.**
- 6. protect thy beekeeping equipment.**
- 7. take pride in your bees, the honey and other hive products. Respect the honey bee at all times.**
- 8. help thy bees through winter.**
- 9. join and participate in a beekeeping association.**

**See Appendix III – detail**

# Apiary Law & Inspections



# Apiary Law & Inspections



- Massachusetts General Laws regarding Apiaries and Honey Bees
- Massachusetts Department of Agricultural Resources 330 CMR: 8.00 (See Appendix IV)
- Mass General Law: Part 1, TITLE XIX, CHAPTER 128, SEC 32-36
- You can download all of this from:
  - [malegislature.gov/Laws/General Laws](http://malegislature.gov/Laws/General%20Laws)
- A couple of important sections are 33, 34, 36

# Apiary Law & Inspections



- Part 1, TITLE XIX, CHAPTER 128, SEC 33
  - Maintenance of colony of honey bees in hives in which brood combs are fastened to container; diseased bees
    - Section 33. No persons shall knowingly maintain a colony or colonies of honey bees in hives, other receptacles, trees or other lodging places in which brood combs are fastened to the container of the colony or cross-built.
    - No person shall neglect, expose, sell, barter, give or in any other way dispose of diseased bees or any colony container, comb, frame or other appliance used about the diseased bees in whole or in part in such manner as to cause the spread of the disease.

# Apiary Law & Inspections



# Apiary Law & Inspections

---



- Part 1, TITLE XIX, CHAPTER 128, SEC 34
  - Instructions as to treatment of diseased and miskept colonies; destruction
    - Section 34. The inspector or his assistants, upon the discovery of bee diseases or any comb cross-built or fastened to the container in any apiary or colony shall give instruction to the owner or caretaker thereof as to the treatment of the diseased and miskept colonies, infected combs and equipment and shall cause the diseased and miskept colonies and all infected combs, hives and equipment to be treated, disposed of or destroyed in such manner as to suppress the disease.
    - For the loss of colonies of bees and property destroyed by the inspector or his assistants the commonwealth shall pay to the owner two dollars per colony.

# Apiary Law & Inspections



# Apiary Law & Inspections



---

- Part 1, TITLE XIX, CHAPTER 128, SEC 36
- Access by inspector to places where bees, bee supplies, appliances or equipment are kept; inspection cards
  - Section 36. The inspector or his assistants upon presentation of proper credentials of the department shall have access to each place where bees, bee supplies, appliances or equipment are kept and to each place where bees have lodged.
  - No owner, renter, or keeper of beehives, used bee equipment, or places where bees have lodged, shall refuse or obstruct entry of the inspector or his assistants to any such place for inspection and for disease control purposes.
  - There shall be secured to each colony inspected a legible card showing the date of inspection, the health or disease of the colony, and the signature of the inspector.

# Apiary Law & Inspections



# Apiary Law & Inspections



- Who to register your hives with or contact for an inspection:

**Kim Skrym**

Email: [kim.skrym@state.ma.us](mailto:kim.skrym@state.ma.us)

Chief Apiary Inspector/Apiary Program Coordinator

Mass. Dept. of Agricultural Resources

251 Causeway Street, Suite 500

Boston, MA 02114-2151

Phone: 617.626.1801, Fax: 617.626.1850

# Apiary Law & Inspections



- Who are our inspectors:
  - Kim Skyr, Chief Apiary Inspector: **[Kim.Skyrm@mass.gov](mailto:Kim.Skyrm@mass.gov)**
  - Paul Tessier: **[Paul.Tessier@mass](mailto:Paul.Tessier@mass)**
  - Rhys Willette: **[Rhys.Willette@mass.gov](mailto:Rhys.Willette@mass.gov)**

# Pesticide Exclusion



- In order for you to be excluded from pesticide spraying, you will need to fill out the form in your booklet and send it in.
  - [www.mass.gov/forms/request-for-exclusion-from-wide-area-application-of-pesticides](http://www.mass.gov/forms/request-for-exclusion-from-wide-area-application-of-pesticides) or see Appendix V for form.
- In addition you can place markers on your property. This allows for any non-government pesticide sprayer to know that there are hives nearby.

# MDAR Best Practices



- See Appendix VI
  - This is a detailed 6 page report that was adopted by MDAR as a result of Mass Beekeepers Association

# Pesticide Exclusion

## PESTICIDE EXCLUSIONS



Under 333 CMR 13.03, an exclusion request may be made to opt out of wide area pesticide applications. Requests must be submitted to the Massachusetts Department of Agricultural Resources (MDAR) either via first class mail or through an online form. Exclusion requests may be made at any time during the year, shall be effective 14 days from receipt of the request, and shall be in effect for the remainder of the calendar year in which the request was made. All requests shall expire on December 31 of the calendar year in which it was made.

### Approved Marking Methods:

White plastic or aluminum pie plates, a minimum of 9 inches in diameter, with the words "No Spray" clearly written in permanent marker. Plates must be placed on trees, stakes, or poles easily visible from the street, at least every 50 feet along the property boundary adjacent to the road and no more than 5 feet from the road.

**FOR MORE INFORMATION PLEASE CALL: Juan Carlos Gutierrez at (617) 626-1723**

# Boston town ordinances – Article 89 Section 10



- Allston
- Boston/South Boston
- Brookline
- Dorchester
- Hyde Park
- Jamaica Plain
- Mattapan
- Roslindale
- Roxbury / W. Roxbury

# Glossary of Terms



# Glossary of Terms

---



- Beekeeping is new language
  - Different terms for the same thing.
  
- See Appendix VII
  
- No list is going to be complete, but this is a good start.

# Mentor Program



# Mentor Program



- Each bee school student will be assigned a mentor
  - If you do not want a mentor, please let us know
- We will try to match beekeeper with a mentor that lives near by. This can be difficult, so please be patient with this process.
- If for some reason the mentoring relationship isn't a good fit, please let us know and we will find you a new mentor.
- See attached appendix VIII for mentor-student guidelines.

Now the “fun” part





# Bee Stings

□ They HURT and....



we REACT

- You will inevitably get stung
- Be aware of what happens.
- Most stings result in pain, some swelling, redness.
- If you think you are having a reaction (swelling of tongue, tingling sensation, dizziness, or shortness of breathe, seek medical attention. **Don't wait.**

# Bee Stings



# Bee Stings



- Normal Reaction
- Allergic Reaction
- Toxic Reaction
  - Too many stings at one time

# Bee Stings



## □ Normal Reaction

- Pain
- Welt develops at puncture site
- Redness develops around welt
- Swelling
  - a little at site
  - a lot at site (large local)
- Itching local

## □ Normal Treatment

- Baking soda paste
- Benadryl
- Hydrogen Peroxide
- Plantain weed
- Pressure

# Normal Reaction



# Bee Stings

---



## □ Allergic Reaction

- widespread, rapid swelling
- itching of body
- disorientation feeling
- stomach upset
- shortness of breathe
- loss of consciousness

## □ Allergic Treatment

- **911 & EpiPen**

# EpiPens



- **EpiPen** is an injection containing **epinephrine**, a chemical that narrows blood vessels and opens airways in the lungs. These effects can reverse severe low blood pressure, wheezing, severe skin itching, hives, and other symptoms of an allergic reaction.
- You can get a prescription from your doctor.

# EpiPens

## SYMPTOMS OF ANAPHYLAXIS

SYMPTOMS CAN OCCUR **WELL AFTER** INITIAL EXPOSURE

### HEART

Weak, rapid pulse  
Low blood pressure  
Abnormal heart rhythm  
Heart palpitations  
Dizziness, lightheadedness  
Shock  
Loss of consciousness

### BRAIN

Headache  
Anxiety  
Confusion  
Weakness  
Slurred speech  
Feeling of impending doom

### LUNGS

Wheezing  
Chest pain  
Difficulty breathing  
Trouble swallowing  
Fluid in the lungs  
Tightness in chest and throat  
Cough

### SKIN

Itching, redness, and/or swelling  
of face, eyes, lips, tongue, & throat  
A feeling of warmth  
Flushed or pale skin  
Hives or rash

### STOMACH

Nausea  
Vomiting  
Diarrhea  
Abdominal pain

**IF EXPERIENCING ANAPHYLAXIS CALL 911 & USE EPINEPHRINE**

# EpiPens



# Too Many Stings!!



# Bee Stings



What to do to avoid being STUNG.....

- ❑ proper clothing
- ❑ smoker
- ❑ best environmental conditions
- ❑ scrape sting out promptly
- ❑ slow movements-no jerking or 'windmills'
- ❑ extra care around hive/flowers
- ❑ don't remove veil too soon
- ❑ keep gentle bee stock



# Bee Stings



A bee's front end is sweet and kind,  
But never trust a bee's behind.  
A bee can sting if it can sit,  
So always stay in front of it!

# What does it take?



□ BEE-HAVER...



□ BEE-KEEPER..



□ We are here to provide a solid foundation for success