

# The Middlesex ee

*The Middlesex Bee is the official newsletter of the Middlesex Beekeepers Association, Inc., a 501(c)3 non-profit organization*

May / June 2017

“Not a single bee has ever sent you an invoice. And that is part of the problem – because most of what comes to us from nature is free, because it is not invoiced, because it is not priced, because it is not traded in markets, we tend to ignore it..”

United Nations Report, *The Economics of Ecosystems and Biodiversity*

## March 24, 2017 MCBA Indoor Meeting and Bee Talk

### Introductions

This time of year things may be going great one day, and not so great the next. Tonight we have Glen Card, a third generation beekeeper whose operation includes over 30,000 hives and stretches from here down to Louisiana. His hives are getting back from Almonds, so in the mean time he'll be helping to answer questions tonight before his presentation. We have a tradition of asking people here for the first time to introduce themselves (along with where they're from and their beekeeping experience); so Who's here for the first time?

➤ Ramone C. Concord: bee-curious.

- Dave R. Newton Highlands: this is my first meeting. I'm starting my tenth year with bees. I have 9 hives, with 4 more on order. I went before the conservation committee in town, and got permission to put 4-6 hives on public/city-owned land
- Sarah, Lexington: currently in bee school with Rick.
- Kate, Dracut, I'm doing my senior (H.S.) project on beekeeping.
- Sammy, Groton, getting my first hive this April.

**5** | **Glen Card on 30,000+ hives**  
*Merrimack Valley Apiaries*

**6** | **VOLUNTEER!**  
*We need your help*

**14** | **Use Protection**  
*Keep safe while treating*

- 1** 03/24 Meeting Minutes
- 2** Meeting & Events Calendar
- 3** BetterBee
- 4** Join us on Facebook
- 4** Bee Magazine Discount
- 8** Extractor
- 10** Poem
- 11** Antenna Cleaners
- 12** What's Blooming Now?
- 15** Club Officers & Volunteers
- 15** Membership / Renewal Form

## Save The Date

### MCBA Outdoor Meetings and Hive Openings

05/27, 2-4pm, The barn at the *Newton Community Farm*, 303 Nahanton Street, Newton *(Please note that this meeting will begin at 2 pm rather than our usual time of 1 pm. Please park in front of the farm on Nahanton Street, or along Winchester Street)*

07/29, 1-3pm, Hosts: Cheryl and John Mandler, 58 Mallard Drive, Concord

08/26, 1-3pm, Host: Ottavio Forte, 28 Winn Street, Belmont

09/30, 1-3pm, location TBD

### Massachusetts Beekeeping Association Field Day

06/17, 9am-3pm, UMass Agricultural Learning Center, 911 North Pleasant Street, Amherst, MA. Visit the Massachusetts Beekeepers Association website for more details. <https://www.massbee.org/>

### Eastern Apiculture Society 2017 Conference

07/31 – 08/04, University of Delaware, Newark DE  
<http://www.easternapiculture.org/conferences/eas-2017.html>

### Announcements

Tom spoke briefly about April's annual meeting and spaghetti dinner.

- Rick Ressijiac said that if you have not renewed your membership for 2017 to please do so as we will begin culling the rolls soon.
- Jen Reed mentioned the club's Spring Workshop on Saturday May 6th. It goes from the morning into the mid-afternoon and will once again be held at Carl Flower's Christmas Tree Farm (Silveus Plantation).
- Alix spoke briefly about the Eastern Apicultural Society's 2017 Conference. Registration begins 4/1 and there are lots of good speakers. To learn more, visit: <http://www.easternapiculture.org/conferences/eas-2017.html>

### Legislative Update

Alix Bartsch told the group about pending regulations/legislation that will affect beekeepers. The USDA is talking about changing rules about labels on honey jars – needing to add a statement about “Sugar Added.” Don't do that! We add sugar to our honey (you shouldn't be feeding with honey super son) and adding this to your label would only confuse consumers. More information about this will be on the MassBee Facebook page.

At the state level, Representative Karen Dykima's re-introduced a house bill to ban neonicotinoids is currently in joint committee. Alix said that she forward information about a public hearing when that becomes available.

At the local level, Alix spoke about the heinous local regulations that keep popping up like a Varroa Mite infection. Boston, Somerville, and Watertown have instituted onerous regulations. Cambridge has a quasi-board of health that previously stated that no one would be able to keep bees legally in Cambridge since the incident last year. Cambridge is now trying to change it's zoning regulations and the “board of health” is trying to come up with regulations. San Francisco has a system with no permitting – you have to comply with the regulations. Alix is trying to steer Cambridge to be more “Bee Friendly” and nature-friendly. If you go to our internal members-only website, you can see our response back in November (our comments on the draft regulations). It goes through the draft regulations as it existed at

that time and concluded that the regulations were a solution in search of a problem. People have been keeping bees in Cambridge for over 300 years without a problem. The irony is that it is now harder to keep bees alive, it's an extremely expensive hobby, and burdensome regulations are making things worse.

Glen Card mentioned the new BFD and VFD regulations – basically you can no longer get antibiotics over the counter to treat for European Foul Brood, you now need to go through a veterinarian. The problem with this is that veterinarians are not trained to deal with bees, on top of that the extremely low dosages of Teramycin and Anamycin require a compounding center. What about ordering the antibiotics from Dadant and other vendors? Glen said he was not sure of the loopholes, and whether these would be considered food supplements... he suggested contacting the vendors.

Glen then touched upon the labeling issue – it doesn't affect beekeepers at the hobby or small scale, but it does affect larger operations. Glen said that this is generally bad for the industry as a whole because the regulation will generate consumer confusion, and creates a foot in the door for more government regulation. We don't want to see it go beyond that.

Alix said that although the public comment period is officially over, the commission will still accept letters – so look at the MassBee Facebook page, read the instructions on who you should send the letter to.

### Questions and Answer Period

How are your bees? Does anyone have any questions, comments, anecdotes that they would like to share with the group?

Jen said that she's concerned with **the recent cold snap after the warm weather, and the loss of buds on the trees and bushes**. Tom said that his hives had been bringing in pollen during the warm spell last month, and he's unsure whether that gave them a little hedge, or set them up to fail because they expected the pollen and good weather to continue. Alix said that her hives have been getting light, there's lots of brood and the new bees have been getting hungry. **This time of year you'll need check if you need to feed because your hives are brooding up**. On a warmer day, at

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least in the 40°s and not windy check your hives to see whether you should put some fondant on. Mike Bayko said that if the bees don't need the extra feed they won't take it, but if they do then they will have it available to them to get them through the next rough period. Be vigilant and see what is going on when you can.

**When should I consider treating my hives for mites?** You should be ready for when temperatures do get into the range when treatments are effective.

My first last year died in February, and **there's lots of honey left. I fed syrup in the fall, what can I do with it?** How much is there? The whole second deep is full. I wouldn't eat it -since you fed the hive that's not honey, and it's not fit for human consumption. The problem is that unless you add food coloring to your syrup, you can't be sure which frames are honey and which are funny-honey. Tom said that he would save the honey to feed back to a new package or nuc. Drawn combs and food in frames will give set your new bees ahead of the game.

## Like Us on Facebook

Our Facebook Page has updates about meetings (delays/cancellations in Winter), and articles about bees - so the next time you're online, come visit!

Alix said that she's been hearing about unprecedented losses around the State, and the time for being treatment free is past – you just can't be casual about not treating any more. She suggested that everyone come to the club's workshop in May to learn more. You really need to deal with Varroa, and we'll help show you how.

**I had some frames of honey in my fridge, but it's crystalized – do you have any suggestions on what to do?** Unfortunately, you can't extract the crystalized honey. Had you put those frames into the freezer, that would have helped prevent the crystallization, which happens fastest around the 50°-60° range. Glen said that he feeds granulated honey back to his bees.

**With extracted honey, what's the best way to feed it back to the bees?** Tom said that you shouldn't dilute it, and in the past with old honey that he can't sell or do anything with, he'll take a tray (the bottom of a take-out food container) and puts that atop the inner cover with another deep or medium enclosing the tray. The bees will come up into that section and take the honey back down into their hive. Jen said that she puts hardware cloth down for the bees to walk on, and to prevent drowning since the bees will get stuck in the honey. **Can't I just leave honey out for the bees?** No, you don't want to leave it out because doing so will trigger robbing. With the leftover honey – **can't I just put it into a mason jar feeder?** Unfortunately no, it's too thick for the bees to access through the holes. The jars are good for syrup, but not as effective for honey.

## Bee Magazine Discount

MCBA members receive a 25% discount off subscriptions to *American Bee Journal*.

For a copy of the ABJ Association Member Subscription form, visit the *Club Business & Important Links* section of the MCBA members-only website:

[membership.middlesexbeekeepers.org](http://membership.middlesexbeekeepers.org)

This is the first year my bees are overwintering, and the bees have moved from the deep box into the medium at the top. **How can I get them back into the deep(s)?** Tony suggested reversing the boxes so that the medium was now at the bottom. Eventually they'll expand into the deep(s) and move up. Just leave the medium at the bottom until they do so. Glen agreed, and said that's what he would do.

I have a question from the last newsletter – John Sallay had a page with information on safety equipment to use for formic acid and other treatments – **It's about the cartridges for the respirator. Can you use those over and over or are they only a single-use deal?** John Sallay was present for the meeting, and said that he has used the filter cartridges twice. He said that he would go onto the 3M website or contact

them, and then forward what he learns to the club. **Why would one need respirator cartridges for working with bees?** There are treatments (Formic Acid, Oxalic Acid, et cetera) for one of the main pests – Varroa Mites – whose vapors can be bad for you to breathe and the manufacturers recommend the use of safety equipment. ■

## BEE TALK

### Glenn Card, Merrimack Valley Apiaries

He's a third-generation beekeeper, and a lifelong Billerica resident; he graduated from UVM in 2006, and is married with 3 children.

Merrimack Valley Apiaries was incorporated in 1958 by Andrew Card senior. and Carl Cheney, and was started primarily as a pollination business (their first client was Westward Orchards in Harvard). From a single hive they grew to over 2,500 hives by 1986, when Andrew and Crystal Card purchased the business. Glen showed a number of pictures from the early days, and said that it's funny that no one talked much about bears back then (though they probably dealt with them) – but we're having to deal with them now! A member asked about one of the pictures of **hives overwintering, and asked what they did then versus what they're doing now**. Glen said that the process is similar to what you see now – they use tar paper wraps and wood shavings on top to absorb moisture – but back then it was easier because the bees stayed alive.

Glen said that back in the 1960's the beehives were not not on pallets (that happened in the 1970's), and it would take 4-6 guys, 4-5 hours to load bees onto a semi-truck (and the trailers were shorter back then). Back then, they weren't breeding their own queens, and were buying packages.

Now, Glen said that he can unload a truck by himself in about 45 minutes. A good operator can now unload a truck in 25-30 minutes. If we use two guys, it only takes 15 minutes. Do you ever drop them? Sometimes, but we try not to do that.

Merrimack Valley Apiaries operates over 30,000 hives now in 2017. We now pollinate apples, blueberries, high/low bush cranberries, and

almonds. We have 45 employees throughout the company (which includes the Evergreen Honey Company). We are a self-sustaining farm which produces

- Honey (both wholesale and retail)
- Beeswax
- Nucs.

**How many pollinators like you, are in the United states?** The biggest pollinator has 80-94,000 hives. There are about 15 of us in this range, a couple thousand smaller operations of commercial guys running in the 1-5000 hive range.

### A typical year with the Merrimack Valley Apiaries

- **February-March:** Clean up the hives, build up for California Almonds, build the queen yard, split overwintered nucs).
- **March and April:** Hives return from California, spring increases
- **April and May:** We'll be home in Billerica late April into early May
- **May and June:** Build up for honey production and Northeast pollination
- **June and July:** Move rehab bees to outyards, cranberry pollination
- **July and August:** Summer increase, pollination ends, preparations for fall honey
- **September and October:** pull honey supers and ship bees South for the winter; this is the last chance for bees to collect natural pollen.

**February and March:** Winter clean up, building up for California (almond pollination).

This year it took us 19-days to ship, 29-30 tractor trailer loads of bees!

We begin splitting overwintered nucs. The biggest problem down South, is that Small Hive Beetles (SHB) take over weak colonies (which is exactly what a nucleus colony is). **How do you deal with the SHB, do you treat?** No, there are no treatments for SHB – having strong colonies is the best way to deal with them. You can add microfiber cloths (look on the internet, Betterbee and Mannlake have them) where the SHB will get stuck in them. They aren't as big an issue up here in the Northeast, and strong colonies deal with them. There are chemical-free Beetle Blaster

## Volunteer Opportunities

### Minutes / Note Takers

 **Beekeeping Knowledge**

 **Typing / Keyboarding**

The club needs volunteers to take minutes at the July and August club meetings. If you are available, please contact Tony Pulsone at [editor@middlesexbeekeepers.org](mailto:editor@middlesexbeekeepers.org)

### Mentors

 **Beekeeping Knowledge**

If you know your way around a hive, then you have knowledge that can be helpful to newbees in your city/town! Can you tell if a hive is queenright? Know how to spot problems? Or club's motto is "Beekeepers helping Beekeepers... Contact Tom Fiore at: [president@middlesexbeekeepers.org](mailto:president@middlesexbeekeepers.org)

### Members-Only Forum Moderator

 **BK Info**

 **Internet Skills**

If you've been beekeeping for some time, and up on current practices and research then we can use a hand with the members-only forum. The forum structure is already taken care of - it's the meat and potatoes of helping answer questions... Please contact John Cheetham at [website@middlesexbeekeepers.org](mailto:website@middlesexbeekeepers.org)

### Social Media / Communications

 **Beekeeping Knowledge**

 **Facebook Skills**

We could use help with our social media. If you know your way around Facebook, or like to blog please contact Tony Pulsone at [editor@middlesexbeekeepers.org](mailto:editor@middlesexbeekeepers.org)

### Finding Speakers for Meetings

 **Beekeeping Knowledge**

 **Google Searches**

If you have spare time, please go through the MA, RI, and NH. County Organizations websites (i.e. archived newsletters) and compile a list of speakers they've had visit their clubs... Send the lists to [president@middlesexbeekeepers.org](mailto:president@middlesexbeekeepers.org)

troughs, various traps and cloth fabric – Glen suggested looking into those.

During this time we're building up our queen yard, and begin grafting queen cells in late February, and will do 500-1,500 per day. The cells are stored in an incubator.

#### ➤ **Stock Selection for Queens.**

Throughout the year we're picking out good colonies to work with. Our breeding stock is from a Northern-bred queen breeder whom we raised additional breeding queens from. We're looking for the following qualities in our queens:

- good brood pattern
- brood volume
- honey production
- Varroa resistance
- disposition
- Orientation Important for Queen Acceptance.

In the queen yard, these queen cells will go into starters, which are huge queen-less colonies. MVA grafts 35,000 cells per year (we have 2 full time people plus Glen's mother doing this).

Multi tasking helps for a fast turnaround!

The spring increases are made larger, which makes for a faster buildup.

With a simultaneous queen introduction, we begin feeding for the buildup

Down in Louisiana, where the operation overwinters, there is both plentiful and diverse natural pollen flows. **Glen, do you produce packages?** No, we only do nucs.

**March-April:** Bees return from California, spring increases

At this point, we'll begin splitting what's coming from California, and we'll place the queen cells into nucs (we're raising our own queens). Spring Queen production exceeds 20,000 queen cells, each of which is individually grafted.

This is our planning and adjustment period. We'll begin to make adjustments to optimize colonies for our next year of pollination. An early spring means early pollination!

Colonies are sorted and redistributed into production apiaries (~17,000), or remain in migratory yards for continued pollination work (~5,000)

Nucs are Checked – we go through each one. They stretch out in lines out in smaller yards.

We'll be raising ~4,000 colonies for spring increases; 8,000-10,000 colonies will be split or used for remakes.

We'll move bees to an open pasture migratory yard. The bees build up well here even though they're here only for a month to build strength.

**April and May:** We start to follow the bloom (We'll be home in Billerica late-April into early-May)

- Blueberry pollination in New Jersey (4,500 hives)
- Apples in New York (1,200 hives), Massachusetts (800 hives), and New Hampshire

We'll pull honey from the colonies in New Jersey

Nucs are distributed in the Northeast (sold to beekeepers)

Rebuild or rehabilitate anything that doesn't make the grade for Maine Blueberry pollination (3,000 hives needed).

The same bees don't go to the same places any more. Pollination for the High Bush Blueberries in New Jersey is 4-5 weeks.

How large are the hives that you pollinate with? Up until about 10 years ago, we used to only a deep and medium, but we found that we need stronger hives in Maine (for the Blueberries), so we needed to add another box to allow the colonies to expand and contract – so now we run a single deep and 2 mediums. How many hives can you fit onto a truck? 450 hives per truck.

It takes 3 days to truck bees from Louisiana to California, and 3 days back. It's 2 days from Louisiana to New Jersey. 2.5 days to New York, and almost 3 days from Louisiana to Massachusetts. **What are you doing to keep the bees cool?** We move bees at night unless the weather doesn't allow for it. All regional distribution is done at night. We also don't close the entrances, we keep them open when hauling at night and found that we don't need to screen them in (for longer drives we do). We have long nights and short days, working all night and then we try to sleep during the day. We also spray water on a load to cool them off (which reduces the stress on the bees, and calms them down quite a bit). We have a spray rig that will put 250 gallons of water on a truckload of bees

in only 5 minutes down in Louisiana.

There are many different varieties of apples in Massachusetts, New York, and New Hampshire – these are fast pollinations of 5-10 days. What about fungicides? We try to keep the bee's exposure to a minimum, but there are lots of sprays put on apples while the bees are there. Growers will generally spray at night. However, Dennis van Englesdorp is looking into this and the fungicides are affecting the bees in their gut – exactly what's happening and the extent is not exactly known yet.

So the bees have been pollinating the apples, and blueberries (NJ) – at this point we'll pull the honey (if possible) and check the bees for strength. We have to balance the honey stores and feed requirements. Hives that are not up to strength are rehabbed. Anything not cut out to up Maine (a failing queen, queenless colonies, not up to strength, et cetera) are pulled. We'll pass the trucks through Billerica and unload trucks in the morning, go through the hives and reload the trucks and ship the bees off. Colonies will die during pollination if they're not strong. Inspecting them in Billerica reduces losses, requeening colonies, feeding them, and if necessary taking them out of the pollination stress cycle. This is done rain or shine – we're getting the bees ready – and ourselves since it rains a lot while we're up there in Maine.

**mid-May to mid-June:** Maine wild blueberries 80-100k colonies are required to pollinate the wild blueberries in Maine – that translates to 2-7 hives per acre. Unfortunately blueberries

## Extractor



MCBA maintains a hand-operated Maxant 3100-series 9-Frame Honey Extractor for rent by current members. Rental includes everything you need to extract your honey, including:

- Electric hot knife for uncapping honey frames
- Uncapping Fork
- Uncapping Tank

### Terms:

- This extractor is available on a first-come, first-served basis to members only.
- The extractor is easy to transport in an SUV or Pickup, and is capable of being moved by one person with ease (however 2 people are helpful)
- \$15/day. Extensions may be available depending upon scheduling. Contact the Extractor Coordinator at [extractor@middlesexbeekeepers.org](mailto:extractor@middlesexbeekeepers.org) for information.
- The Extractor must be cleaned WITH COLD WATER before returning to the club.
- Any and all damage and/or maintenance issues MUST be reported to the Extractor coordinator immediately.

**To reserve, contact Kathy at: [extractor@middlesexbeekeepers.org](mailto:extractor@middlesexbeekeepers.org) or by phone at: 617.549.7460**



are a limited pollen and nectar source for the bees so feeding syrup and a pollen supplement is recommended. Bees receive 1-2 gallons of feed and 2 protein patties.

**Maine Quality Inspection:** all hives are checked to insure that they meet an 8-frame minimum (the pollination pay rate is based upon frames of brood). Maine tells us what they are going to pay us. (contracts will pay this much...). With other pollinations, smaller pollinations people are charging all different prices (some growers it's \$125, some \$50 for apple growers) – California has the best prices of \$180/hive (but, you have to get them out there, have them ready and to strength).

**Have you experienced a lot of theft?** Thankfully no. Glen goes down to Louisiana and it's humid, and cold in the mornings – it's funny because people will freak out when there's ice – but it doesn't get that bad. **Where do you get your honey from?** From our bees.... it depends though. We have smaller honey production all from the Northeast. However apples is what we make the most of. We may have others to supplement: cranberry and blueberry. You don't want almond honey, it's horrible. Orange honey is valuable, but the growers don't pay and a lot of beekeepers are no longer going down there (California, Florida) because the growers spray a lot (they're worried about a greening disease caused by bugs, but the bees are there too) and they don't pay a lot.

**June and July:** we move rehabbed bees into honey out-yards

Mites, and Disease/pest control: We have our own bee lab that we'll do nosema spore counts and check Varroa mite loads

Cape Cod cranberry pollination (18,000 colonies) – the bees experience multiple fungicide and pesticide exposures. Pollen and nectar sources are negligible, so we must feed for lack of good nutrition. You don't want deliver too early because there will be nothing for the bees so you need to feed. If the peak bloom is 15-days from now, I'll need to feed the hives, otherwise when I go back to check on them they'll be starving.

Last year was the second year in row that the hives were overweight coming off the Cape. Stimulation gets them rearing brood, and that gives them a bee population to collect the nectar. Once that nectar flow dwindles we need to get the bees out as fast as possible and onto another nectar source.

Speaking about the Cape, do you bring bees out to Nantucket? No, we stopped bringing bees to Nantucket. There's a huge 400+ acre Cranberry Bog, but the owners wanted to switch to organic methods and switched to bumblebees.

**July and August:** Bees are moved off cranberries, we build them up for the fall honey crop, and check their supers.

Next stop: "Happy land." Supers are added. Bees are moved to Eastern New York, Massachusetts (Carlisle).

**September and October:** Honey is pulled, extracted, and the bees are shipped south to Louisiana.

We check mite loads and apply Apivar. We use Formic Acid a lot in the summer, but we rotate treatments. We do not apply multiple treatments of the same stuff over and over. For instance, we have vaporizer for oxalic acid.

Our extraction area is in Western New York. We have 4- 84-frame extractors (these are 5' across). Down in Louisiana the extractors run in 5 minute cycles because the weather is wetter and warmer down there. Up here in the Northeast the honey is very thick, and the weather is colder, so the extractors need to run in 15-20 minute cycles – resulting in not as much production. We fill two 2,000 gallon tanks and one 800 gallon tank in day and a half. 1,500 gallons goes to our bottler, the remainder goes into buckets or barrels.

We have a volume based jar filler that is piston-based. Unfortunately viscosity changes with temperature (wide changes from 70°-90° F). We have had to make adjustments to equipment to ensure the right fill.

**November and December:** We begin feeding Protein supplement and a syrup blend is given for weight management.

We don't open feed syrup anymore, only doing that for pollen supplement. Feeding your neighbor's bees gets to be expensive – so we employ internal feeders to give weight for almond pollination in California, or general pollination. We mostly use pails/buckets in the South. If we give them a trickle feed it provides a stimulation effect and they are less apt to put the

feed away. When using feeders, if they're not on a trickle a hive would empty the container in a day.

**What are you feeding your bees?** Two things: pollen supplement, and syrup (carbohydrates, via pails/buckets, internal feeders, or jar feeders). For the syrup we're using Corn syrup, because it's sucrose. It builds population, stimulates the bees to raise brood, they utilize it very quickly (readily metabolized), it does not result in hive weight gain, and feeding bees sugar syrup is currently more expensive, and sugar raises the rates of nosema in winter.

**What protein supplement are you using?**

We use pollen patties from Mann Lake, the MegaBee Patty. Mann Lake went from being a small bee company to one of the biggest – they own a sugar refinery. Glen said that he feels that Mann Lake has surpassed Dadant and Kelly at this point.

Clean Up: we begin cleaning pallets and bottom boards. All bottom boards and pallets are washed and scraped clean – you don't want to give the Red Fire Ants in California any invitations.

We conduct final counts for Almond Pollination.

**January and February:** Final feeding and ship bees off to California.

All trucks are weighed, empty and then fully loaded. Experience has taught us what to look for, if the first full trucks are the right weight things are good, if not the hives are spot fed.

We know the rough timeframe, when to ship what we have to ship. Barring any huge changes, we can do it fairly fast. We can send out 12,000

hives in only 14 days in an emergency situation (this takes 25-30 people – everybody is busy, wet, and muddy.) We own 2 track machines and still rent 1-2 more to make sure the bees go out.

Our biggest enemy during the time we need to move bees is warm weather. Cooler temperatures are better, and warmer weather encourages drifting and flying, so it is bad for moving.

We were among the first people from the East Coast to ship bees to the West Coast for Almonds. In 1989 we shipped 500 colonies, last year we shipped 12,700.

**Q&A**

**Glen, do you run your hives with 9 or 10 frames?**

10. At the beginning of the meeting, several newbees introduced themselves, so there's a practice of putting 9 frames in honey supers (this makes it easier to extract), however this practice is not advantageous for our system. The flail chain system doesn't work with the wider honey frames, and we definitely wouldn't do this in a hive body. Queens don't lay in them correctly when there's 9 frames in a 10-frame box.

**Do you have supers on during pollination?**

Yes, it frees up bees in the box. We'll leave them some 2-4 frames – you can tell by the age of the frames whether it's syrup or honey – the bees will put honey into new comb, it's the new freshly capped stuff. The plan is to have them eat the corn syrup we feed them before we put the hive into the bloom. They'll run out of the syrup (feeding the colony and the brood) and put the fresh nectar into those frames.

The careful insect 'midst his works I view,  
Now from the flowers exhaust the fragrant dew,  
With golden treasures load his little thighs,  
And steer his distant journey through the skies.

John Gay

**What percentage of losses are you seeing?**

40% company wide. During pollination this can rise to 60% because of stress. We're able to stay in business because we have other divisions going. The pollination prices are such that we can sustain the effort (most pollination prices have increased by 40%, although Maine prices have gone down) – we're able to cover the costs of re-queening and maintaining colonies. Splitting and rebuilding help make up for losses. The pollination side definitely takes on more losses.

**When you pull your supers, how do you get rid of the bees?** In the fall we don't spray on felt pad, nor do we use a wind board. During the bigger honey flows we'll pull frame by frame and tap the bees off. We'll pull off one of the mediums (our configuration is a deep and 2 mediums). We used to send the bees back down to a single deep but leaving them a medium of honey has helped them handle Nosema and gut issues since honey is better for them. ■

## Did you know?

### Antenna Cleaners

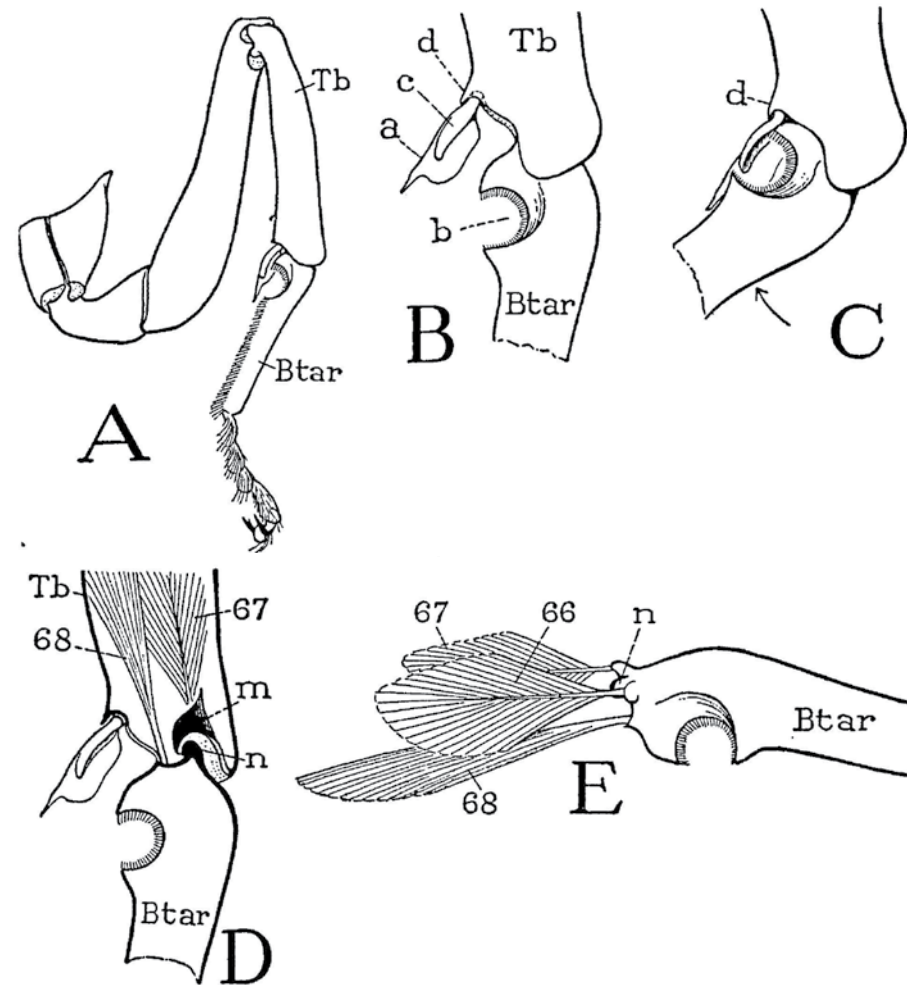
Insects are meticulous about keeping their antennae free of dirt, since the antennae are the seat of important sense organs. Hymenoptera have on the front legs (*A*) a special gadget for cleaning the antennae, which is best developed in the bees.

The antenna cleaner of the worker honey bee consists of a deep semicircular notch (*b*) on the inner (*ventral*) surface of the proximal end of the basitarsus (*Btar*) and of a large, flattened spur (*a*) projecting from the inner angle of the distal end of the tibia (*Tb*) which closes like a clasp, or *fibula*, over the tarsal notch.

The concavity of the notch is armed with a comb of fine, closely set, spinelike hairs. The fibula is a broad, thin, moveable appendage with a narrowed base, a sharp distal point, and a strong, spatulate accessory lobe (*c*) on its anterior surface. The fibula has no muscles, but when the basitarsus is flexed on the tibia (*C*), the notch on its base is brought against the fibula and the notch is thus closed to a circular aperture. The fibula resists the pressure of the tarsus against it by the point (*d*) that projects above its base from the end of the tibia. The basitarsus, having a single, dorsal point of articulation with the tibia (*D, n*), is freely movable on the latter, and its three muscles (*E*) are attached on three sides of the articular condyle.

When the bee uses the antenna cleaner, by appropriate movements of the leg the tarsal notch is first placed around the base of the antennal flagellum and then, by flexion of the tarsus, the antenna is brought against the fibula and thus securely held in the cleaner. The antenna is now drawn upward; the tarsal comb cleans its sensory outer surface; the thin accessory lobe of the fibula scrapes its inner surface.

From pages 107-108 of Richard Snodgrass's *Anatomy of the Honey Bee*



## What's Blooming Now?

Common Name	Scientific Name	Value	Plant Type
<b>MAY</b>			
Apple	<i>Pyrus Malus</i>	Pollen & Nectar	Tree
Barberry	<i>Berberis Vulgaris</i>	Nectar & Pollen	Shrub
Beach Plum	<i>Prunus Maritima</i>	Nectar & Pollen	Shrub
Black Alder	<i>Ilex Verticillata</i>	Nectar & Pollen	Shrub
Blueberry (High Bush)	<i>Vaccinium Corymbosm</i>	Nectar & Pollen	Shrub
Blueberry (low Bush)	<i>Vaccinium Pennsylvanicum</i>	Nectar & Pollen	Shrub
Cherry	<i>Prunus Avium Cerasus</i>	Nectar & Pollen	Tree
Chick Weed	<i>Stellaria Media</i>	Nectar	Annual
Chick Weed (Mouse Eared)	<i>Cerastium spp.</i>	Nectar	Biennial
Choke Cherry	<i>Prunus Virginiana</i>	Nectar & Pollen	Shrub or Small Bush
Current	<i>Ribes spp.</i>	Nectar & Pollen	Shrub
Dogwood	<i>Cornus spp.</i>	Nectar & Pollen	Small Tree
Flowering Dogwood	<i>Cornus Florida</i>	Nectar & Pollen	Tree
Highbush Cranberry	<i>Viburnum Trilobum</i>	Nectar	Shrub
Hobblebush	<i>Viburnum Alnifolium</i>	Nectar & Pollen	Shrub
Honeysuckle	<i>Lonicera Tatarica</i>	Nectar	Vine or Shrub
Horsechestnut	<i>Aesculus Hippocastanum</i>	Pollen & Nectar	Tree
Huckleberry	<i>Gaylussacia Frondosa</i>	Pollen & Nectar	Shrub
Japanese Barberry	<i>Berberis Thunbergii</i>	Pollen & Nectar	Shrub
Japanese Flowering Crab	<i>Malus Floribunda</i>	Pollen & Nectar	Shrub
Lilac	<i>Syringa spp.</i>	Pollen & Nectar	Shrub
Mustard	<i>Brassica Nigra</i>	Nectar	Biennial
Norway Maple	<i>Acer Platanoides</i>	Nectar & Pollen	Tree
Pear	<i>Pyrus Communis</i>	Nectar & Pollen	Tree
Plums	<i>Prunus ssp.</i>	Nectar & Pollen	Tree
Poppy	<i>Papaver spp.</i>	Pollen	Annual & Perennial
Raspberry	<i>Rubus spp.</i>	Nectar & Pollen	Shrub
Red Oak	<i>Quercus Rubra</i>	Pollen	Tree
Siberian Crab	<i>Pyrus Baccata</i>	Nectar	Tree
Strawberry	<i>Fragaria Virginiana</i>	Nectar & Pollen	Perennial

Common Name	Scientific Name	Value	Plant Type
Sour Gum	<i>Nyssa Sylvatica</i>	Nectar & Pollen	Tree
Sugar Maple	<i>Acer Saccharum</i>	Pollen & Nectar	Tree
Weigelia	<i>Weigelia Rosea</i>	Pollen & Nectar	Shrub
Wild Black Cherry	<i>Prunus Serotina</i>	Nectar & Pollen	Tree or Shrub
Winged Euonmus	<i>Euonmus Alata</i>	Nectar & Pollen	Shrub
Yellow Rocket	<i>Barbarea Vulgaris</i>	Nectar	Biennial
Common Name	Scientific Name	Value	Plant Type

<b>JUNE</b>			
Alfalfa	<i>Medicago Sativa</i>	Nectar	Perennial
Alsike Clover	<i>Trifolium Hybridium</i>	Nectar & Pollen	Perennial
Asparagus	<i>Asparagus Officinalis</i>	Nectar & Pollen	Perennial
Bittersweet	<i>Calastrus Officinalis</i>	Nectar & Pollen	Vine
Blackberry	<i>Rubus spp.</i>	Nectar & Pollen	Shrub
Black Locust	<i>Robinia Pseudo-acacia</i>	Nectar & Pollen	Tree
Carrot	<i>Daucus Carota</i>	Nectar & Pollen	Biennial
Catalpa	<i>Catalpa Speciosa</i>	Nectar & Pollen	Biennial
Cranberry	<i>Vaccinium Macrocarpon</i>	Pollen & Nectar	Vine
	Var. Howes	Pollen & Nectar	Vine
	Var. Early Black	Pollen & Nectar	Vine
	Var. MacFarlin	Pollen & Nectar	Vine
Devil's Paint Brush	<i>Hieracium Aurantiacum</i>	Nectar	Perennial
Elder	<i>Sambucus Canadensis</i>	Pollen	Shrub
European Linden	<i>Tilia Europea</i>	Nectar & Pollen	Tree
Fox Grape	<i>Vitis Labrusca</i>	Pollen	Vine
Hollyhock	<i>Althaea Rosea</i>	Nectar & Pollen	Annual
Lavendar	<i>Lavandula Vera</i>	Nectar	Perennial
Lupine	<i>Lupinus spp.</i>	Pollen	Annual or Perennial
Magnolia	<i>Magnolia Virginiana</i>	Nectar & Pollen	Tree
Mignonette	<i>Reseda Odorata</i>	Nectar	Annual
Mints	Labiatae (many species)		

*continued...*

Common Name	Scientific Name	Value	Plant Type
Privet	Ligustrum Vulgare	Nectar & Pollen	Shrub
Rose	Rosa spp.	Pollen	Climbing Shrub
Sage	Salvia Officinalis	Nectar	Annual
Snowberry	Symphoricarpos Albus	Nectar & Pollen	Shrub
Staghorn Sumac	Rhus Typhina	Nectar & Pollen	Shrub
Sweet Mockorange	Philadelphus Coronarius	Pollen & Nectar	Shrub
Tulip Tree	Liriodendron Tulipifera	Nectar & Pollen	Shrub
Vetch	Vicia Cracca	Nectar & Pollen	Perennial
Viper's Eugloss, Blue Thistle	Echium Vulgare	Nectar & Pollen	Biennial
White Clover	Trifolium Repens	Nectar & Pollen	Biennial
White Sweet Clover	Melilotus Alba	Nectar & Pollen	Biennial or Annual
Yellow Sweet Clover	Melilots Officinalis	Nectar & Pollen	

## JULY

Aster	Aster Acuminatus	Nectar & Pollen	Herbaceous Perennial
	Aster Novea Angliae	Nectar & Pollen	Herbaceous Perennial
	Aster Preatlus	Nectar & Pollen	Herbaceous Perennial
	Aster Viminus	Nectar & Pollen	Herbaceous Perennial
Basswood	Tilia Americana	Nectar & Pollen	Tree
Bee Balm	Monarda Punctata	Nectar & Pollen	Perennial
Buckwheat	Fagopyrum Esculentum	Nectar	Annual
Butterfly-Bush	Buddleia Davidi	Nectar	Shrub
Buttonbush	Cephalanthus Occidentalis	Nectar & Pollen	Shrub
California Poppy	Eschscholtzia Californica	Nectar & Pollen	Annual
Canada Thistle	Cirsium Arvense	Nectar	Perennial
Clematis	Clematis Virginiana	Nectar & Pollen	Herbaceous Perennial
Corn	Zea Mays	Pollen	Annual
Cucumber	Cucumis Sativa	Nectar & Pollen	Annual
Dogbane (spreading)	Apocynum Sativa	Nectar & Pollen	Perennial
Dwarf Sumac	Rhus Copallina	Nectar & Pollen	Shrub
English Ivy	Hebera Helix	Nectar	Vine
Fireweed	Epilobium Angustifolium	Nectar & Pollen	Perennial

Common Name	Scientific Name	Value	Plant Type
Golden-Rain Tree	Koelreuteria Paniculata	Nectar & Pollen	Tree
Goldenrod	Solidago ssp.(many species)	Nectar & Pollen	Herbaceous Perennial
	S. Graminifolia	Nectar & Pollen	Herbaceous Perennial
	S. Rugosa	Nectar & Pollen	Herbaceous Perennial
	S. Speciosa	Nectar & Pollen	Herbaceous Perennial
Hardhack	Spiraea Tomentosa	Nectar	Shrub
Marjoram	Origanum	Nectar & Pollen	Perennial
Meadowsweet	Spiraea Latifolia	Nectar	Shrub
Milkweed	Asclepias spp.	Nectar & Pollen	Perennial
Jersey-tea	Ceanothus Americanus	Nectar & Pollen	Shrub
Jewelweed	Impatiens Biflora	Nectar	Annual
Onion	Allium Cepa	Nectar	Biennial
Purple Loosestrife	Lythrum Salicaria	Nectar & Pollen	Perennial
Purple Vervain	Verbena Hastata	Nectar & Pollen	Herbaceous Perennial
Rhubarb	Rheum	Nectar & Pollen	Perennial
Rock-rose	Helianthemum Canadense	Pollen	Annual
Smooth Sumac	Rhus Glabra	Nectar & Pollen	Shrub
Swamp Loosestrife	Decodon Verticillatus	Nectar & Pollen	Perennial
Sweet Pepperbush, Clethra	Clethra Alnifolia	Nectar & Pollen	Shrub
Thyme	Thymus Serpyllum	Nectar	Herbaceous Perennial
Wild Cucumber	Echinocystis Lobata	Nectar & Pollen	Annual
Winter Squash	Cucurbita Maxima	Nectar & Pollen	Annual

Information for **What's Blooming Now?** was taken from **Nectar and pollen plants of Massachusetts as observed in the central Connecticut Valley region** Special circular #27, Revised F.R. Shaw, Department of Entomology, University of Massachusetts, 2-2-56

## Use Protective Gear when Applying Treatments

MCBA member John Sallay provided the following information, because it was really frustrating when he was trying to learn how to use the MAQS and the OA vaporizer, that all of the instructions and websites emphasized that 'Protective equipment was necessary' – but none would specify what protective equipment. Neither John, *nor the club*, is recommending any particular products, just providing information on what he used...

In addition to the typical beekeeping jacket/veil and gloves, long pants, and shoes/boots...

**Nitrile Gloves** – Although the oxalic acid instructions approved by the EPA call for 14 mil thickness nitrile gloves, 8 mil powder-free gloves seem to be adequate

- The nitrile gloves sold by Brushy Mountain are 8 mil, though 8 mil Liberty Duraskin powder-free, blue nitrile gloves are available much more economically in bulk packages from Amazon
- These nitrile gloves are available in a complete range of sizes
- The XXL size gloves fit over beekeeping gloves, if you want protection against both the acid treatment and the bees

See: <http://libertyglove.com/products/hand-protection/disposable-gloves/duraskin/disposable-nitrile/industrial-grade-nitrile-disposable-gloves-powder-free-79>

**Goggles** – Brushy Mountain's oxalic acid treatment kit comes with Rugged Blue economy safety goggles (SFTEYGG1000021192)

- These have a flat polycarbonate lens that is scratch resistant and is encased in a vinyl goggle that hugs the face, so vapors do not come in around the sides
- These goggles use an elastic strap that goes around the head
- They meet ANSI Z87.1 and CE EN166 standards

See: [https://www.amazon.com/s/ref=nb\\_sb\\_noss\\_1?url=search-alias%3Daps&field-keywords=safety+goggles](https://www.amazon.com/s/ref=nb_sb_noss_1?url=search-alias%3Daps&field-keywords=safety+goggles)

**Respirator Mask and Cartridges** – The 3M protective mask that I bought is a 3M “half facepiece” protective mask in medium size (#6200/07025).

- The 6000 series masks are a little less expensive than the 7000 series masks, which I think have somewhat better construction.
- These two series come in both half facepiece and full facepiece
  - I got a half facepiece model since I have separate eye protection goggles which work fine
  - Also, I was somewhat concerned about my respiration fogging the clear visor of a full facepiece model.
- The specific models 6100, 6200 and 6300 refer to sizes small, medium and large. The specific model I bought was relatively inexpensive (\$8.90 including postage), from BHP Safety Products via Amazon.

See: [https://www.amazon.com/3M-6200-Half-Cartridges-Piece/dp/B001QF9C5C/ref=sr\\_1\\_1?ie=UTF8&qid=1488053206&sr=8-1&keywords=3m+6200+mask](https://www.amazon.com/3M-6200-Half-Cartridges-Piece/dp/B001QF9C5C/ref=sr_1_1?ie=UTF8&qid=1488053206&sr=8-1&keywords=3m+6200+mask)

- With these reusable masks you also need to purchase the cartridges specific to whatever you are protecting against.
- The formaldehyde/organic vapor cartridge/P100 filter, which is primarily designed for the formaldehyde (formic acid) should also work with the oxalic acid.
- It is model number 60925 and is somewhat expensive at just under \$30 for a pack of two (you need two for that mask) from Amazon.
- There is all sorts of information on the 3M website, including an online tool for choosing the right filters.

See: [https://www.amazon.com/3M-Formaldehyde-60925-Respiratory-Protection/dp/B009POHJA6/ref=sr\\_1\\_1?s=industrial&ie=UTF8&qid=1488053321&sr=1-1&keywords=3M+Formaldehyde+Organic+Vapor+Cartridge%2FFilter+60925%2C+P100+Respiratory+Protection+%28Pack+of+2%29](https://www.amazon.com/3M-Formaldehyde-60925-Respiratory-Protection/dp/B009POHJA6/ref=sr_1_1?s=industrial&ie=UTF8&qid=1488053321&sr=1-1&keywords=3M+Formaldehyde+Organic+Vapor+Cartridge%2FFilter+60925%2C+P100+Respiratory+Protection+%28Pack+of+2%29)



# Middlesex County Beekeepers Association

## Membership Form

\$15 Annual dues per family, **payable to MCBA**. Mail this form and payment to: Rick Ressijac, 7 Coolidge Road, Ayer, MA 01432 *OR* bring it with you to a meeting.

*Please print CLEARLY.*

Name \_\_\_\_\_

Family Members' Name(s) \_\_\_\_\_

Address \_\_\_\_\_

City / State / Zip \_\_\_\_\_

Telephone \_\_\_\_\_

Email \_\_\_\_\_

How did you hear about us? \_\_\_\_\_

How many hives do you have? \_\_\_\_\_ Renewal  or New Membership

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