



THE BUZZ FROM HERE

The Newsletter of the Newfoundland & Labrador Beekeeping Association

Cody Reid (editor, NLBKA communications committee)

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NEWSLETTER UPDATE

Good Day fellow NLBKA members! Our last Newsletter was released in the Spring of 2016, almost one year ago. I hope everyone's had a productive year and your bees are doing well. Our goal for 2017 is to release a quarterly Newsletter, updating our members on upcoming events, tips for the upcoming season, educational reading and other interesting information. Our intent is to release a Newsletter a few months prior to the upcoming season. So, you may see another newsletter as early as May just to get on track with our seasons. I hope you enjoy it, have a wonderful Spring and we'll see you in May.

NEW REGULATIONS COMING

As interest in beekeeping grows, more regulations are going to be necessary. When many of us started, there wasn't much information around about the craft of beekeeping. But with the surge in beekeeping interest, more issues have arisen, and new regulations are being discussed with government in order to better protect and manage our honey bee stocks. There are currently a number of initiatives that will be beneficial for beekeepers and most importantly the bees!

The provincial Department of Fisheries and Land Resources is working towards registering every beekeeper in the province. Registration is standard practice in other provinces. Its main purpose is to monitor the health of commercial and hobby beekeeping, facilitate the inspection of honey bees, and help us all react rapidly to contain an outbreak of any new pathogen, pest or diseases. For example, *Varroa destructor* is extremely virulent, but there are examples elsewhere in North America where they were able to contain and eradicate it before it could spread. This was possible because of the rapid detection and response of astute beekeepers and provincial bee inspectors. Registration will lead to some record-keeping on the part of beekeepers. The NLBKA is working with the province to encourage registration. There is no charge to register. If you don't have a registration number yet, please contact Karen Kennedy, Provincial Apiarist. Karen.Kennedy@gov.nl.ca or 709-637-2662.

SPRINGTIME TIPS WITH MIKE PATERSON

I had the opportunity to speak with Mike Paterson about how he manages his colonies in the spring. Mike has been successfully keeping bees in the province for about six years now and is a

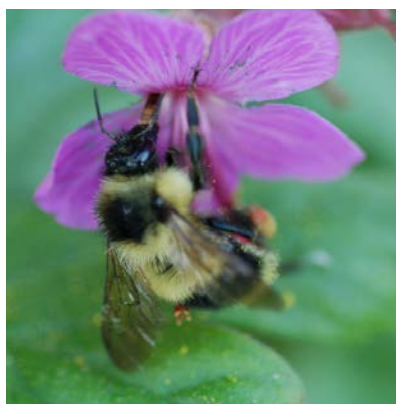
wealth of knowledge! He has completed the Modern Beekeeper course offered by Dalhousie University. Here's some housekeeping and techniques he uses to ensure *his* bees have a successful spring:

- Ensure all your equipment is ready for the upcoming season. Early spring is a great time to start putting together deeps, supers and frames, painting and reviewing your supplies to ensure you're ready for your bees;
- Feed your colonies a pollen patty (or substitute) in early April to encourage brood rearing for the upcoming summer;
- Start feeding your bees a 2:1 sugar syrup in mid-April. Using a 2:1 syrup ratio reduces the amount of water the bees need to evaporate, making it easier to consume this time of year;
- Rotate your hive bodies in late April. This encourages the bees to move into the new brood nest. Ensure not to split the brood nest while you do this by waiting too late. You can do this on days when the temperature is around 10 to 15 degrees;
- We still see low temperatures during the spring. Work your bees on calm, sunny days with temperatures around 5 degrees or so for quick work. Don't worry too much about chilling your bees. They are more resilient to the cold than we think. It's the moisture that we need to concern ourselves with;
- Remove the sugar syrup in the third week of June, or as needed. You may want to feed weaker colonies a little longer or reduce the feed for stronger colonies;
- For newer beekeepers with no spare drawn comb, in preparation for making splits before the honey flow, try removing empty drawn comb from your hive and replace it with empty foundation to take advantage of wax production stimulated by early spring feeding. This way you can have drawn comb to replace the frames you use from your parent colony while doing splits, allowing more space for the queen and reducing the swarm tendency.

NATIVE BEE BIOLOGY WITH DR. BARRY HICKS

Bumble bees

The bumble bees are the most recognized bees in Newfoundland. The *Dictionary of Newfoundland English* includes the words Busybees, Buyswaps Dumbledores as names of bumble bees that Newfoundlanders have used in the past (see Jenny Higgins <https://twignl.wordpress.com/2011/06/30/insects/>).



Bumble bees are in the same family as honey bees (Family: Apidae). While both share many structural similarities (they carry pollen on their hindlegs), their social structure is different. Honey bee queens overwinter along with a bunch of workers. The bumble bees on the other

hand, overwinter only as newly mated queens. All the workers die off. Bumble bees are typically located in temperate regions of North and South America and Eurasia. They are not native to Africa south of the Sahara and Australia. In Newfoundland, queens and males are reared in the late summer. In the autumn a queen mates, eats enough food to build up an energy reserve to last through the winter. The mated queens find a dry place to hibernate. Warm spring days awaken her from dormancy and she leaves to find food. She drinks nectar and eats pollen to provide protein for her developing eggs. She then searches for a nest site, which is normally underground in abandoned rodent holes. Some species may nest under thickets of dry grass. The large bumble bees you may see visiting flowers in the spring are the overwintered queens. The first daughters that she rears are quite small in size but as the summer continues the size of the newly emerging workers gets larger.

Newfoundland and Labrador has 17 native bumble bee species (15 in Labrador and 12 on the island). The island species include eight species that are free living and four parasitic species. The parasitic species lay their eggs in the nests of other bumble bee species who are tricked into rearing the larvae of the parasitic species. The list of Newfoundland species is found in Table 1. Bumble bees are very important as buzz pollinators of native plant species. Buzz pollination involves the bee holding onto a flower, and contracting its flight muscles quickly, which vibrates the flower and dislodges the pollen. The pollen that falls onto the hairs of the bee is passed onto the female parts of the flowers. This is an efficient mechanism for pollination that has coevolved between flowers and bees over millions of years.

Table 1. The bumble bee species on the Island of Newfoundland.

Species	Common name	Habit	remarks
<i>Bombus vagans bolsteri</i>	Half-black Bumble bee	Free	common
<i>Bombus frigidus</i>	Frigid Bumble bee	Free	common
<i>Bombus terricola</i>	Yellow-banded Bumble bee	Free	common
<i>Bombus ternarius</i>	Tri-colored Bumble bee	Free	common
<i>Bombus borealis</i>	Northern amber Bumble bee	Free	common
<i>Bombus sylicola</i>	Forest Bumble bee	Free	common
<i>Bombus rufocinctus</i>	Red-belted Bumble bee	Free	uncommon
<i>Bombus sandersoni</i>	Sanderson Bumble bee	Free	uncommon
<i>Bombus citrinus</i>	Lemon cuckoo bumble bee	Parasitic	common
<i>Bombus bohemicus</i>	Ashton cuckoo bumble bee	Parasitic	rare
<i>Bombus flavidus</i>	Fernald's cuckoo bumble bee	Parasitic	rare
<i>Bombus suckleyi</i>	Suckley bumble bee	Parasitic	rare

BENEFICIAL FLORA – BORAGE

Borage (*Borago officinalis*) or commonly known as Starflower is an annual herb belonging to the flowering plant family. Although it's an introduced species, Borage is *not* invasive. It reseeds every year and once established requires little to no care. It's native to the Mediterranean region, but grows satisfactorily in various North Atlantic ecosystems like our own.

It was once cultivated for medicinal and culinary uses; both the flower and the leaves are edible, mainly used to garnish salads. The flower has a subtle, sweet-like taste, and the leaves have a distinctive cucumber taste. Today, the plant is mostly cultivated for Borage seed oil and "companion planting," which means it's intentionally planted to enhance the growth of neighbouring plants.

If you're familiar with Borage, you'll remember the distinctive "Pop" the seed pods make in mid- to late September when the flowers begin to close. Once the pods mature, the slightest touch will set the pods off in an almost frightening burst, dispersing the seeds to stratify over the winter months.

My personal experience with Borage leads me to believe it likes partial to full sunlight, and plenty of water. A patch grows in the corner of a family friend's garden, directly under the eaves of an old shed where it catches plenty of water during rainfall. It blooms late in the season on the Island of Newfoundland, thus making it a great last-ditch effort for honey bees, to top up their stores for the upcoming winter months. I've been observing this plant for the last number of years, and during warm days in mid-September, it's totally covered in native pollinators, mainly bumble bees. This leads me to believe it will be an great favorite for our honey bees. Detailed growing directions can be found online.

Remember, the plant can grow 2 to 3 feet in height, and generally needs a dedicated spot in your garden as it does reseed and begin to spread. It is shallow rooted and can be removed if it's no longer desired in your garden. If you're going to get rid of Borage, try to uproot it before it begins to reseed in September.

LANGSTROTH versus TOP BAR – THE PROS AND CONS

Whether you are a new beekeeper wondering what hive to use, or a veteran feeling adventurous about a new design, there are definite advantages and shortfalls to both the Langstroth and Top Bar hives. In this segment, we'll point out some of the pros and cons of both hive types.

Langstroth Pros:

- You have a wide variety of management practices. If you're not comfortable with foundationless frames, you can easily use plastic foundation and ease yourself into adding foundationless frames;

- It's the most common type of hive used, so finding replacement parts is easy and the chances of you being compatible with your neighbouring beekeeper is higher. Need a frame of brood on a whim? No problem. Also, our suppliers sell nucs compatible with Langstroth frames;
- The frames tend to be more stable than those of the Top Bar because the comb is attached on 3-4 sides rather than naturally hanging;
- It requires less maintenance than a Top Bar. Instead of managing a limited amount of space, you can keep adding stackable supers;
- Lastly, during honey harvest there are more choices on how you harvest. Honey can be extracted easily and the comb re-used. This is important because the energy invested by bees in converting honey to wax is not wasted.

Langstroth Cons:

- Weight is a big issue with the Langstroth hive given that a full deep of honey and bees can be very heavy. Older beekeepers will really feel the weight! And you may need to lift several supers to properly inspect your entire hive;
- The level of intrusiveness is increased. You're essentially ripping apart their entire nest, rather than just one lid.

Top Bar Pros:

- There's virtually no heavy lifting. There's no deeps or supers unlike the Langstroth, just frames. Once you initially set up this hive, you don't have any more lifting. This is a great option for people with mobility or health issues that prevent them from heavy lifting;
- As previously mentioned, there's no ripping the hive apart. While you're working through the hive, you can shift the frames over and use the lid as a partial roof. This tends to keep the bees calmer, allowing for a more relaxed inspection and less smoke;
- Proponents of this design argue that it is more natural because there's no foundation, or queen excluders. The bees will build comb like they would in a hollow tree or some other natural nest cavity.

Top Bar Cons:

- You can buy Langstroth parts from any supplier and they will (for the most part) fit together. Top Bar hive designs come in a variety of shapes and sizes;
- Your bees will never expand, they have a definite space to produce honey and that's it – you can't add supers to help manage the swarming tendency to large honey flows;
- Handling frames becomes a balancing act. Because your bees have naturally constructed the comb coupled with the design of the hive, the comb isn't attached to anything besides the top frame, making it much easier to destroy comb. Moreover, there isn't a simple way to attach broken comb back to the frame like there is the Langstroth;
- There's one way to extract the honey; you must cut the comb off, crush and strain it. Leaving the bees to use precious energy to produce more wax. We all know how hard it is to come across wax here in our Province!

- As B.C. provincial apiarist, Paul van Westendorp, said in his winter 2017 webinar, Top Bar hives are advanced beekeeping. If your beginner effort with a Langstroth hive is 100%, your effort with a Top Bar one will be 150%.

A WORD FROM OUR PRESIDENT

As I write this we are almost through the hardest part of winter; we've had lots of storms, snow and wind this year. Here is hoping your hives are holding out against the bad weather – tops have stayed on and the entrances are clear of snow. However, even though we humans (and our bees) have been more house or hive bound, we have been busy with many initiatives.

The City of Mount Pearl is moving ahead with amending their city bylaws to allow for beekeeping within the municipal boundaries. The NLBKA submitted comments to the draft amendment. We have asked that wording of the bylaws specify “moveable frame hives” rather than only Langstroth hives. We have also asked that the minimum distance from a property boundary should be 3.5 meters (12 feet) rather than 5.5 meters (18 feet). There will be other rules included in the bylaws, but if followed, beekeepers will have Mount Pearl's support in urban beekeeping. Then we can move on to encourage other towns to follow suit.

In late January I attended the NL Federation of Agriculture AGM in Gander. The Beekeeping Association is now represented on their Board by our Central Region board representative, Rodney Reid. This means the NLBKA will now have a better opportunity for communication with the other agricultural sectors in the province, such as the berry growers. Communication is the best way to find common ground. The berry growers are concerned about maximizing the pollination of their crops, and searching for sources of bumble bees. However, research has shown that imported bumble bees can cause severe damage to native bees by taking over their habitat, and endanger them as well as honey bees by bringing in diseases. We need to find ways to work together on these issues, to find a solution for pollination that does not include importing bees, and that starts with good communication. Importation of bumble bees is restricted; it must be approved by the Minister of Fisheries and Land Resources, so the NLBKA has written to the Minister to request that no importation be allowed.

Did you get beekeeping books for Christmas? The Association has looked at the holdings of the Public Libraries Board and Memorial University Library and found that they have very few titles. We have written to both libraries to request that a number of titles be purchased and copies made available across the province. If the titles are purchased, provincial beekeepers will be able to borrow these titles through the interlibrary loan system. We encourage you to contact your local library so they understand the interest in beekeeping and will let you know when the books are available.

We sent out word about the 4 week webinar being offered by Paul Westendorp, the Provincial Apiarist of British Columbia. The first session was February 11, and it was very good. Gerard Smith will also be holding weekend workshops in Freshwater (Placentia Bay) in May and June

for beginning beekeepers, and a further one on queen rearing. Gerard's June session will deal with swarm management and spring startups.

On February 16, the NLBKA had a booth at St. Teresa's School in St John's. The occasion was Agriculture Day. Four volunteers showed off their hives (no bees!), and equipment. Children were encouraged to learn about the importance of pollinators, and how to protect them and their habitats.

Catherine Dempsey

UPCOMING EVENTS

- **So you want to keep bees?** NLBKA General Information Session, 7:00 – 9:00 pm, March 28th, MUN Botanical Garden on Mount Scio Road, St. John's.
- **G & M Family Farm introductory courses**, Saturdays and Sundays, May 20-21 and June 10-11, 10 am – 5 pm, 28 Old Settlement Hill, Freshwater (Placentia Bay). See <http://www.gmfamilyfarm.com/> As space is limited, all prospective participants please forward a \$25 registration down payment. If you have already registered, please send your down payment immediately in order to keep your spot in the course.
- **G & M Family Farm queen rearing course**, Saturdays, July 15 and July 29, Old Settlement Hill, Freshwater (Placentia Bay). See <http://www.gmfamilyfarm.com/> As space is limited, all prospective participants please forward a \$25 registration down payment. If you have already registered, please send your down payment immediately in order to keep your spot in the course.

RESEARCH COMMITTEE ESTABLISHED

The NLBKA has set up a Research Committee. Members include Dr. Barry Hicks, Dr. Dan Price, Dr. George Carayanniotis, Gerard Smith, Peter Armitage and Dr. Steve Walsh. Its purpose is to assist the Board in the following matters related to research on honey bees, wild pollinators and beekeeping:

- Provide strategic technical and scientific advice to the NLBKA with respect to honey bee, wild pollinator, and beekeeping issues;
- Identify research topics and priorities, and facilitate honey bee and native bee research efforts; and
- Organize symposia, an online data archive, workshops, conferences, seminars and other activities involving scientific research related to honey bees, wild pollinators, and beekeeping.

Terms of Reference for the committee are being finalized. The Committee is currently in the process of drafting research priorities for the consideration of the NLBKA board. These priorities will be communicated to university researchers, governments, NGOs and other parties with the view to encouraging research of benefit to beekeepers, honey bees, and native

bee species in Newfoundland and Labrador. The TOR and other information related to the work of the Research Committee will be published on the NLBKA website in the near future.

CODE OF ETHICS AND CONFIDENTIALITY FOR THE BOARD

The NLBKA Board has adopted a Code of Ethics and Confidentiality, inspired by the Code used by the NL Federation of Agriculture. The Code requires that Board members maintain confidences so that all matters may be discussed in an open, respectful and trusting manner. It requires that members agree to a Duty of Loyalty and to identify potential or real conflicts of interest. Where a conflict of interest is involved, a member must recuse him or herself from decision-making. The full text of the Code will be published on the NLBKA website in the near future.

THE SEED COMPANY DISCOUNT

The Seed Company (formerly Gaze Seed Co.), 9 Buchanan Street, St. John's, is offering a 10% discount on seeds to NLBKA members. Members must present their membership cards in order to take advantage of this offer, which is good for 2017. The Seed Company wants the assistance of the Association in identifying the best honey bee foraging plants so that they can better shape their product offerings to our needs.