

Red River Apiarists' Association

57 Years



The Bee Cause

September 2020

2020 Issue 7

Varroa mite on an adult worker honey bee (photo by Stephen Ausmus, USDA-ARS), and proportionally sized mite, if scaled up to a human-sized host (photo by Landi Simone, Goose Rock Farm).



Winter preparations, mite checks, treatments, and feeding. Winter preparation, should be well underway with this falls choices determining next springs beginnings.



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fight against cancer:
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Remember to Keep Safe!

**Reasonable safety
precautions should be
implemented when bee-
keeping in a team setting,
selling at a farmers
market, of picking up
supplies.**

**Manitoba has a low
Covid-19 count
COMPARITIVELY**

**Lets not erase all of our
diligent gains!**

- Any assistants or employees should be screened daily.**
- Social distancing in all activities should be observed**

Be Cautious, Stay Safe.

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A Molecule in Honeybee Venom Destroys Breast Cancer Cells in The Lab, Study Shows

A new lab study shows that a molecule found in bee venom can suppress the growth of particularly nasty cancer cells.

The study focussed on certain subtypes of breast cancer, including triple-negative breast cancer (TNBC), which is an extremely aggressive condition with limited treatment options.

TNBC accounts for up to 15 percent of all breast cancers. In many cases, its cells produce more of a molecule called EGFR than seen in normal cells. Previous attempts to develop treatments that specifically target this molecule have not worked, because they would also negatively affect healthy cells.

Honeybee (*Apis mellifera*) venom has shown potential in other medical therapies such as treating eczema, and has been known to have anti-tumour properties for some time now, including melanoma. But how it works against tumours at a molecular level isn't fully understood. Now, we've taken a huge step closer to the answer.

Bees actually use [melittin](#) - the molecule that makes up half of their venom and makes their stings really bloody painful - to fight off their own pathogens. The insects produce this peptide not just in their venom, but in other tissues too, where it's expressed in response to infections.

With their sights on this powerful molecule, researchers subjected lab-grown cancer cells and normal cells to honeybee venom from Ireland, England, and Australia, and to bumblebee (*Bombus terrestris*) venom from England.

They found bumblebee venom - which doesn't contain melittin, but has other potential cell-killers - had little effect on breast cancer cells, but the honeybee venom from all locations did make a difference.

"The venom was extremely potent," said medical researcher Ciara Duffy from The Harry Perkins Institute of Medical Research. "We found that melittin can completely destroy cancer cell membranes within 60 minutes."

When melittin was blocked with an antibody, the cancer cells exposed to the bee venom survived - showing that melittin was indeed the venom component responsible for the results in the earlier trials.

The best part: melittin had little impact on normal cells, specifically targeting cells that produced a lot of EGFR and HER2 (another molecule excessively produced by some breast cancer types); it even messed with the cancer cells' ability to replicate.

"This study demonstrates how melittin interferes with signaling pathways within breast cancer cells to reduce cell replication," said Western Australia's Chief Scientist Peter Klinken, who was not involved in this study.

Taking their conclusions even further, the research team also produced a synthetic version of melittin, to see how it would perform compared to the real deal.

"We found that the synthetic product mirrored the majority of the anti-cancer effects of honeybee venom," Duffy said.

Duffy and her team then tested the action of melittin paired with chemotherapy drugs in mice. The experimental treatment reduced the levels of a molecule the cancer cells use to evade detection by the immune system.

"We found that melittin can be used with small molecules or chemotherapies, such as docetaxel, to treat highly aggressive types of breast cancer," Duffy explained. "The combination of melittin and docetaxel was extremely efficient in reducing tumour growth in mice."

Over-expression of EGFR and HER2 is also seen in other types of cancers, like lung cancer, and these results suggest they might be potential targets for melittin, too.

Of course, plenty of things can kill a cancer cell in a petri dish, and the researchers caution that there's still a long way to go before this bee venom molecule could potentially be used as a treatment in humans.



"Future studies to formally assess toxicities and maximum tolerated doses of these peptides will be required prior to human trials," they wrote in their paper.

Article by **Tessa Koumoundouros** This research was published in [*Nature Precision Oncology*](#).

The Rise of the Yellow Jackets:

by Susan Chernak McElroy



The yellow jackets are back, and about this time of year bee forums are buzzing with concerns about keeping bee hives safe from the black-and-yellow death that is the yellow jacket. I can think of few things as horrid for a beekeeper as coming home to a hive that was thriving only hours before, to find it crawling with thousands of yellow jackets, bees all dead or devoured, honey plundered. Strong colonies have the populations to fend off the yellows, but nucs being prepped for winter or weak colonies can be targeted and ruined without intervention.

Although consistently mislabeled “bees” by the media—thereby giving our gentle girls an unwarranted reputation for meanness—yellow jackets belong to the wasp family. Like honey bees, yellow jackets are social insects who build large nests to rear their young. Unlike honey bees, yellow jackets generally do not overwinter in their hives, leaving the next generation to the late-summer, newborn queens who will mate and then hibernate in some protected nook through the winter months.

Come late fall, the yellow jacket workers and old queen perish, and the nest is abandoned and not used again. So these wasps need to build up quickly in the summer months, exploiting many sources for food. Adult yellow jackets eat sweets: fruit, nectar, your picnic watermelon. They gather protein for their young: insects, your bees, your hotdog. Come late summer when many new queens are being reared, the need for protein in the hive increases, and this is when you find these wasps around your beehives and barbecues.

Perhaps you have had bee hives for a few years and have noticed that yellow jackets target one hive over another. How do they determine which hive, which bees, to plunder? Like our honey bees, yellow jackets are governed by pheromones. They use chemical cues to target a hive.

In the scent that wafts from the hive entrance, yellow jackets can read evidence of weakness, illness, stress. If they detect such scents, they will then attempt to enter the hive. If they are able to get past the guards fairly easily, they will crawl up the face of the hive, mark it with a pheromone, then leave to bring back thousands of reinforcements.



If the hive radiates the aromas of strength and robust health, the yellow jackets will work the ground around the hive in groups of two to ten or more, scavenging dead and dying bees, and occasionally grabbing bees on the entry board or in flight. They are an indicator species. Yellow jackets attack the weak hives. I’ve had many beekeepers tell me that their strongest hive was decimated by yellow jackets, but I have come to believe that we are not as sensitive as yellow jackets to the true health of our hives. We can’t judge health at the pheromone level. These days, all our bees are weakened to a greater or lesser extent. All of them. Anything from a queen failure to varroa, to viruses, to the stress of hive relocations, new queen insertions, honey

collection, heavy pesticide residues, and more can make a hive a target.

By knowing the habits of yellow jackets, we can learn to manage them, and limit their destructive capacities. These tips will keep your hives safe:

1) Get the Queens

In early spring, yellow jacket queens are searching for nesting sites. Yellow jackets have a much smaller foraging radius than honey bees—only around a thousand feet—so these queens you see in spring are looking to make a home close by. Any yellow jacket queen you dispatch means 10,000 less wasps at your hive entrances. In my yard, I find them visiting my bee watering sites or honey feeders. Friends find them in woodpiles, or even nestled beneath hive lids.

Wherever I find them, I act fast. I don’t hurry to find a swatter. I mash them with my fingers. So far, I’ve never been stung this way. They have to curl their tails up to sting or reach upward to bite. If I smash down, they are done. Less violent means of extermination include yellow jacket pheromone traps you can get at any hardware or garden store.

Continued on the next page:

2) Fake Them Out

Wasps, including yellow jackets, are very territorial, and will not choose to build nests where other wasps have built. Knowing this, you can create (or buy at any garden store) fake hornet nests that mimic the balloon-shaped paper nests of bald-faced hornets. The favorite food of the bald-faced hornet is yellow jackets! I've read that in areas with high yellow jacket populations, the paper coating of the huge hornet nests is a greenish yellow—the yellow being the coloring from the bodies of yellow jackets.



3) Become a Quick Draw

To take care of small clusters of yellow jacket marauders who appear at my hives, I keep a bottle of half water, half dishwashing liquid up in the apiary. I'm a pretty good shot with this water gun, and one squirt with the soapy water interferes with a wasp's ability to breathe. They die in seconds. So, on hot Indian summer days, I play Billy the Kid up in the apiary.

4) Or Just Use Traps

It is simple to make or purchase yellow jacket traps. But if I find that I am catching hundreds of the critters, I start looking around my yard for hidden nests, and I ask my immediate neighbors to search their yards, as well. Do advise them of the danger: —unlike honey bees—yellow jackets can sting over and over again, and bite as well.



Because yellow jackets bring home food to the hive, it

is possible to place tainted baits that will destroy the colony when these morsels are carried home. One method is to place out meat (bacon, cat food, tuna, or chicken are all good choices) and lace the bait with baking soda, which will wreak havoc with the wasp digestive system. **Be sure these lures are out of reach of your pets.**

Another fatal bait lure is meat mixed with one packet of Front Line-brand liquid flea treatment. It contains a chemical that kills yellow jackets very quickly.

Again, be darn sure it is not accessible by anything but the yellow jackets. This is a potentially dangerous undertaking if you do not think it through.

You do not want your pet or some harmless wild creature killed. For all our fear of them, it pays to remember that wasps and hornets are extremely beneficial insects. They carry off debris, clean up fallen fruit, hunt many of the bugs and insects that munch in our gardens, and keep insect numbers in healthy balance. They really are the good guys.

The first best choice in life is always benevolence. If your yellow jacket numbers are not posing a threat to your hives, try the live-and-let-live approach. Graduate to more destructive methods only if you need to. Just like our bees, yellow jackets are just small creatures trying to get by in a difficult world.

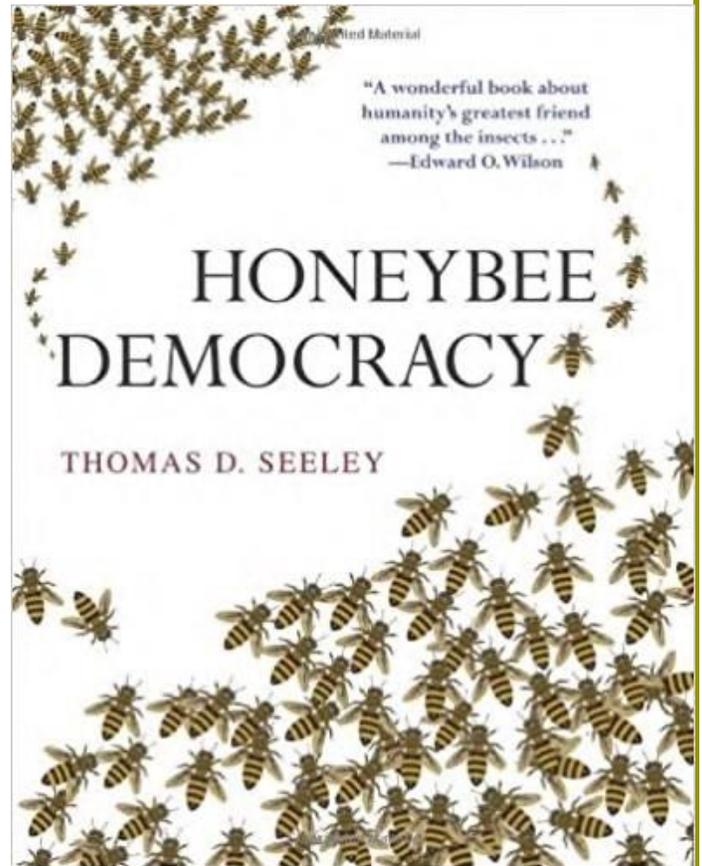


Recommended Reading:

Honeybee Democracy

By Thomas D. Seeley

Professor Thomas D. Seeley opens *Honeybee Democracy* with a passionate overview of exactly how inspirationally democratic these insects are. For bees, the quality of their home is linked to their survival, thus they are genetically programmed to recognize nest sites best suited to the swarm's needs. Prospective homes in the vicinity of the mother colony are surveyed by up to 300 'scout bees', who then perform the famous waggle dance to report the distance, direction and quality of the sites to their fellow workers. Scout bees are programmed to stop dancing after a determined period of time regardless of the quality of their proposal and the level of support, ensuring that the best site is chosen and avoiding the equilibrium of support being tipped towards a mediocre choice that entered the race early.



Seeley invites us to think of a swarm of bees as a single organism rather than as tens of thousands of individual bees. He draws an analogy between neurons in the human brain and individual bees, comparing the basic decision-making process in primate brains with that of an entire swarm. Working as a swarm allows the bees to exceed their individual capacity to gather and process a wide range of information. It is for this reason that Seeley credits the bees for being 'better' decision-makers than humans and argues that they practice a 'pure form of democracy' as they do not need to rely on heuristics and have a shared confidence in the strength of their decisions.

Bees are not infallible however, and it could be argued that while the individual bee makes a rational choice on the information available to it when it chooses to promote a site or not, the swarm as a whole takes a short-cut and bases its final choice on approximation, rather than consensus and 'pure democracy' amongst the scout bees. And in both the bee colony and in examples of human democracy, the process of decision and deliberation is undertaken only by a select few (by scout bees or by those citizens who care enough to participate). This means that the deliberation process only includes those bees who have been actively involved in the house-hunting process, which is a mere 3% of the swarm population. It is perhaps more appropriate to consider the scout bees as a highly informed elite, who have not been democratically elected but who make decisions for the entire swarm. For bees, this may not lead to problems of representation as there really is just one common public good: not dying and succeeding in passing on genes. Some may argue that the same goals apply to humans in the most general sense, although we tend to have a more nuanced idea of what social welfare is and how it can be achieved.

But rather than getting caught up in the details about the analogy between social and natural behavior one cannot help but be inspired by the beauty of Seeley's hypothesis-driven experimental work. The book is beautifully presented with illustrations, photographs, charts and anecdotes, and succeeds in making a whole field of investigation accessible to the non-specialist. Any skepticism about the relevance of what at first

appears to be a rather niche topic quickly disappears as one is swept away by Thomas Seeley's enthusiasm for a subject that is clearly his passion.

10 recommendations on how to control wax moths:

- 1) Maintain healthy, strong colonies to promote high bee-to-comb ratio.
- 2) Clean varroa mite detector boards and beetle traps on a regular basis.
- 3) Trap adult wax moths in the apiary as well as in the honey house.
- 4) Do not leave supers of drawn comb in unoccupied beehives.
- 5) Extract honey from supers within 2 days of hive removal.
- 6) Freeze lightly damaged wax moth infested equipment.
- 7) Burn badly damaged wax moth infested equipment.
- 8) Replace old comb especially brood comb with new foundation.
- 9) Maintain good sanitary conditions inside and outside the honey house.
- 10) Store comb supers responsibly, in moth proof rooms or stacked with screening to prevent harborage.



Photography Corner:

Checking Mite Count using the Sticky Board method (Before and After treatment).

Credit: Jim Campbell



Loss of Bees Threatens U.S. Crop Yields.

A lack of pollinators like bees is leading to reduced crop yields for apples, cherries, and blueberries across the United States, researchers report.

Most of the world's crops depend on honeybees and wild bees for pollination, so declines in both managed and wild bee populations raise concerns about food security, according to the new study.

“We found that many crops are pollination-limited, meaning crop production would be higher if crop flowers received more pollination. We also found that honey bees and wild bees provided similar amounts of pollination overall,” says Rachael Winfree, a professor in the ecology, evolution, and natural resources department in the School of Environmental and Biological Sciences at Rutgers University-New Brunswick and senior author of the paper in the *Proceedings of the Royal Society B: Biological Sciences*.



“Managing habitat for native bee species and/or stocking more honey bees would boost pollination levels and could increase crop production,” Winfree says.

Pollination by wild and managed insects is critical for most crops, including those providing essential micronutrients, and is essential for food security, the study notes.

In the US, the production of crops that depend on pollinators generates more than \$50 billion a year. According to recent evidence, European honey bees (*Apis mellifera*) and some native wild bee species are in decline.

At 131 farms across the US and in British Columbia, Canada, scientists collected data on insect pollination of crop flowers and yield for apples, highbush blueberries, sweet cherries, tart cherries, almonds, watermelons, and pumpkins.

Of those, apples, sweet cherries, tart cherries, and blueberries showed evidence of being limited by pollination, indicating that yields are currently lower than they would be with full pollination. Wild bees and honey bees provided similar amounts of pollination for most crops.

The annual production value of wild pollinators for all seven crops was an estimated \$1.5 billion-plus in the US. The value of wild bee pollination for all pollinator-dependent crops would be much greater.

“Our findings show that pollinator declines could translate directly into decreased yields for most of the crops studied,” the study says.

The findings suggest that adopting practices that conserve or augment wild bees, such as enhancing wildflowers and using managed pollinators other than honey bees, is likely to boost yields. Increasing investment in honey bee colonies is another alternative.

The study was part of the Integrated Crop Pollination Project, which the USDA-NIFA Specialty Crop Research Initiative funded.

Source: Rutgers University



<><><><> President's Message <><><>

So here we are.....September. Fall seems to have jumped the gun and sure enough we have 5 degree overnights and frost warnings in the first week. We always trumpet the policy to get on your fall and winter preparation chores promptly, and this is exactly the reason why. Some treatments underperform in cool weather. Bees take feed slower and it can take longer to process. Opening colonies on cooler days causes problems. If this year is catching you out, take notes and remember this for next season.



One of the great pleasures of being a member is the opportunity to socialize, see old friends, and catch up on the summers trials and tribulations. Covid-19 has severely restricted our ability to do this in person as a large group, and I miss that element of our gatherings terribly. I'm sure I won't be alone in that. Meeting online is not going to be the same, but it is the best way to keep the club functioning and helping others. If the technology overwhelms you, or makes you uncomfortable, you are not alone.

<https://support.zoom.us/hc/en-us/articles/360034967471-Quick-start-guide-for-new-users>

Help is out there. Zoom has a very good set of quick guides, advanced feature guides, and there are many YouTube videos that can make this less daunting if this is not your cup of tea. Get informed, and get involved because there is much to learn and your experiences are invaluable to teach others.

This Will Pass. We will be together, taking meetings in person eventually. If we can get through the next upcoming months, we can hopefully resume sooner than later.

A busy summer!

-We held three novice seminars, and the mentor program seems to be performing well on all accounts.

-The swarm chasers were out and about, and even made the local news! Not as many calls as we forecasted, but I did observe a lot of members catching their own swarms, and taking the initiative to collect others. This is something that really warms my heart as it indicates the transfer of knowledge is being practiced in the field. "Working as Intended!"

-We published one extra Bee-Cause this summer. Again, I'm a bit embarrassed that I couldn't follow through on my pledge to get out the other two extras. I learned the hard way why traditionally we don't publish in the busy bee months. Time is just not available to do justice to the job. If there is anyone available that enjoys desk top publishing, please raise your hand!

-The MBA with the support of the other local beekeeping organizations, including RRAA, was able to secure funding for the Tech Transfer Program (KRTP). The Red River Apiarists Association holds a seat on the KRTP steering committee, and one meeting was held this summer. Covid has put a hold on some of the governmental decision making that we await on, but that is standard in all aspects of government at the moment. In the meantime the committee is developing it's direction and will be in a position to advance our plans when the priorities re-align back to more normal state. This is a long term program and the goal to make it a self sustaining permanent fixture in the beekeeping community. A small setback due to covid is not a concern to the larger vision.

Looking forward to "seeing" you all on the 15th!

- John Russell

The Red River Apiarist Mentor Program: A new Chapter

When one says: “Mentor or Student”, we form a picture in our minds that may not sit well with who we feel we are as beekeepers.

“ I've been keeping bees for 6 seasons! I'm not a novice, but I don't feel qualified to advise as mentor” is a statement I seem to hear more and more.

So the program appears not to be a “good fit” for a number of our members.



That's perception however, not truth, and I'll tell you why.

-We are all students. The moment you think you know everything about bees, you are wrong, and you invite failure. Especially in time of change such as these.

-Wherever you are in your beekeeping journey in respects to education and experience, someone is less knowledgeable and less skilled than you.

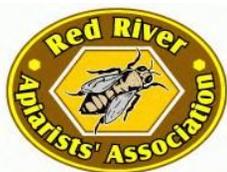
You have the ability to help those who have less than you. In fact, you can relate more to where they are than more seasoned beekeepers, and they will be more comfortable around you.

The great thing about our organization is that there is always someone more proficient than yourself to rely on. If someone approaches you with a question you are not confident answering, you can always “kick it upstairs” to a senior beekeeper or an executive.

I do this ALL the time. Being president does not make you a superior beekeeper, but it does make you well networked. I rely on more experienced beekeepers than myself to check my advice or help me solve an unfamiliar situation.

Next year, we will be starting up a new chapter in our mentoring program focused on intermediate skill leveled apiarists. This will be a communication hub for problem sharing and problem solving on an online chat platform. This will help as in real-time or as close as possible to offer support to members who may need occasional assistance, but not at a one to one mentor level.

More details will come after the new year. Thoughts, suggestions, and feedback are always welcome! - J.R.



Urban beekeeping can be bad for wild bees?

Urban beekeeping has been touted as a way to boost pollination and improve sustainability, food security and biodiversity in cities. Many people and businesses who've added beehives to their backyards and rooftops (including CBC) say they're doing it to help fight declines in bee populations.

But researchers say urban beekeepers are likely doing just the opposite when it comes to wild bee species.



The only bee species kept in beehives is the European honeybee, which is "a non-native species that's essentially livestock managed by people," said Charlotte De Keyzer, a Toronto bee researcher and founder of the site beewashing.com, which fights misinformation about bees.

"So it's a bit like saying that you're going to save the birds of Canada by keeping chickens in your backyard."

Honeybees, which are kept in hives of 50,000 to 100,000, roam across the city and compete with native species for food — nectar and pollen from flowers. A recent study in Paris found fewer wild bees in areas with more beehives, and on average, studies have been finding managed honeybees have a negative impact on wild species.

Gail MacInnis is a postdoctoral researcher at McGill University who is studying how beehives are affecting more than 170 wild bee species that live in Montreal, where about 2,000 honeybee hives have been added since 2013.

She noted that most wild bees are solitary and some are only active and able to collect food for two or three weeks of the year, so competition from a hive of 100,000 honeybees can be a huge problem.

She's trying to figure out how many beehives Montreal can sustainably support without harming wild bees, and how many flowers are needed to feed them.

MacInnis and De Keyzer acknowledge that honeybees are important for agricultural pollination, and there are some benefits of urban beekeeping, too, such as honey production and providing an income for beekeepers.

But they think governments should restrict urban hives to protect wild bees, as Ontario has done.

So, if you want to boost wild pollinator populations and improve sustainability and biodiversity, what should you do?

-Do less work in your garden, De Keyzer says. "You can mow less, which increases the flowers in that area. You can apply less pesticides." Less mulching and tidying in your garden also increases the nesting areas available to wild bees, which often nest in the ground, dead wood or the hollow stems of some plants.

-Plant flowers, MacInnis suggests.

-Advocate for stronger urban bylaws and restrictions about where beehives can be kept, De Keyzer says.

-MacInnis agrees that municipal governments can have a greater impact than individuals when it comes to protecting wild bees. Both researchers point to Toronto, which is covered by Ontario restrictions that make beekeeping illegal in much of the city, and has itself moved toward more bee-friendly landscaping with native plants and offers grants to community groups for pollinator flower gardens.

According to the City of Toronto, that's had other benefits, too — the native plants are more resistant to pests and don't require much maintenance, which lowers costs.

— Emily Chung

Editors Note: This topic does have some controversy as it focuses on one aspect of wild pollinator threats and barely touches on one of the large causes which is monoculture planting on large farms and the elimination of diverse environments

as we plow up every square foot. However urban beekeeping does have an impact and if you do practice it, keeping bees responsibly re: swarming, and making an effort to plant pollinator friendly species lessens your footprint. This includes planting clover lawns, eliminating pesticide use, and registering for buffer zones in regards to mosquito spraying. -J.R.

When Short Comings Knock at your Door

By Tim Kennedy

The 2020 bee season at best was one of my complex and challenging season out of my 8 years in keeping bee hives.

Beginning last September with very cold rainy feeding season, freezing rain, to sub zero temps in October offered bee keepers an opportunity to hone their husbandry skills in bee keeping. If mites were at high numbers at this time, any damage would greatly be felt 6 to 7 months later in spring.

Paying attention to important and necessary management requirements at the appropriate times, and in a timely manner, all contribute to one's successes and or failures. Of course one can not discount the significant effects temperature and weather has on apiculture. Most of us discovered early in 2020 season how well we did and how much attention we paid to last fall's management practice, to then transverse into summer production, and on to completing the cycle back into fall.

In summary, most of us experienced fully developed hives through late winter, and in some cases later on hives dwindled rapidly into struggling hives due to little food stores by early spring.

Mite counts in spring appeared under control and surprisingly very low numbers. The focus in developing colony strength became challenging as persistent dry conditions and low nutritional diversity availability slowed brood development.

Feeding became a priority both in pollen supplement and syrup. Queens exhibited behaviors that caused us to ask many questions and forced dialogue among bee keepers to find answers to complex conditions. Newly replaced queens, developed cells of all three categories, supercedures, swarm and emergency in some hives. And yet very little swarming. Still forcing keepers to monitor hives weekly, in order to preserve the integrity of each hive. Virtually every trick or idea was necessary and used in order to attain high volume bee population for the nectar flow. Then the nectar flow.....came? Or did it?

Mistakes happen. One method I used to strengthen a weak hive, was to double up a weak hive over a strong hive. Separated by a queen excluder and newspaper. In hopes to have two strong hives ready for nectar flow. Management of each hive in the various apiaries required great attention to details, and much monitoring and note taking. Then suddenly came the nectar flow. Almost as if a short and concise period of time was allocated to place honey supers and collect nectar, and yet, still very little rain. On went the honey supers, two three, five, six supers stacked instantaneously. Hard work and attention to details paid off. Then as suddenly as it came, harvest was upon us. Time to pull off

It was now time to bring in extra help to pull off the supers. The honey supers were heavy, full, and exploding beyond the frames... Eureka, we have honey!!!

Some hives produced over 285 lbs where others 165 to varied volumes of honey and different honey according to its forage diversity.

My friend, Johnny, helped me to pull one yard that had a successful yield. To our dismay the largest (tallest) hive with six full supers had a brood laying queen above the queen excluder. What a mess it was to harvest that one hive with honey and fresh brood. My friend Johnny went home shaking his head saying... "Never again!"

I had forgotten to separate that double brood box (two queens) I was trying to strengthen earlier in spring. By mistake, I did not check my notes, I simply placed on top of the now very strong, brood boxes, all the honey supers. You know comes next don't you? However, I did find in another yard a queen that was above the excluder laying brood happily in my honey supers... Fun?.....No.

I share this story to simply say, the best laid plans can sometimes meet up with unexpected results. We learn from our mistakes, we learn by talking openly about these perceived failures, and don't be ashamed to admit that WE too don't have it all figured out. Failure, or success is in the interpretation of the facts. I had a successful yield, more hives and honey than I need but I certainly will continue to learn and strive to do better each year.

Share your story.

By talking about it WE ALL LEARN.

- Tim Kennedy, Beekeeper and Educator Extraordinaire *discouraging incidents...*



lowest around 100 lbs. A great crop. Each yard yielded



Convincing helpers to come back the following day can be

a challenge, especially when day one may have had a few

The Senate of Canada, a beehive of activity? Remarkably, yes!

-By Andrew Duffy, of the Ottawa Citizen (Abridged)



Thirteen hives — each one decorated with the painted flag of a province or territory — now sit atop the newly renovated Senate of Canada Building in downtown Ottawa. They're home to 750,000 honey bees.

The hives were installed last May as part of the Senate's relocation to the former Government Conference Centre, a move necessitated by the decade-long renovation project on Parliament Hill.

The bees have flourished in their new surroundings: The Senate colonies have grown rapidly from an initial population of 100,000.

"We understand the bees are doing quite, quite well," said Thierry Montpetit, senior director of the National Capital Region at Public Services and Procurement Canada. "I think even the beekeeper who was part of the team taking care of them was pleasantly surprised."

Staff from the nearby Fairmont Château Laurier manage the hives. The harvested honey will be used as part of culinary dishes served at the hotel.

Government officials approached the hotel with the partnership idea after learning that Fairmont operated rooftop apiaries at some of its other facilities in Canada. Since the Château's roofline does not lend itself to an apiary, federal officials offered a site at the temporary Senate building.

"We thought that maybe it's a way to raise awareness on the importance of bees in an urban environment — and to educate people about the importance of a healthy bee population," Montpetit said.

In Canada, between 2006 and 2014, annual bee colony losses were consistently higher than the normal rate of 10 to 15 per cent. In 2008, the losses reached a high of 35 per cent. In May 2015, a Senate standing committee issued a 71-page report on bee health in Canada. It made nine recommendations, including a call for beehive-safe pesticides.

(<https://sencanada.ca/content/sen/Committee/412/agfo/rep/rep09may15-e.pdf>)

Unlike Canada's Senate, beehives are female-dominated. Out of tens of thousands of honey bees in a typical colony, only a few hundred are male drones, whose primary job is to mate.





Couple finds out they're living with thousands of bees after fresh honey drips down their walls

By Alisha Ebrahimji, CNN

A Pennsylvania couple didn't know they had house guests until lines of fresh honey started dripping down the walls of their home's mudroom.

Andrea Isabell and her husband Justin have lived in their 100-year-old home in Perkasie for five years and told CNN they haven't had any major issues with it, apart from run-of-the-mill repairs that come with owning an older home.

On Friday, Andrea said her neighborhood received heavy rain from Tropical Storm Fay, so they thought the streams coming down the wall of their mudroom were from water damage.

Saturday morning, the couple took a closer look and realized the liquid was actually fresh honey.

"We've never heard any buzzing or anything," Andrea said. "When we saw the stream coming down the wall, we just kind of worked our way up."

Andrea said she made it to her bedroom window and looked outside where she found honeybees entering and exiting an opening along her roof.

"And I thought there we go, there's their front door," she said.

In a video posted on Facebook, Justin offered a comical homeowner's tutorial called "How to tell if you have a bee issue."

(<https://www.facebook.com/justin.isabell/posts/10158727997317745>)

"We noticed these streaks coming down our wall and we could not figure out what it was," he said. "So, with a very careful lick ...yup that's honey!"

The honey streams have traveled from the attic, through the second story, the main floor and now down to the basement, according to Andrea.

Allan Lattanzi, a general contractor and beekeeper for eight years, looked at the home Saturday and estimated the colony has anywhere from 20,000 to 30,000 bees.

"I think water got into the colony and washed the nectar out of the comb and made it more liquified and that's what was running down the wall," Lattanzi told CNN.

Andrea cleaned the honey from the floor to a midway point on the wall and said it doesn't seem to be a continuous stream.

She said her children think the stream is crazy and the family's dog certainly didn't seem to mind the fresh honey.

On Monday, Lattanzi will extract the colony from the Isabells' home and take it to the bee yard on his property.

"We know bees are endangered. We want to be able to save the colony and rehome them appropriately and carefully, but the damage done to the house to extract it was concerning," Andrea said.

During the assessment on Saturday, Andrea said Lattanzi estimates the repairs will cost about \$3,000 -- something she said her homeowner's insurance most likely won't cover.

"Right now, I feel mostly safe because the bees haven't gained access inside so they're just doing their thing and they're high up on the roof," Andrea said. "No one has been stung, so I guess that's why I feel confident and calm."

P.E.I. potato farmers plant flower-filled 'refuge fields' for pollinators

- Nancy Russell CBC News (Abridged)



A growing number of P.E.I. potato farmers are planting small fields of flowers and other plants to provide a friendly spot for bees and other pollinators. Researchers at the P.E.I. Potato Board are also hoping the plants will have some added benefits when the next crop of potatoes goes into those fields. Vernon Campbell of Mull Na Bienne Farms has planted his second pollinator refuge field, on an acre of land in Springbrook, P.E.I.

Campbell calls it "the right thing to do." "I was so pleased how it turned out last year, I thought: 'Let's do it again,'" Campbell said. "This is kind of a poorer section of the field and we didn't need it all in the barley, so we left a portion of the field and planted this pollinator mix.

The mix in Campbell's field includes seven pollinator species: barley, timothy, alsike clover, yellow blossom sweet clover, bird'sfoot trefoil and phacelia.

The plants flower at different times over the summer, and provide a food source for honeybees, native bee species and other native pollinators.

After the first season, some of the annual plants such as barley will die down, but other plants will come back for a second year, making the fields low maintenance for the farmers.



Campbell first saw a pollinator refuge field at a Cavendish Farms research day.

"They had a small plot of the same mixture and I couldn't believe the amount of bees that were in it, all foraging and all happy," Campbell said.

His first field, last summer, had the same result.

"In the refuge itself, it was just alive with bees later in the summer. You could almost hear them buzz when you were approaching," Campbell said. "It made me feel good to be able to do something for the pollinators because they're under extreme pressure, and in food production we need them."

The P.E.I. Potato Board is also very interested in the potential benefits of pollinator refuge fields, working with growers using the mixes to try to improve their soil.

"It's planting that diversity of species that can do different things for the soil characteristics, that help with feeding the soil microbes, that help with soil compaction, that help with fixing nitrogen," said Ryan Barrett, research and agronomy specialist with the board.

"That will then, in future years, help feed the potato crop, or feed the other crops that are being grown."

Photo Gallery, Summer of 2020



AMAZING! I have NEVER seen anything like this. This pic is from last Sunday's storms. Angela Campbell says lightning struck her electric fence in Jasper, Ga. Yesterday, they looked at the footage from their trail camera. They found this image from when the lightning struck.

-Tweeted by Chris Holcomb, submitted by John Speer

20 °C 68 °F 06/21/2020 05:44:37PM 0129

Hive cover meets dust devil! -Photo by David Lee



Chris Goddard, putting on the escape boards to clear the bees of this years crop. -Photo by Jim Campbell



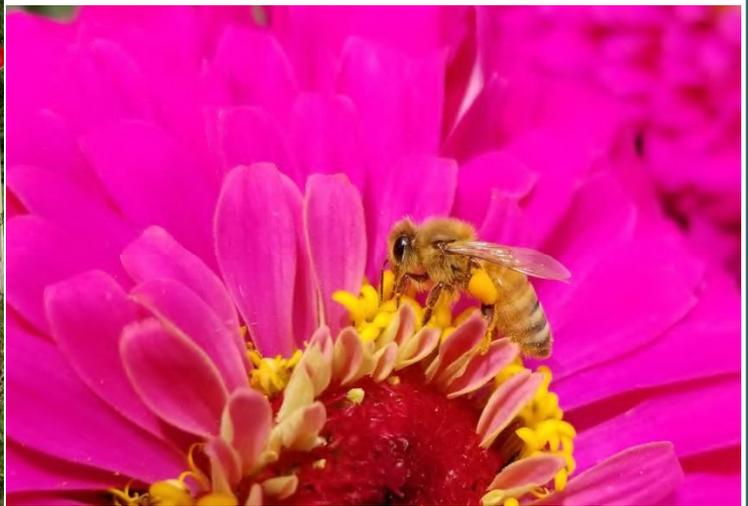
Do you have some photos to share from the past season! Share them with us!

Email them to: honeyb@mymts.net

Buying the ladies lunch :) - Photo by Jim Campbell



Late Blooming garden flowers such as Zinnia provide pollen for Honey Bees -Photo by Jim Campbell



R.R.A.A. Classified Advertisements



The RRAA , the Bee Cause, for you and through you:

The Bee Cause is the official publication of the Red River Apiarists' Association for distribution to its members and their colleagues in the beekeeping industry. It is published eight times a year on a monthly basis except December and the summer months of June, July, and August when membership meetings do not occur.

Articles can be best submitted in word documents as email attachments. Though they may be edited for spelling and basic grammar, no changes will be made to their contents, message and opinions without the authors written & expressed consent.

They are those of their originator and not of the Red River Apiarists' Association.

Deadline for any submission to this newsletter is the second Sunday preceding the membership meeting to allow for publishing and mailing delays and the legal obligation to allow membership to review last meetings' minutes for errors or omissions before next meeting. Regular membership meetings are normally scheduled 7:30 on the second Tuesday of every month at the Elmwood Legion 920 Nairn Avenue in Winnipeg except months noted above.

The Red River Apiarists' Association, formed in 1963, represents the beekeepers of the Red River Valley and environs in southern Manitoba. The association provides a forum for the promotion of sound beekeeping practices through education, networking opportunities, meetings, field days, workshops, presentations by local apicultural experts, as well as the dissemination of this monthly newsletter.

FOR SALE:

Stainless Steel Tank: with an electrically heated water jacket. will hold more than 2 barrels of honey.

It has a bracket on the sides near the top for holding a screen mesh which could be used for filtering honey into the tank. The heater element is thermostatically controlled. There are two outlets near the bottom of one side of the tank. One is for a honey gate and the other for attaching the portioning machine.

EZ-Fill Portioning Machine:

Once one sets it to dispense a certain amount of honey it consistently dispenses that amount and the gears back up a bit to prevent drips. Pays for itself in accuracy and waste reduction!

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Rob Smith

204-254-4509

We still have supers, bee escapes, excluders, nuc boxes etc for sale as we continue our downsizing. In the spring we expect to have hives and nucs for sale.

margshoney@gmail.com 9129



NOTICE:

Some advertisements were changed from this summers submissions due to obvious seasonal availability. Submitting your ads at least every two months is wise, sayeth the editor.

Manitoba Raised Bees

The RRAA has many members who raise queens and sell bees. Keep these numbers handy for your next seasons plans. Book early for a happier spring!

Rod

McCulloch 204-803-7437

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Supers, Bottom Boards, Contact : **Waldemar Damert**

Inner Covers available on of **Busy-Bee Apiaries** pre-

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E-mail: wdamert@yahoo.ca
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Second Line: 1-204-230-4870



Email us: sales@dancingbeeequipment.com

Our sales staff will be happy to help you find the best products to suit your needs. Please contact us with any ques-



**Co-packing Services for
Manitoba Beekeepers**

Email: honeyb@mymts.net

Phone: 204-612-2337



Red River Apiarists' Association Membership Application



The RRAA membership extends for one calendar year. Renewals are due in January and includes access to 8 monthly issues of the RRAA BeeCause newsletter.

I hereby apply for membership to the RRAA\$35.00/year

*Optional: Beekeeper Liability Insurance - \$65.00 + \$5.20 KKKK.... \$70.20/year

Total Payment \$ _____

**Note: Liability Insurance fees must be submitted before April 1st.*

Name: _____

Address: _____

City: _____ Prov: _____ Postal Code: _____

Email: _____ Phone: _____

Signature: _____

Please check one of the following:

- New Member
- Renewal
- U of M Student Beekeeping Course (free first year)
-

Payment Method:

Cash
 Cheque

E-Transfer



Completed form and payment may be brought to a RRAA regular meeting or mailed to:

**John Speer, RRAA Treasurer
24063 Oakwood Road
Sunnyside, MB
R5R 0H4**