

The Bee Cause



Volume 12, Issue 5

May 2015

- Next general meeting is 7:30 Tuesday, 12 May 2015 at the **Corydon Community Centre River Heights, 1370 Grosvenor Ave., Winnipeg.**
- (in room right off maindoor)

Speaker: In search of maintaining the Manitoba bee lines.

May Raising Queens

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Some Thoughts On Bee Breeding In The North

Written by Kirk Webster

I have a favorite book from the 1940's: The Farming Ladder, by George Henderson. It's a great story of two brothers from London, who set out at age 15 and 16—with no money—to learn farming and eventually have their own mixed livestock farm. Their rapid and substantial success was largely based on the excellent education they received by working on several really good farms, and then combining the best of what they had learned. By the time they were established and had pupils of their own, this was some of the advice they invariably handed out: "When you need to learn how to make hay in a wet climate, always go and learn in a place with more rain than you have at home." And with livestock: "Always get your breeding stock from a place with a harsher climate than you will have on your farm." In North American beekeeping we have largely been ignoring this sound advice and doing just the opposite for almost 100 years.

It was amazing how well southern bees often did in the northern states, even during the winter—until tracheal mites arrived. Now, with the added pressure from varroa and other pathogens—and Africanized bees encroaching on more of the southern bee producing territory—we really need to use the North's great potential for selecting and breeding bees.

When you bring animals, selected and bred in a harsh environment, to a more benign place, they sometimes exhibit a kind of "release" phenomenon, resembling hybrid vigour, which allows them to thrive better than the local stock in their new environment. Honeybees are no exception.

When I first worked for Charlie Mraz here in 1972, I spent many a Sunday with him catching the queens which were enabling beekeepers in Mexico to restore vitality and productivity to their industry. And the queens and nucs I've produced here have had their greatest success in southern New England and the Mid-Atlantic states. It doesn't always make for a better bee for making a living just by moving them south. In parts of Louisiana for example, where the

main honey flow comes very early, they really need a bee that holds a big cluster over the "winter", and broods up early in response to temperature rather than day length or pollen flows. In my environment, natural selection favours bees with great winter longevity and delayed spring build-up, rather than large cluster size and early build-up. So, mine may not be the best bees for the Gulf Coast; at least if you're trying to produce honey with them.

Where selection and breeding are continuous, year in and year out, each environment emphasizes certain characteristics. In the past, beekeepers of long experience knew that bees from a certain area did better than any others, in their particular management scheme. The skill

and attentiveness of the beekeeper is a huge factor in all this, but once we have some really skilful beekeepers selecting, breeding and producing queens in the North, these queens are likely to be very useful all around the country. A couple of things are certain: we have a corner on winter hardiness, and the best chance of maintaining all-European stock in the future. One of the reasons why it can be very easy to produce good queens in the North during summer is because the good beekeeping territory is full of honey producing colonies and drones are superabundant. If honey production and queen rearing are carried out in conjunction with each other, this will always be the case. I have no doubt that many of the problems beekeepers have been having with their purchased queens over the (last decade come **(cntd on pg 4)**)

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Presidents Comments for April, 2015

Greetings to all the beekeepers

May just started and the Farmers are busy seeding in my area. Most is Grain, Barley, Beans, and Canola is going in next. Quite early, it means if the frost will not do damage to the plants Canola will bloom in June.

The bees progressed significantly too. Twenty five percent (25%) of hives are filled with bees to the brim and have 7-9 frames of brood. The rest will be there in two Weeks as well. With the hives growing and producing a lot of brood they consume most of the pollen and nectar that they bring in. I had to check for stores and feed syrup twice. I have done a Drone count - 4 live Drones per frame (not pupa) 30-40 per hive times 30 hives per yard, 900-1000 Drones. We can start some Queens if the weather plays along. Import Queens are priced this spring at \$37 for a queen from USA.

Bee-outfitters are selling Queens this year between \$31 - \$37, the highest I have ever seen. This is one more reason to raise local Queens from a good hardy Manitoba stock. Our topic for the May meeting will be "How to raise Queens". Think of some questions you may have, write them down and bring them along. We will do our best to answer them.

For myself, I have been busy finishing some wood work, starting new projects, making foundation and when the weather is nice tending bees.

The Maples are blooming and some Dandelions are poking their heads out. A lot of pollen is coming in but not much nectar. You may want to check the hives and feed if needed. Bees will start saving on food if there is not plenty available, and here is the way they do it. They will shut down the brood and cannibalize the larva. If the hive reached that stage it will either kill the queen or starve. Bees can't live from pollen (protein) alone; they need and depend on honey or sugar syrup (carbohydrates) to drive their muscles and produce heat. Be good to your bees and they will return the favour 100 times over. I had a brief conversation with Mr. Real our provincial apiarist. His impression is that the winter bee lose across the province is quiet low. That is good news for the beekeeping industry!

The Honey Bee day is on May 29th, it is a Friday. We the RRAA will have a promotional display and vendors at the Forks in Winnipeg on May 30th. We need volunteers to converse with people, answer their question and share the knowledge with young and old about the bees and the honey!

Locking forward to see you all on May 12!

Waldemar

Red River Apiarist's Association
Minutes of the Regular Meeting of the
April 14, 2015

Chairman: Waldemar Damert
Recording Secretary: Art Quanbury

Approval of the Minutes of the previous AGM

Motion: That the minutes of the AGM held on February 10, 2015 be accepted

Moved: Armand St. Hilaire
Seconded: Albert Anderson
Carried

President's Report

Hive losses among members appears to be in the 5 to 25 % range. Pollen is starting to come in on the bees: yellow is from willow, green from poplar and gray from maple. Some large producers are having up to 70 % losses.

Neonics are still a hot topic among honey producers and other farmers and governments.

Questions

If a hive is being fed but there are no honey reserves or brood than there may be no queen and honey is being robbed by other bees. The old bees can be shaken out and they will go to the other hives. If there is a lot of honey then black frames can be added to give the queen some room to lay brood. There was a discussion on treating with formic acid for mite control. A flash treatment (20 cc on a cotton pad) can be done to see how many mites drop down. If temperature is < 20 degrees then treatment should be from the top. If temperature is > 20 degrees then treatment should be from the bottom.

Financial report

Some members have not yet paid. After this month anyone not paid will be removed from the members' list.

New Meeting Hall

Armand St. Hilaire reported on the investigations into a new location for a meeting hall that would be more convenient for more members who live beyond the city limits. Two Legion Halls were considered because of there location, reasonable rent and facilities and flexibility. One was on the North perimeter and the other on Narin Avenue. The Narin Avenue one was chosen because the rent was \$50.00/meeting, it has good parking, is close to the edge of the city, has private access, can guarantee the hall space every month, has a place to store coffee making supplies and has flexible hours. The association will start meeting there in September. John Speer will contact RHCC to inform them that we will not be returning in the fall.

Presentation

Waldemar led a discussion on how to select local stock.
How to Select Viable Stock to Breed Local Queens

These techniques are only viable with 50 colonies and up although with 10 hives you can do it.

First step is to determine your goal. Is it maximum honey crop, large colony size, winter hardiness or disease resistance? These goals will make a difference in what you do.

You need to have a scale so you can measure the goal achievement quantitatively. A three step scale can be used and the hive

performance (not the queen's) should be measured every year.

Goals will be different if you are a hobby bee keeper vs. a commercial one.

Keep in mind that the life of a queen is only 3 to 4 years and years 2 and 3 are her best ones for production and size.

2 Maternal lines not related are kept on one palate. Easier to observe differences.

You have a choice of replacing the queen or waiting for the colony to replace her when it feels she is weak.

It is important to keep the gene pool as broad as possible by having mating with many drones. This can be controlled by having sufficient drones in the yard and the queen will not leave for the DCA (drone congregation area).

There are tradeoffs in the selection process. e.g.: gentle bees vs. more aggressive ones that will protect the hive and be less likely to be robbed; high honey production vs. winter starvation risk with a bigger cluster; early brooding vs. running out of food; timely shut down vs. too early a shut down resulting in a smaller cluster with not enough winter bees to match honey in the brood chamber vs. too late a shut down resulting in too large a cluster and not enough winter stores; high propolis production vs. little production and more susceptible to viruses and disease.

A colony can change a queen automatically when they feel the queen is weak. They will do this in August. A queen should be replaced after year 3 if you don't know where she came from. A healthy hive will have 3000 drones. Large drones have more sperm than smaller ones.

Other comments

There do not appear to be many bees for sale this year due to high losses of large operations. There may be a lot of swarming because of early spring. Should think of splitting before they swarm. They can always be re-united in the fall if the colony is small. Bees prefer wax foundation for brood chamber over plastic foundation.

Ken Rows talked briefly of the procedure he uses for raising queens.

Looney Draw winners

John Speer		Styrofoam box
Stan Huzig		Styrofoam box
Jim Oke	Plant	
Keith Bamford	Plant	
Hans Borst		Honey

Adjournment

The meeting adjourned at 9:30 pm

The next meeting will be held on May 12, 2015 at the River Heights

MBA Report May 2015

Jim Campbell, MBA

Representatives of Manitoba Beekeepers' Association (MBA) participated in the Manitoba Aerial Applicators Association (MAAA) annual meeting on 15 April 2015 in Portage la Prairie. The Portage Credit Union Sports centre on Island Park hosted the meeting. Beekeepers joined the meeting in time for Pierre Petelle, CropLife to bring an update on the **BeeConnected** app. MBA has been working with MAAA since late 2012 on a system to assist applicators spot beehives in a timely fashion to avoid damage. Development of a hive site map system was approved by Resolution #8 during 22 November 2012 AGM of MBA. There is now an app available, yet CropLife Canada legal staff currently work with the owners of **BeeConnected** in Australia, to obtain rights to use the app across Canada in 2015. No word when access to this new communication tool for applicators and beekeepers

(MBA report cntd.) will be available. MBA are optimistic beekeepers will register their yards with the easily managed app, in the same way Saskatchewan readily populated their "DriftWatch" system.

MBA are still looking for a site for the summer Field Day in June. Some options have been presented, yet work is needed to secure a volunteer host for this.

The Blacklegged Tick research project is being finalized during early May. MBA received confirmation of funding from the Growing Forward 2 Growing Innovation – Agri-Food Research & Development Initiative (ARDI) of \$78,400 for the two year project. The project is called **"First Steps in Risk Assessment: Blacklegged Tick Seasonality and Development in Southern Manitoba"**, and should begin during May by University of Manitoba students collecting samples of ticks. Several beekeeping operations will be contacted to volunteer apiary site samples, as we have members suffering from Lyme transmitted by ticks.

With the recent news of MBA Treasurer moving to take care of her mom, MBA directors determined to combine the vacancies of Secretary and Treasurer. Although applications have been received and reviewed, each is being given an opportunity to include the added treasurer function or to retain their application for secretary. Interviews are desired by mid May as the treasurer vacancy should be filled by the fiscal year end of July 31, 2015.

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Protections for Honey Bees Killed by Farm Lobby Environment In Focus Podcast March 31 2015

In Maryland, a bill in the General Assembly would take steps toward restricting the use of neonics. Senate Bill 163 would ban the sale of the insecticides to homeowners who spray the chemicals on their gardens.

The bill would also require that all flowers and other plants sprayed with neonics and sold in garden stores and nurseries to bear warning labels. The labels warn consumers that the chemical contribute to the die-off of bees. Jay Feldman, executive director of an advocacy group called Beyond Pesticides, testified in favour of the bill in a recent hearing of the Maryland Education, Health and Environmental Affairs Committee. Governor Larry Hogan's Department of Agriculture opposed the bill, saying it would require the agency to hire three inspectors at a cost of almost \$195,000 a year. That is money the agency says it does not have. "This bill comes with no funding source," said Joe Bartenfelder, Maryland's Secretary of Agriculture (MDA). "You can debate it back and forth. But the reality of the situation is our resources at MDA are stretched absolutely thin." With the opposition of the state agency and the influential farm lobby, the chairs of the senate and house environmental committees declined to even bring the bill to a vote.. —/\—

(from pg 1) from overtaxing the supply of drones. The drone population is being maxed out by both the overproduction of queens, and the effects of mite control chemicals. Where a relatively small number of queens are being produced in a good honey producing area, the drones represent a huge, untapped resource. But at the same time, these drones can be a serious problem. One of the most important reasons for raising queens now is to propagate varroa resistant stock. For this to occur, and for the resistance to improve, survivors must mate with other survivors. This can be impossible in crowded commercial beekeeping areas, with many beekeepers, and each one pursuing a different objective.

There are only three practical ways to achieve mating control with honeybees—Instrumental Insemination (I.I.); Natural Mating in Isolation; and Drone Saturation. I.I. creates absolute control over the breeding process; but it may not be practical when used alone, and is probably most valuable when used in conjunction with the other two methods. I've always been most interested in natural mating in isolation. (This is my only good option here, where the honey producing territory is crowded with bees, with many owners and all jumbled together.) At a good site, there's very good control of the mating, the work is very exciting, and many controlled crosses can be made in a short time. The problem is finding a workable site. In addition to being truly isolated, a practical site must also be within a reasonable driving distance, and capable of sustaining mating nucs and drone rearing colonies for at least three rounds of queen mating. Such sites are, unfortunately, very rare.

Drone saturation is the most likely method of mating control available to commercial beekeepers. It doesn't create the degree of control possible with the first two methods, but aside from that it has many advantages. The work is all done right in your own home territory, without the need to maintain new or distant locations. If you can surround your mating yard with your own honey and drone producing yards, then you should be able to make progress breeding your own bees. If you have a large area with only your own queens and drones in it, then you have something really solid and exciting to work on. With the depleted number of colonies and beekeepers, and the large size of many surviving apiaries, there should be several places like this in the northern states now. And when fuel prices start rising out of control, perhaps the old model will return; with smaller apiaries and yards clustered tightly around a home base—with a mating yard in the middle.

For most beekeepers, breeding against varroa means bringing some new stock into the apiary—often with behaviours we are not accustomed to. This was certainly the case with the Russian bees. Like many other beekeepers, at first I found them very frustrating to work with.

They had such small clusters in the fall and spring; were slow to build up early in the season; and packed too much honey in the brood nest. They also didn't draw foundation very well, compared to my old bees; were susceptible to chalkbrood; and could throw off a swarm at the most ridiculous times. But from the beginning it was clear they had real resistance to varroa, and many other valuable traits, so I stuck with them. After five years I am finally getting the hang of it. Once I stopped trying to make them fit in with my idea of how a honeybee **(Contd. On Pg 5)**

(from Pg 4) colony should behave, and let them be themselves, everything started falling into place. Last fall, at the Pennsylvania State Beekeepers meeting someone asked if I would stick with Russian bees if a safe, cheap and effective varroa control came on the scene. The answer is an unqualified yes. I now think these bees will eventually be even more productive and profitable than my old bees were in the days before varroa troubles. Their small clusters, frugality, and great winter hardiness make them already well adapted to overwintering in nucleus colonies. They are very gentle, and have an amazing capacity to gather nectar. But for this nectar gathering to result in a honey crop, they must be managed differently than Italian-type bees.

Many of the queens being sold now as "Russians" are heavily hybridized, and so their behavior can vary all over the map. But here are a few suggestions to start off with if you want to work primarily with Russian bees. This is based on my experience here in Vermont, where we have a very strong dandelion flow from about May 10—25 followed by a dearth of sorts until clover starts yielding around June 20.

(Honeysuckle is starting to fill this gap in some spots.) Clover and alfalfa can yield surplus anytime (or not at all) between June 20 and September 10; after that, any fall honey stays in the brood nest.

First of all, these bees consume very little honey over the winter, and two deep boxes is way more room than they need for the winter cluster and stores. One and a half boxes is probably the ideal size—even this far north. April is the only month when they seem to lose any appreciable weight. They are very slow to get started on the main build-up—but once they do, watch out! If they become anywhere close to being crowded during the dandelion flow, they are almost certain to plug up the brood nest, build cells, and throw off a swarm. In addition to being slow starters, I'm now convinced they should be held back even further, by taking some brood and bees out in early May. I try to have the queens just starting to lay in a second hive body during the last few days of the dandelion flow. This is literally half the size I used to consider optimum at this time of year, with my old bees. If possible, Russian bees should have only drawn combs for the spring build-up. If you must draw foundation at this time, it's best to draw just one or two frames at a time, right in the brood nest during a honey flow. Much better is to draw the foundations up in the supers after July 4 or, best of all, in the summer nucs.

After the spring build-up, it's largely a matter of giving them more room before they need it. The individual bees live a very long time, and a large colony can gather an amazing amount of honey in a short time—so keep an eye on them! I use excluders and shallow supers, but it might work better to have all deep combs and a free ranging brood nest. You can strip the honey way down in the late summer, and I've never yet had to feed any bees that were at least 75% Russian.

If you still long for a bee that's more like an Italian, don't worry! If you keep selecting them yourself, they will eventually move in that direction. If you only breed from colonies without chalkbrood, then chalkbrood gradually diminishes.

By the same process, we could eventually have Russian bees with less swarming, larger clusters, and better at drawing foundation. But only if many of us keep making our own selections year after year. I'd like to make some more progress on these fronts myself, but I have to admit that after selecting my own breeders for a

few years, and letting the bees tell me what they need, I've been won over. They have everything I most want and need in a strain of bee—gentleness, high productivity, hardiness, and requiring very little attention. Now, a few nuts and bolts things about breeding and record keeping: I've looked at Brother Adam's pedigrees and methods of record keeping. They are extremely interesting, and anyone seriously interested in bee breeding should study them closely. But this type of record keeping is very time consuming, and there is a whole long list of unforeseen circumstances that can come along and make reams of such records completely worthless. In my own apiary I do only just enough record keeping to help identify the best queens in each generation, know their age and families for certain, and prevent inbreeding depression. I'm afraid my entire arsenal of high-tech tools for record keeping consists of a lumber crayon, thumb tacks, a pair of queen-clipping scissors, and a few pages in my notebook.

When selecting your own breeders, and closely controlling the mating of virgins and drones; you very soon have to consider the possibility of inbreeding depression—especially when you're working with a small number of varroa survivors. A certain amount of inbreeding is almost certainly necessary to fix and develop the varroa resisting qualities—whatever they happen to be. But Nature's design for honeybee mating is to maximize out-crossing by every possible means. Too much inbreeding results in a loss of vigour; and for practical beekeeping, once you've lost vigour, you've lost everything. So how can we walk this fine line between fixing new characteristics in a strain, and at the same time prevent loss of vigour? Here's my attempt at a workable solution: My bees now represent 15 different families. Each family originated from one outstanding survivor queen. At the beginning (1999—2003) these queens were almost completely unrelated to each other. The majority of these families came from the various lines of Russian bees released by the USDA; but there were 3 other, completely unrelated sources as well—SMR stock, survivors from my original bees, and survivors sent to me by other beekeepers. Because it takes 2 years in my system for a queen to qualify as a breeder, I only need to graft from half of my families each year, (though in practice I usually graft from most of the families each summer). In the isolated mating area the majority of drones represent just 4 of the 7—12 queens that were used as grafting mothers the year before. I use 24 drone rearing colonies for 200—225 mating nucs. These drone rearing colonies are over wintered nucs, and with summertime matings they have plenty of time to build up in the valley before being taken up into the isolation area. Drone combs can be easily added at the optimum time for the 3 mating cycles. I like to use old combs for this, only partly covered by drone cells; and I add only the equivalent of ½ frame of drone comb each time. In anything less than ideal conditions, I think those full frames of (cntd on pg 7)



Editor's Note

by Ken Rowes

Spring is advancing fast, with the odd cold dips. Bees have developed quite well. One species of my 3 apple trees are flowering and the dandelions are out in my yard. In another week I will be on my way to raising queens with the hope of mated queens by June.

Bee Day in May

Promoting the importance of Honey Bees pollinating plants for fruits, nuts, vegetables and seeds in urban and rural areas, a Day of Celebration is planned for late May. Saturday May 29, 2015 is slated to celebrate "The Day of The Honey Bee" at the Forks Market, Winnipeg, Manitoba.

Based on the theme "Honey Bees – Naturally Good For Us",

Producers can respond to increasing concern the public has to improve plant production in family, neighbourhood, and community gardens. The promotion provides an excellent opportunity for guests to "visit with beekeepers" and learn of steps to save the bees. This often leads to a better understanding about bee-activities, bee-friendly gardening, plus agricultural practices benefiting both bees and plant systems.

Last year, members of Red River Apiarists' Association hosted the promotional and marketing event on behalf of the Manitoba Beekeepers' Association. The event is co-ordinated with ones in major cities across Canada. At past events inquisitive visitors verified the benefits of the honey bee for more than just honey, but also for their importance on the whole ecosystem. They also discovered what plants attract bees.

Beekeeper volunteers may help out at the display and/or assist with media contacts. Anyone able to spend an hour or two talking to visitors and helping distribute information, please contact organizers Waldemar Damert at , 204-755-2340 - wdamert@yahoo.ca ; **Armand St Hilaire** 204-943-0166 asthil@my.mts.net

CLASSIFIEDS

1 Wanted: Automatic uncapper; honey tank. **Phone 204-712-6783, Email; lancewld@gmail.com**

2 For Sale: Plastic queen excluders \$3.50 each. **Contact, Lance W. Phone # 712-6783, Email; lancewld@gmail.com**

3 For Sale: nucs: 5 frame nucs 160, 4 frame nucs 140, 3 frame nucs 120. with new queens. also will have nucs with marked laying queens from 2014. for less money. **call Dennis Ross 204 878 2924 cell 204 782 7838**

4 For Sale: 1) Nucs with 4 frames full of bees. Lots

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

Deadline for any submission to this newsletter is the second Saturday preceding the membership meeting to allow for publishing and mailing delays. Regular membership meetings are normally scheduled 7:30 PM on the second Tuesday of every month at the **Corydon Community Centre River Heights** located at 1370 Grosvenor Avenue in Winnipeg except the months as 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.

We are on the web!
www.beekeepingmanitoba.com

of brood on 2 of them. All nucs have 2014 raised queens from winter hardy, mite tolerant, own local stock. No foul brood in my apiary. Price TBD. 2) New inner covers 7/8" x 7/8", pine rimmed with 3/8" solid plywood. \$8.50 each 3) 2015 raised queens, not mated, from my own stock. Available last week of May. \$25.00 each. 4) 2015 raised queens, mated and laying, from my own stock. Available first week of June. \$35.00 each. **Contact: Ted Scheuneman 204-338-6066**

5 Wanted: Honey contact: **John at**

204-943-0166 Email:honeyb@my.mts.net

6. For Sale: Downsizing 150 hive operation — items to go; Full size hive boxes (plain or insulated), brood boxes with bees, honey supers, 4 frame nuc boxes, a variety of feeders and queen excluders, hive tops metal covered, bottom boards—plain or screened, inner covers and feeder covers. Frame parts, frame assembly and wiring jigs, pure beeswax foundation, wax melter, barrel cart, electric barrel honey melter, electric fencer, poles, wire and insulators, bee blowers, beekeeping clothing and tools, electric uncapping knife and plane, electric stainless steel bottling tank—300 lb capacity, plus an assortment of plastic and metal honey pails.

Reasonable prices most equipment will be sold in groups. **Contact Charles_polcyn@ymail.com or Charles 204-284-7064 Wpg. Or farm 204-348-2506.**

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(from Pg 5) drone comb are too much to give the colonies all at once, especially if you want those colonies to produce drones for 2 or 3 rounds of mating. Because my original families were unrelated, my new queens were quite hybridized for the first couple of years. Now they are calming down and the families are more like one another. Over the years a couple of families have dropped out (though they are still theoretically present because they were used as drone mothers at some point), and stronger families have been split in two. Through ruthless selection by mites and weather, the Russian characteristics are now dominating in all the families. It may not be scientifically accurate, but I now think of my gene pool as a tub full of water, with a few slow leaks in the bottom. To compensate for the leaks, I try to start a new family every year or so, from a promising, unrelated queen brought in from outside. This way new blood is constantly trickling in, but very slowly. The great majority of my bees come from stocks selected and propagated here for several years, but there are at the same time a few new families coming along that can be amplified quickly if any of the old families start to show inbreeding depression.

Reliably keeping track of all these families would seem like an onerous task in a busy commercial beekeeping summer, but I think I've reduced it to the simplest possible procedure. This is where my high-tech record keeping equipment comes in. First, all nucs are numbered with a lumber crayon, when the loads are first set out. Inside the queen cell carrying box is a sheet of paper recording the pedigree of each row of cells, and also which nucs they went into.

When queens are caught in the isolation apiary, their wings are clipped, and they are transported in a special carrying box where the families can be kept separate. When introduced into nucs, the numbers are recorded in my notebook. After extracting is finished in early October, I spend a day marking all the various nuc boxes with coloured tacks; using the information from my notebook and the card from the queen cell box. The colour and position of the tack shows the mother of the queen(s) inside, where she was mated, and the date the nuc was made up. After this, the lumber crayon numbers are all forgotten, and the nucs can be moved if necessary into other locations for winter. The following spring, in the honey producing yards, any nucs used to replace winter losses carry their tacks with them; and on the surviving colonies tacks are added or removed if requeening is done. The tacks always show the last time a queen was actively changed (by me) in any colony. The only other information recorded in the honey producing yards (by lumber crayon) is the number of honey supers removed. In early spring, a list can be drawn up of potential breeder queens in each yard. Later, a search is mounted for the right number of breeders from the right families; and this can be done in conjunction with reversing, equalizing, and requeening. The clipped wings ensure that no swarm or supercedure queen is selected

by mistake. If no queens from a key family can be found here, I go back to the nucs, and use one that has only been partially tested. In theory I only need 8 queens to graft from each year, but I always try to bring at least 12 back to the cell-building yard.

I always have a big smile when I read letters from my Scandinavian friends describing how they breed their bees. After a carefully drawn schematic showing a certain queen's pedigree, they always have in parenthesis: (theoretical). My program is theoretical too. Anyone who takes care of a large number of honeybee colonies knows perfectly well that plans are really just ideas that circumstances love to wreak havoc upon. I have drones of unknown origin in some of my mating nucs; or maybe this year I will find another hobby beekeeper in my mating area, who buys packages from the South every year—because they never survive the winter. How many nice days will there be during May? Some years we've had 25; in others only 3. Clipped queens sometimes crawl into other hives when they try to fly out with a swarm. And skunks can be worse than computer hackers when they come at night and scratch the tacks off my nuc boxes.

The key is to find a system that is flexible and resilient—able to keep functioning through all sorts of large and small disasters. I'm just trying to gently lean on the bees and get them to move in a certain direction, without compromising their health or natural instincts. It seems to be working. —/\\—

Neonicotinoids: European Science Academies call for debate that expands beyond bees 08 April 2015

A focus on honey bees has distorted the debate around neonicotinoids. But there is more and more evidence that widespread use of neonicotinoids has severe effects on a range of organisms that provide ecosystem services like pollination and natural pest control, as well as on biodiversity. These are the main conclusions of a new report published today by the European Science Academies (EASAC).

EASAC is the European Academies Science Advisory Council, a network of the national science academies of the EU Member States, Norway and Switzerland. In the wake of the Commission's 2013 regulation restricting some uses of neonicotinoids to protect bees, EASAC assembled 13 leading experts to review the science. Public and political attention has focused on whether honey bee colonies are being affected by neonicotinoids. But studying honey bee colony numbers does not show what is happening to the many other species providing the ecosystem services of pollination, natural pest control, soil productivity or the underpinning of biodiversity. Honey bees are just one pollinator - others include bumble bees, solitary bees, hoverflies, butterflies and moths. Other pollinators have generally declined across Europe as honey bee colony numbers have fluctuated.

In addition, honey bee colony structure provides a buffer against losses of foragers and workers, which is overlooked by many studies looking at the impact of neonicotinoid use on honey bee colony survival. In contrast, bumble bees have much less buffering capacity - and solitary bees none at all. Protecting honey bees is not enough to ensure sustainable agriculture. **(cntd on pg 8)**

(from pg 7) In assessing the effects of neonicotinoids on non-target organisms, EASAC's report comes to four key conclusions:

1. There is an increasing body of evidence that the widespread prophylactic use of neonicotinoids has severe negative effects on non-target organisms that provide ecosystem services including pollination and natural pest control.
2. There is clear scientific evidence for sub-lethal effects of very low levels of neonicotinoids over extended periods on non-target organisms, which should be addressed in EU approval procedures.
3. Current practice of prophylactic usage of neonicotinoids is inconsistent with the basic principles of integrated pest management, as expressed in the EU's Sustainable Pesticides Directive.
4. Widespread use of neonicotinoids (as well as other pesticides) constrains the potential for restoring biodiversity in farmland.

Some intensive agriculture has become reliant on neonicotinoids, with proponents arguing that their withdrawal would have serious economic and food security implications. However, EASAC notes that some recent research has questioned the benefits of routine use as seed dressing against occasional or secondary pests. In some cases, neonicotinoid use has even made pest problems worse by eliminating insects which provided natural pest control.

As the EASAC report acknowledges, all pesticides involve a balancing act between the desired effect on food production and the inevitable risk of collateral damage to non-target species and the environment. In the case of the neonicotinoids, the increase in scientific knowledge over the last two years suggests that the current balance requires reassessment.

These conclusions will be discussed in an open debate with stakeholders at an EASAC event in Brussels on Monday 13 April. You can register for this event [here](#).

Notes for Editors

Political coverage focuses very much on possible effects of neonicotinoids on honey bees, but EASAC thinks the key question should be on the effects on a range of critical ecosystem services to agriculture. These include:

- Pollination: worth \square 14.6 billion in Europe and where there is already a deficit (insufficient pollinators for the crops in flower) in some parts of Europe. Bees are often the most important crop pollinators but EASAC concludes that relying on a single species for pollination is not wise and restoring and maintaining pollinator diversity is very important for agriculture as well as for natural vegetation.
- Natural pest control: where predatory insects (parasitic wasps, ladybirds, some beetles, etc.) and birds consume pests sufficiently to avoid the need for chemical measures - estimated to be worth US\$100 billion annually globally.
- Soil organisms and their role in protecting and enhancing agricultural productivity.
- Underpinning these services is biodiversity, which is also a policy objective in its own right under EU and global agreements.

How these services are trending was a critical question

which the report notes has tended to focus on honey bees in the political debate. However, determining trends in honey bee colonies is confounded by many factors other than agricultural practice (weather, price of honey, hobby trends and so on), and colony numbers thus fluctuate a lot. To measure wider trends, EASAC looked at data on wild bee species, other pollinators, insect species with natural pest control functions and biodiversity indicators such as farmland birds. These all show major declines in recent decades.

Declines are, however, due to many factors which operate at the landscape level and the level of the individual field, as well as factors that affect individual species (such as honey bee parasites and diseases). Separating out any additional influence which arises from neonicotinoids use is thus not straightforward. EASAC looked at how the presence of neonicotinoids in a plant renders it toxic for pest insects, but also the risk that residues in pollen, nectar and other fluids may affect species not targeted and the possibility of transmission through the food chain (e.g. bees foraging on aphid honey dew, predators exposed through ingesting prey).

EASAC reviewed the scientific literature, including over 100 papers published in the last 2 years, to develop its overall assessment of the effects of neonicotinoids on non-target organisms.

EASAC is formed by the national science academies of the EU Member States, Norway and Switzerland, to collaborate in giving advice to European policy-makers. EASAC provides a means for the collective voice of European science to be heard. Through EASAC, the academies work together to provide independent, expert, evidence-based advice about the scientific aspects of European policies to those who make or influence policy within the European institutions.

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Queen Introduction, the Fast Way

(Submitted by Ted Scheuneman) March 2015

If a Queen has to be changed, at any time of the year, here is a safe and fast way to do it:

Have the new Queen handy.

A small container is required; for example a bottle cap, 1 & ½ inches (2 to 3 cm) in diameter, or a spoon.

Scoop out a teaspoonful of honey from a frame, from the hive the Queen is to be introduced into.

Put that honey into that container.

Find the old Queen and squash her in that honey, with a blunt object. (This is to saturate the honey with the old Queen's scent gland smell.)

(cntd on pg 9)

(from pg 8) Remove the remains of the old Queen and discard.

Take the new Queen and soil her, as much as possible, in that honey. Take care not to squash or drown her. (This procedure is best done in a room or inside a vehicle, in case the new Queen slips out of your fingers and flies away before you soil her.)

Then put the new Queen on top of a frame where the largest concentration of bees is.

Close the hive and the bees will do the rest.

In 3 to 4 days, check for eggs. The new Queen will usually start laying eggs within 12 hours.

Advantage: You don't have to come back a day or two later; release the Queen; wait for her to run out of the cage and collect the cage. Very often it takes a caged Queen longer than 12 hours to start laying eggs.

Queen introduction into a split:

Take a Drone or a Drone Maggot out of that split and soil the honey with it. Always take the honey out of the hive, split, or nuc that the new Queen will go into. It is also very important to introduce the new Queen within minutes of establishing a new unit.

A bee drone laying colony:

If you have a bee drone laying colony with lots of bees worth saving, proceed as follows:

Take one or two frames, with lots of bees, and some brood on them out of a strong hive. Brood, preferably in all stages, only has to be on one of the frames.

Establish sort of a nuc, of course with a Queen.

Fill in the rest of the space with frames out of the drone laying hive that are not contaminated with drone brood or eggs: just frames with food-pollen or empty.

When you transfer the frames out of the drone laying hive, into the newly established nuc, brush all bees off those frames.

Fill in the rest of the empty space, in the newly established nuc box, with empty frames. (Don't replace frames in the drone laying box!)

Put the newly established nuc on top of the drone layer, for one or at most two days.

Make sure the Queen is there.

The entrance should be reduced to 1 & 1/2 inches (4 cm), until everything has settled down and is normal again.

Then take the drone laying hive 30 to 50 yards (meters) away, at sunset time.

Put the newly established nuc in its place.

Make sure the queen is there and well.

Some bees will fly back to the old location, before dark. The majority will fly back the next day.

In the evening brush off all the remaining bees and take the box away. The bees will then fly back to the old location leaving the fattened up drone layers behind. Some are so heavy they cannot fly anymore. Drone layers that

still can fly are killed off as they arrive.

In a drone laying hive the bees don't just prepare one bee for egg laying but prepare up to 20 or more. As such a bee does not have the capacity of a Queen; she is replaced with another one after her ovaries stop producing eggs and she dies. Usually there are about a half dozen egg laying bees at work at the same time, not just one.

Lastly (this is an uncertain thing): If you catch a drone laying colony before the first drone cells are capped off, you can introduce a Queen, in a cage, and leave it in the cage for 3 to 4 days. By that time the bees will have killed most, if not all, of the drone layers.

However, sometimes the bees, for unknown reasons, maintain the drone layers and kill the Queen by starving it in the cage.

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Hive Site App Considered

Jim Campbell, MBA Secretary

Manitoba Beekeepers' Association (MBA) board is considering a new mobile app system to track hive locations and field spraying plans. The app called *BeeConnected* has been tested in Australia and could be made available in Canada. This new communication tool could benefit Aerial Applicators, Beekeepers, and Crop Owners as it facilitates message linkages between all three groups.

Initially MBA board has been monitoring progress of a USA based system, called *Drift Watch*, for improving bee health communication between beekeepers and aerial applicators. To this end, Allan Campbell, President MBA, initiated ad hoc discussions with Mike Alarie, President, Manitoba Aerial Applicators Association (MAAA) about one year ago. When discussions began, the available system was being rolled out in many places across USA. Initial installation costs were in the order of \$18,000 and yearly costs of about \$5,000. Saskatchewan government worked with several groups in their province to introduce *Drift Watch* in 2014. Geoff Wilson spoke about the benefits of the system at the MBA Convention in February 2015 and the number of beekeepers already signed up to the service.

In the meantime however, CropLife Canada was requested to consider adapting the Australian *BeeConnected* app for Canada. In early March, they made a presentation to the Bee Health Roundtable members about the system. Following this, Agriculture and Agri Foods Canada was introduced to the benefits of the system planned to be introduced Canada-wide in 2015. Canadian Honey Council requested additional information as a potential partner for promoting the service.

Stay tuned, while Canadian Honey Council and their members review the system details, consider which interest groups need to be involved, determine how to disseminate information to members, and determine how to introduce the system to the partners involved. This could be a useful Best Management Practice, as this new communication tool could be used to improve conversations between Aerial Applicators, Beekeepers, and Crop Owners. Communication is vital to working together to protect all three sectors.

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Red River Apiarists Association

**New Location
September 8, 2015**

Kathy Turner <kturner@corydoncc.com>
The club has made the decision to move our meetings to a location more accessible to the majority of our membership.

After our May 12 meeting we will no longer need the room at the Corydon Community Centre.

On behalf of the RRAA past and present I would like to say thanks for providing a great space to meet.

John Speer,
RRAA Treasurer

New location is **The Elmwood Legion on Narin avenue** west of the Crossroads on the south side:
- Regent Avenue west of Lagemodier (59 HWY).

**Volunteer sought for RRAA
MBA Representative**

A volunteer from the RRAA membership is needed to fill a position on the Executive for 2015. The job description for MBA Representative is fairly simple and outlined in the RRAA By-Laws (published on beekeepingmanitoba.com under "Resources") as follows:

The **MBA Representative** shall represent the Association views, recommendations, questions, requests and opinions at the Manitoba Beekeepers' Association director's meetings. The representative may provide verbal or written reports of director's discussions during regular or executive Association meetings.

Outside of the by-laws, specifics of the role include attending semi monthly meetings of the MBA Board, typically held in Neepawa on the second or third Thursday of a month. The exact dates will vary according to the busy schedule of commercial operators thus April, July, August and September are usually avoided. The representative may participate in discussions of the board, yet are excluded from voting. The role is to act as a liaison between the concerns of the hobbyists and the directions of the commercial operators. In addition the rep typically provides a monthly report for publication in the RRAA newsletter BeeCause with supplemental information at regular club meetings.

Volunteers should contact Waldemar, RRAA President, if you are interested.

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**Red River Apiarists' Association
Winnipeg, Manitoba
2015 MEMBERSHIP APPLICATION**

I apply for membership in the Red River Apiarists' Association. Membership includes one-year subscription to the newsletter "The Bee Cause" (8 issues)

RRAA membership fee (cheque payable to RRAA or Red River Apiarists' Association) @ \$25.00/year
NEW: Optional Beekeeper Liability Insurance (details on RRAA web, Links, Insurance) @ \$45.00/year

TOTAL PAYMENT ENCLOSED.....\$_____

Name _____ Tel. _____
Address _____
City _____ Prov. _____ Postal Code _____
E-mail address _____
Signature _____

New Member [] Renewal [] Student U of M Beekeeping course [] [free 1st year]

Other. Please specify. _____

Newsletter Delivered in electronic pdf via e-mail [] or on paper via Canada Post []

This completed form may be brought to the meeting or mailed with your cheque to :

John Speer, RRAA Treasurer
Box 16, Group 555, Winnipeg, Manitoba R2C 2Z2.

Please do not send cash in the mail