

# The Bee Cause 54 years



Volume 14, Issue 5

May 9, 2017

*Next meeting 7:30 pm  
Tuesday, 9 May 2017 at  
the Elmwood Legion 920  
Nairn Ave., Winnipeg*

Speaker:

**A Making splits /Nucs &  
queens**

**B Bee yard 2017**

**C Bee Day agenda**

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## Antibiotic exposure perturbs the gut microbiota and elevates mortality in honeybees <http://journals.plos.org>

Published: March 14, 2017

Citation: Raymann K, Shaffer Z, Moran NA (2017) Antibiotic exposure perturbs the gut microbiota and elevates mortality in honeybees. PLoS Biol 15(3): e2001861. doi:10.1371/journal.pbio.2001861

### Abstract

Gut microbiomes play crucial roles in animal health, and shifts in the gut microbial community structure can have detrimental impacts on hosts. Studies with vertebrate models and human subjects suggest that antibiotic treatments greatly perturb the native gut community, thereby facilitating proliferation of pathogens. In fact, persistent infections following antibiotic treatment are a major medical issue. In apiculture, antibiotics are frequently used to prevent bacterial infections of larval bees, but the impact of antibiotic-induced dysbiosis (microbial imbalance) on bee health and susceptibility to disease has not been fully elucidated. Here, we evaluated the effects of antibiotic exposure on the size and composition of honeybee gut communities. We monitored the survivorship of bees following antibiotic treatment in order to determine if dysbiosis of the gut microbiome impacts honeybee health, and we performed experiments to determine whether antibiotic exposure increases susceptibility to infection by opportunistic pathogens. Our results show that antibiotic treatment can have persistent effects on both the size and composition of the honeybee gut microbiome. Antibiotic exposure resulted in decreased survivorship, both in the hive and in laboratory experiments in which bees were exposed to opportunistic bacterial pathogens. Together, these results suggest that dysbiosis resulting from antibiotic exposure affects bee health, in part due to increased susceptibility to ubiquitous opportunistic pathogens. Not only do our results highlight the importance of the gut microbiome in honeybee health,

but they also provide insights into how antibiotic treatment affects microbial communities and host health.

### Author summary

There is growing evidence for the importance of gut microbes in animal health. Unlike most other insects, honeybees possess a highly conserved gut microbial community, which is acquired through social contact, and several results have suggested that these microbes play an important role in honeybee health. Antibiotics, which can severely disrupt gut microbial communities, are commonly used in beekeeping in several countries. However, it is unknown how antibiotic treatment affects the gut microbial communities of honeybees. Here, we evaluated the effects of antibiotic treatment on the size (continued on Pg 5)

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**Presidents Comments for March, 2017****Reemphasizing Volunteering**

Lets start the season with a long view in mind. The Bee Day and the Honey Show are just months away so lets think , plan and do what we can now. Plan to take photos of your bee yards, bees and your unique operation (the liquid honey drop, jar filling, the bee in any form, on a flower or at a water location. Photos make great memory makers not only for you.

Set aside competition honey, wax and propolis (check out Sep-tembers issue of the Bee Cause for show regulations Or the RRAA web site.



**Red River Apiarists' Association  
Minutes of the Regular Meeting  
April 11, 2017**

Chairman: Waldemar Damert

Recording Secretary: Art Quanbury

**Approval of the Minutes of the previous General Meeting**

Motion: That the minutes of the March 2017 meeting be accepted

Moved: Marg Smith

Seconded: George Chwist

Carried

**Treasurer's Report**

We now have a positive balance. About 85% of the membership renewals are in.

**President's Comments**

Pollen is starting to be brought in. hives should have some capped brood by this date. Reports are that losses are low this year, particularly for the small beekeepers. Honey prices are \$1.50/lb for large loads. Markets are up in North America and in Europe.

Discussions are still underway for a bee yard at the zoo. It appears a zoning variance is required. The bee yard in Stonewall is available for club instructional sessions. Email John Badiuk if you have suggestions for instructional sessions. (honeyb@mymts.net)

**Honey shows at the Forks**

Honey Bee Day at the forks will be held on May 27 (Saturday). The Forks have not yet replied to this request. As usual, it is being promoted as an educational event and hopefully there will be no charge from the Forks. A committee is in place to organize this event but volunteers will be needed on the day to explain and answer questions from the public. The Honey show will be held on September 23, 24 at the Forks. Vendors have been contacted and the same vendors as last year will be there. The vendors do not make any money at the may event but do make money in September. If anyone has suggestions for different vendor arrangements they should let Armand know.

**Presentation 1**

Ted Scheuneman talked about over-wintering of

bees and some of the problems involved. If the bottom entrances too small there will not be enough air flow. He recommends 1.5 inches per frame of bees. The top entrance should be 3.5 inches by 3/8 inch high. Problems will occur if brood develops in January. There can be mite problems and the bees may run out of food because feeding brood requires a lot of food. *He also mentioned something about nurse bees making royal jelly but something happens if there are nurse bees in winter. Can someone help me out here.*

**Presentation 2**

Waldemar inquired as to why we keep bees. There were many answers ranging from making money to helping to feed the world. He commented that the approach to bekeeping changes when one goes from having a few hives to keeping bees in order to have a livelihood from beekeeping. Techniques and procedures that worked on a small scale no longer work on a large scale. The goal remains the same however; to keep bees as strong and healthy as possible at all times. Different beekeepers will have different approaches to beekeeping and different bee stock may require approaches because they behave differently and have different characteristics. He mentioned 5 points to keep bees healthy and strong.

Feed bees appropriately. Don't overfeed so there is no room for brood. If necessary remove some frames of honey and replace with empty drawn comb. The frames of honey can be used later when creating splits or nucs. He does not recommend feeding artificial pollen. It can cause dysentery that can lead to nosema. In spring feed a mixture of icing sugar and honey. (2 lbs)

Have quality queens. Hives will change queens until they get a strong one. Some hive treatments can affect queen genetics. Small queen producers make better queens than large producers. (So buy from a small producer) Replace the queen in her third production year. Thorax size can be an indication of a strong queen (4.6 mm). Queen and hive genetics should be adapted to the area. They should have a small winter brood production. Bees now are hybrids or mongrels because of the inter-breeding. There is no clean line anymore. Queens can now be bred by artificial insemination in order to control genetics.

Bees must be able to withstand poor management. They cannot be left to manage for themselves because we interfere with them so much. Be gentle with bees, especially in the spring when numbers are limited. City bees should be mild mannered however, bees need some aggressiveness in order to survive.

IPM. Have an IPM that works for you. It may be different than another person's because you manage

your bees differently. Remember that treatments mean subjecting bees to chemicals and acids that can be damaging. Base treatment on the results of your tests and observations. Bees in winter can have stress-related dysentery that is not nosema.

Be a good beekeeper. Be timely in your management. Bee requirements can change daily so check frequently. Make splits to prevent the stress of over-crowding leading to swarms. Have well maintained equipment. Keep it clean. Replace when it is dirty or worn.

**Loonie Draw**

There was a large selection of prizes for the draw including jams, jellies, eggs, books on bees and stuffed toys. \$48.35 was collected from all the entries.

**Next Meeting**

Suggested topics for the next meeting included: how to make a split, how to find the queen and how to mark her, analyzing the condition of a hive and knowing what to do about it. The next meeting will be the final meeting until fall. It will be held on May 9 at the usual place. (Legion on Regent). —//\—

**Red River Apiarists' Association – Executive Meeting**

**Legion Hall – Regent Avenue – April 11, 2017**

Present at the meeting: Waldemar Damert, John Speer, Ken Rowes, , Duane Versluis, Margaret Smith, John Badiuk, Art Quanbury (recorder)

**The main purpose of this meeting was to address the issue with Bee Outfitters having the perception that they were no longer welcome at our meetings.**

**This misconception seems to have arisen out of discussions between Waldemar and Jeff of Bee Outfitters over the mistaken idea of Bee Outfitters that RRAA's role is to "solve" the problems of new beekeepers when they encounter problems with the proper assembly and use of equipment or the failure of bee packages purchased from Bee Outfitters.**

**A number of other issues were discussed including the unsuitability of buying packages of bees that are not local to the limited hours that Bee Outfitters are open that can make it difficult for small beekeepers to shop there. (It was recognized that at one time, and**

**maybe still, special arrangements can be made for a Saturday pickup of purchases.)**

**It was recognized that it is important to have a good working relationship between RRAA and Bee Outfitters and efforts should be made to clear up the misconception held by some staff of Bee Outfitters about RRAA. To this end, Waldemar and John Badiuk will meet with Karen of Bee Outfitters in the near future. They will relay the results of this meeting to the rest of the executive and a future executive meeting will be held if necessary.** —//\—

**List of bee (nuc) sellers :** Noted at the last meeting that:

**Ted Scheuneman, Chris Argiriou, Waldemar Damert, and possibly Marge Smith and Denis Ross**

are selling bees this spring. —//\—

**Honey Roasted Red Potatoes**

**Ingredients**

- 1 pound red potatoes, quartered
- 2 tablespoons diced onion
- 2 tablespoons butter, melted
- 1 tablespoon honey
- 1 teaspoon dry mustard
- 1 pinch salt

1 pinch ground black pepper

**1 Directions**

1. Preheat oven to 375 degrees F (190 degrees C). Lightly coat an 11x7 inch baking dish with nonstick cooking spray.
2. Place potatoes in a single layer in prepared dish, and top with onion. In a small bowl, combine melted butter, honey, mustard, salt and pepper; drizzle over potatoes and onion.
3. Bake in the preheated 375 degrees F (190 degrees C) oven for 35 minutes or until tender, stirring halfway through the cooking time.

(from Pg 1) and composition of the honeybee gut microbiome and on honeybee health. We found that exposure to antibiotics significantly alters the honeybee gut microbial community structure and leads to decreased survivorship of honeybees in the hive, likely due to increased susceptibility to infection by opportunistic pathogens

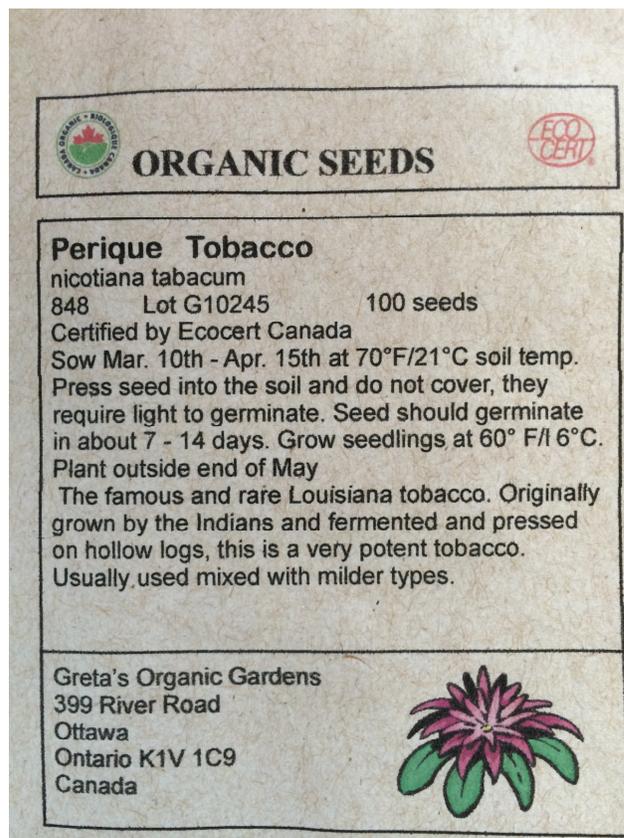
Gut microbial communities influence animal health in many ways, including synthesis of vitamins, digestion of food, defense against pathogens, and modulation of behavior, development, and immunity [1]. The gut microbial community can be disturbed by several factors: one of the most potent sources of disturbance for humans and domesticated animals is antibiotic treatment, which can severely alter community size and composition [2]. Treatment with antibiotics has also been associated with the appearance of resistant pathogens such as *Clostridium difficile* and *Salmonella enterica* [3–5]. Multiple studies have shown that reduction of gut microbial diversity occurs within a few days of ingestion of antibiotics [1,6,7], and complete recovery of initial bacterial community composition is rarely achieved [7]. In fact, it has been suggested that the overuse of antibiotics has permanently changed our microbiomes, causing an increase in “modern plagues” such as obesity, asthma, diabetes, and certain forms of cancer [8]. However, the duration and extent of antibiotic-induced disturbance in the gut microbiota remains poorly characterized, particularly at the species and strain level where the diversity of the gut community is the greatest [9,10]. Characterizing shifts in size and composition of the microbiota is particularly difficult in mammalian hosts, because of the complexity of their gut communities.

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Competing interests: The authors have declared that no competing interests exist.

Abbreviations: AFB, American Foulbrood; CCD, colony collapse disorder; OTU, operational taxonomic unit; tetL, tetracycline resistance gene

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At the May meeting free tobacco seeds will be available for any one wishing to try their hand at raising some bee tranquilizer smoke material.



Winter stored honey supers out side with plastic wrap.



Red River Apiarists' Association

## Editorial note &amp; musings

Queen colour marking is YELLOW this year 2017.

Here it is the 30th April. Early this morning around 9:30 am (12.5 °C) my hives were bringing in pollen and a nectar of sorts. Yes the dandelions are out and the bees deplete them quite quickly of nectar.

We are just a couple of weeks away from uncovering our bees and for those raising queens or making nucs will be going full ahead.

The RRAA last spring meeting "The May 9th" meeting is geared to these practices. So come with camera, note pad and pen or even a recording device.

I will have tobacco seeds for the novelty of producing your own smoker fuel additive for quieting your bees.

The September issue will high light the Fall Honey Show and more of Insights into Beekeeping in Manitoba.



## CLASSIFIEDS

1. **For Sale:** Abbey Road Distribution Ltd.—Abby Road 400 Oak Point Highway Wpg. , MB R2R 1V1 ph.: (204)694-6800 Fx: (204)697-1335 info@abbeyroaddistribution.com . 25 years of supplying the Beekeeping Industry with a knowledgeable staff having an in house service department with a large inventory of parts. We carry a wide range of fasteners, tooling, shipping supplies and packaging materials suited for your industry: staples, nails, bulk screws, coil nails, strip nails, plastic & steel strapping stretch wrap & tapes service on most makes of stapling and nailing equipment.
2. **For Sale:** Local Bee stock, taking orders for spring 2017. 4 frame @ \$240 per Nuc and Queens @ \$38. Also for sale wax foundation moulded

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. 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 excepts 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.

We are on the Web! [www.beekeepingmanitoba.com](http://www.beekeepingmanitoba.com)

- from clean capping wax. Contact : **Waldemar at text ph. 204-266-2277 or e-mail wdamert@yahoo.ca. (Beausejour Mb.)**
3. **Wanted: HONEY** contact: **John at 204-943-0166 or e-mail: Honeyb@mymts.net (Winnipeg)**
  4. **For Sale:** Hobby beekeeping operation , for 5 hives Jones 4 frame extractor, Kelly sump, Hive covers, Tops, inner covers, bottom boards, stands, winter covers, Frame wiring jig / electric embedder, queen excluders, frame grip tool, hive tools and smoker, plus others, **contact Julian Cherniak 204-667-6657 Winnipeg.** (prefer to sell as one lot).
  5. **For Sale:** Local 5 frame Nucs with local queens available around end of May and early June weather dependent. Price to be determined. **Contact: Ron Rudiak at 204-326-3763 or email at manbeekr@mymts.net. (Steinbach Mb.)**
  6. **For sale:** Top bar hive. Comes with 30 frames, moveable dividers, 2 queen excluders, viewing window and a beautiful gabled roof. Photos available. Offers. Also long hive. Takes 21 regular frames. Same size as 2 supers. Comes with verti-

cal queen excluder and beautiful gabled roof. **Contact: David 204 424 5042 (St. Anne Mb.)**

7. **For sale:** 3,4,5 frame nucs with marked laying queens available around May 15. 3 Frame \$120, 4 frame \$150, 5 frame \$175 **contact: Dennis at 204 878-2924 or rosskr@mts.net (Winnipeg Mb.)**
8. **For Sale:** Local 5 frame Nucs with local queens available around end of May and early June weather dependent. Price \$225, plus inner covers @ \$ 12.00 each **Contact: Ted Scheuneman 204-338-6066 (West St. Paul)**
9. **For sale:** 2 frame plastic Extractor -\$100.00; Mini Sump wth. pump ~ 75 lbs of honey-\$300.00; Top wooden Feeders -\$15.00 ea.; Top wooden Feeders - \$15.00 ea. ; Top wooden Feeders -\$15.00 ea.; bee escape covers- \$1500; brood boxes- \$ 8.00; Honey supers- \$8.00. No disease ever recorded in colonies **contact Sandra Smith 204-373-2527 or smthbgsl@mymts.net. (Emerson Mb.)**

## Spring Management - by Ken Rowes

Whether you are just starting or seasoned in beekeeping you need to set priorities of why, where and when in order to establish your management direction. I am not tempting to argue the pros and cons nor the wright or wrongs but explain what works for me. For the record, I MAKE MISTAKES TOO!

To explain I'll use my specific interest and management practice in South Eastern Manitoba.

My goals need clarification: 1) I am a hobbyist since the 1960's and like to study the bee and their life styles 2) I like to raise queens for splits/nucs to off set any winter losses, 3) the honey has always been a by-product and at times the quantity has been more than I can handle. That said, it pays for the hobby in many ways and 4) I am not on any ego trip but I like to share my passion with those interested in bees, honey and other bee by-products with an added pleasure of marketing those products on a small scale at an affordable price. I do not raise queens to sell but for the pleasure nor produce nucs for sale but with surplus nucs I do. Each endeavour requires a specific management strategy whether just managing a colony of bees and warding of swarming, establishing colonies for honey production or managing a colony to raise queens with the ultimate focus of a) producing small 4 or 5 frame nucleus colonies or b) to replacing queens that are performing poorly or are absent.

However, spring management for me is framed around es-

tablishing a healthy colony (removing debris, feeding when necessary, checking for disease and mites and taking appropriate action.

Why splitting? Because dividing wintered colonies relates to my goals and strategies:

- a) To get more colonies.
- b) To re-queen
- c) To get more production
- d) To get less production if you don't want too many colonies)
- e) To raise queens
- f) To prevent swarms

I winter double single colonies side-by-side entombed in a 2 inch Styrofoam box – all 4 sides, raised 10 to 16 inches on cedar palletes facing south in a tree wind break meadow.

The points I mention you will find published elsewhere; over the internet or in government bulletins.

**Management may begin in winter:** This may be casual observations during winter for hive disturbances and snow cover but colonies are never disturbed. In 2015, I did disturb colonies, I checked temperatures that ranged from 25 to 33 C° averaging at 29 C°. The hive temperatures I have been told in winter are usually 25 C° and when brooding temperatures can be 35.5 C°. Lower temperatures say 19 C° may indicate a weak colony but you must remember that you disturb the bees which will raise temperatures so allowing probes standardize as the bees settle down.

**First uncovering** is usually in March during a warm spell, checking hives for being alive or not, heavy or light meaning feeding, and an assessment of the bottom insert beneath screened bottom board for mite drop. I also observe the size of the colony from the number of debris drifts beneath frames on the insert and from the material in the debris if there are bee parts meaning the bees are cleaning out dead bees, rodent dropping or wax moth castings (feces) and if they are eating honey from the white comb or the brown comb storage that I found to indicate brooding. On the light weight colonies, I feed, which will also stimulate brooding, and use a supplement paddy made of Bee Pro poulder (yeast and soya flour, confectionary sugar and liquid honey and/or 2:1 sugar syrup). My management system utilizes the standard inner cover with a 3/8 space so my paddies are rolled out thin provided in two - 1/2 lb lots each in a sandwich baggy. Note that the bees are usually semi-balled (not always) so moving about the whole hive due to the warmth so I use a light puff of smoke to get them down preventing squashing bees.

I do not check for brood just a small lift of the foam box, removal of the insert (replace back entrance) while I check for mites and clean the insert. Then a complete lift of the winter cover, the feed placement then complete recovering.

I do not pull the colony apart but preform a quick observation

below on the insert for cleaning and a top peak and feed drop. Temperatures have been 0 to 2 C° so this is quick trying to reduce chilling.

**Dead colonies** I remove. And tape another side Styrofoam piece to the live colony to maintain heat.

Record of hive condition: - some of the notes on dead colonies.

Starvation	Light in weight, bees with heads in cells
Mite damage	few bees, deformed wings
Queen problems	queen died, there are queen cells, drone cells
Queen extended laying	dead bees in odd patches with small brood patches
Excessive moisture	mold, moisture – dampness, icing, and few bees
Dysentery	fecal stains atop frames front and entrance (excessive can mean a nosema problem)
Brood diseases	AFB, EFB [need to destroy]
Robbed out	chewed cappings, residue at entrance
Rodents	chewed combs, nest material

Action: I Brush the bees on to a collection board then into a garbage bag, scrap bottom boards, inner cover and brood box. Then I run a torch over all (lightly over the comb). I stress this is my practice a habit picked up in a pathology lab. Many believe this not necessary. The boxes with comb are stored between hive covers top and bottom with a cellulose wrap to prevent snow, water or any “bug” or rodent from entering and then frozen.

These brood frames get frozen between the middle of March and April (+2 to – 14 C°) and are used for nuc production later in May/June and the old dark comb with mold I destroy.

**Second Uncovering:** Roughly 2 weeks later in the middle of April I perform another bottom mite check and a cleaning of the bottom boards. I remove the brood box and scrap down the bottom board and the screen board. I also check for the number of frames of brood and size and density (if patchy or not). I usually have very low mite counts under 10 so treating is done only if the mite counts are high (I have used Apistan once per year in spring if at all. At the same time, I dust the exterior frames with confectionary sugar, I could say by tradition because I have been doing this for over 20 years and I notice a cleansing

effect with an increase of mite drop in the bottom inserts when mites are present. My fall treatments have been formic acid pads or just a November oxalic acid dribble upon bees between occupied frames when there is no brood observed. This has provided me with a very low spring mite count wherein, no further treatments were necessary.

So, at this time I record which colonies need feed (and feed), which need treatment (and treat) if necessary and which are the strongest (8 to 10 frames of bees). From last year’s record and the spring health of the strong colonies I choose the best to raise queens then plan my queen raising management strategy and SWARM control management strategies.

**Third Uncovering** within a week and ½ to check on mite drop. Mites have never been so heavy that a more intensive assessment with an alcohol wash with a jar of bees be necessary.

Weak colonies will be given another paddy or baggy of 2:1 sugar solution.

### **The Winter Uncovering and raising of queen cells**

The fourth uncovering usually 15 May is a permanent uncovering and the bees are free of wraps.

Strong standard colonies I put on a queen excluder and a honey super to provide room and ward off swarming tendencies. Hive condition and number of brood frames noted. Bottom inserts checked for mites and cleaned.

With the one I chose to raise queens I put on two honey supers. They usually will have 5 or more frames of brood and quite a few drones. Brood pattern will be full and dense. After 2 or so days, I move two frames of bottom brood with out bees to the top box and shake some bees from the other honey super on to it for these will be nurse bees to care for the brood.

I use the Jetner Kit and the Demaree method explained by Mr. David Dawson in the RRAA March 2017 issue of the Bee Cause.

Forcing the queen to lay in a cage you control the specific set of cells where eggs can be laid and the time from hour of laying to the hour or so of hatch when I need to manipulate before larvae are too old. I do not need a lot of eggs; however, the queen usually fills 100 to 112 cells with eggs between 9 am to 5 pm on a warm day with temperatures in the high teens or mid 20s. I release the queen, restore hive and check the brood frames in the top honey super for queen cells. This queen cell check I do before closing up and again the next couple of days (day 2 and day 3).

On day 3, I check for larvae in the majority of cells, the number of hatched eggs can change within hours so near 4 pm on the 3 day most eggs are hatched and I proceed to establish the vertical queen cell rack frame for the top honey super brood. It takes 30 minutes or so to transfer all to larva plugs to vertical cell frames and place them between the brood frames in the top honey super.

Before covering I place a Bee Pro paddy on the top brood frames.

Between this 3<sup>rd</sup> day and the 13<sup>th</sup> I periodically check for unwanted queen cells on the brood comb originally from the bottom brood chamber and destroy.

Day 13 before the queens emerge I place these queen cells in cages where I place a dollop of honey on the cap. Then replace them between the brood frames.

Day 13 I also make up the nuc boxes taking 2 brood frames from strong colonies and replacing it with empty brood comb or foundation. I also remove the two top brood frames where the queen cells where. The entrances of nuc boxes I plug with grass and place them in a dark cool building like my garage. The following day I move the nuc boxes to a second apiary site then place the cages with the hatched queens into the nucs along with a baggie of bee pro paddy with honey. I have had success releasing queen directly as well as the day after. Once released I remove the cages.

I follow up with a check every 4 or 5 days to see if the queen had been accepted and in a week or so to check if she is laying.

**The extra queens are used in queen mating boxes another spring management strategy or sold.**

**Spring Management becomes maintenance checking mites**

**, feed and warding off swarming. In addition, weekly checking bottom inserts and taking off spring honey last week of June as the alfalfa begins blooming. The nucs boxes become full of bees in a little over two weeks then they are converted into standard supers.**

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### **Spring Management Reemphasized!**

Early spring management is primarily concerned with sufficient food stores and secondly with disease and mite control. Colony stores can be evaluated by tipping the hive from behind to assess weight, or checking the location of the cluster in relationship to available foods. Colonies should not be opened until the temperature is above 40° F (4.5 C°), preferably when the sun is shining and during midday so that the bees have adequate time to re-cluster if necessary. When checking the location of the cluster, avoid disturbing it. Having adequate supplies of honey and pollen located above and to the sides of the cluster is of primary importance since once brood-rearing begins early the cluster may not leave the brood area to maintain contact with its food reserves.

Colonies found to be short of stores before late March or early April are difficult to deal with. Feeding sugar syrup in

early spring may cause problems for colonies in cold climates. In cold weather bees may not take syrup. Also, the bees have problems inverting the sucrose and handling the excess water. Combs of honey in storage, from colonies with a surplus, or from dead colonies can be used to feed bees if you are certain they are free of disease. Place the frames of honey as close as possible to the cluster without disrupting it. Or, if available, an entire super can be placed on top of the needy colony after mid May when winter wraps are removed.

Dry granulated sugar may be poured around the hole of the inner cover or spread on a piece of paper above the frames. However, in order to take full advantage of the sugar, colonies must be strong, temperature warm enough so the cluster can be broken, and adequate moisture available. Any dead colonies should be closed up so they are not robbed during periods of warm weather or removed as soon as possible.

Feeding sugar syrup in the spring may not only save the bees from starvation, it also acts as a stimulant for brood rearing. CAUTION: once you begin supplemental feeding, it should be continued until natural supplies of nectar become abundant, otherwise the bees may starve.

Pollen must also be present to raise brood. Check to see that sufficient supplies are stored in the brood area. Pollen supplies can be increased or supplemented with pollen substitutes

During late May in Manitoba, colonies should be thoroughly inspected and cleaned up. This will make management during the rest of the season easier. However, be careful not to chill the brood. When the temperature is above 50 C° F, (10° C) and there is little or no wind, brood may be hastily examined, but should not be exposed for more than a minute or two. When the temperature is around 60° F (15.5° C), it is safe to remove frames, and thoroughly examine colonies. In addition to checking food stores, you should look for brood (an indicator of the presence and quality of the queen) and disease. Clean out the entrances and scrape the bottom boards. Remove propolis and burr comb from the frames. Replace old and damaged combs as you find them. Reverse the hive bodies if necessary (you are using double brood chambers); the queen may be locked in the upper hive body which limits the size of the brood area. Do not reverse the hive bodies until the weather has stabilized and there is little chance of a sudden drop in temperature.

Colonies lost during the winter should be picked up as soon as possible, and the cluster of dead bees removed before they mold and decompose, spoiling the combs. There is no need to try to remove all the dead bees from the cells. They will dry up and can then be shaken out or left for the bees to remove. Equipment to be stored may be placed on active colonies which will remove the dead bees in the spring. Honey that remains will absorb moisture and ferment. If you are certain it is free of disease, use this honey on colonies needing winter feed or feed to newly installed packages or nucs. The hive bodies, supers, bottom board, and lid may be saved by scorching or boiling in lye water. Combs from colonies which have died from **(continued on Pg 10)**

**(From Pg 9)** American foulbrood should be destroyed. The hive bodies, supers, bottom board, and lid may be saved by scorching or boiling in lye water.

Honey bee mites are now so wide-spread that beekeepers should assume their bees are infested even if they have not seen mites. Be pro-active and assess bees with a glycol window cleaning fluid wash and treat as recommended by provincial regulations.



## Bee Day – May 27<sup>th</sup> 2017 at The Forks

The help of the RRAA volunteers is essential to the success of our public event every spring. A few hours of your time to greet people and promote local bees and local honey, contributes to the future of our association. Volunteering on Bee Day at The Forks is also a good opportunity to socialize with other beekeepers and meet grateful parents and children. Yes, these kids may be inspired to become beekeepers some day in the future.

The Bee Show Committee will organize and set up all the equipment and displays, early on Sunday May 27<sup>th</sup>, 2017. With the help of volunteers, the Bee Day will be an educational success and happy memory for the visitors of our event. **Please sign up at our May 9<sup>th</sup> meeting in the time slot of your choice: (9 am to Noon); (Noon to 3 pm); 3 pm to 6 pm).**

Thank you and Bee Well

The Bee Day and Honey Show Committee [Victor Dyck, Guy Briscoe, and Armand St. Hilaire].

### Red River Apiarists' Association—Winnipeg, Manitoba 2017 MEMBERSHIP APPLICATION

I apply for membership in the Red River Apiarists' Association. Membership  
Includes one years 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 site, Links, Insurance) @65.00 +\$5.20 = \$70.20

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 specify. \_\_\_\_\_

Newsletter Delivery in electronic pdf via e-mail [ ] or paper copy via Canada post [ ]

This completed form may be brought to the meeting or mailed with your cheque to: **John peer, RRAA Treasurer  
Box 16, Group 555. Winnipeg, Manitoba R2C 2Z2**