

The Bee Cause



Volume 14, Issue 4

April 11, 2017

*Next meeting 7:30 pm
Tuesday, 11 April
2017 at the Elmwood
Legion 920 Nairn
Ave., Winnipeg*

Speaker:

*Spring management
continued:*

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Queen Rearing Made Easy

By David Dawson

There is a myth in beekeeping circles that Queen rearing is a complicated business and thus only to be practiced by 'experts'. This is nonsense: it is very easy as I will show you.

Introduction.

Many of you will have heard of the Demaree method of swarm control wherein a majority of the brood is raised up above the honey supers leaving the queen down below the excluder with a new set of empty combs to lay in. Basically it's the same thing as an artificial swarm, but the bees are all kept to one hive. If you have ever used this Demaree system you will know that you have to check the brood up top for queen cells. Being isolated from their queen below, the bees up above believe they are queenless and start raising emergency queen cells. If one of these emerges the old queen down below will swarm, the new one will be unable to get through the queen excluder to mate, and the colony will die out. This propensity of bees to raise new queens when well separated from their existing queen can be utilized for queen rearing and I have developed a very simple method to take advantage of it.

Getting Ready.

First of all you need a good strong colony with 2 or 3 honey supers well filled with bees – even though the supers may not contain much honey. Whether you use a single or double brood, I believe an excluder is necessary for this method. Queen rearing is best done during a good honey flow, so early July is usually a perfect time to start and by this time good colonies should have honey supers on. Bear in mind that the strong colony with 2 or 3 honey supers will be your breeder colony so be sure this colony has good characteristics. In 99% of all queen rearing methods being practiced these days, grafting is necessary, so you may as well get used to it now. For those who don't know, grafting is the process of manually transferring

very young worker larvae to prepared queen cups. It's very easy to do once you get over the initial mental blockage of "it's too difficult for me." The Chinese grafting tool is in my opinion the easiest to use but a good many of the ones available commercially are badly adjusted or damaged, so be careful. A very fine artists paint brush can also be used but I have found this to be rather tricky as it is impossible to pick up the larva together with the glob of royal jelly it is sitting on with the brush. The other thing you will need is a special frame to hold the queen cups. This is just a regular frame with one or two extra cross bars between the top and the bottom. A single nail at each end of the extra bars will enable them to rotate to a convenient angle for grafting into, after which they can be turned to put the cells in the normal vertical position (open end down). Using a dripping beeswax candle, I stick roughly 12 or 13 small thin pieces of wood (about 1 inch square) to each cross bar. Then using the same dripping candle I stick my home made queen cups to these little pieces of wood. Plastic queen cups work very well too, or you can use commercially made beeswax cups. Both are **(continued on Pg 4)**

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Presidents Comments for March, 2017

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
February 14, 2017**

Chairman: John Badiuk

Recording Secretary: Art Quanbury

Approval of the Minutes of the previous general meeting

Motion: That the minutes of the general meeting held on January 10, 2017 be accepted

Moved: Albert Anderson

Seconded: Alex Remkes

Carried

Chairman's Comments

Waldemar and John will attend one of the U of M beekeeping classes to distribute information about RRAA and encourage new members. First year membership is free for students taking the course. Urban beekeeping has increased public interest in beekeeping and city council is still discussing the expansion of beekeeping beyond the downtown core area. There are a number of petitions circulating to ban the use of neonicotinoids. Individual members can sign them. RRAA as an organization is neutral on the issue because of possible libel action. RRAA has a number of hives at two different locations resulting from the queen rearing workshops last year. These hives can be used for teaching workshops on spring management if anyone is interested. John Badiuk should be contacted.

MBA Report

Jim Campbell reminded everyone of the upcoming convention at the Canadian Polo Park on Feb. 24 and 25 with the free workshop for new beekeepers on the 25th. Topics for the convention include: Lyme's Disease, mite control and residues in honey. Registration is \$185.00 and more information is available on the MBA website.

Treasurer's Report

Membership fees are due. There is about \$700.00 in the bank but there are also a number of bills that need to be paid.

Guest Speaker – Dave Dawson

Dave Dawson gave a very clear and entertaining presentation on his method of queen rearing. His method requires a strong colony so must be done during honey flow and not in the spring. It doesn't require finding and removing the queen from the colony but does require grafting to transfer the day-old larva from its cell to a queen cup. As with other methods of queen rearing,

timing is critical in order for it to succeed. The equipment required can be purchased or made. Plastic queen cups can be purchased but Dave makes his from beeswax by dipping a tapered dowel into melted beeswax. The cups are attached to swiveling bars on a frame so the cups can hang down when the frame is placed in the super. Grafting is done with a tool that can be purchased from Bee Maid. It is critical to purchase one that is not damaged.

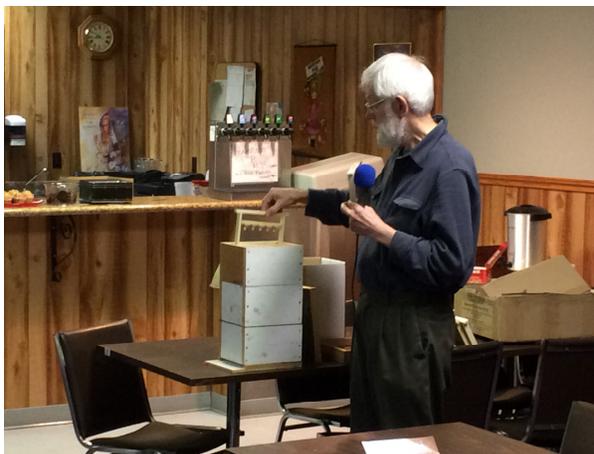
Process; requires a colony with one brood box and two or more honey supers. Two frames are removed from the top honey super and set aside. From the brood box a frame containing eggs and young brood is found and removed. Put an empty honey frame in its place and close up the brood box and replace queen excluder on top. Take the frame with eggs and young brood to a sheltered work place and graft day old larva from the cells to the queen cups on the special frame that holds them. Place both these into the two spaces in the honey super from which you have removed the two frames of honey. Check at 24 and 48 hours to see if the queen cells have been accepted and are being tended by the nurse bees. Then after 9 days the cells should be sealed and larva should emerge at day 15. When adults emerge, make up nuc boxes and transfer queen cup to them. There are many fine points to this process that must be followed to ensure success that it is not possible to include here.

Loonie Draw

A large number of prizes including items such as: screwdriver, bee magazine, stuffed toys, chocolates, honey. Thanks to everyone who brought items for the draw and for everyone who bought tickets. Congratulations to everyone who won something. The list is long and does not need to be included here.

Next Meeting March 14, 2017 Elmwood legion on Nairn at 7:30 pm.

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David Dawson explaining a top box queen rearing technique.

(from Pg 1) available commercially and they don't cost much – certainly a lot cheaper than buying a queen. The purpose of the little pieces of wood is so that you can detach the ready-to-emerge queen cells without damaging them. Now that you have everything ready you can go on to the next stage.

The Method.

Take with you an empty brood comb. Remove two frames from the top super or if that super is not well filled with bees, take them from the next super down. I usually take out two combs from the side as these most likely have less honey in them, and then I spread the rest of the combs to leave the 2-comb empty space in the middle of the super. Now remove all the supers, remove the queen excluder and go through the brood until you find a good comb with plenty of eggs and very young brood. Make sure the queen is **not** on this comb and then shake & brush all the bees back into the brood box. Close up the combs and put the spare brood comb you brought with you at the side to make up the full complement of combs. Replace the excluder, supers and cover, and then go to your shed, house or wherever and quickly graft young one day old larvae (the smallest you can manage) into the cell cups. Return to the hive and put the frame of brood and the grafted larvae side-by-side into the space you previously made in the top super. That's all there is to it. The bees soon start drawing down the queen cells and you can have a look two days later to see how many have been accepted. This will give you an idea of how many nucs you will be able to make up. On that two-days-later inspection, check the comb of brood to make sure no emergency queen cells are also being raised. It is best to shake the bees off for this as some emergency queen cells can be hard to see. If you find some break them down.

I use full depth Langstroth boxes for everything and only one box for the brood. If you use full depth boxes for brood and shallows for supers you will have to be a bit inventive. Perhaps you could think ahead and early on use a full depth box as a honey super.

As you will know from your bee books, queen cells are sealed on the 9th day and the virgins emerge on the 16th day. Bearing in mind the three days in the egg stage and that you will (we hope) have grafted one day old larvae, your queen cells will be sealed 5 days **after grafting** and the virgins will emerge 11 or 12 days **after grafting**. That 11 or 12 days seems to vary with temperature (or because 2 day old larvae were grafted) so to avoid problems I always assume the virgins will emerge on day 10. Consequently I plan to take appropriate action on day 9 or sooner (after grafting) which gives a margin in case of bad weather. Developing virgins are very fragile, particularly until day 10, so you have to be very careful when handling the cells. If carelessly handled at this stage, the queen can sometimes emerge with deformed wings. Notice I refer to virgins emerging from their cells, not hatching from their cells. Hatching is a term used for when something hatches from an egg – for example, a chicken.

Most beekeepers who have a few colonies will have at least one which is sub-standard. Good colonies will have 3 or 4 supers whereas the sub-standard one only has one or maybe 2. Since you will need combs of brood to make up nucs for mating your new queens, provided it is disease free, you could consider completely breaking up this sub-standard colony – it's not going to produce much honey anyway, so why keep it? So, have ready an appropriate number of empty hives and divide up the sub-standard colony giving one comb of brood with its bees and a shake of additional bees from the honey supers. Each new hive (nuc or nucleus colony) should also have at least one honey frame and some empty combs for the new colony to expand into. Take them to a new site at least 3 miles away (5km) so the flyers won't all go back to their original site, and introduce one of your queen cells to each by pressing the corner of the little piece of wood into the middle of the brood comb. Handle the queen cells gently.

When you are shaking the bees out of the honey supers to give the nucs extra bees, it doesn't matter if you leave the original sub-standard hive with practically nothing as there will be a lot of workers out foraging. Leave this original hive with a small comb of brood, some empty combs and give it a queen cell too. The comb of eggs and young brood which you originally took from your strong colony and which was used up in the top super next to your queen cells can also be used to make another nuc. The super (s) of the sub-standard colony can be transferred to other strong colonies.

Leave your nucs alone for at least 10 days (two weeks is better), after which you could make a **(continued on Pg 5)**

(form Pg 4) very quick inspection just to verify that eggs or young brood is present and add a few more combs if necessary.

Good luck is always a factor as weather might be bad for mating or a hundred other things, so good luck.

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Dynamics of Colony Build-up

General notes compiled by Ken Rowes

This article is open to discussion and amendments (comments accepted).

Spring is a great time to review the hive build-up dynamics so as you provide your hive(s) the best opportunities to grow strong and be at peak honey production capabilities through management effectiveness.

You will find biological studies showing a slow start build-up then a growth spurt that is linear up-wards then a leveling off as organisms meet their optimum, referred to an exponential growth curve. All bee colonies exhibit this, the weak 2-6 frames of bees, the package colonies and the over-wintered strong colonies. All have the same curve but at different intensities or number of bees being produced.

What limits these explosive growth spurts is food, habitat, disease/parasites, predation, size of initial colony, hive moisture and hive temperature.

The range of egg laying = bees per day in this spurt period can be 390 to over a 1000 bees per day. This points to the laying capacity of the queen.

So how do we put the queen into the best condition for colony build up?

Having a good laying queen in the previous fall, boosting the colony with artificial pollen (pollen collected from the previous year or a supplement) with a bit of liquid honey/confectionary sugar and a little warm water to liquify things a bit. Pick the best time to open the hive in the spring and not chilled the brood that's there. (please add a comment if you have another point).

In our March 2017 meeting discussion clarified a couple of approaches. The negative concerned; the "too early feeding" which might force strong colonies to run out of feed early and/or force the colony to maintain too many eggs (however, it has been said many colonies usually control numbers to fit their capacity. The question of the queen laying too many eggs early was not confirmed to me to be a bad thing. Can it be bad for a smaller colony of bees? Whatever the case if natural pollen comes on the bees will prefer the natural. So, our spring management initiative is to ease the colonies into the slow growth for that period during spring thaw in Manitoba, getting a cleansing flight and a hive cleaning under way and the queen performance under way.

Now what initiates the queen in to laying to the excess? Its been proven that brood space and the greatest numbers of eggs / bees produced is when the queen has space. The maximum production has been when young laying queens are given lots of room with a lot of extra bees (such as with larger packages over the 6-10 lbs of bees with a second brood chamber added above a queen excluder.

Why the separation with the queen excluder? The practice was to split as new queens became available. Or to balance colonies that became light during spring build-up where the top boxes could be swapped to boost the weaker ones.

When you come to making splits or nucs: You need drones first then queens mated and brood. It was pointed out to me that the peak growth point is usually around June 28th in our area of Manitoba. That means an abundance of bees and over crowding = leading to swarming. It is to your advantage to remove brood before this state reducing the swarm tendencies and giving the queen room to keep laying. With more brood available and laying queen you can maintain the original hive as you split. If no brood in the second brood chamber the new bees may be more radially accepted. Cautionary note: be sure to move the nuc to another location so as the nuc bees do not migrate back to their parent hive. (This is worth discussion to find the different best ways to go). Note it all works but how well and is it to your time lines and abilities.

In my backyard apiary, this winter of 2016-2017 has been not so sever. Less snow cover and milder temperatures so that my hives were not covered. I use 2" Styrofoam entombments that allow the bees to **(continued on Pg 7)**



Red River Apiarists' Association

Editorial note & musings

As you all know the past month and 1/2 has taken a toll on me. Nov. of 2015 my computer stuck with a Microsoft security assistance request to have their support staff fix what they noticed happen. I called the Microsoft company who I had checked with online sites. No company faults so I let them fix.

And they did. This happened again in December 2016. Again a clean fix but with added apps left on my computer. I thought nothing of it. February 2017 my computer jammed and when they went in they removed all apps and encrypted all directories and files. Thus the March newsletter was unavailable. I had completed it all but reports. All my files and newsletter templates gone. Hindsight is always clearer, DO NOT LET ANYONE INTO YOUR COMPUTER except the one reliable up front and face to face.

I step along and have purchased a new computer plus Microsoft Office Business Pro with Publisher. This package is more robust and complex and took one full day just to establish the first page. Now knowing what I do this can be mastered in much shorter time.

So I am back to capturing reports, articles and general information note worthy for the RRAA membership.

Spring management is the concern, cleaning, treating and feeding which from the last meeting some have started already.

I have headlined an article of David Dawson's highlighting his discussion on queen rearing.

My apologies for the bump in publications and my most gracious thanks to those who stepped forward with encouragement when most needed.

Queen colour marking is YELLOW this year 2017.

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:** Quantity of 40 Standard deep supers made of unpainted plywood with metal frame rests. May be ideal for nuc sales. \$10 each, one unpainted

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

- pine shallow super (9 5/8") \$10. One Datant 4"x10" smoker with shield, \$50. One new Sherriff S-41 Honey Rustler size "M" Bee Jacket with hood, \$100. Nine (9) new non stainless Varroa-Nator screen insert, \$5 each. Five (5) white and five (5) black Pierco plastic foundation, \$0.50 each. Jack's scale honey colour Grader \$30. Used electric uncapping plane \$100. New extra copper blade for uncapping plane \$10. Ten (10) new wooden frames with Pierco white plastic foundation, \$2 each. Two (2) new 10" hive tools (red painted end), \$5 ea. One (1 new 7.5" hive tool (red painted end) \$3. Contact **Jim Campbell at 204-467-5246 or email jacam@mymts.net.**
3. **For Sale:** Local Bee stock, taking orders for spring 2017. 4 frame @ \$240 per Nuc and Queens @ \$38. Also for sale wax foundation moulded from clean capping wax. Contact : **Waldemar at text ph. 204-266-2277 or e-mail wdamert@yahoo.ca.**
4. **Wanted:** **HONEY** contact: **John at 204-943-0166 or e-mail: Honeyb@mymts.net**
5. **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).

6. **Wanted ads welcome contact the editor.**
7. **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.**
8. **Wanted Ads (for sale or wanted).**

(from Pg 5) manage temperature, moisture and CO2 more effectively than when I used insulation and black paper or the plastic winter wraps for quads. Doubles side-by-side single colonies have less vertical space to manage. The hive bottoms are insulated with 1" aluminum wrap Styrofoam placed on a palette with another 2 1/2".

I have tried three heights. The palettes on the ground with a gravel aggregate to improve under drainage. Secondly palettes raised a bit more on 2x4's, and thirdly palettes raised on old hive boxes. Styrofoam board.

All performed well. I lost 3 hives out of 33. One to a lack of feed. It was a very strong fall hive. Another I lost to weakness. Too few bees with lots of honey stores left. The third to a fall laying queen that had the "bee-ball" separated. It was noted that non-of the colonies had mould, nor defecation debris and were all very low in any moisture residues and the bottom debris had no mites! Although in several of the serving colonies there were signs of mites (3 to 5 per colony over the winter to the point of spring bottom insert cleaning (I refer to the plastic collection object I put under the screen bottom board as an insert which over time has been a collection metal pan, a wooden board and now poster boards to which I have scotch taped old computer paper to asses the mite drops from time to time).

The reason I wanted to raise the colonies was for (1) spring run-off clearance but more so (2) to reduce skunk pestilence. In the 70's through the 90's I had many discussions with a passionate hobby beekeeper friend Bruce Fallis. Raising colonies up, we proved to our selves that skunks had a limit threshold they would lift themselves to the entrances of beehives, exposing their belly or breasts. We found the hive box

worked the best. Although this winter test proved a low mouse problem in 3 apiary sites and no difference in height raising. An added note; the one mouse problem occurred where I used a regular palette that allowed chewing well under the colony through the main Styrofoam platform board up under the colony where the wooden bottom board stop the mice. From reaching the hive. A second I had not noticed at first until looking into one of the RRAA Styrofoam hives. Mice had chewed entrance into the inner Styrofoam plug under the colony and began chewing away honey/pollen and left two frames free of bees with an aggregation of dead bees beneath. The frames were removed and the bottom board cleaned. All colonies were fed a pound of bee pro confectionary sugar paddies. Light colonies also will get a stimulant of 1/1 sugar syrup. Here another decision; a) to use a top feeder, b) an inner cover with a Boardman jar feeder, or c) a baggy with pin pricks. Now into the end of March the temperatures are raising to double digits and all methods work. On the light Styrofoam hive a Styrofoam top feeder may work best and it will require less fuss. In the past, I have had great success with an empty hive box above an inner cover with Boardman feeder jars. My pollen supplement paddies and baggy feeders fit under my 3/8" inner covers and all my top feeders.

Now before ending this spring musing a comment on queen egg laying and its link through the worker bees. Here is the point: bee feed, that is a honey/sugar syrup feed encourages the worker's activity, that increases hive temperature. With pollen or pollen supplement increases royal jelly production. So, if spring colonies are light in weight a syrup feeding will help then along followed by a protein paddy. If you are producing queens you will have heard over and over again Drones are of primary importance and providing some drawn dark drone comb an added advantage for the colony to be raising drones and queens.

Feel free to send comments to the Editor —/\/\—

Essential oils -From: en.wikibooks.org last modified 23 April 2016.

You may have read this several times but the essence has an important element for spring bee health, feeding, and the reduction of mite pestilence in the hive. I am merely reporting on published information. For the record I do not use essential oils for spring feeding.

Essential oils are strongly scented oils that are created through the distillation of plant materials. Most commonly derived from the flowers, leaves or stems of a plant, they may also be derived from fruit or the skin of a fruit. Many of these oils have common uses in aroma theory and alternative medicine. Beekeepers however, also may have a used for a select few of these common oils Essential oils can often be found in health food stores or aromatherapy shops (not recommended from aroma centers has additives), the price may be high, but keep in mind that a little oil will go a long way.

In general, beekeepers are only interested in a few of

them. The following is a list of some of the more common oils that may concern a beekeeper.

Banana

Reports state that banana oil seems to closely mimic the alarm pheromone of honeybees. Thus don't use banana oil, or other strong banana scented products near or around hives.

Lemon Grass

Lemongrass works conveniently as well as the pheromone created by the honeybee's nasonov gland, also known as attractant pheromone. Because of this lemon grass oil can be used as a lure when trapping swarms or attempting to draw the attention of hived bees. Be warned, however, that lemon grass oil can cause a robbing behavior if it is used within or on a weak hive.

Peppermint

Peppermint oil is used as a general-purpose pheromone masking scent. It does not apparently mimic any known bee pheromones and is simply used to mask others. In theory any other strong scented essential oil would work the same.

Spearmint

Spearmint oil is often used in conjunction with lemon grass oil during feeding to improve hive health and work as a recruiting scent.

Spearmint and Lemon Grass

Spearmint oil and lemon grass oil are two essential oils that are commonly used in conjunction to complete many tasks with bees. A simple general purpose essential oil mixture can be used for many things, including avoiding the reliance on smoke when opening hives. [receipt below].

Tea Tree

Tea Tree oil is often used in grease patties for control of mites. It seems as if Tea Tree oil can be interchanged with wintergreen oil with no loss of effectiveness.

Wintergreen

Wintergreen oil is often used in grease patties for control of mites. It seems as if Tea Tree oil can be interchanged with wintergreen oil with no loss of effectiveness. It also helps with Small Hive Beetles

Varroa Mites Essential oils, in regards to mite control, have two apparent modes of operation, primarily, direct toxicity. In the case of varroa mites, once a mite comes in to direct contact with an essential oil such as wintergreen or tea tree oil mixed into a grease patty they are usually killed within a few minutes. This however, requires that the infected bee actually contact the grease patty. Due to this contact requirement, direct toxicity cannot eliminate mites, only aid in the control of mite levels. Secondly, it appears mite reproduction can be impaired when bees are fed a syrup containing essential oils. Essential oils are passed from feeding bees to other bees and larva through trophallaxis. Essential oils thereby pass to the brood and poison any female Varroa that attempt to parasitically feed on the larva.

Taken from Randy Oliver's perspective: The natural treatments currently consist of organic acids and essential oils. These chemicals (yes, they are indeed chemicals) have often been referred to as "soft chemicals." So, why am I using the term "natural treatments" instead of "soft chemicals"? In the first place, there's nothing "soft" about either the acids or the oils—they decimate the mite, and can kill your bees if over dosed. They are poisons, pure and simple—developed by plants (and in the case of formic acid, also ants) to kill, repel, or deter other organisms. The key word is that they are "natural" poisons, and there are certain advantages to that qualifier. The primary selling point is that these types of natural poisons are what gives spices "spice," herbs their aroma, and fruits and vegetables their tartness. In other words, our bodies are used to eating them, can handle them safely at low levels, and perhaps most importantly, they are fairly warm and fuzzy in the honey-buying public's perception.

These are generally "food grade" chemicals that the honey consumer isn't going to freak out about, and that aren't likely to affect your own health negatively. And doesn't the term "natural treatments" have a nicer consumer ring to it than "soft chemicals"?

ESSENTIAL OIL RECIPE FOR HONEYBEES by DIY Living – GardenFolk.TV : 5 cups water; 2 1/2 lbs sugar; 1/8 tsp lecithin crystals (not essential); 15 drops spearmint or peppermint oil; 15 drops of lemongrass oil [water dissolve sugar then add oils, stir thoroughly and cool. Use 8 teaspoons of this solution to a gallon of 1:1 sugar syrup. Can use as a spray instead of smoke. Spray caged queen helps acceptance during cage introduction reducing balling. Helps encourage new and plastic comb drawing.

Its worth thinking/talking about and may be using to improve your hive management. —//\—

Red River Apiarists' Association
Statement of Operations for 2016 (Un-Audited)

REVENUE	2015	2016
Memberships	\$1725.00	\$1525.00
Insurance pymts (for MBA)	\$315.00	\$395.00
Honey Show	\$775.00	\$650.00
Raffles (Looney Draw)	\$241.15	\$261.15
Bee Cause Ads	\$10.00	\$10.00
T-Shirt Sales		\$15.00
Queen Classes		\$620.00
Honey Sales		\$126.00
Bank Interest	\$48.91	\$28.08
Total Revenue	\$3135.01	\$3630.23
EXPENSES		
Bee Cause Printing/Postage/Editor Expenses (expensed 2016)		\$1209.55
Meeting room	\$450.00	\$500.00
Coffee Supplies (Legion)	\$133.59	\$156.28
Insurance (Club) (expensed 2016)		\$100.00
Insurance (member through MBA)	\$315.00	\$335.00
Bank Service Charges	\$85.46	\$117.50
Social Nite (costs donated)		\$162.72
RRAA Website	\$377.37	\$377.37
Honey Show (s)	\$358.70	\$330.18
MBA Convention (Waldemar's registration)	\$215.00	\$215.00
Queen Rearing Equipment		\$4860.49
Projector		\$735.58
Total Expenses	\$2071.14	\$9099.67
Net Profit	\$1063.87	loss<\$5469.44>
Closing Surplus	\$4421.11	<\$1048.33>

Red River Apiarists' Association
Honey Show Statement for 2016

EXPENSES

Name Tags	\$14.24
Tables/Chairs	\$35.70
Business Cards & Brochures	\$280.24
Total Expenses	\$330.18

INCOME

Table Rentals	\$200.00
Donation MBA	\$450.00
Total Income	\$650.00

Profit \$319.82

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