



Beekeeping should be

**FUN!**

This presentation has been designed to be read online through the use of notes.

This graph points out a very very real scenario. To become a beekeeper requires effort and tenacity. Frankly those who don't give up. This group gives a fellow beekeeper hope in getting past the pitfalls during the curve of learning as quickly as possible. We desire you to be a "beekeeper" and not a "beehaver." Anyone can have bees. Some may even have those bees survive winter or a honey crop, but eventually without proper care... those bees shall die/abscond or worse present problems to the rest of us.

### Rich Ramsey with 29/32 succesful takes.

- Take – successfully started queen cell.
- Smile! This is fun!
- Raising queens one of the most rewarding experiences of beekeeping.
- All from his own stock!



Rich and I ran two runs of queens, that is, two grafting sessions of 86 queens each. We used two separate frames, one containing JZBZ queen cell cups and another with the nicot knock offs. 51 JZBZ fit on one frame. 32 nicots fit on one frame. On the first run we had 29/32 takes on the nicot, perhaps my best take ever. If you look at Rich, his smile says it all. He put forth a tremendous effort to change the paradigm of making queens in late summer, not even during a flow. Perhaps one of the greatest undertakings yet I have seen regarding making bees do what they are capable of doing if you are willing to provide the necessary manipulations and resources to achieve it. While I was a part of the process, it was more of a supervisory capacity with instructions given via his cell phone. I remember lighting up his message box with forgotten, oh crap you need to do this etc! It was good times.

## Can we start nucs to overwinter successfully in early September?

- Rich built 10 – 9 mated, 5? successfully overwintered.
- Andy built 4 – 4 mated, 4 successfully overwintered.
- 121/166 takes or queens produced

About July 20th, I encouraged Rich to start feeding his bees that he was going to be utilizing for this experiment. I needed 6-7 capped frames of brood for his cell builder, a 5x5. It is a modified 10x10 cell builder as described by Michael Palmer. He needed to mark the queen to graft from and make sure we can easily find her.

**MUST FEED AT ALL TIMES, PREFERABLY ALL HIVES IN CELL BUILDING/MATING YARD, BEE JUDGEMENT MUST BE PREJUDICIAL AND HEARTLESS. THIS IS A BRUTE FORCE METHOD.**

As you can see the end result is amazing. I gathered up 16 frames of capped brood to make my 4 nucs(all mated successfully). Rich gathered up his frames to build 10! He had nine queens return mated successfully then he built those nucs up to survive winter. And make no mistake! This winter was not pleasant! So to this point, start thinking about making nucs NOW! - and WHEN you will make them! I know it is a sounding board, but you need to think about winter 2019 now and start preparing yourself for what you need. So, now the process is going to be talked about. I want everyone to fill up ALL their equipment with bees. On average and reasonable management you can make FIVE nucs from 1 hive.

I won't get to far into it in these notes. I plan on using equipment to demonstrate the process at the meeting. This being said... you can see the EXACT process on the "cell builder explained" video by Noel! He does a great job of explaining the cell builder. You must plan your grafting accordingly, Michael Palmer gives the exact process used in his video "queen rearing."

## 90% "capped brood frame"

90



I totally stole this photo from the internets.

32?



Not even a full frame let alone fully capped brood, but you get the pt.

When I say capped frame of brood I mean wall to wall capped frames of brood. You cannot use OPEN brood. The age of the bees won't be appropriate to raise queens. So why 10 day with capped brood? Because on Day 10. ALL the capped brood will have hatched and they should be in the prime age of 1.5 to 12.5 to raise queens. While there are other ways to raise queens, WE KNOW there are ~7000 cells on those frames, so 90% is approx 6000 nurse bees per capped frame of brood. So let that sink in. We put approximately 7 capped frames with a condensed hive and ran EVERY bee through a QE. In ten days we KNOW there are approx 40-50,000 nurse bees waiting for larvae, crying, hopelessly queenless. We built a hive and condensed it down to engage the swarm response all under artificially induced flow conditions.

## Raising Q's is fun and you can make honey!

- Cell builder
- 5x5
- Used 7 capped brood @90%(not including 1 from the original hive and colony foragers and nurse bees there)
- Ran two times 166 grafts
- 121 successful takes
- Too many queens?
- Grafting queen and finishers
- Find queen and mark her
- Establish which hives can be turned into "finishers"
- Not necessary, but Rich did two grafts. Problem is... too many queens!

During the class I will be showing and talking about the manipulations necessary. Again, watch the videos. This slide we begin talking about the "finishers." "The Cell Builder Explained" video gives great insight to what you need to know about finishers(Noel routinely runs two sets of grafts). Just remember that after 2 days, the cells can in all likelihood be moved to a finisher as they have been fully filled with royal jelly. Finishers are necessary if you intend to run two sets of grafts or more than 40. There isn't a causation known why cells tend to be torn down over 50-60ish if left in cell builder to finish. Michael Palmer utilizes the cell builder itself to finish off his cells, and that is fine, I believe he grafts 48! Again, this is talked about in the cell builder explained video.

## 5x5 Cellbuilder! Put nurse bees where they need to be!



Stealin pics from the internets again!



5x5 cell builder, not mine, no idea who it belongs to really.

That is a 5x5 cell builder on the right, the first slide is what happens when you condense a double deep into a 5frame nuc! During the class we will have the equipment and show the manipulations. I do not have a 5x5 video of the cell building. It is presented in the videos "Cell builder explained" and "raising queens" by Noel and Palmer respectively.

## Graft Queen and Finishers!

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Say hello to Rich's graft Queen! She was even graced with a number like those AI queens! She is special! And she was superseded because of our carelessness.

## Grafting Queens and Finishers!

- Well fed simulate flow/during flow!
- Make easy to find
- Pollen frames from hive or spring/freezer
- All about timing!
- Time/date stamp! **3days 12hrs** prior to grafting on Day 10!
- MT combx1 (darker comb preferred, but not necessary)
- Pollenx2, nectarx1, foundationx1
- Ideally, you'd work the hive and remove all open brood/give to other hives, to force bees to assist queen. This step is NOT necessary if well fed, good flow, good amount of nurse bees- use judgement. Rich's queen was overflowing.
- Pull pollen frame next to cells
- Pull nectar frame next to cells
- Put open brood with cells
- Work with the resources you have, if you have no finishers of sufficient strength, use the cell builder!
- 300 vs 1500 they like to touch the queens a lot before capping!

One thing we haven't talked about is the grafting queen. So back up to the day you made your cell builder. You need to know what queen you intend to graft from. Mark the hive and convert the hive into something that is easily manipulated, if you are adventurous you can even mark her now! Again, you should be FEEDING religiously(DO NOT MISS) On day 6.5 after the cell builder was made you will manipulate the graft queen hive such that she is MARKED and above the hive with a QE, trapped, alongside 2nectar, 2pollen/mix, 1DRAWN MT comb(Dated with TIME and DATE). You mark the queen to easily find her and more importantly reassemble the grafting queen hive to prevent supercedure. In the event you graft more queens from this hive she is easily locatable. Our intent is to graft exactly 3 days and 12 hours from this point and utilize the youngest larvae possible... To reiterate what has occurred. We have a cell builder with nurse bees ready to go. The graft queen is now doing her thing providing us with the youngest larvae I can graft. Mark your hives for finishing. There is leeway here, you don't HAVE manipulate them to make them now, you can actually do this at your leisure =>that being said you MUST FEED THEM now and put them in flow conditions. Ideally, you want STRONG hives that you can prevent the queen from reaching the new queen cells. It is imperative that they are in flow conditions. On the second run of queen cells please note, I utilize the interface between eggs/larvae to find the young larvae. I do not normally do 2 grafts. I don't have the equipment to keep 100+ queens!

## Grafting Day! (Day 10)

- 10 days from building cell builder (Day 10!)
- 3.5 days from building grafting queen frame
- Well fed/flow conditions
- Rain or shine.
- (kudos to whomever snapped this shot, good job!)



This is a great shot that shows the eggs well... specifically the interface between eggs and larvae. This is why we utilize the time/date stamp. To minimize grafting larvae decision errors. That being said if you graft along the interface you can be assured that normally the larvae will be between 12-24 hrs old. If you can't see the puddle, then there is no larvae worth grafting. And if there is larvae and no puddle then you DIDN'T FEED! This is WHY we must be in flow conditions. Grafting with little puddles is hard enough, you want big fat LOADED puddles and larvae.

## Cell cups and larvae grafting!

- Use a variety of different tools to achieve transplanting larvae to cup.
- Use a variety of different cell cups! Make your own!
- Use cell bars, strip off wax on frame, many many different ways to add eggs.
- Gently place next to pollen and nectar frame in cell builder.
- Chinese grafting tool
- JZBZ cups
- Knock off Nicot system



Thanks internet for this cool photo!

So many different ways to graft. Different tools, different methods, different cell cups! We utilized the chinese grafting tool(cheap and easy) to graft. The cell cups were JZBZ and the nicot knock offs. I understand people have used self made wax cups via pencil erasers! Anyway, tis grafting day! We find the grafting queen remove her from the time/date frame and let her back into her hive without the QE. Let her rejoin her hive. There may be supercedure cells below her, hopefully, she will find and kill them. You can manipulate the hive to find them or let nature take its course – depending if you are grafting from this queen again or not is probable cause. Prior to grafting the final step is to find the cell builder and parse each frame and look for queen cells and pinch them off. **YOU MUST DO THIS.** There might be a young larvae on those capped cells that we put in 10 days ago. If you do not kill those queen cells, your grafts will be destroyed once capped. This is if you utilize the cell builder to finish the cells. If you intend to utilize finishers, again you must use run your bees through a QE or shake the bees in front of the hive to insure... absolutely no queen. I found this out the hard way as well. With the time/dated frame we then graft however many larvae we need into the cell cups. You must be quick! Do not let the cells dry. Utilize a soaked towel to cover the grafts during the hot weather. After grafting gently place the frames with pollen frames alongside directly into the cell builder. In 48 hours we have our cells! Some people check in 24 hrs and replace cells with new ones. I do not like doing this. Too many balls in the air now. It can be done.



And now we wait to see how many takes... for the first run, you wait approximately 48hrs and check out all the royal jelly in the cups from Rich's yard!

- Larry Connor says 48hr cells can be sent with little trouble via mail. This is important... you can use these – easily transported!
- You take these cells to "finishers"
- Regrafted another 83 cells and put right back into the cell builder. Reassemble graft queen hive, but don't let her loose, keep her laying with resources and empty comb where you can find her. Keep feeding.
- After another 48-72hrs(check royal jelly deposit prior to moving) move to finishers until about 30-40 "takes" left in cell builder. Reassemble cell builder QR.
- Why do we use finishers (See "Cell builder explained" by Richard Noel

Check out those beautiful 48hour cells! PACKED with royal jelly. These queens will be well fed! There will be a tremendous amount of jelly left enough that this queen is assuredly, given every opportunity to have the best environment for growth! Big fat queens are the best! Dr. David Tarpy goes into some of the metrics that we as beekeepers can easily measure. Weight and carapace (head width I guess, but that would be tough to "easily" measure) 200mg, 4.9mm! Those are our desired characteristics! Measure weight is easy –find scale and weigh. Measure carapace is done by drillin holes through sheet metal, 4.8mm or 3/16 drill bits. If the queen can't be smoked through the holes, ya got a winner! This also lends itself to the proposed queen bee competition during the fair. More on that later.

## Making nucs ready for the incoming Queen cells in 10 days!

- After you graft larvae of the queen you must put any hives you intend to harvest capped brood under flow conditions NOW.
- You can plan on breaking cell builder apart as well. (LOTTA bees!)
- At least 24 hours prior up to 3 days, make your nucs.
- 1.5 brood frames, pollen, nectar, foundation
- Rich used FOUR capped brood frames.
- The nicot system whoever owns this pic, thanks! That is what our stuff looks like that you will partake in this spring.



After moving the cells to finishers/making the cell builder QR and finishing their cells... the above is your end result. Gorgeous fat queen cells. You should be feeding ALL HIVES marked for capped brood removal for nuc making. Make your nucs/mating nucs ready at least 24 hours prior but no more than 3 days under flow conditions or artificial flow conditions. Make the nucs prior to May? You will have too many brood cycles, I would give the nucs a 50/50 chance of survival without treatment. After May any nuc you make till July is about 85% winter survival. 1.5-2 brood Frames 90% capped plus 1 frame pollen/honey and 1 honey. AND FEED. OR...you can use the cells however you'd like! I am just pointing out how we make our nucs. What you do with your cell should you request one is up to you! I just advocate for making your own bees and overwintering your own nucs!

## Nucs are made!!

- Queen should hatch in roughly 1.5 days
- 12-15 days after hatching there "should" be a mated queen laying. Can happen as early as 5 days.
- Feed pollen and nectar/light sugar water
- \*\*Continue checking, if after 18 days no queen, there should be another round of queens, either add 1.5 frames of brood and new cell OR dismantle and combine into established hive\*\*
- Continue to heavily feed and maintain resources for nuc colony.
- Mark this queen with the color pen even if unmated. If unmated, mark the colony with brick... notes, etc.
- After 30 days from hatching queen is being evaluated by colony itself. No SS at day 45? Then g2g.

WOO HOO! This is without a doubt the hardest part. You put the queen cells in the nucs and make sure the feed is on. I have marked my queens prior to mating, but I feel that is just extra work. Just wait. Pray to whatever God you worship if any... and bring gorgeous weather around day 5-12. May your queen be promiscuous. May your queen be ninja! May the odds be always in her favor. After being mated she will start to lay about day 12-15 after she emerges. Congratulations! If after 18 days there is no queen returned from her mating flight, combine this nuc with another. DO NOT add another cell. It has been too long for the nurse bees to assist the new queen.



I don't have anything to say here, just look at his grin!

## In summary making your own nucs and queens is not only sustainable and necessary, but FUN!

- I built from 10 hives and making my own cell builder approx 50 nucs and frankly lost count of queens. Even losing 30 nucs to absconding or simply beetle overrun, I entered fall with 29 hives. As winter approached, I felt that I should combine the nucs into other nucs. I combined 9 to 20. Before November I lost 2 of my senior splits to "varroa bleed" as I simply made a choice not to treat. I have lost 4 of my eighteen. I still made 150lbs of honey in spite of, and helped fellow beeks. Both my prod apiaries(I consumed a prod hive from each for nucs) 2 hives were left in each apiary(but 1 swarmed in each) and then were nailed by beetles after harvest/varroa. Last year was not very fun if not for QR. I have no OW production queen.
- I will rebuild. It is my hope others will join me in keeping our bee dollars at home.
- 400M consumed, 160M produced.
- Demand for bees is through the roof. We should be selling bees to sustain our bee addiction. Craigslist and done. Cooperative. Options.
- Necessarily local queen breeders will benefit from this as they will improve their own operations and change a queen bee from a scarcity to a readily available product. Mated queens are still a scarcity due to the 45 day rule, and we will be doing our best to alleviate that situation.

The point of sustainability is not just to replace your dead bees, but to have so many bees you have no equipment to house them! That is sustainable. Selling excess bees for a vacation is sustainable. Selling bees to purchase new equipment is sustainable. If you don't want to sell bees, you can make honey production hive on steroids via bee bombs! Sinking money into a brutal unrewarding hobby redefines fun, yet so many stick with it! 5 hives, just remember if you build up to 5 hives, reasonably take care of them I.e. don't steal their winter honey/treat... 95% confidence at least 1 hive will survive. From that hive, you can refill your MT hives through OTS or just grabbin a queen from myself or Rich. I mention the 400M vs 160M of honey consumed vs honey produced. There is literally a desperate market demanding to evolve. It is my hope we help this along. As a group we have the ability to act as one and sell all our overwintered colonies and fetch a price of 180 USD immediately. When I post to craigslist, I had one year when I sold 10 nucs in 3 hrs... before 7am. Yeah... and demand is only growing. Recently a commercial beekeeper just lost 25,000 hives. I cannot even imagine that number. There WILL ALWAYS be a demand. It is incumbent upon us to develop a methodology to take advantage of this scenario we currently find ourselves in.

## Moving on from Rich Ramsey's experiment how does that apply to our club?

- Barring unforeseen circumstances we should have a steady supply of queens EVERY 10 DAYS.
- I will start after 1st sighting of drone +25ish days for first batch to hatch, perhaps a few days earlier/later but again, dependent upon weather and conditions.
- How many? approx 24/32 takes is reasonable.
- However, at any time we can modify this to accommodate requests for more granted they are made before the start of the 10day cycle so we can add the appropriate nurse bees.
- If you have a laying queen UNTREATED over 2 years old... let us know! We want her! BEST PART about this... we have cages to house any hatched queens in the event they don't have a home.
- New beeks will receive the cell and make a mod snelgrove where they run a 2 queen sys till early fall.

For the 1st year beeks, we will use a snelgrove approach and lift 1 or 2 frams of brood with the laying queen into a top deep laying queen, QE, medium super, QE, then drop a cell into the bottom box during flow conditions. Because of SHB, if you are to do this, I will insist you utilize neverwet strips to help management. For everyone else you should consider making as many nucs as you are willing. 1 HIVE, if turned into a brood factory, can produce ~2cappd brood frames every 10days. Well fed, with good management will easily see you producing 5 nucs( up to 8 if you are sharp!). You can still make honey! A DOUBLE MP nuc, that is to say a 2 queen hive will readily produce honey, but that means no more brood about late May. Use your best judgement. Be aware should you run 2 queen colonies, varroa will be an issue. Everyone has different priorities, and you may not have any more room for colonies... which is PERFECT! Means you expanded your apiary to the max! I would love to see everyone push themselves and their respective colonies to produce bees and honey at max capacity. This should be fun!!!

## Priorities for Queens within the club

- **NO QUEEN CELLS ARE GUARANTEED**, but we will do everything we can to make it right.
- New students from the class (Demaree method where we supply queen with QR on top and cell on bottom)
- 1st year beeks, 2nd year beeks... etc.
- Emergency vs planned
- Any public requests(onesies or twosies) \*there is a goal to bring them in!
- No limit(well, 200 I think is the theoretical limit) on cells requested if you request 10 days prior to graft day so I can allocate more nurse bees for you!
- Should your queen cell hatch, mate, and you are happy... throw the club a tenner! It is considered a donation should you choose to do so. There is no cost.
- If you want to toss Rich or I some capped frames of brood... sure! Actually, I will elaborate on this during the meeting. \*EFB dangers thereof
- This will happen for 2019 spring. All are welcome to participate!
- We hope to establish production colonies around Rich's idea for a nuc mating yard.
- \*final approval to be made by Rich and Andy.

*If you know of any beeks that are outside our group, this is an excellent opportunity to bring them into the club!* We need them informed and not making beetle bombs, varroa fall out, or EFB/AFB contamination. Their respective operations affect us. Limiting the pests, disease, and bad queens(thus drones) will **ONLY ENHANCE** our own beekeeping.

## A nuc mating yard!?

- Not only is a nuc mating yard in the plan... but we are figuring out how to allocate resources to supply those mating yards with production colonies for drones! This CAN BE DONE.
- Michael Palmer utilizes 150 production colonies for establishing his desired drone characteristics.
- The club is capable of providing enough colonies to meet this demand... perhaps not now, but I believe certainly in the near future.
- The incentive to use the yard could be to supply a production colony within a certain distance to enable free use of the mating yard. Otherwise, to utilize the mating yard, we would ask a donation.
- This is currently being talked about - nothing is set in stone, but if you are desiring to be a part of the planning committee... YOU TOO could be part of process! Scott Beckerman is takin names!

For true sustainability this is a must. If we can control to 95% (9 of ours to 1 of theirs) colonies with drones, we can actually give them the best opportunity to be well-mated. Because the current problem of "open mated" queens... whose drones are they?! Currently local queen breeders have no where near what Michael Palmer idealizes for "well-mated" queens. Nor will our group for that matter, but we will do our best. I am hoping that the committee will come up with ideas to help this become a reality. What about the local queen breeders? Well, after giving it some thought, they will either adopt similar practices providing excellent well fed queens with breeder genetics every 10 days, or they will be left behind. The paradigm of queens being a scarcity is over. Now the scarcity will actually be a MATED queen. There is no way to rush this. Letting the bees evaluate their own queen is paramount to the queen rearing process. We guesstimate that the earliest this occurs is approx 35-45 days after cell hatch(Dr.Tarpy).

## Aggregate of videos

- Sustainability
- Spring management
- Considering scaling to commercial
- Diseases and pest control
- Queen rearing
- Wisdom and general knowledge
- Things I wish I had known
- Even throw in some book authors to get you started! Just read em!
- WHY?
- Because if you don't you are hamstringing your learning curve and putting everyone in jeopardy, so LEARN!

I tried to put the videos in an order that made sense to watch them. It might seem out of place, but I liked the flow and lead into some of them. For 1st year beeks it will be overwhelming, but if you have experience keeping bees and a desire to match... have at it!

## Spring Management – start thinking about where you want to be!

### For the beginner or 2nd year beek!

- Demaree Method/hands on!
- <https://www.youtube.com/watch?v=d1tnjND8GXg>
- "Thinking inside the box"
- <https://www.youtube.com/watch?v=oH7l891os0>
- Shorter video of the above
- <https://www.youtube.com/watch?v=-Qlnss9-oR4>

### For the rest that won't give up.

- Charley Illsley does a great presentation with Walt Wright referenced.
- <https://www.youtube.com/watch?v=WPTbDBpx-3s>
- Dr.David Gilley gives insight to understand swarming
- <https://www.youtube.com/watch?v=7sBO0pXK-n4&t=1646s>
- Walt Wright challenges you to re-evaluate swarming.
- <https://www.beesource.com/forums/attachment.php?attachmentid=42155&d=1531875044>
- I downloaded this and will try to upload with Steve.

The majority of the other half of the representation will be spent here talking about the incoming decisions you have to make NOW concerning your hives. If you are going to feed... YOU MUST ABSOLUTELY NEVER MISS A DAY FEEDING till the honey flow. If you miss a day, and there is a dearth... you have slowed your brood/hive and thus your honey production! Count your hives, count your equipment... how many nucs to overwinter are you making!?!?! This is the FIRST question you should have answered in your head. If you are going to build up your colonies to swarm for breaking them down to nucs well in time before the flow... brilliant! If you don't have enough equipment, we have some for sale! AND we can make more! If you are building up your colonies for honey production... no worries! That is what keeping bees is all about – do it!! And because of Rich's experiment at September nucs... we can safely assure you that we can make em through the summer AFTER honey production, but then you MUST feed. Are you considering chem treating your hives? If so, look into the different options available, time it accordingly. I will not advocate for chem treatment of hives, but I have no problem chem treating my hives if they need it. Use your best judgement. I have ONLY chem treated in December nucs that I sold the following spring and a total of 3 times. I did not chem treat 2018. I have only used oxalic acid dribble method when the colonies were broodless and semi open clusters(45F). Spring management for first/second years depends more on equipment available. Bear this on mind in addition to bee judgement/resources! Not a fan of reversing hives unless you know where brood nest/honey cap are. Better to utilize snelgrove/demaree.

- Kim Flottum, "Ten rules of modern beekeeping"

- Perhaps my absolute favorite video that I still watch day to day! You absolutely cannot go wrong with this video, he does a great job of reminding us why we entertain beekeeping as a hobby.

- <https://www.youtube.com/watch?v=mTPPnXDlj1Y>

- Joe Lewis, "357 Beekeeping"

- This is a GREAT video concerning sustainability in the sense of how many hives do I need to run to NOT have to buy bees? And the answer is FIVE! At 95% confidence you WILL have a hive after winter. He goes into nuc rearing etc. Great vid.

- <https://www.youtube.com/watch?v=EPxlW3cDbYQ>

- Michael Bush, "Lazy Beekeeping" {continue searching for 4 simple steps, common beekeeping problems, and other great videos}

- Michael Bush remains one of the more practical beekeepers, and you can't avoid him. Worth watching and perhaps you will incorporate his techniques/philosophy, perhaps not. He does it all.

- <https://www.youtube.com/watch?v=-rwDPXJdJG8>

- Keith Novak of Honey Bee Honey, "Evaluating the queen"

- I especially enjoyed his queen evaluation as beekeepers... how exactly do we know what we are looking at? Well, he lays it out for us.

- <https://www.youtube.com/watch?v=TJxgASgrcYw>

I truly enjoy watching this commercial beekeepers videos. He has great insight to everything and most important is happy to share his commercial experience with us. He specifically runs single hive brood management. Basically a single deep with QE and then supers.

- Canadian Bee Blogger, Ian Stepler, "An inside look at a Prairie Beekeeping Operation"
- <https://www.youtube.com/watch?v=uRI5jpWsLCO>
- "Insight to a commercial beekeeper's timeline"
- <https://www.youtube.com/watch?v=YZbb41nXE48>
- "Single hive brood management"
- [https://www.youtube.com/watch?v=386qWGnt\\_CU](https://www.youtube.com/watch?v=386qWGnt_CU)
- Pollen substitute patty recipe: 10 lbs brewers yeast 10 lbs soyflour 5 lbs dried egg 1 cup canola oil HFCS until mixed thick

• Mel Disselkoen, "OTS queen rearing and miticide free beekeeping"

• The Guru of OTS, he is the man to watch with regards to raising your own queens if not employing a cell builder. It requires knowledge of presence of bees, resources, and flow, but nonetheless is a great video to learn about employing the OTS to make yourself great queens!

• <https://www.youtube.com/watch?v=qlyz65Vquxg>

**Michael Palmer method and the sustainable apiary.** I simply can't understate how often everyone should watch these videos. Raise your own bees with your own stock. Sustain your apiary. Never buy bees again. You don't need a bee class, you need this.

- <https://www.youtube.com/watch?v=nznzpiWEI8A> (sustainable)
- <https://www.youtube.com/watch?v=R7tinVluBJ8> (queen rearing)
- <https://www.youtube.com/watch?v=fFanJbaigM4> (frozen america)
- <https://www.youtube.com/watch?v=nIjiInZRxrQ> (comb production)

•Cell builder explained!

•For those wondering about Michael Palmer's cell building techniques, Mr.Noel goes in depth and gives insight to the reasons as to why he does what he does. Mr. Noel also went to MP apiary and spent time learning the techniques.

•[https://www.youtube.com/watch?v=TW\\_FJTnhilg](https://www.youtube.com/watch?v=TW_FJTnhilg)

Queen rearing

•Dr.Larry Connor

•More great insight to queen rearing to employ techniques and knowledge from him.

•[https://www.youtube.com/watch?v=9\\_iFNV5Y-mw](https://www.youtube.com/watch?v=9_iFNV5Y-mw)

•<https://www.youtube.com/watch?v=hpg1Sn9oueY>

•Dr.David Tarpy - metrics to evaluation of the queen!

•<https://www.youtube.com/watch?v=2yxrawVF0Oc>

•4.9mm, 200mg, Hygenic(freeze method)

•Swarm traps, how to: Catch a colony from a county boy.

•<https://www.youtube.com/watch?v=STvW6pb1j68>

•<https://www.youtube.com/watch?v=NJdg-YWYNmQ>

•Randy Oliver @ Scientific Beekeeping – can be extremely difficult to navigate and he talks to you like you know what is going on – but he is the cutting edge of beekeeping techniques and experiments. I especially like his progress on towel OA.

- Fat Bee, Skinny Bee .pdf
- <https://rirdc.infoservices.com.au/downloads/05-054>
- Walt Wright, "Nectar Management"
- <https://beesource.com/wordpress/wp-content/uploads/NectarManagement.pdf>
- Randy Oliver @ www.Scientific Beekeeping.com – can be extremely difficult to navigate and he talks to you like you know what is going on – but he is the cutting edge of beekeeping techniques and experiments. I especially like his progress on towel OA.
- <http://scientificbeekeeping.com/extended-release-oxalic-acid-progress-report-4/>
- Dr.Larry Connor – [Increase Essentials](#), [Queen Rearing Essentials](#)
- Dr. Tom Seeley – [Honey Bee Democracy](#)
- Neverwet control for SHB, Jeff Willard.

## Almost done! Just a few more authors of note.

- The Northern Nuc System\*\*\* gives survival numbers as a 7yr beekeeper
- I found someone who also embraced the MP sustainable apiary, yet he wrote down some hard numbers to support his experience as he taught it. He is a Michael Palmer convert as well. I have had similar experiences with nuc survival and also employ a no treatment for my prod colonies. Worth watching if you are looking for numbers. His name is Adrian Quiney.
- <https://www.youtube.com/watch?v=Lylgtvn9CB0>
- Walter Wright – again, this is a tough read, not for the beginner, but worth it.
- Dr. Miller
- Doolittle
- Brother Adam
- Dave Cushman
- So now that we have all this information, it is a treasure trove and overwhelming. The spring management should be emphasized as to what is relevant NOW this March!

Adrian Quiney gives hard numbers to the same method that I use. I can vouch for his numbers as my nucs overwintered have roughly the same survival rate up until this last year. But because of the 2 separate SHB bombs that I endured, I am still not out of the woods yet. This year is 26% loss as opposed to my 10-15%.

## How I keep bees and why I do so.

- I realized about 7 years ago the fallacy of beekeeping. This is not organic, this is not a hobby. It is war. The bees are the prize... and we are still losing. I want to challenge the paradigm. Virgin queens should be readily available, not a scarcity. We should be selling the best queens in the north. Winter hardy, beetle savvy, varroa resistant queens and nucs OW will sell or replace our dead bees. Overwintered nucs will be a luxury that will bring top dollar in addition to the overwintered nucs other uses.\*
- Education is paramount. Growing Beekeeping is unavoidable if we are to exploit our market. Educating the consumer is critical towards sustainability. We need teenagers and young adults to grow.
- Time management is overwhelmingly understated. There has to be a reward/time invested. Chem free beekeepers shoulder the burden of difficult to make honey and worse the heaviest loss. The time involved with all the IPM management has to be unreal. This needs to be recognized, but not necessarily promoted. It is a fallacy to think that non-chem treatment is going to make a difference. It makes none. Just ask the commercial beekeeper that lost 25k hives.
- \*Overwintering our own bees is the only answer that not only makes sense, but gives you the most options. An overwintered nuc can provide \$\$, bee bombs for prod hives, replacement bees, replacement queen, honey, brood for QR and Nuc increases.
- I am lazy. I run my small hobby like a commercial apiary in the event that I desire to make a living at beekeeping. *This requires time management and bees that perform such that it readily scales.* If you have to manipulate your hive often... YOU HAVE LOST. If you have to find the queen... worst thing ever to do. I detest this. This eats your valuable time the worst, unfortunately, sometimes we have to find her.
- Necessarily we are challenging the paradigms of "every bee is sacred." This is livestock. Treat it as such. If we have a poor performer, cannibalize for nucs. If you have a hive that is borderline, give it a go, but don't fret. If they die, they die. Let them. You can't hold every bee's appendage. Consider every nuc and hive a battle. You will lose a few battles, but in the long run, I believe we can win the war. Our competitors, the package bee business and the queen producers, want us to continue to send them our monies. It is time to stop this.
- It is akin to the craft brew business. We in the club are not competing. We are actually in the position to work together to improve EVERYONE's bee business, beekeeping, and bee education. We must take every opportunity to grow the club's members under the ethics pledge and to educate consumers to rapidly grow our honeybee product market.
- Most importantly, again, we need to educate the consumer to purchase honey BECAUSE of the cost of keeping bees and its inherent value. The struggle is real, tell the consumer the story of the bee. Let them understand the perils. Only then will a consumer understand the value of honeybee products like honey.
- Which brings us to the ethic statement that Rich brought up last meeting.

This one slide is literally its own presentation. Read it for better or worse. I am happy to discuss any points with anyone concerning my observations.

## WORK IN PROGRESS

### Ethics member pledge

- Prairie State Beekeepers aims to grow beekeeping and the market for local apiary products.
- Growing the market for local, high-quality bee products builds on educated consumers. Misleading or incomplete description of products inhibits or worse prevents this.
- Therefore, PSBK recognizes that beekeepers depend on highly informed *customers* and asks its members for the following pledge:

To operate with honesty and integrity to provide clear information to the customers and help educate them.

**"Truth in advertising"**

We desire to form a committee! YOU need to be on it. We have a lot to hash out regarding this as a goal for our club to work towards. There will be a lot to discuss and this is literally its own presentation.

## Upcoming club endeavors for COMMITTEES

- Ethics member pledge
- Cooperative
- Internship – contacting local youth groups
- Scholarships
- Beehive lift 2" receiver
- Bee Calendar
- "in the shop" projects {Bill Budd}
- Scheduled club socials
- Mead Making, because it is delicious.
- Promote PSBK through education, outreach and membership  
All in one approach to a cooperative type of beekeeping
- Farmer's market @Fairgrounds every Thursday
- **FAVQueens competition with Donna Miller!**
- Farmers Market Thursday @1900!!
- Illinois Product EXPO
- Winter's farmers market at State House Inn!
- Bee Calendar! (Me, Scott, and you!)

This club was started by beekeepers for beekeepers. PSBK wants to provide its members with opportunities to learn, network, and talk to other beekeepers about their ideas and challenges with the bees. The club's ultimate goal is to enhance us, the members to be better beekeepers and to have fun. If that means developing a business... great! If that means just two hives... great! Learning should be free whenever possible. Sharing our knowledge and experiences with bees freely and at no cost or minimum cost, benefits the experienced beekeeper by keeping us sharp, it develops the intermediate beekeeper by strengthening their knowledge base, and it gets the novice started down the right path. It also improves the health of our local hives by improving the local husbandry.

*Stay away from the fallacy of having to pay money to learn.*

**Learn with us and have fun.**

This is self-explanatory. Stay away from those that claim they will teach you for a price. Sharing knowledge is a privilege. If any local queen breeders want to have a go at me, grab a number and get in line. I'm too busy making queens for our club, but you breeders are welcome to request a few, just give me 10days notice.