

SUCCESSFUL BEEKEEPING

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KELOWNA BEE BREEDER CIRCLE AND PRACTICAL BEE COURSE 2021 PROGRAM

The goal of this course is to maintain and rear Vernon stock honey bees and to teach new beekeepers successful beekeeping methods.

My cardiologist told me that my heart is working on 2 cylinders instead of 8 and can last another 10 years, but he also told me that I have to give up physical labor while keeping my mind busy. For many years, several participants in my bee breeding circle have been helping me maintain my Vernon stock following the principles that I learned in that 5 year stock improvement project in 1980 and have followed for the past 40 years.

Under Covid 19 rules, we cannot have a large group of people gathering; therefore, participation is by invitation only and you will have to reserve when you wish to come.

PARTICIPANTS: are paid for their work with queen cells and other products, as well as with new experiences.

STUDENTS: Are paying for teaching and experience by their work. They will work under my or other experienced participants supervision. For Course Details see:
<http://www.mitegone.com/pdfpages/SB%20Wanabee%20PROGRAM.pdf>

FOR MY PART: I will provide all breeding stock and written information for each session.

AS THE ORGANIZER: In order to pay for yard maintenance, tractor, cell cup cleaning and replacement frames, feed, medicine, and treatments I will keep or sell all surplus cells, virgins, mated queens, starters/finishers and breeding stock converted into artificial swarms.

ORGANIZATION: Depending on your availability, I will plan session days and crews into 3 hour blocks on Saturday mornings from 9-12. There will be some additional sessions on other days and in the afternoons after 2pm.

NEW: This year you will find out why all my yards are in circles and how I use a crane. Book your time to come see me on any of following days.

The following dates are for reference only. We will select "Day 0 Zero" using mother nature's calendar. The start date is dependent on the weather and average temperatures. It is usually the weekend after last bloom on apple trees is done. I have 50 years of records to reference.

On 17th April - UNPACKING DAY: 36 days before "Day 0" - We meet to unpack colonies from their winter packing and select possible breeder mothers by evaluating how well the hives wintered. We also factor in last summer's performance (honey production, brood pattern, temperament). These hives will also be our drone breeders and will be given drone comb to produce drones for mating with our virgin queens. Hives will be marked accordingly. Also, they will be treated for mites with MiteGone formic acid treatment.

PARTICIPANTS are expected to do the same to their hives.

Any day after (afternoon) - STUDENT DAY:

- Sorting comb for various uses and cleaning equipment.
- Number graft frames and have them ready to be cleaned by bees.
- Prepare incubators and queen cells frames and their numbering
- Prepare and select graft bars for grafting.

By 13th May 10 days before “0” or earlier: Bob Chisholm is providing 16 strong hives and bees for conversion into starters, finishers and incubators. Bob will get these hives back one day before “Day 0” with their queen and with swarm control done. These hives will be ready to produce honey.

On May 15th - CHECKING STARTERS: Hives will be inspected for strength, diseases and quality of queen. 12 best selected will be moved onto 6 starter position in the starter circle. They will receive a preventative AFB treatment, queen excluder, and Dadant box to prevent swarming.

May 16th - GRAFT FRAME PREP (afternoon) 7 days before “0”: We will put grafting frames onto strong hives over a queen excluder to be cleaned so they are ready to receive eggs for grafting.

By May 18th - SETTING UP GRAFT (afternoon) 5 days before “0”: We will remove the brood chambers of breeders hive on support boxes, and put a new empty box on the bottom board. While double checking and looking for the queen. We set the queen to produce perfect graft. Combs will go into the empty box in the following order: comb of honey and pollen with bees. Numbered empty graft frame slanted on 2x4. When we find the Queen, we spray and brush this breeder queen into the wedge with all bees from her frame, onto the graft frame remove 2x4 block and move the comb against pollen comb. We fill rest of space with fully capped and emerging brood and other comb of pollen and honey. This gives the queen no other space to lay except for the grafting comb. She is forced to lay into the graft comb and produce perfect graft for graft day. We put the rest of the brood and honey over a queen excluder in the top box, arranged as two mating nukes with feeder in middle.

On May 22rd - MAKING STARTERS one day prior to day “0”: Two of Bob’s hives in the starter circle, facing the same direction on each four pack will be removed, and in their place (in the middle), we put the equipment to create the starters. From the bottom up the starters consist of a single bottom board, a queen excluder, 2 wet honey Dadant boxes with bees, and a standard box that will contain 2 combs of open honey, 2 of pollen combs, and 2 inner feeders with 1:1 thin feed. The field bees will soon start populating this new starter.

Meanwhile, the queens are found in the donor hives, stored on the comb where they were found, and placed in a screened nuk box. Then, each donor hive gives one comb of open honey and one of pollen with bees to the starter. We put queen excluder and empty box on top. The rest of the combs with the nurse bees, are on one side sprayed with 10% sirup, and brushed into the starters, over the queen excluder to catch second queen. All of the combs except for the one honey, one pollen comb are put back into the donor hives, two frames of foundation are placed in the top box of hive to replace donated comb, and the queen is returned to the lower box. The donor hive is screened and moved immediately, to be loaded for transport back to the lender’s home yard.

In the end, the starters will have bees from two different colonies and two combs of honey and two combs of pollen. The remaining 3 comb spaces in the starters will be filled with numbered grafting combs from my breeders.

When we remove the grafting comb from breeder hives to the starters, we replace the graft comb with a new frame. Also, below the queen excluder, we put a box of frames designated as FULL-SIZE hives for sale. For queen to lay in brood. We fill the feeders in the top box.

On each pallet in starter circle, where there were four lender hives, there will now be two starters. 6 in total able to produce 860 cells.

On May 23th - GRAFTING DAY "0": A few years ago, I converted my honey house into a temperature and humidity-controlled space. This year three will be 8 grafters able to graft in comfort. Participating grafters need to bring a headlamp, two Chinese grafting tools, and glasses to see well. Magnification glasses or lenses are also helpful.

GRAFT Method: The grafting combs with larva less than 24 hour old and grafted frames with 3 bars of 16 cells will be stored and transported to and from the yard in heated and humidified boxes, ensuring success. We graft only 3 bars of 16 cells from each graft comb to eliminate inbreeding. Frames are numbered and bars named so that the results for each grafter are accurate.

When we distribute mature cells, we take a maximum of 5 cells from each bar, ensuring there cannot be more than 5 sisters. If a participant or customer needs just a few, we make sure that they don't have any sisters, because we have 18 different mothers.

May 24th and 25th - Full size hives and artificial swarms will be produced. Learn how by reading "Selling and Buying Bees in 21st Century" at <http://www.mitegone.com/pdfpages/Buy%20sell%20bees%20Beeeculture%20Feb%202019.pdf> Participants may want to learn this method so it will be part of this course program.

May 27 – COUNTING CELLS (Graft Day + 4 Days, or 0+4): By this afternoon queen cells will be drawn and capped so we can do a cell and graft count.

May 30th & 31st - Full size hives are for sale and artificial swarms made and sold. The entire breeder circle is converted into expandable mating nuk and rest moved into circles three and four. We feed these Expandable mating nucs and put on queen excluders and Dadant boxes as needed.

May 31st - CELL INSTALLATION (Graft Day + 8 Days, or 0+8): Queen cells are ready to go into prepared nucs, in cell protectors, or at the same time as nucs are being made. Participants and customers can pick up cells May 30th to June 1st

June 1st - CAGING (Graft Day + 9 Days, or 0+9): All unused queen cells are caged and placed in frames that accommodate these cages. The virgin queens are born on day 10 or 11. They can be sold direct or mailed for mating in anyone's nucs. Also, on this day, a virgin bank is created to store any excess caged virgins, and the starters are converted into mating nucs. Virgins will be available to all beekeepers to buy, and they can rear their own new queens for wintering at a reasonable cost. For more information on how to do this: <http://www.mitegone.com/pdfpages/SUCCESSFUL%20BEEKEEPING%20REQUEENING.pdf>

After June 1st – EXTRACTING HONEY: We have many Dadant supers on the hives to prevent swarming and to collect spring honey of which the dandelions are main source. It is bad to let this honey crystalize in your comb. As we go through the hives, we will put the honey boxes on escape boards and then when they are empty of bees, take them to the honey house hot room for extraction. Interested students and participants should contact me if they want to learn about extraction.

June 5th - EMERGENCE CHECK (Graft Day + 12 Days, 0+12 or one day later): On this day all nucs are checked to make sure the queen has emerged from her cell. If she has not, we will replace the cell with the caged virgin. Participants check theirs on June 4th.

June 6 to 11 (Graft Day + 14-17 Days or 0+14-17): By this date the virgin queens must be used. If placed in nucs, they have till July 1st to get mated

June 11 (Graft Day + 17 Days or 0+17): The virgin queens are ready to mate. Watch for a nice calm sunny afternoon. Mark this date on your calendar. 7-10 days after of that nice day the queens should be laying.

June 18 (Graft Day + 24 Days or 0+24): If there was nice weather the queens should be mated and laying but give her another week to prove it. Do not rush her she has until July 1st to get mated and start laying.

June 26th - MATING CHECK: We will be checking all nucs for mated queens and identifying queens. We will be giving them appropriate identification flags, canceling unmated nucs, dealing with drone layers, distributing their combs to selected nucs in the breeder circle.

July 1 - MATED QUEENS (Graft Day + 38 Days or 0+38): If a queen is not laying, she is stale and it's time to unite the nuc with a mated one. Mated queens are available for sale to the general public. See: <http://www.mitegone.com/pdfpages/BHF%200000%20BLANK.pdf> Students and participants have opportunity to practice finding queens, catching and caging them and adding attendants. This can be done any day of week, just call to book.

FIRST HALF OF JULY: Days and times to be announced.

We go through our new hives and preselect future breeders. As we select queens, we move hives into the breeder circle. By mid-July the goal is to have 30 preselected breeders and 24 of them in breeder circle. These hives are on standard double bottom boards in boxes with 10 combs covered by a queen excluder and a Dadant extracting super on top of that.

This is an opportunity for students and participants to learn about various equipment use and maintenance. Also, we will be finding and caging queens, adding attendants, preparing shipping boxes, and making them ready to mail. We will also be maintaining a queen bank and joining queenless nucs as top boxes of future master breeders. There may be some extraction.

If you are interested in swarm catching, I can train you and pass on any requests for swarm removal that I get.

SECOND HALF OF JULY: We will work on selecting the final 24 breeders to winter and make sure they are two boxes strong with bees and brood. It is time to go swimming and let bees do their work.

August 7th - MITEGONE ACID DAY: Thinning acid, preparing and filling kits for treatment in late August. I will need 4 responsible helpers. In the afternoon, preordered acid and kits will be available for pick up see:

<http://www.mitegone.com/pdfpages/Local%20Acid%20Supply%20in%20Kelowna%20BC%20-%20doc.pdf>

August 14th – PULLING HONEY: We will be removing and extracting honey (full-size boxes) and reversing the hives so the queen is in the bottom box. Boxes with deep comb will go on top of towers over escape boards. Dadants will be rearranged so the empty or lighter ones are directly on top of the queen excluders with the full honey boxes at the top ready to be put on escape boards next week. On Monday evening, the boxes will be taken off and taken to honey house for extraction and hopefully extracted on Tuesday. Wednesday and the weekend is reserved for custom extraction for anyone who reserves a time.

We will be handling full size boxes and when full of honey they are very heavy. They will also hopefully have feeders full of comb honey to be removed. You will quickly learn why we use Dadants for honey supers as they are much easier to handle when full of honey. I will need two strong men on Monday evening to help move all of the honey boxes. On Saturday anyone can come, two people can work together to lift a box or we can use a crane.

August 21nd - SECOND HONEY TAKING: Same story but we have to handle Dadants only. On Monday after work I need two people to help take off the honey and extract.

August 28th - WINTER CHECK WEIGHING AND PREP: This is a very important step in preparing your hives for the winter. It is important that your hives have enough food to last the winter. We will take off any last honey boxes, and blow the bees out of all of the remaining Dadants and take them to honey house. All comb honey will be placed into escape boxes. We will do one final check of hives. We will also weigh each hive. Depending on the weight of the hives, we will check those that are not performing or are overweight. We assign feed ration tickets to each hive and then calculate the amount of sugar for feed required to bring all the hives to their wintering weight. Hives will be put on a winter bottom that cannot be plugged by derbies. A new installation of MiteGone acid pads will be placed in the top box. How to handle acid safely will be taught. Participants and students will take acid filled pads home and do same thing to their hives.

We start feeding hives according to ration tickets in 4-5 days intervals using our feeder sucker dispensers.

September 18th 8 am - EXCLUDER CLEANING - We boil all queen rearing cups and cages first to clean off all excess wax. Then we boil the queen excluders to remove all wax and sterilize them from diseases so they are ready for next year's use. Please book your time and let me know how many excluders you are bringing as every 3 excluders take 5 minutes to clean. I will not be doing this for you, you have to come at your assigned time and bring your excluders. Please stoke the fire with the provided firewood while waiting for your excluders to clean. This service is offered to all beekeepers in area for free. If we are permitted to gather (Covid) bring beer or coffee. It is a nice get together with fellow beekeepers and a chance to talk bees.

October 2nd - WINTER PACKING AND BEAR PROTECTION: I will be showing you how to pack four hives on a pallet for the winter in 4-pack insulated boxes, rain covers, and electric bear fencing around a circle of 24 hives.

The bees are done for the winter and it is time to relax. I hope we all can be vaccinated by the end of October. With all the property work done, and wine made, I will hopefully be able to go to Mexico. As I cannot ski and shovel snow any more, I will leave the snow to everyone else.