BCBBA Profiles

Emily Huxter, co-owner and operator of Wild Antho in Armstrong, BC

If tales are true, my first bee sting was when I was two weeks old. I was born into a beekeeping family and spent my childhood traveling from bee yard to bee yard. As I grew older, I helped out on the farm (sometimes happily and sometimes not so much), pressing out pollen patties in the winters and operating the smoker in the summer. By high school, my summers were divided between swimming and beekeeping.

I worked mainly with my mum helping to catch queens, feed 4-ways and run grafts. This continued until I graduated from University (I was fired a couple of times but was always re-hired within a week). Once I moved away from home, I continued to keep bees in my backyard and neighbours' backyards, raising my own queens and selling a few nucs. After 14 years working with the Federal Government (I worked for Environment Canada in the Hydrology department, measuring and modelling stream flows around the province), I decided I wanted to work for myself and became a full-time beekeeper. I definitely made the right decision..we are loving it. Bees are such incredible insects to work with. I love how much I learn about nature from spending time with them.

Emily, Shayne and their kids.

I have just finished my third season as co-owner/operator of Wild Antho in Armstrong BC, with Shayne Doerksen (my partner). Shayne is an equal partner in the business but only involved in some of the bee work, as he is still working a full time job at Environment Canada. We also hired one employee this summer to help keep the show on the road.

We focus on nuc and queen production with a sideline of honey. We overwinter full size colonies and nucs of varying sizes. Most of our nuc sales are in early May, since we overwinter hundreds of nucs. Additionally, in the summer, we run numerous mating nucs. Our aim is to provide Canadian beekeepers with good, local, early April queens. Our focus over the next few years will be

Emily.

on improving our overwintering of queens to provide beekeepers with a local queen option early.

During the peak of summer we have about 1500 colonies on the ground of varying sizes, of which about 150 to 200 are full sized hives. We take honey from duplex hives and full hives so a honey per hive average is tough, but probably around 60 lbs average this year. This does not factor in that we also leave a full deep super of honey on every hive and two shallows on every duplex (two sided hive with 4-way sized frames). There is always a wide range of honey production in the North Okanagan as many beekeepers, like us, are dedicated to nuc production and not honey production.

Wild Antho Honey.

We have to give a huge thanks to my mum and dad (Liz and Terry Huxter) whose 40 years of beekeeping experience saves us from making more mistakes than we do, not to mention their help. We are also fortunate to have a very loyal customer base which provides us with stability. None of our success have come without a lot of very long days/months and hard work and maybe even some tears!

The stock we started with was from Kettle Valley Queens, and we still get breeding stock from Liz Huxter. This is a true BC stock developed over the past 40 years. This stock tends to produce highly hygienic, dark bees with good wintering; not always the nicest (but nice enough). We have also started to develop our own stock here in Armstrong. We buy queens from other breeders (the latest were from John Gates and Bill Stagg) and use it to test against our stock, but we have not bred from any outside stock to date.

For our breeding selection criteria, the queens must be a minimum of two years old (two winters), have average to above average honey production every year, a solid brood pattern year round and good pollen stores. They must be in the top 10% for colony size in spring and fall, or expand very rapidly in the spring; to determine this we count frames of bees in all colonies and then total the numbers and take the top 10%. These numbers obviously vary greatly depending on the year and the exact timing during that year. Spring/fall large colonies are normally 8+ frames of bees.

We select queens that have low varroa numbers (not always though), have highly hygienic behaviour traits, low honey use over the winter, are not overly aggressive (we do take a few stings) and never any type of disease. We have seen some of the EFB-like symptoms in our nucs/hives, especially in 2019. We take samples and every one has come back negative for disease. I have sent these queens to Dr. Alison McAfee to test, and her work is starting to suggest it might be a sacbrood-like virus; fewer than 2% of our colonies have this. We consistently test negative for *Nosema* and have had no AFB.

We treat duplex and full sized hives with oxalic in the winter (Jan/Feb) and formic in the summer (early August). For nucs we use Apivar in the spring (March) and oxalic in fall/winter; for the 4-ways we use formic in the fall. We are in the process of phasing out Apivar and only using formic and oxalic acid, as we would like to be as organic as possible, and don't like all the waste generated by the strips. Some treatments are not done on some hives if the mite levels are low; it changes from year to year but normally anything with a natural 24 hour drop of 8 mites or more gets treated.

In terms of testing, we track our hives fairly closely. We monitor varroa with mite washes and sticky boards at least three times a season. We track pollen stores, number of early spring honey frames, cluster size spring and fall, rate of spring build-up and honey production. Very aggressive/gentle hives are noted, as well as brood with white eyes visible in cells (where the bees are recapping worker brood cells) and hives that remove drone pupae and recap drone brood.

We do hygienic behavior testing on the top 10% of hives by freeze-killing brood and checking back 24 hours later to count the number of empty cells. High propolis

Hygienic behaviour testing.

hives are noted as they are often very strong hives (totally anecdotal) but we do like to note it as we are always looking for indicators of strong colonies.

Last year we had sperm counts done on our worst stock. Dr. Alison McAfee was testing BC queens for sperm viability and sperm counts and comparing them to California and Kona queens. Breeders from around BC sent in queens of various levels of mating and banking length. We sent in two sets of queens, one with known poor mating weather and another that had been banked for over two weeks. Although these queens were not our top-quality queens, they still had higher sperm counts than Kona and California queens, and only slightly lower sperm viability.

The queens we sell are only Wild Antho queens. Starting the second week of May onwards, all queens sold are new, and our early nucs and queens are overwintered. We overwinter queens in 5 frame nucs outside, and in 4-ways (shallow boxes divided into 4 parts) inside.

For wintering outdoors, full size hives are grouped in 4 with a pillow insulation on top and a tar paper wrap. Duplex hives are in very long rows (up to 25 in a row) each with a 2" R10 insulating lid, and the whole row is tar paper wrapped as a unit, with the end hives being insulated with R10 on the ends. Nucs are wrapped in groups of 15 with 2 ply foil insulation and R10 insulation top and bottom; this year we are also trying a tar paper wrap over the top.

For indoor wintering, we have built an insulated room inside our honey house that exchanges air with the outside;

Wrapped up for winter.

there are also circulation fans and heaters controlled by thermostats to maintain temperatures in the room. The units are placed in the room in such a way to allow a lot of air circulation around each box. We are currently only overwintering 4-ways indoors.

Late spring feeding crew.

Our winter losses have been between 10 and 15% for larger colonies, nucs less than 5% and 4-ways is a work in progress, about 30%, but hopefully will be much better this year (finally taking some of my mum's advice - feeding earlier, creating more air flow and increasing the temperature monitoring). Next year I will also give pollen patties late in the year; we ran out of time this year.

In our breeding system we use both closed breeding and hybrid breeding. Queens raised in Grand Forks are closed mated and queens raised in Armstrong are hybrid bred. In Armstrong we drone flood our mating yard, but I am sure outside drones participate as well.

For our mating setup we use 4-way boxes to raise our queens. In the spring we run them with three frames and a feeder and as the season progresses, they become 5 frames with no feeder. Many of these units are folded up into duplex hives for winter and then broken out in the spring.

For our setup for starters/finishers, we use a two-storey colony (2 deep boxes) with a queen excluder and Cloake board insert dividing the two boxes. The upper entrance is on the opposite side of the hive from the lower entrance. We (unlike many) put eggs and young larvae in the top box that we are going to graft into and move the capped brood to the bottom. At any given time, there can be up to three cell bar frames (each frame has between 28-42 cells) of differing ages in a cell builder. The brood is rotated on a 5-7 day cycle.

Quadrant of a 4-way.

We shake most of the bees in the hive into the top box

One of our breeder queens.

(Cloake board is in) the day before we graft leaving eggs and open brood up top. Leaving open brood and eggs in the upper box ensures once we pull the Cloake board 12-24 hours later, that all the nurse bees stay in the top box near the queen cells feeding them heavily. This also allows us to rotate the builder less often as hatching bees in the bottom free up space for the queen to lay in the bottom and they are less likely to plug the top with honey. We feel this way maximizes young bees near the queen cells and the number of continuous brood frames in the hives, so they can easily maintain a very large bee population without us having to ever add bees or brood.

Last year we sold over 3000 queens and 500 nucs. Our goal is to expand our queen and nuc production over time. Nearly all of our nucs are sold to the prairies and to the Peace River region, and our queens are sold from BC to Ontario. Our honey is all sold locally in BC.

For our nucs, we promise three frames of brood of varying ages, and a honey frame. If it is a five frame nuc the last frame is listed as empty but normally is brood or a brood/honey/pollen combination. All frames are covered in bees.

Last year we sold our overwintered queens April 10th and our first nucs with overwintered queens May 3rd. The first mated new queens were available May 10th. As every beekeeper knows, every year is different, but we always strive to have new queens ready by the second or third week of May. Overwintered queens are available early April. ❀