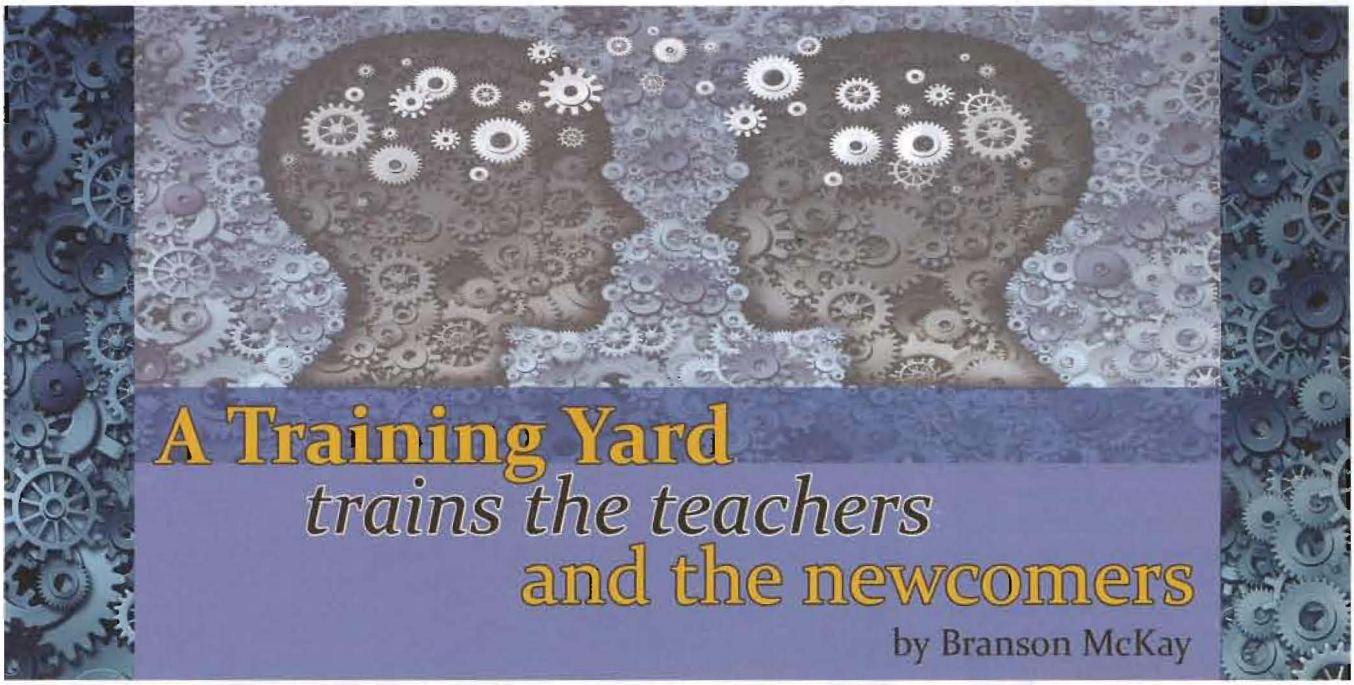

A Training Yard *trains the teachers* and the newcomers

by Branson McKay

Bee club numbers have exploded. The popularity of hobby beekeeping has resulted in a surging membership. Local clubs traditionally provided classroom instruction, support with woodenware procurement, hive assembly guidance, and recommended sources for bees. While clubs offer lots of encouragement, they typically offer limited training once the newcomers successfully install their first hives of bees. Mentoring new beekeepers is typically the most challenging aspect of the bee club's role and clubs often struggle to find a good balance.

My bee club follows the classic mentoring program, which is to encourage experienced beekeepers to be volunteer mentors. For some time, I attempted to coordinate this effort by using mapping software to geographically match experienced beekeepers with new beekeepers. With the surging popularity of beekeeping, the mentoring program became unmanageable due to the increased class size. This is a good problem to have, but with limited "service after the sale," new beekeepers tended to become discouraged and give up, effectively lowering the future availability of experienced beekeepers.

Last year, as a possible resolution to the mentoring issue facing new beekeepers and in partnership with my local club, I set up a training apiary. To learn how others were managing training yards, I searched for guidance and was surprised to find there was very little information available. It's hard to build a better mousetrap, when limited mousetrap designs exist. My goal was to have six to eight new beekeepers, two hives, and utilize my previous mentoring experience to provide a season's worth of training. Consolidating the mentoring effort by having a centralized training yard instead of driving around to different hive sites seemed to be a better use of time and resources.

In April 2017, the first two hives were established at a large agricultural training facility centrally located to the club's membership. Later in the season, the group expanded to about twelve beekeepers and increased from two to four hives after two captured swarms were added. The goal was to create a "hands in the hive" training site where we could meet on a regular schedule. During these inspections, everyone was encouraged to inspect hives and articulate what they observed. The information and experience they gained working together with me as their guide could then be used when the new beekeeper examined their hives back home. Observations from each visit were published through a group email as an additional resource. We met every other Saturday until cold weather closed us down for the season.

This new approach to mentoring was very well received by the 2017 participants. Many have returned this year, boosting the training talent pool for new beekeepers. The apiary got through the winter with all four hives still alive. As one would expect, each hive started 2018 at a different level of strength: two very strong; one medium; and one barely alive. Last year's success provided a launching point for continuing the training program into our second year.

So far this year, we have used the

The training yards contains a variety of hives, providing a varied learning experience.

The queen castle divides a 10-frame hive into 3 sections of 3 frames each.

strong hives to make replacement splits and grow our hive numbers. The weaker hives have been used to demonstrate queen replacement and other hive manipulation techniques such as combining weak colonies. We installed one package to show new beekeepers how it is done. This year's plan is to learn how to administer the apiary with an emphasis on hive management, maximizing hive strength, and bee health.

The training yard is now running on a set schedule, meeting every other Saturday, and spring hive maintenance is well under way. Queen productivity and brood patterns have been the prevailing discussion topics during our spring inspections. With no reference point, a new beekeeper with bees from a package installed on foundation cannot easily envision what separates a good brood pattern from a weaker one. Because packages can have failing queens, knowing both what to look for and how to replace a failing queen are important skills for the new beekeeper.

We utilized the stronger hives for early April nuc production, with an emphasis on making nucs as a swarm control method. The stronger hives have been managed to provide the queen ample brood space while monitoring for nectar and pollen storage in the brood area.

These same hives also donated several frames of bees, brood, nectar, and pollen to a commercially available three-section, medium-frame queen castle. New beekeepers must learn how to manipulate resources. The flexibility and training opportunities of a queen castle was a definite advantage to our training yard. The basic reason for using a queen castle is to demonstrate how brood resources can be utilized to replace failed colonies, keep hives strong, and increase colony numbers.

As a part of the training, one queen castle section was moved into a five-frame, two-super nuc with a two-frame internal feeder for a total of eight frames. Overwintering this as a nuc is the plan. Two frames and the queen from the second section were moved into the weakest hive, which had declined severely due to early spring queen failure and was beyond the point of being able to fix itself. Because only two frames were removed from this section, it was refilled with drawn comb and a new queen, starting up another mini colony. The intent is to repopulate the section and use the resource again, allowing for quick replacement of any failing queens or other queen issues.

The queen castle, which is in effect three mini three-frame nucs can also be used to create new starter hives from brood frames with attached swarm cells. Simply wait for the queen cells to emerge and a virgin to successfully return from her mating flight and begin egg laying.

Later this spring, we removed the third section's dividing board allowing the original three frames to expand into two sections and six frames. Depending on conditions, this six-frame colony could be moved into a nuc and overwintered. Hive manipulation using a queen castle as a resource was new to most students as it was not covered in their classes.

A swarm bait hive has been installed again this year. Last year two swarms were captured using this

The bait hive used to lure swarms.

The training yard provides ample opportunity for learning, like how to requeen.

method - free bees! So far this year a good sized swarm that landed in the grass has been captured. Why it chose to cluster on the ground and not on a tree limb provided a hands-on opportunity to see that classroom training does not always cover what bees actually do. A two-super five-frame hive with a frame of honey was placed next to the swarm and the bees just walked in. Within six days this swarm had drawn out five frames from foundation and the queen was already laying eggs. This swarm capture was way too easy!

As the season progresses, our main focus with the training yard will be assessing brood health and pattern. Learning how to inspect a hive and understanding what we're seeing actually means can be a difficult challenge to new beekeepers. As a mentor, I found that new beekeepers can be reluctant to remove frames for inspection, relying more on entrance activity as an indicator of hive health. Most have no reference point for problems like drone-laying queens, weak brood patterns, mite loads, small hive beetle infestation, and many of the other hive issues that more experienced beekeepers understand and can usually resolve. Additionally, having only one or two new hives does not provide the same challenges that a mix of splits, strong hives, weak hives, and assorted equipment offers.

Mite counting and control is another huge topic for discussion. Drone brood removal for mite control was attempted and we practiced how to use an alcohol wash for counting mites. The use of formic acid and thymol-based mite treatment was introduced with a discussion of the differences and why one or the other might be a better choice, depending on conditions and the season. As part of mite awareness training, mite-transmitted

Inspecting a hive together allows newcomers to better read a colony.

diseases such as Deformed Wing Virus will be visually assessed. Samples for nosema testing might be sent to the USDA agricultural research center in Beltsville, Maryland, for lab assessment. If our mite management techniques work, mite-carried diseases should be limited. Training, treatment, and scheduling our mite control as needed was a definite plus for new beekeepers, who now feel much more confident monitoring mites in their own colonies.

Control of other pests such as ants (we use ground cinnamon), use of small hive beetle traps as needed, and prevention of yellow jackets and other troublesome insect harassment will also be covered in upcoming sessions at the yard. Feeding of syrup and protein supplements during the mid-summer dearth we typically experience will commence as the season progresses. We will emphasize that these nutrients are important for the development of young healthy winter bees, which colonies start rearing in August and September in preparation for winter.

Lively discussions while gathered around the training hives have ranged widely, covering diverse subjects such as: chemicals, both beekeeper applied and environmentally supplied; the enjoyment of high quality local honey; the production and overwintering of nucs; queen quality; package versus nuc advantages; the list is endless and adds to our training yard enjoyment. We have been known to sample capped honey straight from the frame!

As a hobbyist and mostly weekend beekeeper, teaching the joys and sorrows of beekeeping is my small way of supporting beekeeping. The training yard allows multiple individuals a chance to learn from others and support this remarkable creature, the honey bee. The training yard process offers the hands-on experience that a classroom can never provide. I highly encourage other clubs to try one next year.

Branson McKay is a hobby beekeeper with 15 – 20 hives and 15 years experience. Comments can be left at **www.buzzwodhoney.com.**