

# The Traveling Beekeeper



## STOCK IMPROVEMENT IN WEST VIRGINIA

by LARRY CONNOR  
Wicwas Press

1620 Miller Road, Kalamazoo, MI 49001  
LJConnor@aol.com • www.wicwas.com

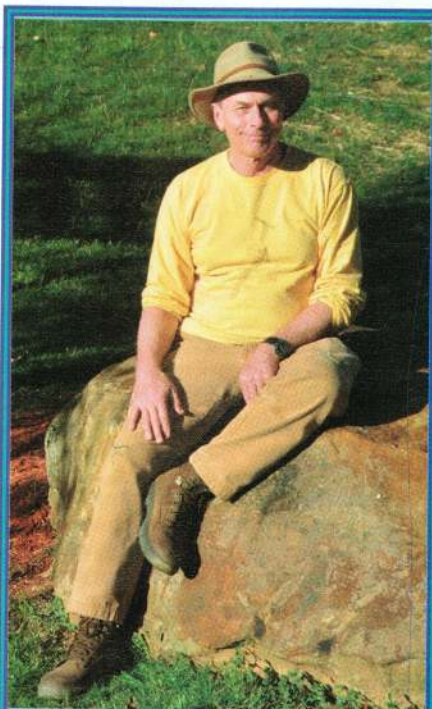
**I**n April I was invited to talk on queen rearing and bee management at the West Virginia Queen Producers, a member-based organization that shared meeting facilities in Huntington, WV with the West Virginia State Beekeepers Association. My part of the program ran Friday morning to Saturday afternoon; the State group met on Saturday, with Florida State Apiary Specialist (and The Classroom author) Jerry Hayes serving as the featured speaker. Later on Saturday Jerry and I were able to tour the beekeeping facilities of WV Bee Inspector Wade Stiltner, of Wayne, WV.

For a number of years certain beekeepers in West Virginia have been dedicated to the idea of producing local queens and bees for use within the state. There have been some high and low spots in developing the program, a few setbacks, but with some talented grant-getting, dogged determination and intense dedication, the group has been able to make a significant impact on the production of West Virginia queens for use by West Virginia beekeepers. In 2009, the queen market in the state was estimated at 4,000 queens, and the members of the WV Queen Producers produced and sold nearly one quarter of those queens, providing income for local beekeepers, and more importantly, providing localized, adapted, and hopefully better fit queens for the variable conditions found in that state.

The leadership of the group falls into the hands of Dan O'Hanlon and Gabe Blatt. They steer the group around some dangerous spots while championing West Virginia bees and queens to the elected officials of the state. In fact, the state is the first in the country to pass legislation that indemnifies state beekeepers from lawsuits provided they keep bees using recommended practices. O'Hanlon is chief judge of the Cabell County Circuit Court (Huntington), and is

politically connected to a wide range of elected officials, and knows who and when to call in a favor or ask for help from folks in the state. The State's governor sent his regrets that he could not speak at the state meeting because of the mining tragedy that was still unfolding while I was there. He had planned to have a ceremonial signing of the legislation during the beekeepers' meeting.

Any non-Sunbelt state that fills a quarter of its queen market is on the right track toward self-sufficiently and genetic survivor ability. Blatt, O'Hanlon and other beekeepers in the state (and one Ohio beekeeper who lives near the state line), have formed a non-profit corporation to promote and develop a strong queen program. Membership is \$100 per year, a fact that selects out the partially committed. The reality is that through grants these beekeepers have received breeder queens, equipment, incubators and training

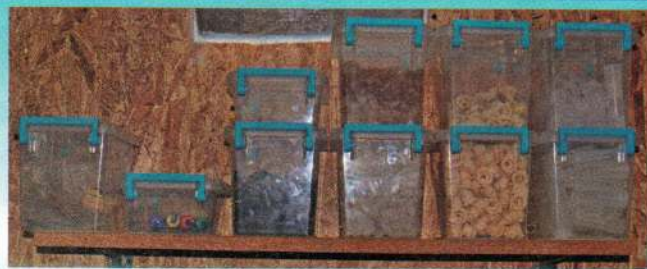
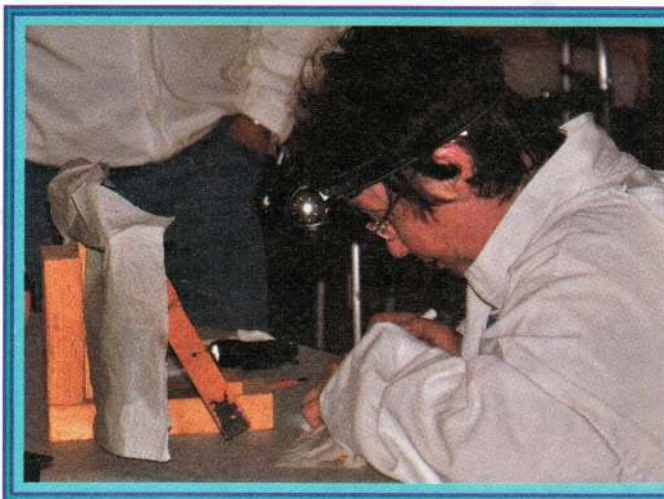


Dan O'Hanlon, is a driving force behind the West Virginia Queen Producers, writing grants and supporting new queen producers in the state.



Wade's empty half-frame mating box uses a small Boardman feeder.





(I) One of the West Virginia Queen Producers grafting indoors, using a head lamp to see the small larvae at the bottom of the cells. (above) Grafting tools, cups and supplies are in separate containers and arranged for easy use—no searching required.



Wade's grocery store display, with hand painted artwork and lettering.



Half frame mating nuc containing three frames for brood and food.



Wade's mating yard, which is located a few feet from the house and buildings. He makes metal hive stands which put the colonies off the ground and makes them easier to work.

that non-members do not receive. It has been a pretty good deal for these beekeepers. I hope that other states try to duplicate these efforts and reap the rewards of locally produced queens.

Some of the folks listening to my program in West Virginia were already established queen producers in their own right, and my function, as a presenter, was to provide them with a simple blueprint for queen rearing. With all the variation in queen rearing techniques around the planet, I stick to the simple Starter & Finisher system, one learned from Gordon Waller and Steve Taber, and shared by Minnesota's Marla Spivak and Gary Reuter. This plan is outlined in my latest book, *Queen Rearing Essentials*, and calls for a two-step queen rearing production method:

**Starter Colony:** A screened and flightless mass of young nurse bees (shaken from one strong colony) are given protein in the form of pollen in brood frames, carbohydrates as honey in the cells, and water, as held in a sponge or wet towel. Without a queen or brood, these bees use the emergency queen rearing response to feed a large number of young bee larvae with copious amounts of royal jelly. The grafted larvae are placed into cell cups and the cups are placed in the Starter colony overnight. The next day the started cells are moved to the Finisher Colony, and the bees and food are returned

to the colony from which they were removed. **It is possible to produce a Starter, establish a Finisher and graft from larvae from a single colony!**

**Finisher Colony or Cell Builder:** This is simply a two-box colony with the queen confined to the lower box by a queen excluder. In the upper box, above the excluder, we place frames of open brood (eggs and larvae), food frames and a feeder. The brood serves as an attractant to young nurse bees, who move through the queen excluder to care for the brood. When the started cells are placed into the finisher, the bees respond to them as supersedure cells — a lower level of queen pheromone inside a well-fed colony.

The system uses the transfer of 12-24 hr larvae from worker cells to queen cups (called grafting). Transferring larvae is the single and most significant challenge to beekeepers. Those who have trouble grafting are usually better off finding another (younger) person to graft for them, hoping they have better vision and eye-hand coordination. But with good lighting and proper coaching, nearly all of the West Virginia classroom participants grafted successfully. In fact. The graft was excellent, and if all the started larvae end up as mated queens, that one graft more than paid for my expenses to travel to the meeting. There is money in bees—but I digress...

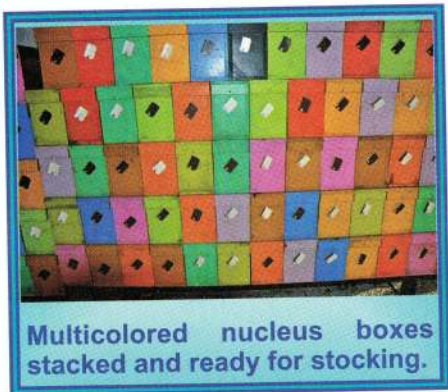
Most of the participants chose to graft inside the classroom using headlamps they held in one hand, while grafting in another, but some went outside and all seemed to have good results. The plastic cell bases had a nice amount of royal jelly at the bottom of the cups, with the transferred larvae floating near the center.

My overall impression is that the West Virginia Queen Breeders have one of the best potential opportunities to permanently establish a group of queen producers who will work to educate the state's beekeepers on the benefit of summer requeening and summer increase colonies.

Our visit to the home base of the beekeeping activities of Wade Stiltner was during the late afternoon of a beautiful spring day. A weeping cherry greeted us as we drove into the yard, in full bloom. If there is one lasting impression of the Wade's operation, it is that he has space for each activity in his operation, from grafting to mating, and from honey processing to honey sales. He does all of these things. A former coal mine worker himself, Wade works as one of the WV State Bee Inspectors. He has fish ponds, raised bed flower gardens, and some of the most brilliantly painted mating nucs I've ever seen—he says for visual orientation of the queens, but there is a suggestion of some influence of the 1970s in his color choices.

Wade uses welded hive stands to hold





**Multicolored nucleus boxes stacked and ready for stocking.**

four full-sized colonies or a large number of mating nucs. He uses half-frame nucs, so the colonies can be overwintered as entire colonies. To fill the mating nucs it is only a matter of moving a frame or two of brood and bees from the overwintered colony and placing them into the small mating nuc. The advantage is clear when you realize that these colonies are well balanced and ready for the ripe queen cell from his cell-building colonies. Once the queens in the nuclei colonies have mated and been laying for several days, they are put into cages for shipment and delivery to queen customers. The nuclei can be equalized by moving extra frames of brood and placing them into weaker colonies, like the ones where the queen did not "take" and there has been no egg laying. Frames of food, honey and pollen, can be moved to strengthen these units the same way. The entrances can be closed off by a metal closure on a screw.

Boardman feeders with smaller jars provide food for the colonies. The boxes are ventilated and have a cover that overhangs on the front and back, but not on the sides. This allows for better stacking for storage. Wade has not experienced any difficulty with the Small Hive Beetle using this system. This has been reported in some of the Sunbelt states as the reason why the bee-



**Framed by the fruit trees, Wade's rock garden and the brilliant green spring grass, three colonies hold breeding stock for the apiary queen rearing program.**



**The author holding one of the grafting frames with the cells grafted by the students. Most of the students did very well. Dan O'Hanlon took the photo and was to finish the cell development in his cell-building colonies located a few miles away from the class.**



**Zac and Jerry Hayes with Wade (r) in his honey-extracting room. Zac will be writing a report on his visit to West Virginia.**

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keepers are no longer able to operate smaller units. Wade credits the heavy soils of West Virginia as a factor in deterring SHB development.

Honey is sold at the door and in a local chain of supermarkets. Wade had developed an isle stand that he has painted white like a beehive and also painted with colorful artwork that includes "Fresh from the Farm" and "Bee Healthy Eat Local Honey." The honey is dark from the abundance of tulip popular, but has a nice taste and made excellent banana bread when I used a sample I was given back in Michigan.

As mentioned before, the colonies are organized by their function—breeder queens, mating nucs, cell builders. In a series of buildings he has separate areas for honey processing, comb storage, honey warming,

tool setup and much more. He has all his small power tools on one rack in the workroom, eliminating the usual chase for equipment when it is needed. He has a grafting area setup in his basement where all the pieces of equipment are stored on a rack in separate containers. The grafting table is well lit and has a frame rest so the beekeeper can look for the right aged larvae rather than holding the frame on his/her knee while grafting. In all, Wade has a setup many of us less-organized types only dream about.

The subject of queen rearing will be discussed in detail by Dr. Connor in programs in Connecticut, Lansing, MI, Calgary and Edmondson, Alberta and at the Connor Tree Farm in Galesburg, Michigan. Check [www.wicwas.com](http://www.wicwas.com) for contact information and links.