

# Beekeeper's meeting buzzes about queen bees, bee stings

BY SHEILA MILLER

**BETHEL** — More than 170 apiarists from southeastern Pennsylvania recently were busy buzzing around the grounds of the Paul Zeigler farm, located east of here, during the evening meeting of the Tri-County Beekeepers.

Zeigler, who is a retired state bee inspector and an apiarist for many, many years, hosted the group at his Berks County home.

It was a 'honey' of an evening for the beekeepers as they hovered around Zeigler's nephew, Dennis Keeney, who provided a demonstration in the bee yard that was a royal treat for the onlookers. Keeney skillfully executed the 'making' of queen bees.

As the beekeepers circled around Keeney, the young apiarist described how he 'draws' the queen cell. Taking a wooden block support and jelly spoon in hand, Keeney began to 'graft' the cells with royal jelly gathered from the hives. This, he explained, was the preliminary stage — the larvae would be transferred later.

While deftly manipulating the tiny spoon to drop the royal jelly precisely in the center of the cell, with none spilling down the sides, Keeney told how the royal jelly serves two functions — it keeps the bee larvae moist and it provides the nutrition they need to survive.

After preparing the cells, Keeney covered them with a moist towel to keep the royal jelly from drying out. He then led the group up into the middle of the honey bee hives and selected a frame from which to transfer the bee larvae.

The larvae selected to be grown into queen bees, however, are not just any larvae. They come from a hive where the queen has been studied and tested. Her performance is what determines whether her eggs will be chosen for future queens.

"We test a queen for three years before she becomes a breeder," explains Keeney. "That leaves us

with about a year's worth of eggs from each breeder.

"What we look for is the queen bee's record for honey production, wintering-over, temperament, and disease resistance. Temperament is important since we sell a lot of queens to hobbyists who don't want nasty bees."

Keeney showed the beekeepers how he scoops the bee larvae from the honeycomb cell built by the bees on the frame and transfers it to the cell located on the wooden block support. These larvae are no older than 36 hours when they are dropped on top of the royal jelly, a milky substance produced by the bees as food for only queens.

Once the cells are filled, Keeney explained, they are placed inside a 'brood nest', or bee incubator, where they are kept at 92 degrees Fahrenheit until they are 'ripened' and ready to be placed into a hive.

In nature, Keeney observed, there may be times when a new queen is raised by the workers to supersede the breeder in the hive. When this happens, he said he removes the queen cells and the worker bees continue to produce royal jelly.

But, if the mature queen bee is located and removed from the hive, a ripened queen cell can be introduced from the incubator into the hive, or mix as apiarists term it. "This queenless colony will more readily raise the cells," Keeney noted.

The total procedure was accomplished in slightly over an hour with few stings being inflicted on the enthusiastic crowd of beekeepers. But, as they heard later from Dr. Robert Brooks of Walter Reed Hospital, bee stings may have some beneficial effects on ailments such as arthritis.

"All beekeepers and their families are intimately in contact with bee venom at some time," Brooks stated, warning the apiarists to be prepared for

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Dennis Keeney, R1 Bethel, demonstrates the art of raising queen honey bees to a crowd of more than 170 beekeepers from seven southeastern Pennsylvania counties. Here he

lifts a bee larvae gently from its 'honeycomb bed' and transfers it to the wooden support cells, background, containing a jelly-spoon full of royal jelly.



Spooning the milky-white royal jelly from the small jar in his left hand, Keeney carefully places it directly in the bottom of the support cell without touching the sides. The larvae

floats on top of the jelly which keeps it moist and supplies it with the necessary nutrients to develop into a queen.



A wooden box, equipped with heat lamp and water pan, serves as the bee incubator. The bees ripen in an environment similar to the hive — 92 degrees Fahrenheit with high humidity.



With nurse bees scurrying across the frame, Keeney holds up the immature queen bee cells

for the crowd of young and old apiarists to study.