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BEE AWARE

News and Notes from the Texas Apiary Inspection Service

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The Texas Apiary Inspection Service (TAIS) had its first open house on October 19, 2004 at the Riverside Campus in Bryan, Texas. We wanted the general public to know that TAIS is a part of the Texas A&M University System and we are the regulatory agency relating to beekeeping and diseases of honeybees. Beekeepers for many years have known about this agency because they have received permits, queen tags, certificates of inspection and brand registration from our office. However, when the Africanized honeybee crossed our border into Texas in 1990, this agency was introduced to the public. The theme, “BEE AWARE” was uniting both parties her in the Brazos Valley.

The first objective was notifying the public. This was done by sending out invitations to beekeepers, local schools, police and fire departments in the Brazos Valley and making a news release through TAES Communications Specialist. In order to encourage a good turn out for our open house, TAIS used the Honeybee I.D. Laboratory and registration for a teaching kit drawing as promotional items. The kit, valued at $50.00, contains audio visuals, curriculum, posters and a real mounted Africanized Honeybee. We also had handouts showing the counties in Texas where Africanized honeybees have been detected and tours of the identification laboratory.

On the day of the open house we opened our doors to the general public. “Please remember” our doors are always open to the public, but this was special. This was Open House!

The Texas Apiary Inspection Service wanted people to come and see our office, laboratory and to meet us. We had popcorn, honey sticks, honey candy, punch, handouts and coloring pages for our young beekeepers and students. We divided our facility into four instructional stations so people could better view what our department had to offer.

Station 1 described procedures for recording and preserving samples, dissecting honeybees, mounting dissected body parts on glass slides in preparation for computer

assisted measurement, measuring body parts, and using a computer program called the Universal System for Detecting Africanization through Identification based on morphology (USDA-ID). The body part measurements chosen for USDA-ID are those that effectively contribute to detecting Africanized honeybees.

Some body part measurements that are useful for other aspects of honeybee taxonomy are not well suited to Africanized honeybee detection. Lisa Bradley and Bill Baxter demonstrated the Fast Africanized Bee Identification System (FABIS). FABIS is a process for quick, simple, field screening of large numbers of bee colonies. This is done by measuring the forewing length of 10 honeybees with a custom made, 0.5 meter long scale. This was demonstrated on a European wing and on an Africanized wing for the open house.

No matter where you are, the observation hive is always the center of attention. I believe this display can be in the state fair, in the classroom, in the museum or in an open house and people will always come. All castes of honeybees can be shown in the observation hive.

Station 2 – Observation Hive

Workers within a honeybee colony engage in various tasks, depending on their age and the needs of the colony. Division of labor by age exists within the worker caste. Bees less than 2 weeks old become involved in cleaning cells and feeding larvae of all ages. Older house bees work with honey, pollen, wax and propolis. Nectar collecting field bees are met by house bees, usually near the entrance and are relieved of their nectar loads.

Drone larvae grow larger than either workers or queen and, therefore, require more food. Food given to young drone larvae is nearly devoid of pollen and is milky white. For drones, there are usually a few hundred or thousand present in the nest during the spring and summer, and their only function is to mate with the queen. They do no work in the nest and die in the fall after the workers drive them from the nest as colonies prepare for winter.

Queen cells are generally shaped like a peanut. After emerging from her cell, she is ignored first, but later touched and licked by workers. This apparently helps prepare the virgin queen physiologically for her mating flight. A queen may mate numerous times on her mating flight and egg-laying usually commences within a week. The queen can continue to lay fertilized eggs through out most of her life (usually 2-5 years).

Station 3 – Smoker Collection
presented by Paul W. Jackson

Smoke has a soothing effect on bees, and beekeepers often “smoke” a hive, or blow smoke into the nest, before they open it up to work with it. The most commonly accepted theory is that smoke both masks the alarm pheromone and alerts the bees, causing them to gorge themselves with nectar or honey, preparatory to abandoning the hive and avoiding the threatening source of the smoke. This calms the bees and minimizes the risk to the beekeeper of getting stung. Paul has been collecting antique, foreign and domestic smokers since 1976. His collection is one of the few and best in the United States. He began collecting antique

smokers due to his concern for maintaining the heritage of beekeeping in this country. He has written a book, “Smoking Allowed”, because of his desire to share his collection with those interested in the history and the romance of beekeeping industry.

Station 4 – Beekeeper

This is what a beekeeper looks like in a full bee suit. White coveralls with helmet and veil are popular, protective and considered essential in handling bees. They vary widely in materials and design, but fit snugly around a helmet or over the top of the head and should be made to draw up tight around the neck and shoulders. Helmets are available in two styles. A molded plastic unit with side louvers which allow circulation of air around the head and a woven, mesh design that is comparatively strong and light weight. Less durable than the plastic model, however, both types work quite well with any style of veil. Please remember, with the full suit and veil, it is recommended that the bottom of the trousers be fastened tight at the ankles, or tucked into boots. Any loose fitting clothing, cool to wear, is acceptable, but the lighter colors are always preferred.

The TAIS Open House was a complete success. Participation in all four stations took about 2 hours to complete and everyone seemed to have a good time. The following day, the department drew names for the door prizes, which were the teaching kits valued at $50.00. The winners were Debbie Erskine of Iola and

Ralph Armstrong of Bryan.

We have sent out questionnaires to participants in order to help evaluate our success with Open House.