



Tryon Farm Institute

**Special Project: Beekeeping – 2012 Report**

original submission by Suzanne Kraus (8/25/12)

additions by Ray Ginsburg + Scott Kuchta (9/25/12)

Project

Sponsors: Suzanne Kraus, Judith Tennent-Brown, Colin Tennent-Brown, Ray Ginsburg

**2011/12 Winter Survival**

All three hives --- Hives 1 & 2 (Entry Area) and Hive 3 (Grove) --- survived the mild 2011/12 winter.

**New Hive (no.4)**

A 4th hive (Hive 4, located in The Grove) was added in Spring 2012. Equipment and 3 lb. package of bees, with queen, was purchased for new Hive 4. Equipment and bees for Hive 4 were paid for by TFI Member / beekeeper Ray Ginsburg.

**Swarm! and New Hive (no.5)**



*photo of swarm hive in Grove Settlement*

In April 2012, a “swarm” occurred at Hive 4. The swarm (including queen) was able to be captured. New equipment was purchased for a new 5th hive to house the swarm bees. A new queen was purchased for Hive 4, which had been abandoned by the queen during the swarm.

The swarm bees of Hive 5 were then successfully combined with Hive 4, and Hive 5 was disassembled and equipment stored.

**Hive Loss**

In August two hives (Hive 1 and Hive 3) lost their queens. The hot July weather may have played a role in the queens’ deaths. Typically queens live about three years; drones live only about 30 days. In hindsight, the queens should have been replaced sooner by the Beekeepers. Due to the deaths of the queens and the delay in their replacement, the two effected hives each became sterile and the drones were thereby not replaced with new workers as they died off, thus ensuring end of the hive.

The delay in checking the hives was usually due to personnel not being around the farm every weekend; it is not good practice to check the hives with only one person. The recruitment of more beekeepers could help.

After the queen's departure from Hive 1, a worker bee began to lay drone (unfertilized) eggs, by effect attempting to replace the missing queen. However these eggs were sterile and did not reproduce. A new queen could not be introduced at this stage, because the worker bees were already recognizing the drone queen as their proper queen and would not accept a new legitimate queen.

The weakened/"dead" hives were invaded by "Hive Beetles." Hive Beetles lay their eggs in the honey combs of the hives. Healthy and active hives, along with help from beetle oil traps, are typically strong enough to defend their combs against beetles infestation, but weakened hives can become susceptible.

The lost hives (1 and 3) were disassembled, cleaned and equipment stored.

### **Education + Outreach**

Beekeepers led several education programs at Tryon Farm during TFI's National Pollinator Week activities in June 2012.

On June 21st, a beekeeping education session was led at the Tryon barn for 30 children and young-adults and 10 adult volunteers from LYDIA Home Association, a Chicago-based foster care organization. This year marked the 3rd consecutive year that LYDIA Home has participated in a half-day TFI education workshop. The participants were introduced to the basic concepts of beekeeping and hive health, and visited Hives 1 & 2, adjacent to the pollinator garden that was originally installed by LYDIA and maintained each year since.



*photos from 2012 "Meet the Bees"*

On Saturday June 23rd, beekeepers hosted a "Meet the Bees" open house, part of TFI's "Birds and the Bees Festival." Suzanne Kraus and Colin Tennent-Brown hosted an open display and Q&A station for 3 hours in the Tryon Barn, visited by several dozen members of the public. Mead and honey samples were available. Additionally, a tour of the live hives was given.

TFI purchased a series of laminated honeybee information posters to assist in education sessions. The posters are currently stored in the TFI file cabinet.

**Current Status**

A new (replacement) queen was purchased for Hive 2 (the remaining hive at the Entry area). Both Hives 2 (Entry) and 4 (Grove) are currently in good shape.

**Yield**

Beekeepers harvested 40-50 lbs of honey from the hives in 2012 (compared to ~20lbs in 2011). Approximately 75% of harvest honey was sold, and revenue covered the expenses occurred during the year, including purchase of a new honey extractor. The remaining unsold honey will be kept by the beekeepers for their use.

**OUTSTANDING 2012 BEEKEEPING TASKS**

- Bees need to be fed (sugar water) to insure they have enough honey to winter over. Bees need feeding in later months of the year as pollinating plant flowers begin to disappear.
- Insulation needs to be added around the hives prior to winter.
- Suzanne Kraus recommends four total hives is a reasonable number to maintain. The extant bees should be evaluated in Spring 2013, and a determination of how many new bees (and queens) should be ordered to support remaining Hives 2 and 4, and to reinstall stored Hives 1 and 3 (those that lost queens in August 2012). Bees are typically best available in spring.
- No additional equipment should be required.