

SARE Grant: A Comparison of Honey Bee Colony Strength and Survivability between Nucleus and Package Started Colonies

SARE Project #FNE09-665

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Tomorrow is Thanksgiving and I have the next day off from work as well, so I'll have a long weekend—a good thing, as I usually use Thanksgiving weekend to finish wrapping my colonies and stack nucs into their winter positions above full-sized colonies.

David Sky, former MSBA Board member and experienced beekeeper, came and did the final outside inspection for my Biddeford colonies in mid-October. She came on a beautiful Wednesday afternoon and we inspected the colonies at lunch time. The bees looked very good—we noted no significant signs of disease or anything else alarming. Most of the colonies look well-prepared for winter.

As part of the grant project, I had budgeted to pay our outside inspectors for their time. Davida asked that her stipend be donated to a bee-related charity, so I decided to loan it to a third-world beekeeper through www.kiva.org. Kiva is a micro-lending facilitator where one can loan funds to entrepreneurs all around the world. I created an account for Davida and enrolled her in the Endangered Beekeepers lending team. Then I waited to find a beekeeper seeking a loan. Davida's first loan went to a beekeeper in Lebanon. When the money is repaid, she can re-loan it again to another entrepreneur or withdraw the funds. I have several loans to beekeepers myself and I am excited to have had the opportunity to raise awareness for the benefits of agricultural micro-lending, especially to beekeepers!

As for winter preparations, we will not be wrapping the SARE colonies. We instead will be relying on the dark paint of the hives to provide the bees with good solar gain in the late winter and early spring. The homasote insulation boards have been in place since late October, so I don't have any more SARE colony yard work that needs to be done. I just went out and "hefted" the colonies from the rear, and for the most part they feel

heavy enough to make me comfortable. I am very glad that we left the colonies with their first box of honey if they made any, as many definitely feel “top heavy” —only two of the four colonies that didn’t make a super of honey (and therefore don’t have the extra stores) are “too light” in my opinion. I will keep my eye on them.

I’ve had bricks on the covers of all of the colonies since we started the project in April. I use the bricks to indicate queen status and also to weigh-down the telescoping covers “just in case.” Now I also have webbing straps on each colony, cinching the entire colony together from landing board to cover. I’ll keep them strapped like this until spring, again, just in case we have a terrible wind-related hive stand failure or other unforeseen event which might knock the colonies to the ground. My hope is that the strap will keep the boxes together so the colony would not be exposed even if they were tipped. Just an extra precaution.

The screened bottom board inserts have all been in since September when we started our Varroa Mite treatments. I occasionally check the inserts and look at the debris. This is the best way to check honey bee colonies in the winter without causing a major disruption. So far, everything looks normal. The natural mite falls are very low, colony debris patterns look centered, and there are no signs of mites in any of the colonies.

We never did feed the colonies Fumagillin medicated syrup in the fall, despite our previous decision to do so. We found our nosema levels were extremely low, with only 6 out of 20 colonies testing positive for nosema, and those colonies had very low spore counts as of the July sample dates. We had an unusually warm day on November 9th with temperatures in the mid-60s in Biddeford and we took the opportunity to gather another set of sample field bees from each colony and send them to Tony Jadczyk for testing as well. It will be interesting to see what the results look like compared to the July samples. So as things stand, the only medication we’ve used in the hives is Apilife Var, the essential oil based mite treatment for Varroa. And now the bees are on their own until spring.

So now, like all beekeepers and bee colonies, the SARE hives and I are settling into winter mode. The bees are no longer flying on a regular basis and I am no longer checking colonies. The bees will remain in their winter clusters and I will be working over the next several months to compile our colony inspection data and prepare our outreach presentations. The active

part of the beekeeping season is done. Now is the time to think about what we've learned and prepare for next spring. Of course, our results won't be complete until spring has come and we can make our final report of the colonies' survival and spring strength. So I am beginning the months of waiting (and trying not to worry).

I will be re-applying to continue this project one more year. As most of you must know, the weather this June was amazingly terrible, with 28 straight days of rain. The rain and associated congestion caused significant queen problems, with almost half of our colonies swarming or superseding. Since the project design hinges strongly on colony comparison by queen and colony origin, this skewed our results dramatically. I will still be compiling our results and reporting them, but I hope to be allowed to run the project a second time to try to gain more data.