

SARE Grant 2022 Summary

This is a summary for the SARE (Sustainable Agriculture Research and Education) grant we were approved for in 2021. It was just one of the 58 out of 100 that got approved. The proposals were reviewed by a 31-person review committee, which was mostly made up of farmers and ranchers. Forty-three ECIBA beekeepers participated in this study. We investigated whether the use of the **SuperDFM** probiotic would improve the mortality rate of the treated bees in the winter of 2021. The study used 100 package bees, with 50 using the probiotic and 50 not using it. “To evaluate the use of SuperDFM on the improving of the winter survival rate of honey bees”.

Results

1. The use of SuperDFM very slightly improved the winter survival rate (not a statistical difference). See the spread sheet for the detail numbers of this study.
2. 77 of the 100 packages were alive on December 31, 2021. A death rate of 23%.
3. Only 26 of those 77 packages were alive on April 30, 2022. Winter kill rate of 66%.
4. The total overall loss rate on the 100 packages was 74% which is very high. We spread out the 100 packages to 43 different beekeepers, with various experience, various knowledge, various techniques, etc. on purpose. If one wanted a more precise study we would recommend that they control as many of the variables as possible and do it with fewer beekeepers with bigger apiaries.
5. The 43 beekeepers were surveyed on the following question:
“Based on your experience using the SuperDFM do you plan on using it this year?”

YES	-	27 (63 %)
NO	-	15
Maybe	-	1

As you can see, many felt that it did help the bees overall health.
6. **Additional finding:** Of the 23 lost colonies before December 31, 19 (83 %) of them were started on strictly foundation and not on drawn comb. This was a very important finding!! We feel that package bees must be started on at least two or three frames of drawn comb.

We are sharing these results via email with all of you 43 beekeepers and with our ECIBA club members (400+). We will share the results at our 21st annual picnic / auction on May 21, 2022. These results will be included in the next state “The Beekeepers of Indiana” newsletter which goes out to over 1000 beekeepers. We will put the data in the Purdue university extension pipeline. Also, we will be available to share our findings with any other bee clubs if requested.

Steve Doty
Jim Simpson