



National Aeronautics and Space
Administration
Goddard Space Flight Center

February 27, 2014

Mr. Eck Miller, President
South Carolina Beekeepers Association

Dear Mr. Miller,

I complement and congratulate the South Carolina Beekeepers Association for establishing the first real-time scale hive network in the US, and for sharing the data openly. This represents a significant achievement in bringing state of the art technology to bear in documenting when nectar flows occur regionally, and how they are changing with time. The data will be very useful to the beekeeper in managing for the nectar flow and monitoring colony condition and nutritional status. Every beekeeper that has collected data for the Honeybeenet Project agrees that knowledge of hive weight changes has made them a better beekeeper. Because the data from your volunteers are shared and available on the Internet, new beekeepers will have a much better idea of when to super, when to harvest, and when to feed colonies.

Applying state of the art technology is never easy, but I am delighted to be able to access excellent data on the timing of the nectar flow in South Carolina for the first time. We will use 2013 data from at least 5 sites, and we look forward to more sites in the future. This will help in understanding how historic and future climate and land cover change is affecting honey bee health in the Eastern United States.

Our research has established that there is a high degree of correlation with nectar flows and the seasonal changes in vegetation as seen from satellites. This enables us to place important local changes into proper national and continental context. We have established that the spring nectar flow now occurs nearly a month earlier than in the 1970's in the MD/VA region, and the SCBA data will be used to see if this trend extends farther to the south. Additionally we have shown a linkage between the timing of nectar availability and the behavior of the Africanized Honey Bee that can be used to judge whether it will find the Southeast suitable for establishing year-round feral populations, but lacked scale data in the region for comparison.

The marriage of technology and hives, especially weight, is not trivial or easy. The continued success in South Carolina and open sharing benefits all of us, now and in the future. I would hope that other organizations and states emulate what you are accomplishing.

Sincerely

A handwritten signature in blue ink, appearing to read "Wayne Esaias".

Wayne Esaias, PhD
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