

OCIA Micro Grant Results by Broken Trellis

The purpose of this study was to compare three different types of beehives in regards to honey production, pest and disease control, and ease of use for the hobby type beekeeper utilizing natural beekeeping methods. The hives used in this study were the Langstroth Hive, Warre Hive and Top Bar Hive. Throughout the 2017 season all hives were visually inspected to monitor bee health and population. All hives were either weighted or monitored for honey production. All hives were tested twice to monitor varroa mite infestation. Mite numbers are for an approximate sample of 300 bees.

Langstroth #1: First year Langstroth Hive with starter brood comb alternated with foundationless frames in the bottom box. Bee installation 4/29.

Langstroth Hive 1			
Date	7/22/2017	08/31/2017	10/29/2017
Box 1	45 lbs	52 lbs	30 lbs
Box 2	30 lbs	98 lbs	55 lbs
Box 3	10 lbs	N/A	N/A
Mites		3 Mites	1 Mite
Honey Harvest: 0 lbs			

Langstroth Hive #2: First year Langstroth Hive with plastic foundation in the bottom box. Bee installation 4/29.

Langstroth Hive 2			
Date	7/22/2017	08/31/2017	10/29/2017
Box 1	50 lbs	45 lbs	45 lbs
Box 2	54 lbs	72 lbs	72 lbs
Box 3	10 lbs	21 lbs	N/A
Mites		1 Mite	6 Mites
Honey Harvest: 0 lbs			

Langstroth Hive #3: Second year Langstroth Hive.

Langstroth Hive 3			
Date	7/22/2017	08/31/2017	10/29/2017
Box 1	46 lbs	42 lbs	28 lbs
Box 2	42 lbs	48 lbs	48 lbs
Box 3	10 lbs	10 lbs	N/A
Mites		2 Mites	2 Mite
Honey Harvest: 0 lbs			

Warre Hive #1: First year Warre Hive with natural brood comb built the previous year. Installed 4/29.

Warre Hive 1			
Date	7/22/2017	08/31/2017	10/29/2017
Box 1	22 lbs	25 lbs	10 lbs
Box 2	20 lbs	39 lbs	10 lbs
Box 3	25 lbs	40 lbs	34 lbs
Mites		4 Mites	0 Mites
Honey Harvest: 31 lbs			

Warre Hive #2. First year Warre hive with wooden starter strips to promote natural brood comb production. Installed 5/03.

Warre Hive 2			
Date	7/22/2017	08/31/2017	10/29/2017
Box 1	10 lbs	14 lbs	16 lbs
Box 2	20 lbs	43 lbs	33 lbs
Box 3	5 lbs	25 lbs	40 lbs
Mites		1 Mite	0 Mites
Honey Harvest: 19.5 lb			

Top Bar Hive #1. First year top bar hive with alternating brood comb and wooden starter strips. Installed 4/29.

Topbar Hive		
Date	08/31/2017	10/29/2017
Mites	1 Mites	2 Mites
Honey Harvested: 40 lb		

Top bar Hive #2. First year top bar hive with wooden starter strips. Total hive loss within the first 10 days.

Summary: All hives showed good disease resistance and remained healthy throughout the summer except for Top Bar Hive #2 which was a total loss probably due to weather and the hive being unable to establish itself. . In regards to ease of use they I preferred the hives in the following order: 1. Langstroth 2. Top Bar and 3. Warre. Although the Warre Hive was the most consistent with natural bee keeping methods it was also the most difficult to maintain and inspect. The Top Bar hive would probably be the most efficient for a starting hobby beekeeper, however the Langstroth was the best for the ease of use.