

2017/2018 Maine Honeybee Survey Results

Demographics

There were 212 respondents, representing 1156 hives. Most (95.2%) identified as backyard/hobby beekeepers (<30 hives) and 87.7% have their apiaries registered with the state of Maine. The overwhelming majority (82.1%) are also members of a beekeeping organization (MSBA, local MSBA chapters, EAS). Respondents keep bees for a variety of reasons, the top of which are hobby/enjoyment (83.5%), help the bee population (65.6%), and bee product production for personal use (60.4%). The average number of years of beekeeping experience was 7.3 years (range 1-54).

Table 1: Beekeeping experience.

Years Beekeeping	N
1 to 3	89
4 to 6	54
7 to 9	21
10 to 20	33
20 to 50+	15

Practices

The majority (97.6%) of beekeepers use Langstroth hive equipment, either as 5, 8, or 10 frame equipment. The majority of hives owned by respondents are less than 2 years old. Participants started colonies by purchasing nucs (41.0%), buying packages (47.6%) and/or splitting already existing hives (35.8%). 14.2% reported collecting swarms to start new colonies. The majority of beekeepers (51.4%) did not replace any of their queens between April 2016 to April 2017.

Most beekeepers (90.6%) provided supplemental food to their hives during the 2017/2018 beekeeping season. Many (60.4%) used sugar syrup to boost food stores and encourage comb building. 47.6% of beekeepers used either fondant, candy boards or dry sugar for supplemental winter feeding. About a third of respondents (33.0%) reported using pollen patties.

8.0% of respondents use their hives for agricultural pollination. The 212 participants reported approximately 15,093.5 lbs of honey harvested (average 71.2 lbs per beekeeper, 13.1 lbs per hive). Participants of the 2016 survey reported approximately 12,900 lbs of honey harvested (average 75.0 lbs per beekeeper, 11.5 lbs per hive). There was a 14% increase in average weight of honey harvested.

Hive losses

Respondents reported a 43.4% loss between April 2017 and April 2018 (summer: 7.0%, winter: 36.4%). This is down from last year where respondents reported a 53% loss between April 2016 and April 2017 (summer: 5.9%, winter: 47.1%).

Table 2: Average losses by county from April 2017-April 2018.

County	N	Summer Loss (%)	Winter Loss (%)	Total Loss (%)
Androscoggin	9	8.0	18.4	26.4
Aroostook	5	4.5	68.2	72.7
Cumberland	57	8.9	32.0	40.9
Franklin	3	4.0	12.0	16.0
Hancock	9	3.1	21.5	24.6
Kennebec	19	5.5	38.4	43.8
Knox	12	5.6	33.3	38.9
Lincoln	11	3.8	42.3	46.2
Oxford	11	5.1	43.6	48.7
Penobscot	22	4.8	48.7	53.4
Piscataquis	1	0.0	0.0	0.0
Sagadahoc	9	11.5	38.5	50.0
Somerset	2	0.0	100.0	100.0
Waldo	9	12.5	9.4	21.9
Washington	5	17.2	72.4	89.7
York	28	5.6	42.4	47.9

The most common cause of summer losses were queen loss/failure (13.2%), unknown (11.8%), varroa mites/viruses (8.5%), and environmental factors (8.0%). One hundred thirty-nine (65.6%) respondents reported no summer losses.

The most common cause of winter losses were environmental factors (33.9%), weak hives going into the winter (29.2%), and Varroa mites/viruses (21.7%). Fifty-six (26.4%) respondents reported no winter losses.

Pest and Diseases

Varroa mites/ viruses: More than half (64.2%) of respondents monitored for Varroa mites. Of those that monitor for mites, 33.0% do so used a sticky board, 26.4% used sugar roll, and 19.3% used alcohol roll. Beekeepers reported using screen bottom boards (18.9%) and brood disruption (6.1%) as part of their

varroa mite management strategy. The most common miticides used were oxalic acid (vaporization, 41.5%), Mite-Away-Quick-Strips (formic acid, 31.6%), and Apiguard (thymol, 16.9%). No varroa mite management was reported by 11.3% of respondents.

Other Pests/Diseases: Most respondents (71.2%) report using no disease treatments in their hives, 25% used fumagillin and 0.5% used terramycin.