

## 2018/2019 Maine Honeybee Survey Results

### Demographics

360 respondents, representing 1915 hives. Most (96.9%) identified as backyard/hobby beekeepers (<30hives) and 95.3% have their apiaries registered with the state of Maine. Most (73.9%) 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 (89.4%), bee product production for personal use (66.9%), and to help the bee population (65.3%). The average number of years of beekeeping experience was 8.2 years (range 1-70).

Table 1: Beekeeping experience.

Years Beekeeping	N
1 to 3	137
4 to 6	99
7 to 9	40
10 to 20	54
21 to 30	10
31 to 40	13
41 to 70	7

### Practices

The majority (99.4%) of beekeepers used Langstroth hive equipment, either as 5, 8, or 10 frame equipment. Participants started colonies by buying packages (50.0%), buying nucs (37.2%), and/or splitting already existing hives (34.2%). 15.2% reported collecting swarms to start new colonies.

Most beekeepers (82.2%) provided supplemental food to their hives during the 2018/2019 beekeeping season. About a third (33.9%) used sugar syrup to boost food stores and encourage comb building. 55.6% beekeepers used either fondant, candy boards or dry sugar for supplemental winter feeding. About a quarter of respondents (25.6%) reported using pollen patties.

8.1% of respondents used their hives for agricultural pollination. The 360 participants reported approximately 35,002.5 lbs of honey harvested (average 97.2 lbs per beekeeper, 18.3 lbs per hive). Participants reported approximately 15,093.5 lbs of honey harvested (average 71.2 lbs per beekeeper, 13.1 lbs per hive) in 2017/2018 and approximately 12,900 lbs of honey harvested (average 75.0 lbs per beekeeper, 11.5 lbs per hive) in 2016/2017.

### Hive losses

State wide hive loss was 45.2% between April 2018 and April 2019 (summer: 6.2%, winter: 39.0%). This is slightly higher than last year where respondents reported a 43.4% loss between April 2017 and April 2018 (summer: 7.0%, winter: 36.4%).

Table 2: Average losses by county from April 2018-April 2019.

County	N	Summer Loss (%)	Winter Loss (%)	Total Loss (%)
Androscoggin	13	3.1	85.5	88.7
Aroostook	7	12.2	65.3	77.6
Cumberland	94	8.1	46.5	54.6
Franklin	4	14.3	57.1	71.4
Hancock	16	3.0	23.0	25.9
Kennebec	26	2.9	27.5	30.4
Knox	20	18.4	19.7	38.2
Lincoln	34	4.0	22.2	26.2
Oxford	21	8.8	43.4	52.2
Penobscot	36	2.2	28.8	31.0
Piscataquis	4	11.1	33.3	44.4
Sagadahoc	10	6.4	21.3	27.7
Somerset	13	0.0	36.4	36.4
Waldo	15	7.0	16.9	23.9
Washington	9	10.0	50.0	60.0
York	38	6.6	32.0	38.6

The most commonly reported causes of summer loss were queen loss/failure (11.9%), varroa mites/viruses (8.6%), unknown (7.2%), and environmental factors (4.2%). Two hundred forty-eight (68.9%) respondents reported no summer losses.

The most commonly reported causes of winter loss were varroa mites/viruses (26.7%), unknown (19.4%), environmental factors (18.3%), and queen loss/failure (13.1%). One hundred fifteen (31.9%) respondents reported no winter losses.

### **Pest and Diseases**

Varroa mites/ viruses: More than half (65.6%) of respondents monitored for Varroa mites. Of those that monitor for mites, 31.9% do so using a sticky board, 31.1% using alcohol rolls, and 18.8% using sugar rolls. Beekeepers report using screen bottom boards (27.7%) and brood disruption (5.9%) as part of their varroa mite management strategy. The most common miticides used were oxalic acid

(vaporization, 48.0%), Mite-Away-Quick-Strips (formic acid, 26.5%), and Formic Pro (formic acid, 23.7%). Thirty-five beekeepers (9.7%) reported no varroa mite management.

Other Pests/Diseases: Most respondents (76.3%) report using no treatments in their hives, 19.7% used fumagillin and 2.2% used terramycin.