

- " 21.—Slight frost at night, not enough to injure buckwheat.
- " 25.—Bees first noticed killing drones. Some bees seen attempting to rob; as soon as this was observed, the entrances to the hives which were threatened, were closed up, so that only one bee could enter at a time.
- " 25-31.—Bees still working on buckwheat, also on *Hydrangea paniculata*.
- Sept. 1-11.—Bees working well on buckwheat plots 2, 3 and 4.
- " 11.—Plot 2 ploughed under as green manure.
- " 15.—Very hard frost; buckwheat all frozen.
- " 16.—Bees flying well. Removed all supers.
- " 17-30.—Very fine weather; bees flying well: did not notice them gathering honey.
- Oct. 1-3.—Very fine weather; bees working on alsike and crimson clover.
- " 7-18.—Weather cold and windy; bees active when the weather was not too cold.
- " 19-22.—Cold and dull; 3 coarse sacks placed on each hive.
- " 23-26.—Days bright; but little flying.
- " 27.—Very fine day; bees show a tendency to rob each other; so closed entrances.
- " 28-31.—Cold and windy; no flying.
- Nov. 1-14.—Cold; very little flying.
- " 15-18.—Very fine weather; considerable flying.
- " 19.—Dull and cold.
- " 20.—Very cold windy day, freezing hard. Bees were put into winter quarters at night.

BUCKWHEAT.

Four plots of buckwheat were sown on the Experimental Farm last season, primarily as pasture for the bees but also for the grain. The plots were sown on sandy loan where there had been a plantation of forest trees and shrubs for the 5 years previously. No manure of any sort was used.

Plot No. 1.—Sown June 16th; came up 3rd; came into bloom July 18th. The bees began to work on this plot as soon as the blossoms appeared, which was rather early, as the bees were gathering clover honey. If the buckwheat had been sown a week later, the bees, this year, would had more white honey. Seed ripe August 9th; yield 29 bushels 16 lbs. to the acre, notwithstanding that the blossoms were somewhat injured by the excessive heat about the middle of August and late in the season.

Plot No. 2.—Sown June 29th; came up July 31st, when the bees began at once to work on it. Ploughed under for green manure September 11th, when seeds were beginning to form.

Plot No. 3.—Sown July 6th; soil part sandy, part clay; that sown on the clay did not do well; the soil being too dry, the seed did not germinate readily. Came up on the sandy portion July 13th; in bloom August 12th. Bees began to work on it at once. Frozen down by the sharp frost of September 14, when the seeds were ripening nicely; yield, 21 bushels 37 lbs. to the acre.

Plot No. 4.—Sown July 16; came up July 21, in bloom August 20. Bees busy on the plot until frost of September 14. No ripe grain, so ploughed down for manure Sept. 15.

FIVE-BANDED ITALIAN QUEEN.

The five-banded queen, which was introduced Aug. 4, 1894, has given the best satisfaction. This beautiful queen bee was presented to the Apiary through Mr. R. F. Holtermann, Secretary of the Agricultural and Experimental Union of Ontario. The colony came out of winter quarters very strong in the spring of 1894. During the season of 1895 these bees made 78 sections of honey and swarmed twice. The colour of this race of bees is very beautiful. I should like to see many more colonies of them in the Apiary.

RETURNS.

The returns of the Central Experimental Farm Apiary for the season of 1895 shows an average of 51 sections of honey for each colony.

Swarming for the season on the whole has been satisfactory. As stated above, the first swarm for the season was secured on May 29.

EXPERIMENTS IN WINTERING (1895-96).

No. 1.—Seventeen colonies put into winter quarters in the cellar. Empty hives were placed on the floor, with 3-inch blocks of wood on the top of them, and the hives piled up three tiers in height. In addition to the 3-inch blocks, by which the back was raised higher than the front so as to give free ventilation, each hive is raised from its own bottom board with small blocks 3 inch in height. All front entrances left wide open. The wooden covers of all these hives removed and replaced by chaff cushions, four inches thick. Above the cushions strips of wood were placed so as to prevent them touching the bottom of the hive immediately above them and also to allow air to circulate freely under each tier of hives.