

coming off, are very apt to draw off others that are ready or nearly so. In this case two or three top swarms may, and frequently do, cluster together, causing the bee-keeper considerable trouble to separate them, especially if he does not understand it. All this is avoided by practising artificial swarming. It also gives the bee-keeper control over his colonies; he can make few or many swarms, just as he thinks best or as the season will allow. Artificial swarming may be practised by almost any bee-keeper with movable comb hives, and the experienced apiarian may do so even with common box or straw hives, but not so successfully.

Profits of Bee-Keeping.

SEEING a statement by Mr Baldrige in the *Bee Journal* for November in regard to the profits of an apiary owned by Mr Silas Way, has prompted me to give a statement of one owned by myself and son. We had at the commencement of last winter one hundred and thirty-six stocks, very lightly stored with honey, as the season had been the most unfavourable for honey I have known during the twenty-eight years I have owned bees. Our bees came out in the spring alive except two stocks, and both of those starved. But one large Italian left about fifteen pounds of honey which they could not get at, because there were no winter passages through the combs. After they were set out in the spring, we lost some stocks by starvation and brood rot (foul brood), so that when the honey season opened we had about one hundred and fifteen healthy colonies. Three-fourths of these had to be fed previous to that time. We fed them on cheap sugar. Swarming commenced on the 14th of June and ended on the 14th of August; the Italians taking the lead at least two weeks, and closing later by three weeks than the natives. A number of our young Italian stocks swarmed in August, after filling eight boxes; and the one that came off on the 14th of August, gathered honey enough to winter. We have two hundred and four stocks, besides one that we have sold—making ninety young stocks, all in good condition. Many of our natives did not swarm at all, but I believe the Italians all swarmed.

Annexed is the statement of the year's produce of honey:

Honey in glass caps, sold	6 155 pounds
Strained honey, sold	350 "
Strained honey on hand	250 "
Box honey on hand	380 "
Honey used in family or given away	100 "
	7,235

Our bees are mostly Italian, and are as pure as can be found anywhere; bred by Mr. W. W. Cary, of Colerain, Mass. who possesses superior advantages for rearing pure Italian queens, and is a man perfectly reliable in all respects.

I think we have greatly increased the value of our bees by the introduction of the Italians. It seems to give new life and energy to all their movements, however slight the mixture with the natives.

I have given the amount of honey our bees have stored, and now I will give the product of a single stock of hybrids which I had in a large box hive. It cast a swarm on the 20th of June. This I put into a hive on which I use four glass boxes, and from which we took fourteen full boxes of seven pounds each. The mother stock cast a second swarm, from which we took four boxes, making together eighteen boxes, or one hundred and twenty-six pounds of honey. I then transferred the old stock, and should think it would weigh a hundred pounds. There being no young brood to hatch I think the contents apart from the hive, would weigh seventy-five pounds, which, added to the surplus above, would make two hundred and one pounds, besides three swarms in good condition to winter.

We had other Italian bees that did equally well. One cast a swarm and filled fourteen boxes, and the cast filled five boxes, besides some only partially filled, and cast a swarm. Another Italian swarm came off on the 2nd of July, and filled twelve boxes. Our honey was mostly gathered from clover, and sold for thirty cents a pound.—Cor. in *American Bee Journal*.

A Massachusetts bee-keeper says that to take a handful of tansy, catnip, or some other highly-scented herb, and rub those parts of bee-hives that are infested with ants, will quickly and effectually abate the nuisance.

BEE-KEEPERS' ASSOCIATION.—At the last Iowa State fair, an Association of Bee-keepers was formed, no fewer than 150 members joining the organization at the outset.

Horticulture.

Annual Meeting of the Fruit Growers' Association.

THE annual meeting of the Fruit Growers' Association of Ontario was held on the 15th January, at the County Buildings, Hamilton. William H. Mills, Esq., President, in the chair.

The attendance of members was large. D. W. Beadle, Esq. Secretary read the minutes of the autumn meeting, which were approved.

The Secretary stated that there was a balance in the hands of the Treasurer to the credit of the Association.

The President delivered an interesting address, the publication of which we reserve for another issue.

Mr. A. M. Smith read the report of the Fruit Committee. The report we give below.

The meeting then proceeded to the election of officers for the ensuing year, with the following result:—

- President—Wm H Mills, Esq., Hamilton, re-elected.
- 1st Vice-President—M. A. Morse, Esq., Smithville.
- 2nd Vice-President—Professor Buckland, Toronto.
- Secretary and Treasurer—D. W. Beadle, Esq., St. Catharines, re-elected.

Fruit Committee—Geo. Leslie, A. M. Smith, Chas. Arnold, Wm. Goldsmith, John A. Bruce, Esqs.

The publication Committee were re-appointed.

On motion of Mr. Morse, seconded by the Rev. Mr. Burnett, a vote of thanks was tendered the Secretary. A vote of thanks was also tendered the gentlemen who had read reports, and the County Council for the use of their room.

The Secretary informed the meeting that in the new Agricultural Bill it was proposed that the President of the Fruit Growers' Association would have a seat at the Council of the Board of Agriculture.

It was decided that the summer meeting of the Association be held at Toronto, and the autumn meeting at St. Catharines at the call of the Secretary.

REPORT OF THE FRUIT COMMITTEE.

REPORT OF MR. A. M. SMITH, OF GRIMSBY.

THE past year has been, in many respects, an unfavourable one for fruits in the section for which I was appointed to report. Still, we have had a part of a crop and I will proceed to give you the observations I have made, hoping though they are imperfect, you may be able to gather some information from them, and, in order to be systematical, I will take the fruits in rotation giving their comparative time of ripening quantities, &c.

STRAWBERRIES.—The Strawberry crop has been very light, owing to the extreme drouth of the season. Wilson's Albany stands at the head of the list for general cultivation, and is too well known to need any description—ripe this year 20th June, and yielded only about half as much this season as last; and the same might be said of nearly all the varieties. Triomphe de Gand stands next among the tried sorts with me—about a week later than Wilson's, and a much better berry, though not as productive. Jenny Lind Hovey's Seedling, Macavoy's Extra Red, Russell's Prolific, La Constante, Trolopp's Victoria, and many others, have their admirers, and are well worthy the attention of amateurs; but I do not consider them profitable market berries. There are several new varieties claiming attention which have been fruited, for the first time in this locality, this year, the most prominent of which is the Jucunda, or Knox's 700, a Seedling of Knox, the great Strawberry grower of Pittsburgh, Pa. He claims that it is the best and most prolific of several hundred varieties he cultivates—valuable for its size, flavour, productiveness, hardness, firmness, long-bearing, &c. It certainly promises well here. The fruit is large, similar to the Triomphe de Gand, though not so much of the cock's comb shape—plants similar in habit, but more productive, and said to be much hardier. Metcalf's Early is another new variety which promises well. It is of good size and flavour, a good bearer, and five or six days earlier than Wilson's Albany. The Agriculturist, Brooklyn and New Jersey Scarlet, have been fruited but fail to sustain the reputation they have in New York as prize berries, though the season has been unfavourable for a fair test of any variety of fruit. Smith's Seedling I exhibited at your June meeting, and you had an opportunity of

testing it. I can claim nothing for it beyond ordinary berries, only its peculiar agreeable flavour which is admired by many. It is a fair bearer, of medium size, but too soft for a market berry. The only insect which has seriously affected the Strawberry is the large White Grub (*Lachnosterna fusca*) which has eaten off the roots of the plants to a considerable extent in some localities.

CHERRIES have suffered severely from the attack of the Curculio, or Plum Weevil (*Conotrachelus Nenniphar*), though we have had a partial crop of nearly all varieties. Early Purple, May Duke, Gov. Wood Knight's Early Black, Elton Black, Tartarian and Yellow Spanish are among those that have succeeded best, particularly the Yellow Spanish. Mr. D. Vandusen, of Grimsby, picked over 400 quarts from two trees.

CURRENTS AND GOOSBERRIES were stripped of their foliage by the Currant Leaf Caterpillar (*Abraxas ribesaria*) in many places, and where they escaped this insect, the drouth diminished their size so that the berries and crop both were small. Among the currants, the old Red Dutch Cherry, and White Grape, seem to succeed best. Houghton's Seedling is the only Goosberry that I have seen that would pay for cultivation here, on account of the prevalence of the mildew, which it is proof against. It bears a small berry, but is a very prolific bearer. There is another insect which is destroying the Currant bushes to a considerable extent—the Currant Stem Borer (*Trochilium Typuliforme*). It is a small white grub, similar in appearance to the Peach Tree Borer, and is the larva of an insect about half the size of a honey bee, which deposits its eggs in the stalk of the Currant, and when it hatches, it works its way up the heart of the bush, eating and enlarging as it goes, till it eats its way out and becomes an insect, destroying the bush entirely.

RASPBERRIES have been scarce, on account of the drouth, too. A few of the Antwerps, Brinckle's Orange, Belle de Fontenay, &c., made their appearance; but the Black Caps seem to be gaining favour the most of any in our locality. Doolittle's improved is the favorite, and has stood the drouth well.

BLACKBERRIES are not cultivated as much as they should be. The Dorchester and Lawton have been grown to some extent, and prove to be a valuable fruit. The Dorchester is the earliest and hardiest, but the Lawton the largest and most productive, and continues a long time in bearing. The Kittatunny and some others have been planted this year, and will be heard of in a year or two.

PLUMS are almost a total failure. Where the Black Knot has loft any trees, the Curculio has taken the fruit.

PEACHES were but a partial crop, owing, I think, to the extreme cold of last winter, and the cold winds of spring. Early Purple, Honest John, Crawford's Early, Early Barnard and Jaques Rareripe, were the varieties that proved the best with me. I have been shown two or three Seedlings, grown by J. C. Kilborn, of Beamsville, which I think worthy of notice. He has an orchard of over 200 trees, mostly seedlings, some of which he exhibited at the Provincial Fair at Kingston, and took prizes on them; and as he is a member of the Association, I would suggest he be invited to exhibit them at our next Annual Meeting, should they be in season; for although a large portion of our members are prohibited by climate from raising this delicious fruit, I am sure they would be interested in anything new pertaining to it. The Peach Tree Borer (*Trochilium exitiosum*) is the greatest enemy we have of the insect kind in the cultivation of the Peach. It is a small white grub, which burrows under the bark at the roots of the trees, sometimes girdling them entirely, and thus destroying them. It assumes the insect form about the middle of June, and soon begins to deposit its eggs in the bark of the trees near the ground, ready for another crop. The most effectual way of destroying them I have found, is to bank up the earth around the tree while they are in their transformatory or pupa state, which prevents a great many of them from getting out, and when they deposit their next crop of eggs, they have to leave them higher up on the trunk of the tree, and when the dirt is levelled away they are more easily reached with a knife, or some pointed instrument, to dig them out.

GRAPES have been a fair crop, and the season has been favorable for ripening them, though too dry for large berries in some places. Many new varieties have fruited for about the first time this year, and I shall give the older ones but a passing notice and confine my remarks to the new. The Isabella has ripened well, and is still the favorite with some. Clinton is gaining favor as a wine grape. Hartford Prolific is still in favor as an early grape, and has not dropped its berries as badly as usual this year. Concord bears the palm for hardness and productiveness, though I think it is destined to be super-