

allowed to starve will generally come through all right wintered on their summer stands. Second, in the production of surplus honey I am of the opinion that we cannot compete with California, New York, Ohio and some other states favored with a greater variety of honey-producing plants and trees. Our main reliance in this vicinity is the white clover, which comes into bloom the last of May, and continues until the middle of July, and sometimes later. Now, should the weather be favorable during this period, that is, dry and warm the most of the time, we are certain of a fair crop of very choice honey, a good average during a favorable season being about 50 pounds per hive, some swarms collecting as much as 100 pounds. The present season promises to be one of unusual abundance. I have swarms in my own apiary, hived but two weeks, that have filled their hives and stored 15 pounds surplus in section boxes above. I doubt if this can be excelled in any country.

A great injury was done the state of Oregon when bees were first introduced here. Those brought were in box hives and they had the germs of that fell disease, foul brood. People wondered that their bees "did well for a few seasons and then all died off," and they generally came to the conclusion that it must be the climate and that Oregon was no place for bees. The late introduction of healthy bees has proven that it was not the climate, and that bees can and do thrive here, and with proper care and attention will return a fair income on the investment.

A great many articles have been written on the honey bee, and we have been told how they swarm, how to divide a swarm, how to transfer from box hives, etc., but upon the more important topic, how to secure the best results in surplus honey, little has been said. For the benefit of those who keep bees and obtain plenty of swarms but little or no honey, I will give the methods I have adopted and those I think best adapted to this country. I am very well satisfied that the plans used to obtain honey in southern California will not work well here. A difference in climate demands a difference in treatment. Those who have obtained the Italian bees are no doubt very much perplexed by the pertinacity with which they swarm, when they should be engaged

in storing honey. I remedy this in two ways: if early in the season, I hive the new swarm and then from the old stand I take about half the brood combs, carefully cutting out the queen cells, and remove them to the new hive. This will build up the new swarm so strong that a fair supply of surplus honey can be expected from them during the season. Later in the season I cut out all queen cells and remove all the brood combs to the new hive which I place on the old stand. The honey boxes are then placed in the new hive. I use the Harbison section honey box. Care should be taken that comb-starters are placed in each frame of these boxes if even work is desired. And now a word in regard to hives. Many persons suppose that a large hive will prevent bees from swarming by giving them plenty of room. This is a mistake; bees will swarm from a hive when it is not more than half full. My own experience is that a large hive and brood chamber is required if you wish to raise bees, but a small brood chamber if you desire honey, the object being to force the bees to occupy all their combs below with brood and to come into the boxes to store honey. This is the plan adopted by our most successful beekeepers in the east. The time I place on the honey boxes is when white clover is in bloom and the bees are bringing in honey freely. This occurs usually about the first of June, though sometimes as early as the middle of May. No boxes should be placed on a hive that is not full of bees. Having decided that the swarm is strong enough, give them one box on trial, if they fill that with bees, give them another; in fact give them all they will fill with bees *and no more*.

Watch your bees carefully; as soon as the honey in a box is sealed up, it should be taken off and replaced with an empty one. By removing the honey as soon as sealed we prevent the bees from soiling the same, and the comb being nice and clean is much more salable if for market and more palatable when on the table.

One matter I had nearly forgotten; while on the hive the boxes should be well protected by means of mats, pieces of old carpet, etc. This is very essential in our variable climate, and it will make quite a difference in the quantity of honey obtained. One noted bee-

keeper declares this to be one great secret of his success. Many persons have hastily decided that bees will not pay when the fault was in a lack of attention on their own part. No industry will pay that is not carefully looked after; this is particularly true of bee-keeping. Even in those states where this industry is followed for a living, there can be found those who cannot make it pay.

What the future of bee-keeping in Oregon is to be, is an unsolved question; I will, however, predict that with the development of the country and the introduction of a greater variety of honey-producing plants, we shall yet see practical bee-keepers who will be able to demonstrate that bee-keeping will pay even in Oregon. In regard to locality I consider the southern portion of the state as much the best, and it is from there we may reasonably expect to hear of the first great success. Eastern Oregon is an untried field, and it would seem that from its unlimited fields of sage great quantities of honey could be gathered. Among the foothills of the Cascade mountains are to be found places where bees have gathered immense quantities of very fine flavored honey. The Hon. A. J. Dufur speaks of a honey belt, east from Oregon City, where the bees stored honey in the open air on rails, not having room in their hives. He attributes the source of this honey to a honey dew said to fall copiously in that section. I am inclined, however, to the opinion that the greater portion is gathered from the fire-weed which is also found in that locality and which is known to yield honey in great abundance. Branches from trees and bushes have been shown coated with a sweet substance resembling honey, the source of which is unknown unless it be a veritable honey dew falling like manna from heaven. With advantages like these there would seem to be enough inducement to tempt the practical beekeeper to Oregon and with his advent, and a fair trial, the production of honey may yet become one of the important industries of Oregon.

Chehalis county is attracting a good deal of attention. Parties from abroad seeking land there are numerous, and it seems likely that that fertile district of Western Washington will soon be well peopled.