

convention upon the importance of experiments in apiculture.

One of the cardinal points is that of providing pasture for the bees. Prof. Cook proposes to plant ten acres of the Rocky Mountain bee-plant—to plant broadcast, and let it take care of and perpetuate itself. This matter of planting for honey has been a pet theory for years, with me, and I hail the day for an experiment on a large scale, feeling assured that it is one of the "winning cards."

Those depending on the wild pastures for bee-feeding should not fail to plant for honey, and thus secure a good crop every season, as the years come and go. If drouth comes and finds them depending on streams which dry up, they are then the sufferers.

They should have pastures for the bees, with plants having deep roots to go and seek the moisture below, or else have pastures that can be watered from convenient wells or ponds, and thus aid Nature to secrete the nectar in the dry times.

Every season teaches some new and useful lesson. Those who heed these lessons are on the rise. Those who do not are on the down grade. Will apiarists be content to repeat each year the mistakes of the former one? If they are wise, No. If they are heedless and unprogressive, Yes.

It has been asked here and elsewhere if extracted honey is now being adulterated? I answer, No. It will not pay to adulterate honey at its present very low price, and hence it is not practised, for even the thieves and adulterators will not ply their defamious business when it is unprofitable to do so.

As to the adulteration of comb honey, the truth about that is out at last. Wiley, Evans & Co., have been driven to the wall in two ways; first by their having been forced to confess that there was nothing upon which they could build their "bogus comb honey" story, except the wild imagination of a diseased brain; and the fun of perpetrating a very un-scientific pleasantry.

And, in the second place, immediate sale of the small crop of honey had made bare the great marts of trade, and while the demand was urgent, and the prices high, not a single pound of the bogus comb honey could be found! More than anything else, this shows the falsity of the claim, and exposes the lie about "combs being made of paraffine, filled with glucose and sealed by machinery!"

Not a crate—not a section—not a pound—not a cell of the bogus "comb honey" can be found on the markets! Not even the advanced prices can bring it to the front! If it were in existence, how the manufacturers of the bogus stuff would jump at the chance to sell it! How they would run the machinery night and day to fill the demand!

A. I. Root mentioned that Dr. Miller had secured large quantities of honey from 200 acres of cucumbers raised near him. This showed that honey could be secured from that plant.

Dr. Miller—I think that no one person, unless it is Mr. Root, has done so much planting for honey as I have. Because Prof. Cook finds some plant valuable for honey, it does not follow that we shall all find it valuable: still, we are

glad he is doing something in this line. Does the Profession expect to cultivate the Rocky Mountain honey-plant?

Prof. Cook—No; we cannot do much in the line of cultivation. A plant to be of value must be able to take care of itself, a sort of a "root hog or die" plant.

A. I. Root—What better does Prof. Cook expect to find the Rocky Mountain honey-plant than is buckwheat?

Prof. Cook—It will stand drouth. It is brought up on dry weather. A dry locality is its home.

Dr. Mason said that he had been in attendance at the Ohio Centennial for the past five weeks, and it was astonishing to see the amount of belief there is in the adulteration of honey.

R. F. Holterman then gave an address on the value of united experiments in apiculture, and the convention then adjourned until 2 p.m.

Druggists' Circular.

LARVAL FOOD

THE QUANTITY AND QUALITY OF THE FOOD OF
LARVAL BEES.

THE bee has proved a sufficiently interesting study to engage the attention of many able observers, among the keenest of whom are Leuckart and Schonfeld, whose observations concerning the food of larval bees agree in the main, and are according to A. V. Planta (*Zeit. Physiol. Chem.*) substantially as follows:

1. The food of the queen-bee-larvæ is the same during the whole of the larval period; it is free from pollen grains, which have been reduced to a thickish but homogeneous juice by the digestive action of the stomach of the bee.

2. The food of the larval drones is also, during the first four days of the larval period, free from pollen, and appears to have been completely digested previously. After four days their food is rich in pollen grains, which have, however, undergone a certain amount of digestion. The food stuff of the larvæ is probably formed from bee-bread. The composition of the food of the queen-bee larvæ was water, 69.38; total solids, 30.62. In the solids the proportions were, nitrogenous material, 45.14; fat, 13.55; glucose, 20.39; ash, 4.06.

The composition of the food of the drone-larvæ and those of the working bees both differed from each other and from that of the queen-bees. All kinds are rich in nitrogen; all were of a grayish white color; that of the queen-bee was the stickiest, that of the workers the most fluid. Peptone appeared to be absent; the greater part of the nitrogenous material present was proteid. The ethereal extract was in all cases acid, but formic acid was absent. The sugar present was, in all cases, invert sugar, whereas the sugar in pollen-grains is invariably cane-sugar.

There are certain differences in the composition of the different kinds of larval food, more especially in the composition of the solids present. Its composition is, moreover, quite different from that of the bee's saliva, which contains