

head. If we could only get enough of that kind at that period it would be very important, because the larvae that is fed at that period is the life blood that is going to gather in the honey in the harvest. There is nothing that I ever saw that takes the place of sanfoin. Does it pay for hay?

Mr. Fixter—Certainly it will.

Mr. Byer—What dates have you that that clover bloomed from the time it was sown?

Mr. Fixter—August 15th. That is the first year.

Mr. Byer—I sowed the sample you sent me on the second day of May. It made a rapid growth and never blossomed till it came onto summer. It is a difference of locality.

Mr. Smith—When I was in England I had an opportunity of seeing some sanfoin honey, and the sample I saw was one of the finest, both for color, body and flavor.

Mr. Holtermann—I don't know whether some of you saw recently an article on sanfoin in one of the United States bee journals. It didn't speak very favorably of it in some localities. Was it a section where the ground might be bare through the winter?

Mr. Byer—Yes, a section where no snow remained on the ground.

Mr. Holtermann—We are indebted to the Experimental Farm at Ottawa for what it is doing.

Mr. Fixter—I saw the article in "Gleanings." Speaking of sanfoin, I don't say that it will do in every district—no clover will—but try it on a small scale first. Don't buy two or three bushels of seed and then be disappointed, but try a few pounds, and if you see it is going to succeed go in for it extensively. Any man that can grow alfalfa and lucerne successfully can grow sanfoin. It may be that it is hard to get out of the land. It is as easily got out of the land as alfalfa.

It will not yield anything like alfalfa. The quality of the hay is first-class, choice, cannot be better.

Mr. McEvoy—Do you mean it won't yield as much hay?

Mr. Fixter—It won't yield as much as alfalfa or lucerne, but it is such a honey-producer I think the quality must be there. Last year we sowed an acre of it on the Experimental Farm, and I hope to give you fuller details of a larger plot. We should see an increase in the weight of our hives from that size plot, and, as Mr. McEvoy said, it comes in before the white clover and it lasts as long. This plant starts to bloom from the bottom of the head, and it keeps on blooming till it gets to the top. By the time it gets to the top it is done at the bottom and the seeds are beginning to come off. Then again it comes in after the white clover is done in August. Every season it won't be the same. It was not as good last year with us as it was the year before. The seed usually costs about 15 cents a pound, and any kind of soil will grow it where the water is not too near the surface, but it wants to be in fairly good condition.

The first thing is to test the germinating power of your seed and as sanfoin seed is the largest of the clover seeds, you require to sow about 30 pounds of the best seed. There is so much waste taken up with the hull.

The next experiment is the wintering of our bees, which is a very important subject. I have tried several experiments along that line with outside wintering, and also wintering in the cellar in different ways. The first is insulating hives for outside wintering. This began in 1903.

#### Insulating Hives for Outside Wintering

Two colonies of equal strength with good laying queens in Langstroth hives were taken for this experiment. The hives were insulated against the winter cold by cushions in the following

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