

badly affected by *Nosema apis* in the spring of 1910 were found in the following spring, after minute examination, to show no trace of the organism. It is thus hardly safe to surmise that this parasite is the cause of the "May disease." I now believe that the nosema disease, as it has earlier been named by Dönhoff, is identical with no other disease.

There is no doubt that nosema is frequent amongst bees, so that it is not surprising to find the bacilli in bees suffering from other diseases, or that it should be considered to be the cause of the mortality, which really arises from some other cause.

One will therefore perceive that the simple fact of the existence of *Nosema apis* in diseased or dead bees is not conclusive proof that the bacillus is the cause of the disease, and only in the case of the queen, when found to be affected with nosema, can one decide that this particular parasite is the cause of death.

My observations, confirmed by those of Hein, Burri, Nussbaumer and others, show that the disease disperses, as a rule, of its own accord. The bees do not generally succumb from an attack, unless they are in bad condition from another cause. The apiarist can greatly help in preventing the disease from getting the upper hand by keeping the bees under hygienic conditions and having healthy young queens. Badly attacked bees can be cured if they have a chance of flying in propitious weather. This happened with some stocks of mine which were badly diseased, and in the course of the summer the number of bees carrying bacilli greatly decreased, so that by autumn in most colonies there were hardly any "microbe carriers."

Infected bees can remain for a while showing no sign of disease, and in some cases remain alive for two months.

But this does not appear to agree with Zander's experiences.

I have seen great mortality amongst bees diseased with nosema, even when they have not been attacked by any other complaint, dysentery, for example.

The parasites locate themselves always in the middle intestine, and sometimes in the Malpighian Tubes. In general only the workers are affected—in rare cases the queens and drones—but never the brood.

In the laboratory one can infect the queens and drones as easily as the workers, but in the colony it is different, as the queens and drones take no part in the work of the hive, and so are less exposed to infection than the workers. They do not seek their food, but let themselves be fed by the workers. Here, it may be mentioned, is further proof of Schönfeld's opinion that the chyle food comes in great measure from the chyle stomach of workers, a view that the bee-keepers of to-day defend, in opposition to Schieminz, Zander and others; for the colony must in all circumstances infect the brood, queen and drones that are fed with bee food, as the chyle must contain the spores of the bacilli.—Translated from the German by Miss Newland.

#### THE SONG OF THE HONEY BEE

I sing the song of the honey bee,  
With her legend of menace and dread,  
Who gathers the sweets for you and me  
That give us our daily bread.

She's a child of the warmth and the  
light and the air,  
A child of the summer hours;  
Her harvest of nectar she gathers home  
From the innermost heart of the  
flowers.

Her sting is distilled from the burning  
sun,  
To give scorching, withering pain  
To all who would lay rough, vandal  
hands  
On the treasures of her domain.

July, 1912

When the days  
away,  
Secure in her  
Tho' the snow m  
blow high,  
They cannot di

But soon as the  
bright  
With the magic  
She awakes from  
the hive,  
Her cleansing t

Dead bees are ear  
The cells are m  
For the eggs of  
fate—  
The pendulous-b

Soon pussy willow  
Tempt her forth  
And stores of pol  
For the white a

Then when the ore  
bloom,  
The pastures wit  
She packs her ce  
drops  
Till they're almos

But when the me  
all  
Are bright with  
She hears in her h  
Of the future, o

And at last she yi  
call—  
'Tis the glory ar  
The future race de  
And none must

Oh, the air is full c  
Darting and flas  
Then round her qu  
hangs;  
Is it of the new  
ing?

Then forth she fare  
To build anew a  
She has given herse  
race,  
Nor must you dee

In graceful festoo  
clings,  
That the "myst  
appear;  
With wonderful ski  
And, lo! a new h