

see no other conclusion that can be drawn from the results of my experiments than that bees are liable to be poisoned by spraying the bloom of fruit trees, the liability increasing in proportion as the weather is favorable for the activity of the bees, and that all bloom must have fallen from the trees before the danger will have ceased.

Finally, I believe we now have the first conclusive proof of the effect on bees by the use of arsenical poisons in the orchard while the trees are in bloom. Heretofore all has been uncertainty, the statements made being based on either pure assumption, or, as in one instance, on the result of penning up bees and feeding them on poisoned sweetened water. It is certainly to the credit of the entomological fraternity of America that among their number but few could be found willing to risk a positive assertion based on such slender and unreliable information, and I feel that I am fully justified in pointing out the fact that in the case of two of our fellow members, Dr. Lintner and Mr. Fletcher, in the face of the legislative bodies of their respective States, both refused to commit themselves to the extent of making positive statements either one way or the other.

Mr. Lintner said that his position hitherto had been that laws ought not to be passed on the subject unless it was amply proved that harm did result to bees; and even in that event, the relative interests of the bee-keepers and fruit-growers should be carefully weighed, since it has been showed by him that many harmful insects also visited the blossoms, and they would stand an equal chance with the bees of being poisoned by the arsenical mixtures.

Mr. Smith said that the bee-keepers would always have an advantage when it came to securing legislative action, because, while they represented a comparatively small number of individuals, they are well organized, and can secure action where the much larger body of fruit-growers would be powerless.

In reply to a question Prof. Fletcher thought it was entirely wrong to apply Paris green. It might injure the stigma of flowers. Spraying for codling worm and curculio was just as effectual after bloom. We can now prove it is dangerous to spray while in bloom, and there is no advantage. After ten years experience he could not think of a single insect which could not be treated before and after bloom.

Mr. McEvoy—I am very much pleased with Prof. Fletcher's statement, this is what we have been contending.

J. E. Frith, Princeton—Does spraying destroy the fertilizing powers of the blossom?



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Prof. Fletcher—I think it would.

Mr. Holtermann—You mention that Paris green has been detected in the hive carried there by the bees, would there any danger to a person eating the honey, or is the amount which destroys the bees so small it would not injure anyone? We know of course that the bees in any case at that season do not gather as a rule more than they require for their own use.

Prof. Fletcher—The traces are so small they can only be detected by careful examination, they would not be likely to hurt anyone to take the arsenic poison in Paris green. Arsenic was used in medicine to as great an extent.

J. B. Hall—Related an instance where a man had sprayed plum trees when in full blossom, the result was no crop.

Doctor Duncan—Arsenic is a splendid tonic but a dose which would do no harm, might if repeated, it was probably the repeated doses with the bee which killed.

A Chicago man who had just surrendered his watch to a footpad was moved to remark that he didn't know when he had been so pressed for time.