

now over the New England States, and in the United States about two and a half million dollars have been spent in trying to eradicate it. They are now, by active measures, holding it in check. We do not want anything of the kind introduced into this country, but this is one of the good results of trying to find new remedies. This new arseniate is used like Paris green and it has, moreover, no injurious effects on the foliage. I am trying experiments with it this year and possibly we may find that it is even of more value than Paris green, although we cannot over-estimate the value of that article, which has many features which make it valuable as a poison, the best being its bright colour. There is a general opinion that anything green is poisonous and the intensity of its greenness makes it so easily visible that it reduces the danger of carelessness to a minimum. By properly mixing it with lime the caustic properties are neutralized. There should be no danger in using it, with the exercise of ordinary precaution. No remedy can compare with Paris green for applying to potatoes for the Colorado potato beetle. It should be applied generally throughout the country by all who wish to cultivate the potato. It is cheap and readily applied.

*By Mr. Carpenter :*

Q. I am sure the committee will be glad if Mr. Fletcher will tell us something respecting the horn fly and its treatment?—A. As I informed the committee last year, the most satisfactory treatment was either by spraying the cattle with a mixture of coal oil and soap suds, made into an emulsion, or a mixture of tanner's oil or any cheap animal or fish oil mixed with a little carbolic acid. It can either be put on the animals with a cloth or sponge, or sprayed on them. Any of these emulsions will prove satisfactory, but they must be applied systematically. Where they have been tried systematically they have been very successful. I will repeat again what I said on previous occasions, that the probabilities are we have seen the worst of this pest, and that it may not be very long before we get rid of it altogether. The experience in those sections of the United States where two or three years ago it was very bad, is that it is disappearing.

*By Mr. Featherston :*

Q. Is there any danger of the carbolic acid getting into the eyes of the animal?—A. The effect of carbolic acid, greatly diluted, on even an open wound, is antiseptic and healing.

Q. Would it not likely injure the eyes?—A. Not when diluted to the necessary weakness.

*By Mr. Dyer :*

Q. What amount of carbolic acid do you use?—A. Two ounces in a gallon of oil. Mr. Carpenter tells me he puts on four times that amount without evil effects.

*By Mr. Carpenter :*

Q. I had to apply the mixture with a sponge as I found it would not spray. As Mr. Fletcher says, I used four times the quantity of carbolic acid which he recommended, and it did not injure the animals, except that perhaps some of them lost a little hair. Where care is used there should be no danger?—A. I do not understand how it is Mr. Carpenter's solution did not spray, because the kerosene emulsion is as thin as milk when properly diluted.

Before sitting down, I desire to express my thanks to the committee for the kind and patient hearing which they have given me.

Having examined the preceding transcript of my evidence of the 5th and 12th of June, I find it correct.

JAMES FLETCHER,

*Entomologist and Botanist to the Dominion Experimental Farms.*