

of mine are doing spraying that they never would have done if I had that old pump. Spraying with an modern pump is just as simple an operation as watering a lawn. Get people to use a good tool and they will spray every time, and they will never go back on it. An essential point is to get a good pump and a good nozzle.

Mr. McKINNON: I would like to hear the views of some members as to spraying in winter, when there is perhaps a little more time than in summer. I would also like to know if anyone has had experience of working the spraying pump by gas machine or small steam engine. I am told that on the other side these are somewhat extensively used and do the work very satisfactorily.

Mr. HUGGARD: I have had a little experience of spraying in winter. Two years ago we sprayed some snow apple trees in November or December, and on those trees that were not sprayed in winter we had considerable more No. 2, or spotted, apples than on those that were sprayed. This year I am trying it more extensively and with several varieties. About two weeks ago we spent an hour or so spraying certain trees which we have marked so as to test their results for next season. I am satisfied the trees should be sprayed before the buds come out, and if they are sprayed twice so much the better. Another feature in spraying is that it is quicker to apply. Lye made out of wood ashes applied at that time will do more good than two sprayings after the buds are out. The leaves come out very vigorously, and the blossoms, and so on. This spring it is very noticeable. One row the entire length of the orchard we sprayed with the lye and the other not, and it was noticeable the entire season. The branches are smoother and there seem to be less lice and bark insects than when we sprayed later on, so that an early application, to my mind, is the thing; and from my experience I am satisfied an application late in the fall, after the leaves have dropped, is just as good as in the spring.

Mr. BURRELL: How strong a solution of lye?

Mr. HUGGARD: We get a forty gallon barrel about half full, or with about two bushels of ashes, and fill it up with water and leave it there two or three days and it becomes quite gritty between your fingers, like rubbing a piece of glass, and if I find it is not so I add a little lime when using it so as to strengthen it up. I think, however, lime is a little too heating on the surface and has a tendency to make the young bark crack, which I do not like to see. We like our trees as smooth as we can get them, and the more ashes I have used on trees in that way, the smoother the trees are and the freer from insects.

Mr. McKINNON: Would concentrated potash be better than lye?

Mr. HUGGARD: I presume it would be equally as good, but I can get ashes cheaper.

Mr. McKINNON: It would be less liable to clog the nozzle.

Mr. TWEEDLE (Stony Creek): I have noticed that the apple scab only propagates in continuous wet weather, and we need only to spray at such times for that purpose. I noticed that this year we had considerable rain four or five days running just along before the apple blossoms opened, as the peach bloom commenced to open, sometime in May, and by spraying a couple of times then we seemed to control it quite well until the wet weather that struck us in the latter part of haying, in wheat harvest. I think that rain was pretty general; then we got considerable more scab, and I believe had we followed up with another application of Bordeaux mixture at that time, we might have controlled the scab on the apple crop pretty thoroughly. The pumps we have nowadays work so easily that there is no need for any more application of machinery to drive them. The best pumps now made can be handled by a boy twelve or fourteen years of age and work all day, or by a man with one hand without tiring. I have handled it myself and followed the pumps all day and not been tired.

Mr. ORR: I was just going to ask Mr. Tweedle to read this report. We have been doing a little experimenting this winter, and I think it would be interesting for the gentlemen to hear it.

Mr. TWEEDLE then read report of spraying experiments with a view to ascertain the effects of cold rains at the time of blooming.