

CORRESPONDENCE.

Written for this Paper.

AS TO SPRAYING.

MILL CREEK, May 5th, 1894.

We are having discussions on the Law and Bug questions out here; one "exterminator" has been delivering lectures all through, but I voice the people's view in saying there was nothing learned from him of any interest to the fruit grower.

But if you can find space in your valuable paper I will relate my experience in regard to spraying, which I hope the reader will get some ideas from. I commenced spraying with Paris green in 1886 on the potato bug with success and have followed it more or less ever since. When coming to Mill Creek I talked the matter up, but met with no encouragement until the spring of 1893 when I prevailed on T. G. Boam to spray. A pump and Paris green were purchased and spraying started in good faith. I sprayed for nine parties with satisfactory results. It will not be necessary to go any further on this subject, but I will say that my remedy is Paris green. Purple may be cheaper but it requires a little care in mixing to get the benefit sought for. One thing further—you should not suppose that all your trees are affected with every insect; that is not so. It is my opinion that some insects are provided by nature for the benefit of that tree, if your tree is in a healthy condition. But I am not an entomologist, and have only studied the potato bug, codling moth and wooly aphid.

As to the moth, which is our enemy now, it is a moth in April and May, stings the fruit and hatches a worm, which at the end of five or six weeks after hatching returns as a moth again about the last of June and first of July. In about two weeks later this moth lays an egg on the fruit or in crevices and growing vegetables which hatches a worm and stays in the larva state till next spring, when it is a moth again, ready for your fruit—and you should be prepared to spray.

Precaution in Spraying—The man that uses a spray pump assumes a responsibility he should not neglect. Label all poisonous preparations; never leave poisonous compounds in the reach of children or animals; never spray trees of any kind while in blossom—there is nothing at that time to spray for and you waste time and material; if you have the least doubt that your mixture is too strong, and you are not using Bordeaux mixture, use a little milk of lime, say one gallon to forty; spray in time; don't wait till the worm is inside; don't spray indiscriminately anything and everything; study the enemies you spray for; remember that spraying requires a little judgment and knowledge to get the best results; don't use your mixture too strong; if possible spray mornings and evenings, not when the sun is scorching hot; never spray fruit on vegetables when they begin to ripen, but before that all poison will evaporate; my opinion is that our greatest trouble is the codling moth, and after we have subdued that enemy we will conquer all the rest; codling

moth never destroyed a tree, but it is the means of ruining our apples for use and for sale, so that we have no profit.

Preparing for Spraying—Insects should not be allowed to get a foothold; spraying the trees with blue vitriol and lime when the leaf shows in the spring is a good thing to destroy many insects by preventing them from hatching; an arsenic solution is now practiced by good orchardists in the East, and why not in the West? It will destroy the apple worm with other leaf-eating insects, but never spray a tree in blossom—it endangers the best assistant of the fruit grower, that is the bee. There is one thing that ought to have consideration: I will give some facts below—it being a fungicide and a fertilizer; it destroys the fungus disease and we are enabled to grow a healthy tree when properly applied, because it checks the lice and aphids, also the red spider, knocking them off the tree and covering their eggs so they cannot hatch.

Bordeaux Mixture—Bulletin No. 2, Experiment Station, Horticultural Department, Agricultural College, Michigan: Blue vitriol, dissolve 4 pounds in 16 gallons of water; in another tub slack 3 or 4 pounds of fresh lime in 6 gallons of water; when cold, strain your lime carefully through a burlap sack and add to the vitriol; but enough lime should be added so as to neutralize the free acid, as if this is not done it may injure the foliage; if much of this mixture is to be used it is a good plan to make a stock up, as it will keep good a considerable time; the strength can be varied considerably, but the above is as strong as we care to use the first spraying, and it is our custom to reduce it to 50 gallons when made at intervals if the ingredients are fresh and proper amounts are used it is one of the least expensive of the fungicides and it is generally conceded to be the most effectual of all in its efficiency which is owing in part no doubt to the fact that the lime sticks it quite securely to the foliage so it is not readily washed off. Another desirable feature about this fungicide is that Paris green be used with it when spraying for the codling moth, this saving separate application. This station says use bordeaux mixture for all fungus diseases of the plant and tree, such as mildew, rust, rot and blight, in which either the spores or the body of the fungus itself is exposed to its action.

Now as to the law; if I understand it, it only requires two sprayings. That is poor policy. If you intend to hit the moth and gain any harvest, spray four times and do it well. It is not a good idea to use too many mixtures at one time on a tree nor to mix too many together. Don't kill your tree all in one year trying to cure it; don't get too many mixtures clogged up in your barrel that you spray from—arsenic sometimes corrodes and becomes useless and then the spraying is all a humbug you will say; clean your barrel every time you are through and then you have just the mixture you want when you mix again, and nothing else.

Now I am not writing this with any disregard to the law, because the law is needed and is all right so far as it goes; but I am speaking from my own experience, and facts taken from experiment stations which make me firmer in my opinion. If every one here would read the bulletins put out by our own agricultural station, they will learn something to their interest; these are sent out free to all who send their name in for the same.

I am yours,

WILLIAM LAURENSEN.

FISH LAKE ONCE MORE.

Having read the articles in the SEMI-WEEKLY NEWS lately about the destruction of fish in Fish Lake, I beg leave to say a few words about it. Since I first came to this valley in 1877, there certainly has been great destruction of fish and game at Fish Lake, and in the adjacent mountains, and the fish are greatly diminished, but I do not believe the stories told of the great amount of fish allowed to waste on the shore of the lake. The NEWS of April 24th, in giving an extract from a letter by Mr. Carter, fish and game commissioner of Sevier county, makes him to say, "Fish Lake is made a reservoir for Rabbit Valley, and that destroyed more fish than the whole people get from the lake." I wish to say Mr. Carter is misinformed, and his statement is not warranted by the facts. My business has called me to the lake very often ever since 1873, and for weeks together I have camped there, more especially the last two summers, having been there as agent for the Fremont Irrigation Co., and I know of the conditions. Men go there from St. George in the south and Uintah and Sanpete in the north, with barrels, and have hauled away tons of fish. About the time they expect us to open our gates the Indians and whites congregate there, and wait anxiously for us to "make a fish way," so they can catch the fish. When I opened the gates last June and refused to "make a fish way" for a few days, I was "cussed" by both whites and Indians because they could not manage their traps in so much water.

There are three good-sized creeks, and two or three smaller ones, running into the lake. They make excellent spawning grounds for the fish, but these creeks are watched day and night, and I risk the opinion that of the fish that venture up into them, not five in a hundred ever live to get back into the lake. That is the true cause of the decrease of fish in Fish Lake.

Our Irrigation company will be happy to co-operate with Mr. Carter in protecting the fish, but inasmuch as we use all the water flowing from the lake for irrigation purposes, we think we have a perfect right, by law, to close or open our gates at pleasure; and hence, we hope no one will give too much sympathy to the cry of hungry fish peddlers for a "fish way" in our dam. All they want it for is so they can catch the fish. If the fish can be protected in those beautiful crystal streams during June and July, and some springs in May, of each year, and the fish and game commission will direct or allow us to put in a screen at our headgate, so as to keep