

killed; the few survivors possessed green stems and in time sent out new leaves. It is extremely doubtful, however, if the plants will have sufficient strength to flower. "Sulphate of copper, 2 per cent.:" All the plants died within a few days.

July 22nd: Further sprayings were made. "Sulphate of iron, 5 per cent.:" The stems were stripped of all their leaves, but in the course of dew weeks fresh leaves had appeared on many of the plants. "Sulphate of iron, 10 per cent.:" Though somewhat more severely attacked than by the 5 per cent solution, there was sufficient vigor left in many of the plants to send out new leaves, after a few weeks.

"Sulphate of copper, 2 per cent.:" Only a very few of the older and more vigorous plants escaped destruction, probably not more than three or five per cent. than three to five per cent. This solution is evidently strong enough to kill all mustard plants six inches in height and less.

"Sulphate of copper, 5 per cent.:" All the plants killed.

From the above data, I make the following inferences:

1. That a two per cent. (2 p.-c.) solution of sulphate of copper (that is two pounds in ten gallons of water) is, all things considered, the most effective, safest (as regards the grain crop) and most economical to use. The spraying should be done thoroughly, and for that purpose fifty gallons per acre will be required. If a heavy rain follows the spraying within twenty-four hours, the operation will be required to be repeated.

2. That, in order that the work may be effective, spraying should not be delayed after the mustard plants have reached a height of six to nine inches. If allowed to grow taller than this, stronger solutions would be necessary and in larger quantity, as the grain would then largely protect the mustard.

For many valuable suggestions and much assistance in the work I am indebted to Mr. W. T. Macoun, horticulturist of the Experimental Farm, who concurs with me in the deductions drawn from this investigation.

## STATE OF THE CROPS.—PACKING FRUIT, ETC.

*To the Editor of the JOURNAL OF AGRICULTURE.*

Dear Sir,—The farmers in the south and west end of the province have all finished harvest, with the exception of buckwheat. North and east of Montreal, there is quite a good deal to do yet, although the season is well advanced, the season has been a short one, late spring and an early autumn, have cut a little off both ends. With perhaps the exception of around this section, it has been a very good season, grain has turned out better than was expected. Wheat is giving a good yield here and I believe in Manitoba an extra one—when the yield is good, the quality is always excellent.

*Oats.*—In some places they were rusted, but not very generally—turning out very well, will be an average crop.

*Barley.*—This crop has done fairly well, not a great quantity sown now since the prices have gone down.

*Peas.*—There will be a fair crop of this grain, better than for several years, some places struck with mildew.

*Buckwheat.*—Doing fairly well, it is in a very critical period just now, the hot rays of the sun having a great effect on it, rather early to speak of how it may turn out.

*Corn.*—With the great heat since my last letter, corn has done exceedingly well, the crop will be a good one. A good quantity of ensilage corn was sown this year, some made the great mistake of purchasing poor seed, that had been heated.

*Potatoes.*—Are a good crop, not much word of the rot, as I mentioned in my last, the immense crop of tops is quite general throughout the province.

*Roots.*—Have done well, are still growing, would be the better of some more rain.

*Apples.*—The apple crop will not be a very large one in this province at all events, but of excellent quality, with very few spots. As regards packing, I would say that they should be graded as to size as well as to quality. Putting in all large sized apples in one barrel or package, and then size smaller but sound by themselves, the damaged fruit and windfalls could be put all together and sold as such. If the Canadian people ever want to get a good name for their fruit in the English market, they must see that all fruit