

its use, chance to read it, they might be benefited thereby.

There are many farmers, and not a few fruit-growers in a small way, who have neglected this work in the past because they entertained the mistaken idea that their plantations were not large enough to demand the outlay of sufficient capital to secure the necessary apparatus. When we take into consideration the fact that in many instances in the past apples from sprayed trees have sold readily at from \$3 to \$4 per barrel, while fruit of the same variety but from unsprayed trees has been difficult to sell at from \$1.50 to \$2.50 per barrel, it can be easily seen that it would take but very few trees to make a pump a very profitable investment. And besides this increase in the price, the yield is increased and the trees are kept in a healthy and vigorous state. It has been established that in the case of the apple crop, spraying will protect from 50 per cent. to 75 per cent. of the fruit which would otherwise be wormy, and that in actual marketing experiences the price has been enhanced from \$1 to \$2.50 per barrel, and this at a cost of only about ten cents per tree for labor and material.

Besides being a preventive to insect ravages it also, to a very great extent, overcomes such fungus diseases as apple scab, black-knot in plums, and rot in plums and cherries.

To do the work *thoroughly*, and there is no use doing it unless it is done thoroughly, it is in the first place necessary to have a first-class outfit. Many of the pumps on the market are valueless excepting for old iron. The "Spramotor," of London, and the Aylmer pump, with attachments, are both excellent outfits, and in purchasing one of these no one would make any mistake, for there are none better if as good.

The next thing is the solution. For the destructive insects of eating habits we should take 4 ozs. paris green to 40 gals. water. To combat the fungus add to this 4 lbs. copper sulphate and 4 lbs. fresh lime.

Many in the past have made their first mistake in preparing the solutions, and because the results have not been satisfactory have blamed the solution instead of themselves. Do not weigh out the paris green and then throw it into the water. A great amount of it will never dissolve if such a course is pursued. Put the paris green in an earthen cup or bowl, add a few drops of water and stir. When this water is taken up add a little more, and so on until you will soon have a paste and every particle will be dissolved, then put it into your barrel of water. To dissolve the copper sulphate suspend it in lino or mosquito netting in hot water, keep it hot and it will soon become dissolved. Be sure this is dissolved in a wooden pail as it would ruin any metal receptacle. After your lime has been slacked and all are put in the barrel and thoroughly mixed your solution is ready.

Now, do not *drench* the trees but *spray* them. Break up the spray so that the particles settle on the leaves and branches like a fog. Cover every particle of the tree with this fog. Do not allow it to settle until the leaves begin to drip for if you do the solution will run to the edges, drop off, the leaves will simply have had a wash, the material will be wasted, and the results unsatisfactory.

Plums, pears and cherries should be sprayed at least twice with this solution. The first application after the blossoms have fallen and the second ten or twelve days later. Apples should be sprayed at least three times. The first application should be given when the buds are swelling, the second immediately after the blossoms have fallen, and the third ten or twelve days later. It is sometimes advisable to give the fourth application when there is danger from scab.

Great care should be exercised while mixing and using the solution as it is deadly poison. Never spray while trees are in bloom and bees are working as it is against the laws of the land, and anyway would do very little good at that stage.

The public is gradually waking to the fact that spraying is indispensable if good fruit is desired, and we trust that all readers of FARMING have caught the spirit of the teach-

ings of the journal and are alive to the necessities of the times. As so much has been said, and so many articles have been written in horticultural papers, concerning spraying, it may be some will think the subject a "chestnut." Much as has been said and written it is astonishing how few, comparatively speaking, are trying to assist in the grand work of raising the quality of Ontario's fruit to such a plane as cannot be surpassed by any other country.

JOHN B. PETTIT.

Fruitland, Ont.



## Dairying in the North-West

To the Editor of FARMING:

I enclose you a summary of our business for the summer season of 1898, issued by Professor Robertson, a showing which we think is very creditable to the Department of Agriculture and Dairying, and is an evidence of what are the possibilities of the North West in the dairying line when properly conducted.

Previous to the taking over of the creamery by the Department two years ago the dairy industry was a failure. Almost every patron had lost confidence in the business and was turning his attention either to some other line of farming or to ranching.

The growing of grain would without doubt prove profitable but for the distance to market. When grown under favorable conditions 40 to 47 bushels of No. 1 hard wheat is not an unusual yield, and 80 to 100 bushels of oats per acre, weighing 44 pounds, and, in some cases, more, per measured bushel. The present price of wheat is 52 cents and oats 25 cents per bushel.

The amount of butter made during the summer of '98 was 42 per cent. greater than in '97, and the make during the present winter is more than double that made the previous winter.

No difficulty has been experienced either seasons owing to the severity of the weather, only one trip being missed by the cream-haulers, and that was made the following day, a fact, which, no doubt, is a surprise to many in the eastern provinces, who imagine that the climate here is unusually cold and severe and certainly not adapted for winter dairying.

The food cost of a pound of butter, especially in the summer, is very low, there being an abundance of free pasturage until grass matures in the fall of a very nutritious and succulent character. Our patrons are highly pleased with the results in the past, and are very hopeful for the future. Twenty three hand separators were used, and we expect the majority, if not all, to own separators in the near future, great value being placed in the skim milk as food for calves when fed sweet. The largest sum realized per cow reported to us for the year 1898 is \$40.13. Prospects for the future are very encouraging.

Yours truly,

S. FLACK.

Red Deer, Assa., March 18, 1899.



## The Tuberculin Test

To the Editor of FARMING:

As there is a lot of writing and talk about Tuberculosis in the cattle of this country as well as in other countries at present, allow me to say a few words in FARMING from a farmer's standpoint. If this dread disease is so prevalent in the human family as reported lately (200 deaths in one month in this province), and is so very contagious as reported by our Vets, and communicated from man to beast and from beast to mankind, it makes me think there is danger ahead for both man and beast.

Now, when tuberculin was first introduced to the public, it was to cure consumption and not to test a person to know whether he had consumption or not. How the Medical Profession, as well as the people, rejoiced to hear that at last there was found a cure for that dread disease, consumption. Why do they not use it now for a cure?