

Mr. Jakoman to be in attendance at the Prince of Wales Hotel, Truro, on Tuesday and Wednesday, 25th and 26th September, and at Windsor, Kentville and Bridgetown on days to be hereafter announced. Arrangements will be made for his attendance at New Glasgow, Antigonish and Pictou, in November.

The Executive Committee of the Board agreed to meet again in Truro during the Provincial Exhibition.

Adjourned.

ADDITIONAL EXHIBITS, DOMINION EXHIBITION, ST. JOHN.

District No. 1—C. N. SPROTT.
James Lear, N. W. Arm—Crab Apples.
Richard Kaizer, Halifax—Fancy work—Antimacassar.

District No. 2—COL. W. E. STARRATT.
Rev. R. D. Porter, Middleton—2 Short Horn heifer calves.

District No. 3—C. E. BROWN.
Samuel Little, Yarmouth—Grade Jersey heifer calf.

District No. 4—I. LONGWORTH.
J. C. Anderton—Guernsey Bull Gold Dust, 2, Cow Ivy, 5.

John Cox, Windsor—Stallion Harold, for trotting, carriage, or road, 4 years.

W. P. McRobert, Truro—Imported Stallion Potentate, 4 years.

E. C. Cribb, Truro—Stallion Whalebone, 4 years old, to breed horses for carriage or road, subject to inspection by W. Jakeman, Veterinary Surgeon for the Province of Nova Scotia.

Truro Condensed Milk and Canning Co—Samples of their milk preparations.

District No. 5—D. MATHESON.
Isaac Stewart, Pictou—Potato Digger.

REPORTS from Scott's Bay, where Potato Bugs made their appearance last season in sufficient numbers, it was supposed, to seed the whole place for this season, say there is not one to be found this year. This would seem to show that your theory, that they would not flourish in our climate, is likely to prove correct. I observed some time ago that the Board of Agriculture had issued a circular respecting the potato bug, I have not yet seen it, will you please send me one.

Yours,

Cornwallis. C. R. H. S.

SOIL ANALYSIS.

Dr. Sturtivant, at the New York experiment station, has been giving the farmers of that State some figures to show the utter worthlessness of ordinary soil analyses to determine the relative agricultural value of farm lands. Here are some of his figures, which are well worthy the attention of those who have been led to believe that a ten dollar soil analysis would enable one to know just what must be applied to an infertile soil to make it productive, and its cultivation profitable.

The quotation is from Bulletin No. 56 of the Experiment Station.

A cubic foot of soil in the average condition of moisture, weighs from seventy to one hundred pounds. The soil taken ten inches deep from an acre of land would therefore weigh about three million pounds.

For the purpose of analysis, in the ordinary method, about one-tenth of an ounce of this soil would be taken and this represents about 1-480,000,000th part of an acre.

If one ton of superphosphate, containing 10 per cent. of phosphoric acid, were thoroughly mixed with the upper ten inches of an acre we should have added two hundred pounds of phosphoric acid to three million pounds of soil, or one part to fifteen thousand; that is to say, that each fifteen thousand pounds of soil would contain one pound of the added phosphoric acid. As but one-tenth of an ounce of this would be used for analysis, this one-tenth of an ounce would contain but 1-15,000th added parts of phosphoric acid, and this proportion would be represented by the percentage figures .0066, or .000066 of an ounce.

This will be better understood if we repeat that in percentage figures it would require the addition of over three hundred pounds of the superphosphate to the acre to change the third decimal of the analysis by a unit. The corollary of this is that as the chemist rarely works in this class of analysis beyond the second decimal figure, the addition of an ordinary fertilization, or that sufficient to make the difference between a good and bad crop, would not be detected.

We can, moreover, state the practical improbability of taking two samples of soil from two places in the same field which would analyze alike within even the second decimal figure.

In the beginning of the application of science to agriculture, the public attention was strongly attracted by the theory that a chemical analysis of soil was about to offer a sure means of determining definitely the condition and the needs of our soils, and various charlatans disseminated the idea of this possibility for purposes of their own, in order to secure the privilege of prescribing and furnishing the diet required for each field of the farm. Those who should have known better were loth to appear in contradiction, for early science is presumptuous, and, not having as yet determined its strength or its weakness, would attempt, by a single bold and daring effort, work far beyond its capacity.

At the present time it is universally recognized by men of scientific training that the analysis of the soil, for the purpose of the individual farmer, can offer no

solution to the problem of what fertilizer or how much to apply.

While denying that analyses of soils can give us definite information concerning their productiveness, and while asserting that the teachings of experience have shown that in most cases there is no direct relation between the present analysis value of soils and the present agricultural value; or, otherwise expressed, that analyses cannot show with certainty whether or not a soil is in condition to yield a full crop for the time being, yet we would not deny that for the purposes of science such analyses may possibly be of some benefit as offering us a judgment of its general character, the mode of its occurrence, or of injurious substances which at times it may contain. It may also be of avail to indicate to us the changes produced in the soil through the agencies included in the word cultivation.

THE reported losses of 3, 4, or 5 per cent. of cattle brand during winter storms is thankfully received by the Eastern owners. It does not represent a large loss of money. I do not believe that there has ever been a herd of cattle wintered on the plains, where no provision was made for food for them, that did not lose much more than the reported loss. I speak of stock cattle, not of bands of picked steers; and I would not believe the reports if all the cruel men who insure cattle on the range lying between the Rio Grande and Saskatchewan rivers swore to them. I have known entire herds to be lost. Of one herd of 1,000 heaves, not a single animal survived the winter of 1871 and 1872, in Kansas. No herd that I know of lost less than 33 per cent., and the majority of stockmen lost over 76 per cent. during that cold winter. In the spring of 1880 I saw thousands of dead cattle and sheep lying on the banks of the Arkansas river. The number of cattle lost during the winter of 1880 was enormous; and the suffering of the cattle that preceded that loss, what of that?

No man of sensibility could possibly enjoy money earned by the sufferings of dumb animals committed to his care. Ownership of cattle implies more than the pocketing of the profits of a herd. It implies, imperatively implies, protective care of the animals.

I have seen cattle during cold spells, when the life-sustaining water was ice-bound, gather around their accustomed watering-places and moan for a drink. Some of these thirsty cattle, that were too weak to hunt for running water, would stupidly stand around the frozen pools until they fell and died from inflammation of the stomach. I have opened some of these cattle, and in all cases found the contents of their stomachs