

mulberries of fine quality growing in Amur, on the Pacific coast. So that we should increase our area of that fruit. Then we come to the apricot. The apricot is growing on the Altai Mountains, between Turkestan and Southern Siberia, at a high elevation and in a cold climate. * * * Judging by the Russian fruits we have seen and tested, we know we can, in the climate we have, increase the area, northward, of fruit culture on this continent."

Mr. Gibb's evidence is sustained by that of Prof. Penhallow, professor of botany in McGill College, Montreal, a gentleman who also has travelled extensively, who spent some years in Japan, and who has made a close study of fruits and their diseases. Prof. Penhallow says:—

"It is by bringing in from other countries the fruits which are peculiar to them, and which may be adapted to our particular wants here, that we get a greater variety of fruits. Besides, in so doing, we could get fruits which might mature at different seasons, and which would vary in their keeping qualities. The great difficulties where we have not a large range of varieties is, that the fruits mature at the same time, or that their keeping qualities are the same."

Mr. Wm. Saunders, of London, Ont., chemist, President of the Ontario Entomological Society, author of a valuable illustrated work on "Insects injurious to Fruits," and a large orchardist, also says:—

"In the cultivation of apples in the more favored districts of our Dominion, much loss is occasioned in years of plenty from the abundance of autumn-ripening fruits, the markets being glutted. The majority of orchards hitherto planted have contained too large a proportion of such fruits. Farmers need to have this impressed on them. The difficulty may be remedied by top-grafting with winter apples. In the colder sections there is a great want of hardier varieties of all sorts, which will better withstand the severities of the climate. This might be accomplished either by the introduction of hardy varieties from other cold countries, or the production here of new varieties by judicious cross-fertilization and selection. Many of the special fertilizers now sold are frauds, and there are but few where the farmer who purchases them gets value for his money."

We return to the evidence of Mr. Gibb. In reply to the question: "Do you think the Government should establish an experimental station, or an experimental garden?" he says:—

"Suppose we had something of that kind started here, we would not need more than ten acres of ground, but it would be safe to have ten acres alongside, which we could get if we wanted to make the station twenty acres. Then we would need to import certain trees—some from Russia, some from northern China, and some that we could get from Ames, Iowa. That is, we should import them from cold climates. We should propagate these enough to get them scattered in the country. Then for the experimental orchard we should have three trees of each kind planted in it. That is not an expensive work, and the great beauty of the thing is, that we know now what to import. We are not working in the dark now; we know what to import, and we know that our work is one of certain success."

The following remarks by Prof. Penhallow, on the subject of diseases in fruit, suggest a highly important and useful work that might be performed by those connected with an experimental fruit garden, as that advocated by Mr. Gibb:—

"The principal difficulty is the want of knowledge of the proper methods of combatting diseases. I may mention incidentally that we have insufficient knowledge in regard to the varieties of fruits which may be adapted to given climates, but principally the deficiencies are to be found in the knowledge of the diseases attacking fruits. While there are many insect depredations, yet the injuries which I principally refer to now would be those arising from the action of vegetable parasites or other diseases introduced by deficiencies in food. This question has of recent years demanded very prominent attention and it has received very careful consideration."

The loss sustained by farmers in many sections of the country by the introduction of unsuitable trees from United States nurseries is particularly mentioned by Mr. Julius L. Inches, Secretary of the New Brunswick Board of Agriculture:—