and under good culture they made a growth in 1886 up to 20 and even 26 inches, which, however, ripened well before winter. The winter of 1886-87 was unusually severe. Not one variety started from its terminal buds. Sixteen varieties lost one inch or less of growth. Duchess killed back sometimes to the old wood, but usually started buds from the base of the new wood. The verdict was 16 varieties hardier than Duchess! Minnesota experience is most valuable to us.

The value of these experiments, carried on with scientific accuracy, as in these experimental stations, is very great. Allow me to digress a little to glance at some earlier attempts at experimental horticulture. Over two centuries ago, when the Portuguese, Dutch and Spaniards were founding colonies in the East Indies, after order had been established, one of the first things to be done was to plant a garden for the testing of food plants. These experiments were enlarged as the colony increased, and were the forerunners of the beautiful botanic gardens of the present day. A little over a hundred years ago when the British, French and Spaniards were fighting like tigers for the possession of the West Indian Islands, a French vessel laden with plants from the Isle of Bourbon, near Mauritius, to found a botanic garden in the West Indies, was taken by the British and towed into Port Royal, Jamaica. This was the beginning of the experimental work in that island. The Mango, an East Indian fruit, is now the commonest forest tree in Jamaica; the banana, also an East Indian plant, a chief food plant of the West Indies. The East and West Indies have interchanged for over a hundred years. The enormous export fruit trade of the tropics is the result of this. That we have oranges and lemons, bananas and pineapples in our markets, at reasonable rates, is due to this. All the British colonies in the tropics and sub-tropics have (call them what you will) their testing grounds, botanic gardens, experimental stations. We have now at Ottawa a central experimental farm, begun over a year ago, and branch stations will be established, one for N. S. and N. B, at Nepan, 5½ miles east of Amherst, N. S., one each for Man., N. W. T. and B. C. Prof. Saunders is just the man for such important work. But that Canada should have remained so long without any experimental station, is a fact without parallel in British colonial history.

Fortunately for us we had good neighbors. The U. S. Department of Agriculture have long been experimenting. (See their reports, beginning with their first report in 1847.) Of late years State experimental stations, often under the State Agricultural Colleges, each taking a line of its own, are doing a grand, good work now, since the passage of the "Hatch Bill" by Congress, allowing $15,000 per annum to each State Agricultural College for such special work, we may expect still more important results. I said that the East and West Indies had interchanged their products for over one hundred years, but it was not till 1870 that a collection of the apples was sent from our like climate in the old world, viz., Russia, and then imported, not by us, but by the U. S. Government. This importation by the Department at Washington was received by Dr. Regel from many different places in Russia. Between 1861 and 1870 Dr. Regel had been receiving scions and samples of fruit from 39 sources, though sometimes two or more in one place, and although not so thought at the time, this collection contained the greater part of the best apples of the colder parts of Russia. Prof. Budd, at the Iowa State Agricultural College, has been importing ever since, gathering in quantity, propagating and scattering in all directions. Thousands of growers are testing these Russian fruits, and it is a comfort to feel that one is not working alone, but that all are co-workers in a common cause. I have over 100 varieties of Russian and German apples on trial; 75 varieties I have already planted into orchard, each tree labelled and in my orchard book, a note as to place from which each tree was received, so that whatever should happen my link in the chain should still hold good.

The introduction of these Russian apples has been beset with drawbacks, nomenclature is uncertain in Russia, and varieties have been propagated by Russian names spelled in all sorts of queer ways, or by translation either unmusical or wholly wrong.

The last report of the American Pomological Society contains lists of these fruits imported from Russia and Germany written by me. This work was undertaken by the request of that Society and appears as a suggestion to our authoritative body. A similar report, but in the alphabetical order, has been made out by Hon. T. T. Lyon, President