

had long been known that there were hardy varieties in European Russia. Indeed, America had long since received from that country several of the hardiest sorts now generally grown, such as the Duchess of Oldenburgh, Red Astrachan and Alexander. The Department of Agriculture at Washington had also succeeded in obtaining trees and scions of a number of other hardy Russian apples, through the American Consul at St. Petersburg, which had shown themselves possessed of great hardiness. But it was felt that a systematic exploration of the Russian fruit territory was necessary before it could be fully ascertained to what extent their hardy fruits would meet American needs. Correspondence was opened with the Agricultural College of Moscow and with the Director of the Botanic Garden at St. Petersburg, which led to the belief that there were varieties of apple, pear, plum and cherry, growing in the interior provinces of that great empire which, if introduced to this country, would be likely to make fruit growing possible among those who are carrying on agricultural operations in the extreme northern sections of America. Finally, the Iowa Agricultural College sent its Professor of Agriculture, Prof. J. L. Budd, to Russia, in 1882, and he was joined by one of our most distinguished Canadian horticulturists, Mr. Chas. Gibb, of Abbotsford, Quebec.

These two gentlemen were eminently fitted for their work, from their general knowledge of fruits and their intimate acquaintance with the requirements of the colder regions of this country. They spent several months during the fruit season, chiefly in the interior of Russia, where they visited many of the most noted fruit regions embraced within that immense territory.

Beyond the range of the Carpathian Mountains the explorers entered on the great plain known as the East European Plain, which includes that portion of Austria north and east of the Carpathians, and the greater part of Russia in Europe. This immense territory is bounded at the north by the frozen ocean, on the east by almost continuous plains, extending into Northern Asia, and on the west and south by the Baltic, and the Gulf of Finland, the Caspian and the Black Seas. The mountain ranges on the south cause precipitation of the moisture, carried by winds which have passed over the inland seas, so that the eastern plain gets but little rain from this source; while the dry winds from the deserts and sterile steppes of the south-east shrivel the foliage of trees and plants in Central Russia, much as the south-west winds do in the Western States, coming from the dry plains of New Mexico. The immense swamps with which some portions of this territory are occupied, particularly in the west, modify the climate, making it vary greatly in different sections. As far north as Moscow the prevailing west winds give a fair percentage of moisture to the air, but in the same longitude, as far south as Orel, the summer heat and dryness of the air are similar to Western Iowa, while further east on the Volga the summer climate is much like Western Kansas and Nebraska, while the winters are as severe as those of Minnesota, with a scanty and uncertain snow fall. Further east the climate is much more rigorous.