

over with wood ashes, leached or unleached, if the latter, more was required. This made a healthy, not excessive growth, and increased both the quality and quantity of the fruit. It makes a sounder and better keeping fruit.

A NEW RASPBERRY.

We received on the 14th day of July last, by mail, a small box containing a sample of a new seedling Raspberry which was sent us by Mr. C. H. Biggar. The fruit was badly damaged, so very much bruised that the juice was running out of the box. There was sufficient form remaining to some of the berries to enable us to see that they were of large size, much larger than the Brandywine, which this seedling evidently rivals in earliness. It is not possible to form an opinion of the flavor of the fruit when it is in such a condition. Its large size and early ripening are important considerations in its favor.

THE CRAB APPLE AS A STOCK.

Last spring one of our Ontario nurseries had an application for some of the hardier varieties of apple trees for planting in the cold north, provided they were grafted on the crab apple stock. The gentleman stated in his letter that Mr. C. Gibb of Abbotsford, Que. had assured him that even the Russian varieties would be worthless at the north unless they were grafted on the crab apple stock. Many years ago your Editor made a number of experiments in working several varieties of apples on crab stocks, but the result was not at all satisfactory. We now lay before our readers an article on this subject from the pen of Prof. J. L. Budd of the Iowa Agricultural College which we find in the *Prairie Farmer*. It will be remembered that Prof. Budd has made this matter of fruit trees for the cold north a special study for many

years, and that he went, in company with Mr. Chas. Gibb, to Russia for the very purpose of studying the fruit trees of that country.

It will be seen that the view entertained by Mr. Gibb as to the supposed advantage to be secured by working on the Siberian crab is not sustained by experiment.

The following is Prof. Budd's article:—

Mr. T. Boos of Marion Co., Ill., says he has one thousand or more Siberian crabs, and wishes to know if it will pay to plant them in an orchard with view of top-working with desirable varieties of the apple. In Minnesota and North Iowa the crab has been used quite extensively for a stock for the Wealthy, Fameuse, Willow, and a number of the Russian apples. *I do not know of a single instance where the experiment has proved satisfactory.* The union is rarely perfect and the varieties that make a fairly perfect union produce dwarfed fruit with a more or less marked trace of the crab flavour. Last year I tasted specimens of the Anis-apple grown on crab stocks which were decidedly bitter, while Anis grown on Duchess stocks were larger, fairer and as perfect in flavour as well grown Winesap. Dr. Hoskins gives a very similar report in regard to the quite extensive use of crab stocks in Vermont State.

In practice the wild crab has proven a better stock. In Dupage Co., Ill., many crab thickets were top-worked a few years ago with the Bethlehemite. The union seemed good and they bore good crops of good fruit for a number of years, but at this time the trees left produce nice specimens of Bethlehemite in shape and color, but they have too much of the wild crab astringency for dessert use. Whitney's No. 20 works well, however, on the wild crab, and does fairly well on the Siberian. H. W. Lathrop, of Iowa City, Ia., markets many bushels every year of this apple grown on wild crab stocks. All things considered, the Duchess of Oldenburg has proved the best stock tried in Central and Northern Iowa for varieties not quite iron-clad when ungrafted.

The wild crab referred to by Prof.