

Talman Sweet is known to succeed in many trying sections, as far as cold is concerned, in the north-western States and in Canada. In the trial orchard at the Experimental Farm, Stump is decidedly tender, being injured each winter, while Talman Sweet alongside rarely loses an inch of its terminal growth. These facts illustrate the value of multiplied testing stations, and so emphasizes the good work now being undertaken by the Ontario Government, in conjunction with the Provincial Fruit Growers' Association.

Arch-Grafting.

This ingenious method of strengthening the tops of trees, as described by Mr. Leveans, is decidedly novel and apparently of much practical value. It calls to mind a useful system practised by Mr. Robert Jack, of Chateauguay, P.Q. In his large orchard many old trees have been prevented from splitting by bracing with iron rods. Whenever a fork showed signs of splitting, the two principal limbs involved were connected at some distance above the crotch by means of an iron bracing rod. This brace consisted of a round iron rod of the proper length to connect the branches. Each end of this rod was supplied with a threaded bolt attached by a loose eye or loop. Holes were then bored through the branches, the bolts inserted and the operation completed by the addition of washers and burrs. Many of these braces had been in use for years without any apparent local injury to the trees.

Acclimation of Plants.

The whole subject embracing the acclimation of plants and its possibilities, is an exceedingly interesting one, and one allowing free scope to the theorist.

It does not seem to me feasible to discuss this subject apart from the closely allied principle of heredity. Acclimation only appears reasonably possible when working through heredity. That this has occurred, there are too many familiar examples about us to allow us to doubt for a moment the statement. The Box Elder (*Uegundo aceroides*) of Ohio and that of Manitoba are botanically the same, yet the Ohio form is not hardy at Ottawa, much less in Manitoba. The Eastern American elm, botanically the same as that native to Manitoba, winter kills at Brandon. These Northern forms have, undoubtedly, been developed by a slow system of acclimation working through seedling production. Within the present lifetime of man, the apple and most other cultivated fruits have extended their area of profitable cultivation northward, always through seedling production, accidental or otherwise; but no amount of nursing has ever rendered any individual of these fruits better able to withstand the vicissitudes of climate, or has added to its hardiness—that is in the life of a single generation. So that it would probably be a waste of time and energy to attempt the production of hardy varieties by propagating, by grafting from individuals grown in cold climates; but by following nature's method through seedling production, the area of probable success rapidly widens.