than the bases and more particularly phosphoric acid. It is undoubtedly in comparatively poor supply in most soils and as it is carried off in the ripening of grains, roots, fruits and animals, and in the bone it does not get returned to such an extent as potash. Also what the soil does contain is usually locked up harder than the potash and is not so easily liberated. I do not for a moment wish to be understood as desiring to discourage the application of potash as kainit because I think it is wise to supply sufficient available material to meet the possible requirements of the largest conceivable crops, but I am within the line of latest and most extensive research and in accord with the best authorities in saying that, in particular, phosphoric acid is the most important of the inorganic elements which we have to provide return of in a com-mercial form. In the matter of the fertility of the seed phosphoric-acid is by far the most important substance, in fact in most seeds potash is but little in evidence in comparison. It is the bulky parts of the plant and not the reproducing parts which abounds in potash. Fruit growers have not been very careless in the matter of supplying more potash to their soils, but they have, not been supplying phosphoric acid as they should. I understand that the reason for this has been that they have given too much heed to the teaching, that as potash enters so much with the composition of flesh in fruit that supplying lots of it would work the oracle. Also they are in the position of having had their fingers burned by he use of vitriolized superphosphates. As they want strength, firmness, ripening and reproducing powers of the best in their orchards they must supply in particular an abundance of phosphoric-acid but they must stipulate that the phosphate is free from sulphuric acid (vitriol) and available to their plants under proper circumstances of application. It is all the better if it is in a tetrabasic form and that the bases be lime, magnesia and iron.

T. C. WALLACE.

## Adaptation of Varieties.

SIR,-I would like much to see an article on the adaption of varieties of apples to localities, the Newton Pippin is grown to perfection only in an area of a few miles up the Hudson, around the mountains of Virginia, and one or two other Southern States, under the name of Albermarle Pippin, this worthless, as grown in Nova Scotia, I have tried cuttings sent from Mr. Downing, but never saw even a blossom, the tree too for my locality, nor does it succeed in any part of Canada. The Gravenstein, as grown in Nova Scotia, to for as my experience goes, is not excelled anywhere, with you I think it is drier, ripens earlier, and is a short keeper. Now that is our one kind in which alone we excel, we judge few of our fruit growers have ever seen a Ribston Pippin such as I got 10 barrels of once from Grimsby, as juicy and as rich and as fragrant as a pine apple, and going in October. For the Famause you must go to Montreal. The best Wagener I ever saw, beating Ontario, came from C. W. Gillespie's or hard, Grand Rapids, Michigan. Where does the Swaar excel? We can never get it from Outario, nor Grimes, nor Swazie Pomme Grise, or along other choice kinds. Shippers sre too apt to send too many of R. I. Greening, Mann, Ben Davis, and a lot of rubbish that no one wants, if he can get others.

At a meeting of our N. S. fruit growers, a

few weeks since, I found as much uncertainity as ever, as to what kinds of apples to grow for profit, and the largest buyer and dealer at Wolfville, that has become wealthy through his apple shipment, advised a friend of mine to plant this coming spring, in a lot of 500 trees, not less than 200 Ben Davies.

I do not believe the English people will remain fools forever, but that they will gradually learn what are useful varieties, for the

table and for cooking.

C. E. Brown, Yarmouth, N. S.

## \* Our Book Table. \*

ELLWANGER & BARRY, Mt. Hope Nurseries, Rochester, N. Y. Novelties in fruit and ornamental trees, etc., etc.

BALTET FRERES, Nurseries at Troyes, France. Catalogue and Prices Current of fruit trees, forest trees, ornamental trees, conifers, shrubs, roses, plants, etc., etc.

ANNUAL REPORT of the Superintendent of Spraying, 1898. W. M. Orr, Winona.

This valuable and convincing report may be had on application to the Dept. of Agriculture, Toronto.

REPORT of the Supt. of Farmers' Institute for 1898. F. W. Hodson, Dept. of Agriculture, Toronto. A most interesting report, and one well worthy of the widest circulation.

SIMMERS GENERAL ANNUAL SEED CATA-LOGUE for 1899, 147 King St. E., Toronto. A magnificent Catalogue, with a fine set of illustrations. Free on application.

SEED ANNUAL, 1899, D. M. Ferry & Co., Windsor, Ont. A very fine catalogue, highly illustrated.