

# FARMING

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## The Farm Fence

There is no more important part of the farm work than that of maintaining and keeping in repair the fences. In many sections good fencing timber is getting scarce and the farmer has to resort to other means than the old rail fence to keep his farm in order. Wire fencing has come into general use in many districts and many other kinds of patent fences, all, perhaps, having their good and bad qualities. A great many very durable fences have been made by utilizing the timber in the old rail fences, and this has been perhaps the favorite method where the old rail fences were not altogether out of repair. The barbed-wire fence was much talked of at one time, but seems to have been almost entirely replaced, in this country at least, by the plain or woven wire fence which latter, as will be seen from the correspondence column, is coming largely into use.

In order to get some definite information on this subject, and information covering as wide an area as possible, we wrote to a number of representative farmers and others in various parts of the province, submitting the following questions:

- (1) What kind of fence is mostly used in your locality?
- (2) To what extent is wire fencing used, and does it meet all the requisites of a farm fence?
- (3) Where wire fencing is used on the road-sides, has it been effectual in keeping the roadway free from snow-blockades?
- (4) Do you think the plan of having every farmer fence off or herd his stock, and not having fences along the roadway, workable?

We have already received a number of replies to these questions and expect more. We would also be glad to hear from anyone who has information to offer on the subject. We will publish these replies in full. Part of them appear in our correspondence column in this issue and the publication of the balance will be continued in next week's and succeeding issues.

## Seed Growth and Selection

Dr. Saunders, in his reply to Prof. Robertson, before the Committee on Agriculture and Colonization, lays down the following as the underlying principles in successful farming, and says that the experiments conducted at the farms under his direction have been along these lines:

- (1) The maintenance of the fertility of the soil, by the proper care and use of barnyard manure, ploughing under of green crops, and the economizing of the elements of fertility by judicious rotation of crops.
- (2) Best methods of preparing the land for crop.
- (3) Importance of early sowing.
- (4) Best varieties of grain, fodder plants and roots to sow in the several climates of the Dominion, taking into consideration productiveness, quality, and earliness of ripening.
- (5) Selection of plump and well-ripened seed for sowing.

Though he regards the selection of seed as of great importance, yet he lays stress upon the individuality impressed upon the seed by nature as something beyond control. He concludes that varieties deteriorate by *long* and *careless* cultivation, but does not point out whether both these conditions must run together to cause deterioration,

or whether either one of them tends toward it. From the fact that the changing of seed and the use of barnyard manure alone as a manurial application with careful cultivation has practically been strongly advised by the Dominion Experimental Farms, it is assumed that the director considers that *long* continued seeding of a variety in one locality makes for deterioration in quality and grain yield.

Against this view Prof. Robertson contends that if careful selection and proper cultivation and manuring suited to the production of grain or fruit be employed the varieties will improve and at the same time become so acclimated as to be locally superior, but that in barn-yard manure alone there is such a want of the elements required for the best grain and fruit development that the varieties deteriorate through want of a properly balanced ration even though the cultivation is otherwise superior. If Prof. Robertson is right we have, perhaps, an explanation of the failure to improve, by long continued cultivation, varieties grown on the Experimental Farms.

A danger may lie in these two authorities not understanding one another fully. A practical improvement in wheat, for instance, must give an increased quantity of grain. To effect quantity there must be a full supply of nitrogen both for the grain and the straw. And there must be plenty of potash, more particularly for the straw. Then after this, according to the highest authorities there must be an excess of phosphoric acid to ensure the fullest grain development and ripening. If then the nitrogen is withheld, as Prof. Robertson's remarks seem to suggest, but which he surely does not mean, the grain must deteriorate in quantity though being very plump and hard. If plenty of barn yard manure containing an excess of nitrogen with a deficiency of phosphate, which seems Dr. Saunders' ideal plan, be used, even the nitrogen may be considerably wasted for want of the balance required.

However, by following Dr. Saunders' plan, the yield of straw would incline to be excessive in comparison with the grain, owing to the large supply of potash in the nitrogen. Instead, then, of too much manure causing heavy straw and light grain, the want of balancing the ingredients which the soil offers to the plant, and the throwing of this balance to a slight excess of phosphate, may conduce to the development of grain and the earlier ripening of fruit. If the nitrogen is in excess, large plants will result. And, if the potash is in excess, large and fleshy plants and fruit will result.

As to productiveness and variety, there cannot be much doubt as to the wisdom of cultivating the most productive varieties, but there is no good reason yet adduced, not even by the Dominion Farm's Experiments, to show that varieties will deteriorate under proper cultivation and manuring. But productiveness does not lie entirely in variety any more in plants than in animals, and feed counts for a good deal. If the balanced ration is good for the animal, why is it not good for the plant?

Climatic conditions have an undoubted influence, but more particularly in shortening or lengthening the season of growth, or in the ripening and the moisture supplied, but the condition of soils is of very great importance. To select seed from varieties of plants which have the characteristics most desired, and to cater to those peculiarities in manuring and cultivation, seems a high aim for the cultivator's art. If seeds are brought from warm climates to cold climates, or *vice versa*, they must be given particular care until acclimated. The tendency to productiveness