How Best to Overcome the Present Agricultural Depression.

Paper read by Mr. Bedford before the Brandon City Farmers' Institute.

Farmers as a rule are credited with being persistent grumblers, but I am sure with No. 1 hard at 50c. per bushel, and cattle 2c. a lb., there is reason for complaints, for the profit to the farmer at these prices is very small indeed, and the fact that farmers thorough the world are generally suffering from the same cause is very poor consolation.

Many reasons are given for the present extremely low prices of all kinds of farm produce, some of them reasonable, others quite ridiculous. Probably the principal cause is the readiness, in this age of steam and electricity, that all kinds can be transported to the large centres of trade so quickly, for as soon as any shortage takes place the news is at once telegraphed all over the world and supplies are quickly sent from nearly every part of the globe-cold storage assisting to this end. So you see that we are sufferers largely through the increased civilization of our time, and we will have to bravely face the difficulty.

We will now discuss some of the means by which we can overcome, or at least lessen the evils consequent on the present depression. In attempting this I shall not try to exhaust the subject, but simply throw out a few suggestions, some of which may prove useful.

I hold that the remedy must naturally be of either three directions, viz:—"In increasing the selling price," "Lowering the cost of production;" or in so diversifying our farming that every year we may have some product that can be sold at a profit.

Now in regard to the first. I consider that the selling price is beyond our control, and will have to be left largely to the regulations of supply and demand.

The cost of production, however, is to a large extent in our own hands, and can be lessened. First, by getting larger yields per acre. Secondly, by utilizing the waste of our productions of the farm.

Is it not a fact that we are not raising anything like the amount per acre that we ought to do if our land was in the shape it should be. On some of the clean, well-farmed land on the exprimental farm the returns this year were 35 bushels of Red Fyfe per acre, while on poorly farmed land in the same field, the yield was under 17 bushels per acre, a difference of 18 bushels per acre.

Now in regard to quality! In certain years the best of management will not prevent frost, but we all know that many a two-horse farmer undertakes a four-horse crop, and he is then surprised that a portion of it is frozen. There is one source of loss which is completely under the farmer's control, that is loss from smut Any person who in this enlightened age refuses to blue-stone his seed wheat deserves to lose from ten to twenty cents per bushel, for he not only risks loss to himself but also risks injuring the reputation of the wheat of the province. So far eight tests with blue-stone have been made on the Experimental Farm. In every instance the blue-stone has effectually killed the smut. So that there is no excuse for smutty wheat.

We now come to the question of the utilization of the waste or by-products of the farm. If you were to ask J. A. Christie, our local lumberman, to draw the slabs, or even the saw-dust, from his mill to a pile and set fire to it, he would laugh at you, and say "that the returns from slabs and saw-dust pay a large portion of his running expenses," and if he took your advice in burning his refuse he would have to close up his business. The same with our flouring mills. They never think of burning bran just because it is a waste product. Farmers in the country are not so particular, and thousands of dollars are wasted every year by the burning of straw or chaff, and it does appear to me a shame and a disgrace to burn such bright clean wheat straw as we generally have done here. We found last winter on the farm that, providing we had good clean straw or chaff, we could entirely dispense with hay in feeding cattle. At the present time we have a cow giving 57 lbs. (nearly three pails) of milk per day, and she never gets a pound of hay.

Again, farmers allow elevator men to dock them for screenings, much of it small wheat, and then present it to them to send east, or burn as they see fit.

This leads me to the last, but not least, important subject of my paper viz:—diversified, or mixed, farming. Judging by the aversion shown by many farmers to keeping stock, one would think that it was a very disagreeable business, or that cattle, sheep and swine did not thrive here, instead of which, stock, properly attended to, adds interest to farming and I think I am safe in saying that in no part of the Dominion do all kinds of cattle thrive better than in this province. Our winter is no longer than in Ontario, pasture is plentiful and practically free, both hay and coarse grain are cheap, and straw and chaff of the best quality are abundant.

I do not say that all should go into any one branch of stock raising, but let each follow the line most suited to his taste. Some farmers will never succeed with dairy stock, but would make money feeding steers. Others would fail with sheep, and succeed with pigs. Expensive females are not necessary, but pure-bred males should be used. While I am on the subject of feeding steers allow me to point out the folly for selling poor thin stockers to the butcher.

After the farmer has spent over two years in building up a frame and everything is ready for the feeding, which is the most profitable part of the work, many farmers sell their animals. Mixed farming is not only the most profitable but money comes in during every month of the year. With stall-fed cattle in spring, wool, mutton, butter and eggs in summer, and pork and poultry in early fall, the farmer is always ready to pay cash for his supplies and need not either run an account at the store or borrow from the banks at a high rate of interest.

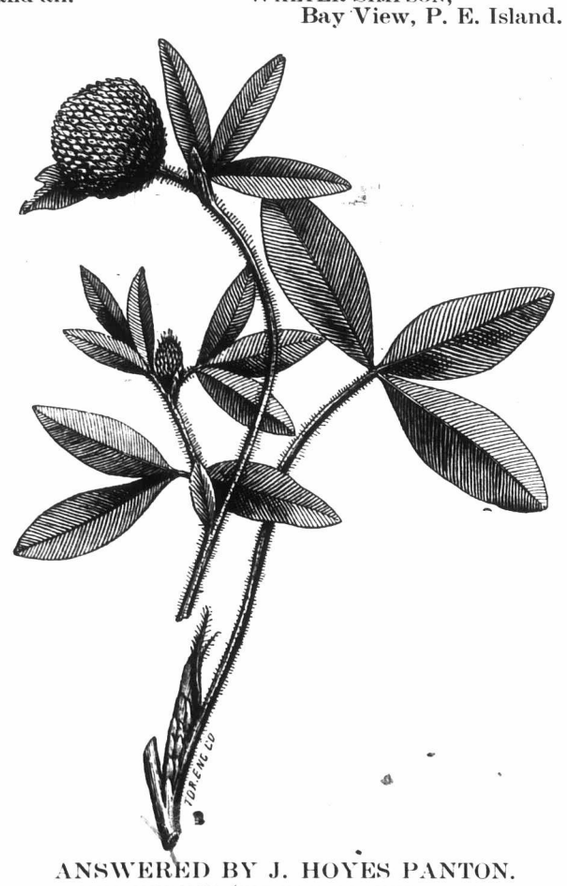
To sum up. Don't sow more land than you can work well and can properly attend to. Aim at producing the largest amount per acre of the best quality. Always blue-stone your seed wheat. Supply yourself with stock of some kind as quickly as you can house them. Stack your straw, it won't take much time or room. Don't drag it and the weed seed all over your farm; weeds will get there quick enough. Clean your wheat before delivering it.

Trefolium Medium (Zig-Zag Clover).

To the Editor of the FARMER'S ADVOCATE:

SIR,—About four years ago I found growing along the edge of one of my fields a patch of clover unlike any that I had ever seen before. It grew in a solid mat about fifteen inches high. The blossom is pretty much like other red clover, but the leaves are narrow and pointed. I have examined it every year since I found it, but I cannot find that it produces any seed. On examining the root I found that instead of a top root, like other red clover, it had roots like couch grass. The roots have joints or buds on them. I sent a specimen to the Natural History Society in Charlottetown, and they pronounced it Trefolium Medium or Zig-Zag clover. I have since learned from Prof. Lawson, of Dalhousie College, to whom I sent a specimen, that one peculiarity of it is that it does not ripen seed, but propagates from the root. I write this in hopes that you, Mr. Editor, or some of your readers, may give us information about the plant, which I understand is a stranger in the Dominion. The place where I found it was along the edge of a bush, where the land had never been cultivated. It is spreading rapidly, though no care has been taken of it. The mystery to me is how it came here when it does not produce seed. Seed could be carried by birds, but we hardly think birds could transport the roots a great distance. I would like to know if it would make a good pasture plant. I believe it would stand the winter well, as from the formation of the roots it would not be liable to heave with frost. It would make a very pretty lawn grass. By running shallow furrows with the plow and spreading the roots along in them, a field might soon be stocked with it. I will send you a specimen, complete roots and all.

WALTER SIMPSON,
Bay View, P. E. Island.



ANSWERED BY J. HOYES PANTON.

TRIFOLIUM MEDIUM (ZIG-ZAG CLOVER; COW GRASS MAMMOTH CLOVER.)

The specimen of clover sent you is the above species. It differs from ordinary clover in being perennial, with a creeping rootstock; leaflets narrower and longer, some partially pointed; head larger and less compact, and upon a short stalk; flowers later, has larger stems and more inclined to spread. It is adapted for permanent pastures, but not so well suited for alternate cropping as the common clover. On account of the straggling nature of the stem, the term zig-zag clover has been applied. By some it is not considered as hardy as the red, and more liable to "heave" in spring. Its tendency to coarseness lessens its value in producing hay. A peculiarity is noticeable in this plant, that if it is not pastured or mowed in spring it will not develop seed to any extent. This probably accounts for your correspondent not being able to find seed. There is no doubt but it will produce seed, and that it does not depend entirely upon propagation by root.

GARDEN AND ORCHARD.

Fertilizers for the Orchard and Garden.

[Prepared by T. G. Raynor for the last meeting of the Ontario Fruit Growers' Association.]

This is a very important subject to the orchardist and gardener, for it has to do with the home end of his business. The wise application of fertilizers may often lower the cost of production to an extent that will greatly increase the profits, or at least leave a margin on some products which have not paid the producer very well in the past.

In discussing fertilizers, everyone should form an acquaintance with three simple elements, called in agricultural science nitrogen, phosphoric acid and potash, which are found in all fertile soils.

Of these three elements, nitrogen is most expensive and most likely to escape from our grasp, both in its management and application. It occurs in all vegetable and animal composition, and many of the salts occurring in nature, as nitrate of soda, etc. Phosphoric acid is found to a considerable extent in the bones of animals, and as a mineral in the form of apatite. Potash, the least expensive of the three, is found largely in the composition of wood ashes.

The productiveness of our soils depends upon the quantity of these three elements present in them. If any one of the three be absent, or not present in sufficient quantities for the development of any particular crop, by so much is that soil said to be unproductive.

There are two things to guide us in the use of fertilizers. First, the nature and condition of the soil; second, the kind of crop grown. Soils vary much in composition, from light, leachy ones to very heavy. Thus it is evident that we should understand their powers for retaining these three elements, at least to some extent, in applying fertilizers. A knowledge also of the composition of the crop grown is indispensable, with regard to its behavior towards them, in order that there may be no great waste in the application of the fertilizer. For example, the potato takes from the soil a considerable quantity of potash; then by applying a potash fertilizer we may greatly increase the yield of potatoes. Now, if we had applied large quantities of phosphoric acid, we might not realize any increase in the quantity of potatoes produced, and would naturally conclude that we had made a mistake, as well as sustained a loss.

There are three classes of fertilizers at our disposal. I refer to: First, green manures; second, general manures; and third, special fertilizers.

GREEN MANURES.

For light and heavy soils, green manures are very valuable, as they increase the power of a light soil to hold manurial ingredients, which might otherwise leak away, while they greatly improve the texture of a heavy soil, making it open and friable. Green manures are useful in orchards to keep down weeds; to keep the soil, if heavy, open, and at the same time add to its fertility. They may be pastured, and thus become a double source of profit. Any large-leaved plant which will grow quickly and draws most of its nutriment from the atmosphere or subsoil, as red clover, buckwheat, etc., is suitable for green manuring.

GENERAL MANURES.

By general manures I mean those which contain the three elements referred to above. They contain other element food as well. Farmyard manure and compost come under this head. If we could produce or even buy enough of this class of manure, we would have no difficulty in making and keeping our soils very productive. Most of us realize the value of a compost heap, but how few, comparitively speaking, make them, by throwing in a heap all the vegetable and animal waste products occurring round our homes, together with some farmyard manure, which, when well mixed, makes for us a rich and cheap manure, especially for the garden. In gathering up the refuse vegetable matter, etc., we remove a suitable hiding place for many injurious insects, as well as destroy many that have taken refuge therein.

SPECIAL OR ARTIFICIAL FERTILIZERS.

The third class of manures of which we speak are called special or artificial fertilizers; that is, they contain some one or two of the three elements to which I referred. There are very many of this class of fertilizers manufactured and used at the present time.

Where we require more fertilizing material than we have at hand, the special fertilizers come readily into play. They are invaluable to the market gardener. In some cases, however, they should be used with precaution, if we are to realize a profit from their use. By experimenting with our soil, we may learn which of the three elements it has the most need of, and this will guide us in the kind of fertilizer to apply. A knowledge of what the crop to be grown requires will also be a help. Just here a word of caution may be necessary to some. Certain classes of fertilizers should be purchased subject to a chemical analysis by a competent and disinterested person. So many have been defrauded in the past that this step is almost necessary. On the other hand, it may prevent a fertilizer from being unjustly condemned.

In a paper of this kind it would be folly to give the composition and value of the many special fertilizers now offered for sale. I can only suggest the general principles.

Generally speaking, I would apply nitrogenous manures, or fertilizers containing nitrogen, such as