The Ontario Agricultural Gazette

The Official Bulletin of the Dominion Cattle, Sheep, and Swine Breeders' Associations, and of the Farmers' Institute System of the Province of Ontario.

THE DOMINION CATTLE, SHEEP, AND SWINE BREEDERS' ASSOCIATIONS.

Annual Membership Fees—Cattle Breeders', $1; Sheep Breeders', $1; Swine Breeders', $1

BENEFITS OF MEMBERSHIP.

Each member receives a free copy of each publication issued by the Association to which he belongs, during the year in which he is a member. In the case of the Swine Breeders' Association this includes a copy of the Swine Record.

A member of the Swine Breeders' Association is allowed to register pigs at 50c. per head, non-members are charged $1 00 per head.

A member of the Sheep Breeders' Association is allowed to register sheep at 50c. per head, while non-members are charged $1.00.

The name and address of each member, and the stock he has for sale, are published once a month. Over 20,000 copies of this directory are mailed monthly. Copies are sent to each Agricultural College and each Experiment Station in Canada and the United States, also to prominent breeders and probable buyers resident in Canada, the United States and elsewhere.

A member of an Association will only be allowed to advertise stock corresponding to the Association to which he belongs; that is, to advertise cattle he must be a member of the Dominion Cattle Breeders' Association, to advertise sheep he must be a member of the Dominion Sheep Breeders' Association, and to advertise swine he must be a member of the Dominion Swine Breeders' Association.

The list of cattle, sheep, and swine for sale will be published in the third issue of each month. Members having stock for sale, in order that they may be included in the Gazette, are required to notify the undersigned by letter on or before the 9th of each month, of the number, breed, age, and sex of the animals. Should a member fail to do this his name will not appear in that issue. The data will be published in the most condensed form.

F. W. Hodson, Secretary.
Parliament Buildings, Toronto, Ont.

EAST VICTORIA FARMERS INSTITUTE.

In the absence of Mr Thurston, our secretary, who has been spending a part of the winter in Oregon, I enclose herewith a list of names of persons who have become members of East Victoria Farmers' Institute, that they may be placed upon the mailing list, and receive the various reports which are now becoming much sought after in this section. (The names are received and placed on the mailing list.) In looking over the Institute report for 1897, I notice that some of the Institutes have been holding local meetings, and I thought that as our supplementary meetings were held early in January, there was a good opportunity to attempt something along that line. I spoke to two or three of the best men in my own locality, and as a result we have had two most successful meetings with an attendance of 125 and 150, conducted entirely by local men, and without costing the Institute one cent. A third meeting was to have been held in another locality on the 11th of March, but owing to the almost impassable state of the roads and a wet evening, it has been post poned. I might say that I am delighted with the manner in which the people take hold of these meetings. Among those who have given us short talks on the various subjects introduced are men who have never before attempted to address an audience of any kind, and I am bound to say that the ability to express their ideas and the knowledge of the subject evidenced by the manner in which it was handled, has been a surprise to more than one, and I think in this respect, *i.e.*, the bringing forward of new men to help at larger and more public meetings, these local meetings must prove very helpful.

I enclose a programme of the meetings held, by which you will see that there was no lack of material, especially in the case of the latter one, with twelve speakers on the list. I might say that, although we tarried till near midnight we did not get more than half through the list, and arranged to have the other half at a later date. In reference to the regular meetings held at Bobcaygeon and Fenelon Falls, they were both very successful, notwithstanding that some doubt regarding the advisability of placing a lady on the deputation had been expressed. Miss Rose proved to be a great success, and some of those who were the most outspoken in opposition to the movement have asked us to endeavor to have her placed on supplemental deputation next year.

W. H. Cullis,
President.

PROGRAMME.

1. Introductory Address, Manley Maybee.
2. "Hog Culture for Profit," John Earle.
3. "Benefit of Having a Cheese Factory in a Community and Profits Arising Therefrom," T. Parkin.
4. "Apple Culture," A. E. Winthorne.
5. "How to Build and Manage a Silo for Profit," Alex. Magee.
6. A paper on Reading, J. Cundal.
7. "One Way of Handling Cattle for Profit," J. Suggitt.
8. Paper, W. H. Cullis.
9. "Culture of Sheep," etc., L. Irwin.
10. "Fowl on the Farm," T. Coad.
11. "Drainage," R. Westaway.
12. Music, readings and recitations, interspersed as required.

Who says East Victoria Farmers' Institute is not abreast of the times! Well done, East Victoria! Many of the other Institutes have done similar work with very gratifying results. Let us hear from others. The object of the Farmers' Institute system is to inspire, improve, and use local talent. All the work undertaken aims at this result, and without it little good is accomplished. The Institute officer who thinks or says that it is impossible to derive great benefit from meetings such as Mr. Cullis describes, is clearly behind the times and should mend his ways or make room for a better man. Upward and onward is the motto of the Farmers' Institute system in Ontario.

WEEDS.

By George Binnie.

Travelling through the country we can see field after field colored with the purple thistle top, or brilliant with the yellow mustard, while upon closer observation others less prominent are found to be equally abundant. In this part of the country weeds are becoming more abundant. This is owing partly to the failure to get a catch of grass during the last two or three dry seasons, and having to re-plough and re-crop too often, and thus allow the weeds to multiply. During the past year so much feed has been imported into this district that many new weeds have been brought in and are making their appearance here and there. Every plant out of place may be called a weed; a grain of wheat is a weed in a flower garden, and a rose in a wheat field is also a weed. But there are some plants that may be considered weeds under all circumstances, such as the thistle, mustard, wild oat, ox-eye daisy, etc., and every farmer should bend his energies to eradicate all such from his farm.

Weeds are distributed in many ways The seeds of some, such as the thistle, are provided with feathery attachments and are borne far and wide on the wings of the wind. Others, as the burdock, attach themselves to passing animals, and are carried by them to other parts where they flourish and grow. Weeds are too often carried from one part to another in seed grains and seeds. Three years ago I got a pretty good dose of daisy in grass seed which gave me a great amount of trouble, and I am not done with it yet. Threshing machines, too, carry seeds from one place to another, and are a very common means of distributing weeds.

Weeds are injurious in many different ways.

1. They take up room that should be occupied by useful plants, and being usually of a more sturdy nature than the cultivated varieties, crowd them out and deprive them of moisture, air, and sunshine.

2. They take from the soil the food that should go to build up the useful plants, thus making the latter weaker and less able to withstand the crowding of weeds, and the attacks of insects or disease.

3 There is another way in which weeds are an injury to the growing crop. All plants draw a certain amount of water from the soil, and through the leaves throw it off into the atmosphere. Prof. Panton, of the Ontario Agricultural College, at Guelph, and others have lately been making some experiments as to the amount of water conveyed by certain plants from the soil into the air, and have arrived at some startling conclusions. Taking the wild mustard plant and allowing ten plants to the square yard, it was found that from an acre this plant would take from the ground and evaporate into the atmosphere over twenty tons, or more than four thousand gallons daily. Other plants of a like nature also throw off large amounts of water. This is a very serious matter, especially in this dry climate, as much water is being wasted by these useless plants as would ensure a successful crop of the different grains. This of itself ought to be sufficient to make any farmer strain every effort to rid his farm of useless and injurious weeds.

4. It costs a large amount to handle them, it costs many thousands of dollars for the time it takes to bind them; it costs large sums for drawing, for storage room and threshing; it takes extra labor cleaning the grain for market or seed; indeed it is almost impossible to get it clean, and there is considerable loss in the reduction of the market value of grain not properly cleaned. The yearly cost of growing weeds to the farmers of this province amounts to a large sum, and costs more now in proportion to the value of grain grown than at any previous time. There are different classes of weeds requiring different treatment for their eradication. Those known as annuals grow only from seed. They grow, mature, and ripen their seed in one season. Some of the most common are wild oats, mustard, cockle, fox-tail, etc. The seed of these are of such a nature that they will lie a long time in the soil and grow when favorable circumstances arise. The best method of attacking them is to turn the seed to the surface, get them to grow, and kill them before they are allowed to seed. The biennials take two years to mature and ripen seed. The perennials are perhaps the worst class of weeds. They grow from the roots as well as the seed. Some of these are the Canada thistle, ox eye daisy, couch grass, etc., and owing to the tenacity with which they cling to the soil they are extremely difficult to get rid of.

The remedy to be applied to rid the soil of these and all other weeds is good cultivation, and the first requisite is to remove all obstructions as stones, stone piles, and rubbish of every description, as these are not only a hindrance to cultivation but also a protection to weeds of all kinds. Then the land should be well plowed, every inch of it turned over and not done in that careless slipshod manner that we see so often in our fields. No amount of after cultivation will make up for poor plowing. If the land is very dirty it will be necessary to summer fallow, and it will pay to do it thoroughly and kill, if possible, every sign of vegetation in the field. But land, unless extremely dirty, can be cleaned and kept clean without summer fallowing and without the loss of a season. Hoed crops should be extensively grown, as potatoes, turnips, mangolds and corn. Large quantities of these are necessary to feed the stock that ought to be fed on every farm. Proper cultivation will be a valuable assistance in the destruction of weeds. A short system of rotation of crops should be adopted, as a long continued cropping of grain is a sure method of encouraging and multiplying weeds, as well as impoverishing the soil. We should grow plenty of clover. It crowds out weeds and enriches the soil. The best method to clear a farm of weeds and keep it clear is to practise a thorough cultivation of the soil, adopt a short rotation of crops and grow plenty of clover.

From $30 to $50 worth of nitrogen per acre has been obtained by growing clover, peas and vetches with phosphoric acid in a form combined with lime and iron as bases.