

**DAKOTA PROFESSOR ON DIVERSIFIED FARMING**

Dr. J. H. Worst, president of the North Dakota Agricultural College, addressed the Winnipeg Canadian Club on Wednesday, Feb. 14, on the subject of diversified farming. After reminding the business men, who comprised his audience, that the prosperity of the city of Winnipeg depended absolutely on the success of the farming community to the West, Dr. Worst said in part:

"I believe in diversified farming, first because it is an absolute necessity. It is an undisputable fact that when the first crop of grain is taken from the land it is started on the road to zero. Since something is taken from the ground and nothing is returned there must be a diminishing of returns, which make it only a matter of time until the soil is worn out of fertility, and becomes charged with poisons. I realize that in spite of the great immigration from Europe, and the number of people you have taken from us, that you have only scratched a few places, but still, as I said, you have started on the way to zero, and the only salvation is to put farming on a basis of permanent agriculture."

**Eliminate Chance**

He declared that a rotation of crops was the only way to eliminate the element of chance from farming. Under the system of continuous crops of wheat on the same ground the crop demands plenty of rainfall to attain a maximum. The West had a small rainfall and this made it desirable that the farmer should learn to produce his crops with the least rainfall possible, on the principle that he would at least be assured of a fair crop, and in the event of more than usual amount of rainfall there would be a maximum crop produced. The richer the soil is in vegetable matter, the less moisture is required. As a result of the loss of vegetable matter due to continuous growing of wheat Dr. Worst declared that it required from thirty to forty per cent. more moisture to produce the same crop today than it did twenty years ago.

**Value of Live Stock**

"If one-third of each farm were devoted to live stock," continued Dr. Worst, "it would enable the farmer to keep the soil of his entire farm full of humus or vegetable matter sufficient to grow crops without robbing the land of its producing power." Referring to the part the business men of Winnipeg must play in the change from grain production alone to diversified farming, Dr. Worst said, "The sooner we can get the farmers to see the absolute necessity for diversified farming, the better, and it is to the advantage of Winnipeg to see that the change is brought about, in their own interests. They should exert every effort to get farming in the West on a permanent basis." He stated that in growing 100,000,000 bushels of wheat there was so much fertility taken from the soil that to restore it to the state it was in before the crop was produced would require \$440,000 worth of fertilizers. On the present basis of production he said it was only a question of time until the decreased rate of production per acre would be so great that it would no longer be profitable to grow wheat. Not only are the fertile properties abstracted from the soil, but it becomes charged with poison to such an extent that after ten or twelve years' use soil becomes so bad that it is only the most perfect of conditions which will permit of a reasonable crop being produced. Close examination of the land in North Dakota had shown that the average field of grain contained sufficient weeds to absorb the nourishment sufficient for fifteen bushels of wheat per acre, and so if the weeds were eliminated there would follow an increase in the yield per acre to that extent without any additional rain.

**Rainfall Sufficient**

"In spite of the apologies of the real estate men," continued Dr. Worst, "who attempt to apologize to their Eastern clients, and even go so far as to try to deny that there is excessive dryness in the West, I would say that one of our greatest blessings is our small annual rainfall. I don't believe it is necessary to lose a crop on account of drought, for while it may be necessary to summer-fallow once every four or five years in order to store up moisture in the subsoil for succeeding years, that would not mean loss, but merely a transferring of

**The Grain Growers' Guide**

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THE GUIDE IS DESIGNED TO GIVE UNCOLORED NEWS FROM THE WORLD OF THOUGHT AND ACTION and honest opinions thereon, with the object of aiding our people to form correct views upon economic, social and moral questions, so that the growth of society may continually be in the direction of more equitable, kinder and wiser relations between its members, resulting in the wisest possible increase and diffusion of material prosperity, intellectual development, right living, health and happiness.

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**The Tariff Question**

Every man in Canada should be interested in the tariff, as there is nothing that affects every individual more seriously. It will pay to study the tariff and its effects. Many valuable books have been written on the subject. The following are the very best and we can recommend them to everybody:

**LIFE OF RICHARD COBDEN (2 Vols.), \$2.50**

By John Morley

This life story of the great free trade champion of England is one of the most inspiring works ever written.

**THE TARIFF AND THE TRUSTS, \$1.50**

By Franklin Pearce

This is the story of how the protective tariff has plundered the people of the United States, and applies well in Canada. It is written in a very interesting style.

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This is a new book. It tells the inside history of the making of the tariff laws at Washington. Anyone who reads this will understand how the Big Interests manipulate the politicians.

**CANADIAN NATIONAL ECONOMY, \$0.50**

By J. J. Harpell

This book is a tale of the Canadian tariff and how the Big Interests are increasing the cost of living every day for their own personal gain.

**REVOLT AGAINST THE NEW FEUDALISM, \$0.45**

By Edward Porritt

Edward Porritt knows more about the Canadian tariff and its iniquities than any other writer. This book is an eye opener on the methods of the protected manufacturers.

**PROTECTION OR FREE TRADE, \$0.20**

By Henry George

There is nothing written that shows the weakness of the protective tariff better than this book.

All of these books will be sent to any address in Canada, postpaid, on receipt of price. Book Department, Grain Growers' Guide, Winnipeg.

energy. As we see it today the farmer puts in his crop and then leaves it to the weather to supply the moisture, but if at any time between seed-time and harvest there should come two or three weeks without rainfall the crop goes back and suffers, and is sometimes utterly destroyed." Further he said, "Four elements enter into the growth of grain. They are the sun, air and soil, which we always have, and the only thing which is left for the farmer to care for is the moisture."

**Against Big Farms**

In decrying the practice of farming large areas, and favoring the small intensive farms, Dr. Worst said, "It is not necessary to own a whole township or even a section in order to farm. I believe the glory of Canada will one day be reflected by the small intensive farms of her sons," which was greeted with hearty applause.

In North Dakota the bankers and business men have subscribed the sum of \$50,000 for three years for the purpose of educating the farmer on the matter of diversified farming. Primarily this was for the benefit of the farmers, but a very large secondary reason was the added prosperity which it would bring to business men in every line. This fund would be used to show the farmer how to plow, and when and why, and where to get the best

seed grain, and why. Closing a splendid address, Dr. Worst said, amid loud applause, "In proportion as you get the young men and women satisfied to settle down on small sections and enter upon intensive farming the better it will be for the country."

**PROTECTION OR FREE TRADE**

Arrangements have been made through the assistance of Joseph Fels, the great reformer, and a number of other democratic men in the United States, for the publication of 1,000,000 copies of Henry George's great book, "Protection or Free Trade," to be spread broadcast over the United States during the next few months. These men are anxious to break down the tariff wall which surrounds the greatest Republic in the world, and thus give to the toiling masses of the United States a greater portion of the wealth which they themselves create.

Those who have contributed to the funds necessary for the publication of this immense edition have generously agreed to send these books into Canada, also wherever they are needed. For this reason The Grain Growers' Guide will handle a list for the circulation of this book, and will mail copies to any address in Canada for 4 cents each. Under no other circumstances could these books be secured in such good type at less than

from five to six times the price. It is one of the greatest books on the tariff ever written, and it deals with the subject from the viewpoint of the common people.

Any man who reads "Protection or Free Trade" carefully and thinks and studies upon the question for himself, will find it difficult, if not impossible, to believe in the protection fallacy, for this reason it is advisable to have copies of this book sent to as many people as possible, and particularly to those people who do not as yet see the fallacies of the protectionist argument.

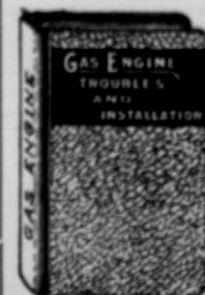
We would like very much to be able to send a copy of this book to every protectionist in Western Canada and also in Eastern Canada and we will do so if we can raise sufficient funds. To circulate 50,000 copies of this book during the next three months would cost only \$2,000, which would be a very small item if divided up among those people in Western Canada who believe that protection is one of the greatest evils of the country. Every person who wants to assist in this work should send in their letters and their money at once. Send for a copy for yourself and for as many copies to other people as you can afford. If you do not know to whom to send the extra copies, send along the money and we will send them out to the right party. The only way to bring down the tariff wall is to educate the people to the iniquities of protection.

Every man who believes in a square deal for himself and his fellowmen can well afford to assist in the circulation of "Protection or Free Trade." It will be sent to any address for 4 cents per copy. Let us have your assistance to send out anywhere from ten copies to five hundred, and the more that are sent out the sooner will the battle be won. Do not deal with any other subject in your letter. Write on the outside of the envelope, "Protection or Free Trade." It will then reach the right place and be handled promptly. Send as many of the books to people who believe in protection as possible. Don't waste time and money trying to educate people who are already educated to the evils of protection.

This is a good opportunity for every local association to supply a copy to each of its members.

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"Protection or Free Trade."

**GAS ENGINE TROUBLES AND INSTALLATION**



The continuous demand for information on farm engines has led The Guide to search for the cheapest and best book available. We have found it. It is "Gas Engine Troubles and Installation" by J. B. Rathbun, consulting gas engineer and instructor at Chicago Technical college. This book shows you How to Install, How to Operate, How to Make Immediate Repairs, and How to Keep a Gas Engine Running. The book contains 444 pages and is written in plain, non-technical language so that the ordinary farmer will be able to turn to it readily for what information he wants. Particular attention has been paid to the construction and adjustment of the accessory appliances, such as the ignition system and carburetor, as these parts are most liable to derangement and as a rule are the least understood parts of the engine. The illustrations are very numerous and show the parts of the engines as they are actually built. The trouble Chart makes all the information at once available, whether or not the whole book has been read, and will greatly aid the man whose engine has gone on "strike." There is no better book on the subject on the market. These books are kept in stock in The Guide office and will be sent to any address promptly by return mail. Postpaid \$1.00. Book Dept., Grain Growers' Guide, Winnipeg.