is the College for the Farmer?

Governor Mount, of Indiana, in an address delivered at Perdue University, made the following effective reply to the above question : "College education has been regarded by the

majority of farmers as an unnecessary expense in their equipment for farm life. This sentiment, I am pleased to say, is undergoing a revolution.

Farming must now be regarded in the light of a science demanding research and investigation, and as a profession calling for the highest order of thinking. Physical forces are no longer the dominant factors of success. The ability to work intelligently and to plan wisely must now measure the reward upon the farm. Extensive operations must give pride to intensive methods. The farmer must understand the forces which are constantly at work in nature's great laboratory. He must understand something of the elements required in the growth of crops. He must conserve and restore to the soil elements of plant food in the most economic manner. He must be a student of economics. Production and consumption, supply and demand, are the basic principles upon which the farmer must build if he hopes to win success. The science of markets, the science of breeding and feeding are the great problems in successful farming to day. The ravages of insect pests and fungus growths are new elements to be understood."

Co-operation in Agriculture.

Co operation seems to be one of the watchwords of the nineteenth century. Its principle is being applied to nearly every business calling. In the large cities the big departmental stores are merely a kind of huge co-operation in which one business concern by buying directly from the producer and selling to the consumer seeks to do away with the middleman's profits. Some of our western exchanges are advocating a similar line of procedure for the farmer. If, instead of having so many middlemen taking the profits of the farmer's product while in transit to the consumer, some co-operative scheme were evolved whereby the consumer could be reached more directly, more profit would accrue to the farmer.

We hardly know whether such a scheme would be the "eldorado" some people think it or not. True it is, that at present the farmer's product before it reaches the consumer has to pass through many channels, and while en route a large number of people come in for a share of the profit from the farmer's toil. If all the persons who figure in the concern were legitimate middlemen and only sought for an honest living, no remedy for the present unsatisfactory condition of things would be needed. But when men try to manipulate the product, as in the case of wheat, so as to make a fortune for themselves, it is perhaps time that the farmers co-operated in some way so as to reach the consumer in a more direct way. There is no doubt that if some co-operative scheme were evolved by which the profits of farm labor could be divided directly between the farmer and the consumer, we would have cheaper bread and the farmer a better living.

Keep More Sheep.

The following ten concise sentences, as given recently by an Institute lecturer, sum up fully the chief reasons why the farmer should "keep more sheep"

(1) They are profitable.

(2) They weaken the soil least and strengthen it most.

(3)They are enemies of weeds.

(4) The care they need is required when other farm operations are slack. (5) The amount of investment need not be

large

(6) The returns are quick and many.

(7) They are the quietest and easiest handled of all farm stock.

(8) Other firm products are made more largely from cash grains, while those from the sheep are made principally from pasture.

(9) There is no other product of the farm that has fluctuated so slightly in value as mutton.

(10) By comparison wool costs nothing, for do not the horse and cow in shedding their coats waste what the sheep saves?

In conclusion let me repeat : Sheep pay.

To Control Runaway Horses.

The following quotation from New Ideas will be appreciated by those of our readers who are troubled with runaway horses. The device mentioned seems to be both effective and simple :

"A man from Paris, Zummerman by name, has invented an apparatus for stopping runaway horses. It looks like a muzzle, and does the work by closing the horse's nostrils, thus shutting off his wind. It extends over the horse's nose from just above the mouth to where the bridle crosses at the It is connected by bands to the reins, and top. when the horse starts off on a mad career the rein operating the muzzle is seized, and the animal's nostrils are thereby compressed, while his mouth is closed. He may take the bit between his teeth with a view to having his own way in the matter, but when the prospect of suffocation confronts hun he abates his speed and consents to go at the moderate rate chosen by his driver. This device commends itself especially to timid ladies, who no longer need fear to drive an obstreperous horse if the new muzzle be used."

The Possibilities of Canadian Agriculture.

It is not everyone who fully realizes the immense possibilities of Canadian agriculture. When we think of the vast extent of our agricultural resources, and the almost unlimited area of fertile lands now lying unproductive for the want of some one to till them, we cannot but realize that Canada is destined to be one of the greatest food producing countries in the world. Our farmers should fully realize this fact and become conversant with the latest and best methods in farming practice. Canada's agricultural resources cannot be developed to the fullest extent unless the very best skill and business ability are applied to the work of the As the newer sections become productive farm. the older ones will have to turn their attention to more intensive and more concentrated methods of farming. Stock raising and dairying will have to be the main feature of the farming operations in the older parts of the Dominion.

NOTES AND IDEAS.

The pith of the sunflower is one of the lightest solids known used in making life preservers. Its specific gravity is about one-eight that of cork. Since this fact has become known the commercial value of the sunflower has necessarily increased. The sunflower is largely cultivated in Central Rus-

Co-operation is one of the strong characteristics of this age. At Grand Bend, Texas, the man who draws milk to the creamery delivers the mail to each patron on his return trip. Such a combination of effort will help to solve the rural postal delivery problem. Why cannot it be worked in some of our cheese sections, and instead of the milkman returning whey, let nim bring home each patron's mail?

Russian methods of farming are said to be very crude and yet that country produces its millions of bushels of wheat every year. Though we would not advise going back to their crude ways, yet the very crudeness of their methods seems to be an advantage. With a primitive plow and a boy with a mallet reducing the lumps as fine as possible, a thorough pulverization of the soil is obtained which tends to promote the growth of the plant.

The British Board of Agriculture has just issued a preliminary statement showing the estimated

total produce and yield per acre of wheat, barley and oats in Great Britain in the present year. This statement shows that the estimated total produce of wheat in Great Britain for the year 1897 is 54,913,230 bL hels as compared with 57,052,952 for 1896. The estimated yield per acre in 1897 was 29.09 bushels as against 33.68 bushels in 1896. In barley the estimated total yield is 66,803,879 bushels in 1897 as against 70,774,776 bushels in 1896, and the estimated yield per acre was 32.82 bushels in 1897 and 33.63 in 1896. In oats the estimated total produce was 116,812,461 bushels in 1897 as against 114,015,-907 in 1896, the estimated yield per acre being 38.49 as against 36.83.

The following report from the Cincinnati Price Current shows a large increase in the amount of wheat exported from the United States during the last half of 1897 : "From July 1st to December 1st the exports of wheat and flour from the United States were close to 100,000,000 hushels, compared with 78,000,000 last year, 53,000,000 in 1895, 65,000,000 in 1894, 87,000,000 in 1893, 90,000,-000 in 1892, 106,000,000 in 1891, the las. being the year of largest exportation. During the six seasons previous to 1897 the exports for five months ending December 1st have varied from 42 per cent. of the entire movement for twelve months, in 1895, to 53 per cent. in 1893 and 1896, the years 1891 and 1892 each representing 47 per cent. This season, however, had a low position of reserves at its beginning, so that it is reasonable to consider that more than an average percentage has been already moved. Very likely, however, the resources of the country will admit of about as much more for exportation as has already gone forward."

CANADA'S FARMERS.

Robert Ness, Howick, Que.

The subject of this sketch was born near Glasgow, Scotland, fifty-five years ago. He received his early education in the Calder parochial school and at the Glasgow high school. He came to Canada when a young man, and set-tled in the Province of Quebec, where he now resides. His 250-acre farm, located at Howick, Que., is one of the finest in the Eastern Townships.

Mr. Ness is one of Canada's leading stock-breeders, and has done more, perhaps, than any man in the Eastern Provinces to encourage the breeding of purebred stock. Like many other breeders, he went into purebred stock for the love of it, which accounts for his marked success. Mr. Ness started his herd in 1864 by purchasing some purebred Ayrshires. In 1878 he first imported Clydesdale horses, and made fresh importations every year till 1893. Among his importations have been some of the best Clydesdales ever brought into Canada, among them being The Montgomery, Little Jock Elliot, Marathon, and a number of others of equal note.

Mr. Ness has been a large exhibitor at nearly all the Mr. Ness has been a large exhibitor at nearly all the leading fairs, and has always been successful in carrying off some of the best prizes. At the World's Fair some of his stock won the only prizes in their class that came to the Province of Quebec. The high quality of his stock is shown by the exceedingly high prices for which it has sold. The noted stallion, The Montgomery, was sold for \$3,000. Other sales of both Clydesdales and Norman horses have also been made at \$2,400 each. Mr. Ness' Ayrshires have also sold at high figures. Five Clydesdales and Norman atallions, ten Clydesdale mares, forty purebred Ayrshires. atallions, ten Clydesda's mares, forty purebred Ayrsbires, sand several fine carriage teams comprise his present stock.

sand several fine carriage teams comprise his present stock. Mr. Ness has been especially honored by his fellow-citi-zens. He has held every municipal office in the gift of the people, and has been director of the Agricultural Society of his district for twenty-one years and president eighteen years, which office he now holds. He is also president of the Huntingdon Dairy Association, director of the Provin-cial Dairy Association, a member of the Provincial Council of Agriculture, vice-president of the Canadian Clydesdale Association and of the Quebec Breeders' Association, and president of the Dominion Ayrshure Breeders' Association. Some years ago the Qaebec Government sent a delegation to France, Italy, Belgium, and Switzerland to investigate

Some years ago the Quebec Government sent a delegation to France, Italy, Belgium, and Switzerland to investigate the condition of agriculture in these countries, and make a report for the benefit of the Quebec farmer. Mr. Ness had the honor of heing chosen as one of that delegation, along with the Premier of the province and a member of the Legislature. Mr. Ness is in great demand as an expert judge at the leading agricultural fairs. He has acted in this capacity at nearly all the leading Canadian fairs, where his record for honesty and fair dealing is highly appreciated by all exhibitors. FARMING wishes Mr. Ness continued success. success.