

is no longer true. Every bushel of wheat the Canadian farmer raises has to compete with one hundred foreign bushels raised by one hundred foreign farmers, many of whom are content to live on one-fifth of the daily wages the Canadian farmer needs—many, indeed, on a tenth. Every instance, therefore, of intensive farming that comes to light should be described so that its character may be known, its merits discussed, its lessons learned, by every farmer in the land. Mr. D. M. Macpherson, of Lancaster, may be justly called an intensive farmer; and we are pleased to be able to announce that we shall in several early issues of *FARMING* be able to give our readers some account of his methods and of his success. In the past season, for example, he raised between seven and eight thousand dollars worth of stuff off a farm of 125 acres. We wonder how many Canadian farmers have been able to equal that record!

Mr. George W. Hallock, of Gardiner's Bay, Long Island, N.Y., is another intensive farmer whose achievements are worthy of study. From a long account of his farm and methods in a late number of *The American Agriculturist*, we make the following summary of results: The farm is of 68 acres. In the year 1894, a year marked by disastrous failures for almost all farms in the neighborhood of Gardiner's Bay, the yield from Mr. Hallock's farm was: Strawberries, 9,300 quarts; early potatoes, 4,500 bushels; early cabbage, 4,260 barrels; onions from sets, 2,350 bushels; late potatoes, 1,800 bushels; onions from seed, 6,000 bushels; squash, 530 barrels; carrots, 6,000 bushels; Brussels sprouts, 200 bushels; Hungarian hay, 4 tons; corn in ears, 1,000 bushels; onion seed, 125 lbs.; carrot seed, 75 lbs.; onion sets, 150 bushels; cabbage plants, 275,000! This is calculated to be an average of about 700 bushels per acre of the best sort of market produce.

As an illustration of the way in which some of Mr. Hallock's crops are made to yield, it may be mentioned that for three years off the same field he obtained a yield of 800 bushels per acre *each* of onions and of carrots, or 1600 bushels per acre in all! The potatoes this year when harvested on July 5th, yielded 300 bushels an acre; if they had been left till the vines were dead, the yield would have been 400 bushels per acre, but the price would not have been so good. To maintain the fertility of a farm of this sort, of course, much manure is needed; but a great deal of the manure supplied consists of green stuff turned under. To secure the best prices every care is taken to get the crops marketed early. Nothing but the best seeds are used and these are grown on the place. The methods of seeding employed are for the most part original with Mr. Hallock. The carrot seed is germinated before it is sown. The potatoes are sprouted before they are planted, and by this means a gain of three weeks is made in the time of harvesting, so that the crop can be sold when the prices are highest. Cold storage also is used to extend the time during which the vegetables raised can be kept before they are marketed. For example, carrots kept in cold storage can be put on the market two weeks later than those kept in pits or cellars. One important point is that Mr. Hallock never gives his soil a rest. He sensibly believes that as nature never takes a rest artificial culture need not take rest either. Rotation of crops and the proper use of manures are everything that is required. It should be added that Mr. Hallock was a pioneer in the sort of farming he pursues. His example, however, is now followed by his neighbors, and some of them he says, are doing even better than he is.

Asia as a Grain Market.

Mr. J. J. Hill, the president of the Great Northern Railroad, that great railway route that runs from Chicago, St. Paul, etc., along the heart of the great wheat-producing districts of the Northwestern States through to the Pacific coast, is making strenuous efforts to establish an Asiatic market for the grain crop of the Pacific coast. In the last two years there has been a marked increase in the

shipments of flour to Chinese ports, and Mr. Hill says that if the matter is followed up with intelligent effort a great market can be secured. As an instance of the tremendous possibilities of the market he adduces the fact that if the people of a single province of China could be induced to use *one ounce of flour* per day per capita the consumption would absorb the whole wheat crop of the Pacific coast! He urges very strongly the sending of a government commission to China and Japan to investigate the possibility of opening up a market for American grain in those countries. He has had, at his own expense, an expert in China for a year investigating the matter; and from the information which he has thus received he is convinced that in the possibility of selling wheat to these countries lies the best hope of the American wheat-raiser.

The making of China and Japan a market for wheat raised on the Pacific seaboard will have an effect on the wheat price of the world quite beyond what at first sight might be thought. As things now are the wheat raised on the Pacific slope is put on shipboard between October and April of each year. Every bushel of it is known and reckoned up in the trade rooms of Liverpool, the centre of the world's wheat market; and the fact that this wheat is afloat, and that when it reaches Liverpool after its long voyage round Cape Horn it will *have* to be sold no matter what the prices then may be, tends to keep down Liverpool prices for *all* wheat during the whole time that it is on the voyage. Thus the price of wheat on the Atlantic seaboard is unduly lowered by the peculiar circumstances of the Pacific seaboard competition.

Canada is as yet not very much directly interested in the possibilities of the Asiatic market for wheat. For, although last year we sent wheat both to the English colony of Hong Kong and also to China, the probabilities are that all the wheat raised in British Columbia, and in such parts of the Northwest as can profitably send wheat westward, will for some time be used in the mining regions of British Columbia. But all these western countries of ours are as yet in the very swaddling-clothes of agricultural infancy. We trust in the next five years to see an immense development there; and nothing could secure the filling up of these magnificent areas of natural productiveness more rapidly than a general belief in the possibility of there being there a good market for all grain raised. We therefore ask: Would it not be wise for our Canadian Government to join hands with the American Government in an endeavor to find out what the possibilities of the Asiatic wheat market are? The thing cannot be done by private enterprise. Mr. Hill has done a great deal; but he is a wealthy man, and has a huge corporation at his back. And even Mr. Hill says the matter is one which the government ought to take up. The truth is a government is infinitely bigger than any individual—than any corporation. We trust our government, therefore, will act in the matter.

Live Stock in the United States.

Never before, for at least seven years, has there been such heart in the live stock breeders of the the northern and western states as there is just now. The good feeling has been manifested all along the line. Even in horses, which showed the worst depression, there is a general upward movement. The export of horses for the twelve months ending June 30th was a million and a half of dollars greater than it was in the preceding twelve months—which in itself was a good thing. Then the trade during during July, August and September, usually the worst months in the year, has been exceedingly steady. Even the inferior sort of horses have found a market, and are taken to the south to be used instead of mules. In cattle, the demand for stockers and feeders has been unprecedented. Prices are good, the export trade is booming, and the feeling generally is that better times are at hand. There is also a great supply of feed on hand. The corn crops of '95 and '96 were record breakers; and a great deal of last year's crop is still unfed. The corn crop of this year,

though much less than that for '96 or '95, is nevertheless a good one; and altogether there is an enormous amount of feeding stuff to be used up. These two facts taken together, the good prices, and the plentifulness of feed, mean that a great many farmers will go into cattle feeding that have been out of it for years. In sheep, there is perhaps more development than in any other sort of stock. No matter how the prices of cattle and hogs have varied during the past six months, the prices of mutton-sheep have kept perfectly steadily moving upward. In swine alone is there any feeling of uneasiness, and in them only because of the prevalence of the dreadful swine plague. But so many herds have to be built up anew that the demand for purebred hogs for re-stocking purposes is quite active. Now all this means a very great demand for the purebred stocks of Canada. Our flocks and herds are free from disease and are of the best quality, and the Dingley duty, fortunately, does not here interfere. Let our stockmen then take heart too. Good times across the lines mean good times here also. And let the breeder of grade cattle and sheep take heart also. Although the American demand for stockers and feeders cannot continue to be as active as it has been, still it will be somewhat active for some time to come. And of grade sheep, both feeding ewes and rams, there is likely to be a good demand for at least a year or two; for it will take at least two years for the Americans to stock themselves on the scale they are now planning.

Hog Cholera in the West.

The hog cholera in the west is still rampant, and swine keepers are becoming almost discouraged. In one county in Iowa alone 64,000 head have died since January 1st. Scarcely anyone believes that a genuine case of the cholera can be cured. Each state is pursuing its own line of action; but in all the states the efforts most relied on are sanitation, inoculation, etc. In Iowa when a herd is condemned, the sick ones are slaughtered and the carcasses are burned, and the farmer receives 1½c. per pound for his hogs. Those that are not sick are inoculated with an anti-toxine serum. Good results have, as a rule (though not always), come from the inoculation, the disease being stopped by it. The herd is fed during the time of treatment at government expense, and the following preventive is given: Wood-charcoal, 1 lb.; sulphur, 1 lb.; sodium chloride, 2 lbs.; sodium bicarbonate, 2 lbs.; sodium hyposulphite, 2 lbs.; sodium sulphate, 1 lb.; antimony sulphide, 1 lb. This preventive is pulverized and mixed thoroughly, and one large tablespoonful given for each 200 pounds of hog once daily. But what is principally required is absolute quarantine, a thorough inspection of stock cars, and a thorough renovation and disinfection of railroad stock yards, and of all swine pens on the farm. Between national and state authority there does not seem to be the co-ordination of action there ought to be. This is to be regretted, for the evil is a terrible one.

The Sheep Outlook.

The activity in sheep is the most striking feature in American live stock raising to-day. This is partly caused by the effect of the Dingley Bill, which is making a strong demand for American-grown wool. Under the McKinley tariff wool was highly protected. Under the succeeding Wilson tariff it was not. As most of the sheep then kept by American sheepmen were wool-producers and little else, almost everybody who kept sheep sold out. But during the past ten years there has been a great development among the people of the United States of the mutton-eating habit; also a very great increase in their fondness for "spring lamb." So that while sheep were formerly kept for their wool alone, they are now kept for mutton. And as the Dingley Bill, by its protective tariff, is now making a demand for wool to spring up again, the sheep that are presently needed are those that will produce both mutton and wool. But still the number of sheep kept in the United States is far below what it formerly was. In 1884 the number of sheep kept was 92 per 100 of population. To-