

command, we will have to resort to eating mutton. There will also be a great export demand for the article. We have too much corn, too many hogs, too few sheep."

Sheep-raising is responsible for a large share of the wealth of Australia and some parts of Great Britain, and why it will not materially increase the wealth of this country there is no adequate reason for. True, as we pointed out a few weeks ago, the worrying of sheep by dogs has had no small part in deterring our farmers from raising more sheep. But this is not an insurmountable difficulty, and, if active measures, such as we gave in our issue of Oct. 18th last, are put in force, the injurious effects of the sheep worrying dog can be easily overcome. Surely there is ingenuity and inventive genius enough in the farming districts of this country to devise some plan of preventing the "prowling" and "sneaking" dog from driving a most important industry to the wall. A sheep is of more value than a prowling dog any day, and the country would be none the worse if there were none of this canine tribe in it. How many farmers have ever got rich by keeping a dog? True, a well-trained dog on the farm is very useful, but if the keeping of dogs on the farm will prevent the growth of so important an industry as sheep-raising the sooner their hides are tanned the better.

Profit in Keeping Hens.

It is considered that 75 cents is a fair estimate for keeping a hen on a farm for one year. This estimate does not allow for kitchen waste, etc., which may be of little value when not fed to the hens. When everything has to be purchased it is estimated that the average size hen will consume from \$1 to \$1.50 worth of grain and supplies in a year. Some farm poultry growers in the United States reckon the cost of keeping their fowls at 50 cents a year. Such an estimate, however, must only cover the cost of feeding them during the winter, and does not place any value on summer feeding in the fields. The lowest estimate recorded is 25 cents per year, but this must apply to countries where there are summer conditions all the year round.

If \$1 per year be taken as a fair average for keeping a hen a year, what profit is there in the business for the poultry raiser? This will depend, largely, upon the kind of fowls, and how they are cared for and fed. It is stated that an experienced poultry raiser of New York State, by selecting the best layers among his flock of Leghorns for several years, got his whole flock of 600 up to an average of 196 eggs per hen per year. This is an extremely high average for so many hens on one farm, and it is not to be expected that ordinary fowls will do as well. At the current price for fresh eggs each of these fowls would return its owner about \$3 a year for eggs. But even if we cut the number down to 100 eggs for each hen per year, there is money in the business for the farmer if he looks after it properly.

Beerbohm Wheat Review.

Beerbohm's London list of October 14th gives some valuable figures as to the probable surplus of wheat exporting countries will have and the amount importing countries will need. The following list gives the probable exports of the various countries for 1898-99 in quarters:

	Quarters.
America and Canada	25,000,000
Russia.....	10,000,000
Roumania, Bulgaria, Turkey and Servia....	6,000,000
India.....	2,000,000
Tunis and Algeria.....	1,000,000
Australasia	1,250,000
Total.....	45,250,000

In this list the probable exports from all countries except Argentina, Uruguay and Chili are given. It is estimated that these countries will have at least 3,000,000 quarters to spare and may possibly run up to 6,000,000 quarters

Another list, which is as follows, gives the probable imports for 1898-99:

	Quarters.
United Kingdom.....	22,000,000
France	1,000,000
Germany, Belgium, and Holland.....	11,000,000
Italy.....	2,500,000
Spain and Portugal.....	750,000
Switzerland.....	1,750,000
Austria-Hungary.....	1,000,000
Greece, Scandinavia, and Sundries.....	1,500,000
Extra-European countries.....	3,750,000
Total.....	45,250,000

As will be seen, the total imports are equal to the exports with the exception of those from Argentina, Uruguay, and Chili, and to quote Beerbohm's summing up, "In any case, the surplus over the requirements is by no means serious when we reflect how greatly reduced are the reserve stocks; it will, in fact, evidently require more than the surplus growth of this season to restore the world's reserves to a normal level. However, it is apparent that the more distant future of the market depends to a large extent upon the next Argentina crop. In this connection it will be well to bear in mind that the gold premium no longer favors very low prices, as it did, for instance, in the years 1891 to 1895, the memorable seasons of 1894 and 1895 in particular."

By substituting eight bushels for each quarter in the above estimates the amount can be changed into bushels, and be more readily understood by people in this country

Potatoes and Field Roots for Fattening Lambs

By Prof. Thos. Shaw, University of Minnesota

This experiment relates to the feeding of lambs bought upon the Montana ranges. The lambs were purchased at Culbertson, Montana, from Wm. B. Shaw, the manager of Prospect Ranch. They had been reared on the open range, and were part of a lot brought in from the range in the autumn of 1897.

Chief among the objects sought were the following: (1) To ascertain the value of potatoes, mangels, and sugar beets respectively as food factors in fattening lambs. (2) To ascertain the outcome from feeding very ordinary range lambs under what may be termed high pressure feeding. There were also secondary objects sought, but of a less important nature. The behavior of the lambs on the diet of roots was the feature of the experiment. Potatoes are largely grown in our state, and in some seasons, as, for instance, in 1895, the price falls so low that the marketing of the potatoes is of doubtful advantage. These conditions have very naturally begotten a desire on the part of farmers to know their precise value in feeding and their relative value for the same use.

The lambs chosen were what might be called the tail ends of a lot of 300. They were not really culls, but were small in size, and not of so good form as were the major portion of the lambs of the entire lot. They weighed, on an average, 49.7 lbs. when the experiment began. They were from Oxford Down grade sires and from dams that were essentially Merino grades in breeding. They were a little flat of rib and long of limb.

They were divided into three lots of twelve each, as thirty-six in all were fed. Each lot had a small apartment of the piggery, 8 ft. x 11 ft., and each had access to a small yard, 8 ft. x 20 ft., on the sunny side of the piggery. They were plentifully supplied with water and salt in addition to the other food named. They were weighed every two weeks. Those to which the potatoes were fed are spoken of as lot 1; those to which mangels were fed are referred to as lot 2; and those to which sugar beets were fed are designated as lot 3.

The grain proportion of the food fed consisted of corn, barley and oil cake, fed in equal parts by weight. The hay was clover and timothy, the former predominating. The