

consumed, annual unit consumption of wheat having increased about 100 per cent. within twenty-five years. In Belgium the situation is much the same as in Scandinavia, while in Italy little change in unit consumption has taken place.

In Russia the unit consumption of wheat has declined 14 per cent. and that of rye 13.5 per cent. since the close of the eighth decade. On the other hand, the unit consumption of maize and potatoes has increased, of the latter some 13.5 per cent.

In relation to the consumption of the bread-making grains in Argentina, Brazil, Uruguay, and Chili, few satisfactory data are available, but the recent European emigration has doubtless increased the proportion of wheat and diminished that of maize in the dietaries of Argentina and Uruguay, while Chilean wheat consumption has long been relatively to population, but little below that of Belgium. In Brazil emancipation and higher prices for coffee have stimulated the use of wheat and other high forms of food. Australian consumption of wheat per unit is the greatest known. There is little reason to believe that any considerable change in unit consumption has taken place in the United States for a number of years.

Investigations pursued concurrently with the assembling of data relating to population, acreage and production show that unit consumption of wheat by the "bread-eating" world has increased steadily since 1870, while unit consumption of rye, spelt, maslin and buckwheat (grains grown as exclusively for bread as is wheat) has steadily declined, and in much the same measure as unit consumption of wheat increased. So marked has been the change in the acreage under bread-making grains, relatively to the consuming population, that the area employed in growing breadstuffs is now over two million acres less than fifteen years ago, and but twenty million acres greater than in 1871. Had the rate of area increase equalled the 37.5 per cent. at which the "bread-eaters" increased, additions to the bread-grain area since 1871 would have aggregated much more than 80,000,000 acres, instead of the meager 20,000,000. That the acreage was not excessive in the early part of the eighth decade is evident from prices then obtained and the absence of unmanageable surpluses of grain. The "bread-eating" population increased from 1871 to 1897 37.5 per cent., while the increase of wheat during the last twenty-five years has been 25.6 per cent., of rye a decrease of 4.1, spelt and maslin a decrease of 22 per cent., and buckwheat a decrease of 40.8 per cent.; a total average increase of 7.6 per cent. The wheat area of the countries inhabited by "bread-eaters" who procure less than one per cent. of their supplies from Asia and North Africa is shown to have increased in twenty-five years 25.6 per cent., as against a population increase of 37.5 per cent. Outside the regions inhabited by the "bread-eaters" there are in Asia, Persia, Asiatic Turkey, and North Africa some 40,000,000 acres employed in growing wheat; but exports from all such regions aggregate in recent years less than 20,000,000 bushels per annum, and decline gradually as the population of such countries increase; hence for the bread required the populations of European lineage must rely for more than 90 per cent. upon the "contributory areas" they occupy. The wheat-growing area of the United States in 1897 is quite 3,000,000 acres less than fifteen years earlier. It is noteworthy when the United States ceased adding to its wheat fields those of the world ceased to keep pace with the increase of the "bread-eating" population, and are now greatly deficient. So great is the deficit that, with acre yields no greater than the average of 12.7 bushels of the last twenty-six harvests from "contributory areas," the output would be 275,000,000 bushels—or the net product from some 27,000,000 acres—less than the present needs.

Argentina and Uruguay alone promise material additions to the world's wheat-bearing area, and together they have an area potentially wheat-bearing about equal to three or four of the Central American States. For years to come development must be slow, as the essentials of population is lacking, a dearth of laborers being yearly experienced at seed time as well as during harvest.

Mr. Davis, after reviewing the prices obtained for wheat at various dates during the last 200 years, shows that the low prices of recent years were due to a succession of good crops since 1832, which added to the visible supply an immense amount of wheat as well as rye. Reserves have now been reduced to the lowest point consistent with safety. The United States is credited with a crop of 525,000,000 bushels, but official indications point to one of only 460,000,000 bushels. Moreover, Asia and Africa are credited with ability to export 10,000,000 bushels, but such exports, if made, must in a large part result from crops not yet sown. Summing up the universal situation the writer shows that but three-fourths of the required bread can be provided, unless larger drafts than now seem possible can be made upon reserves reduced to the lowest point consistent with the safety of exporting nations.

The situation will be brought into clear relief by stating that in the last six years Europe has grown and imported an annual average of 1,655,000,000 bushels of wheat, of which some 210,000,000 bushels yearly have been used as seed, the remaining 1,445,000,000 bushels for food; the annual average unit supply having been 3.8 bushels. This year there are 392,000,000 European units to be fed, requiring 1,490,000,000 bushels of wheat. The present situation shows that after Europe shall have exhausted

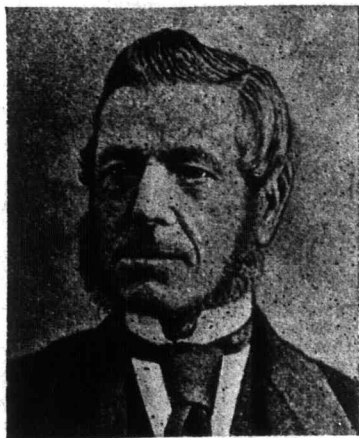
all possible supplies from harvests of 1897, and such crops as may be harvested prior to July, 1898, there will apparently be a deficit of the equivalent of 700,000,000 bushels of the bread-making grains, with no resource except meager reminders from former harvests, and with no substitution possible except Europeans can be induced to eat corn bread.

Mr. Davis concludes by saying that to meet each year's increasing requirements the world must annually add one-half more acres than ever before. And what is likely to be the situation if the world should again harvest in succession three such crops as those of 1879, 1880, and 1881, crops which gave acre yields materially below that which now results in a deficit of one-fifth, or possibly one-fourth, the bread required?

#### Death of Jas. S. Smith.

It is with regret it devolves upon us to chronicle the demise of Mr. James S. Smith, on Oct. 4th, at his late residence, Maple Lodge, Ont. His activities in the business world have been cut off for some time owing to failing vigor, so that his end was not unexpected.

Mr. Smith was born in Caithness, Scotland, in 1816. To him his native land was always "home," and he was laid at rest with a sprig of heather fresh from the hills he often trod laid upon his breast. He came to this country in 1842, settled in Toronto, and until 1846 was in the employ of Ogilvy, Michie & Co. It was during this period that many friendships were formed with those who afterwards were leaders in political and social life, and in the trade and business of the country. During this time Hon. George Brown began his editorial work in Canada, and Mr. Smith assisted him in turning the press when the first copy of *The Banner* was printed. He had lived in the Township of McGillivray for 41 years, where for a long period he was a leader in every movement for the advancement of common good of the community. Mr. Smith's liberal views and his anxiety that every man should have an equal chance caused him to fight, and with success, for free education when it was indeed a battle. In 1860 he organized the McGillivray Agricultural Society, and held the office of president for sixteen years. In 1863 he was



THE LATE JAMES S. SMITH.

elected reeve of McGillivray, and held the office till 1866, being one of the county councillors at the time McGillivray was detached from Huron and added to Middlesex. Since then, as long as he was able, Mr. Smith has always taken a lively interest in municipal affairs. For two Parliaments—from Confederation till 1875—he sat in the Ontario Legislature for North Middlesex. He was recognized by the Hon. Edward Blake and other leaders of the Liberal party as an able representative, being especially valued in the House committees, and because of his varied experience he gave valuable aid in the shaping of legislation. As a farmer, Mr. Smith was recognized as a leader among those who held progressive views, and was one of the most successful stock raisers and exhibitors in Ontario, taking a great pride in his flocks and herds of Leicesters and Shorthorns. Until his death, ever since the organization of the Ontario Agricultural College, Mr. Smith has been a member of its Advisory Board. He was of kindly disposition. Few could "welcome the coming and speed the departing guest" as he could. His many friends will not soon forget his dauntless courage, his fearless, honest expression of opinion, his warm sympathy with any one's distress, his appreciation and struggle for truth and right, and his hearty satisfaction in a friend's success. After an extensive business relationship and long intimate acquaintance, the *FARMER'S ADVOCATE* can bear testimony to his honorable business principles and genial personality. He was a staunch Presbyterian, in which church he was for many years a devoted member and elder and an unceasing worker. A Reformer in politics, in business, and in the church courts as well, he was an active spirit during "the disruption," and his heart thrilled as he recounted the events of 1843; but he loved the old forms of worship, and was very jealous of any changes. His estimable wife and family of one son and four daughters still survive him. The farm and stock business will still be continued by Mr. A. W. Smith, who has borne the responsibility during his father's illness. The funeral, conducted by the Rev. George Sutherland, Fingal; Rev. Alex. Grant, St. Mary's; Rev. W. G. Jordan, Strathroy; and Rev. Mr. Coutts, Ailsa Craig, was attended by a large concourse of friends and acquaintances on Oct. 6th. His remains were interred in Carlisle cemetery.

## STOCK.

### Raising and Feeding Steers for Profit.

It appears to be the general opinion among farmers this year that any person who is lucky enough to own a number of steers cannot fail to make a profit out of his stock, either by selling them off for stockers or feeding for Christmas or the spring markets. No doubt there is a greater opportunity to make a profit on stockers this season than there has been for some years past. The prospects for those who stall-feed cattle this coming winter are, to say the least, very encouraging. But there are a few matters that require attention at all times in raising and feeding steers for profit.

The dairy industry having proved so profitable throughout the country has induced many farmers to breed and feed their stock in such a way as to develop the milking qualities of the herd. It has also been found that beef breeds are usually unsuitable for their business, and cows of the various dairy breeds have been substituted to a great extent. Our only remark is, "Proceed with the good work." But while doing so remember that steers of the dairy breeds are just as unsuitable to feed for beef. By this we mean grades of the dairy breeds, for we do not suppose there are many pure-breeds raised for this purpose. Steer calves of this class may be kept as slick and good looking for the first two or three months of their life as those of beef breeds; afterwards they begin to show their breeding, and if beef is the object they are in most cases kept at a loss to their owner. As they make very good veal at this age it is a suitable time to dispose of them. Then arises the question, "How can dairy farmers raise young stock to consume the coarse foods raised on the farm?" In years past it has been the custom with a number of farmers who raised grade stock of the beef breeds to destroy when young or send to the block at six or eight weeks of age their surplus stock of calves, especially if they were engaged in mixed farming or dairying. If this system is continued, which is not probable, owing to the shortage in stockers at present, it will be an opportunity for those who handle the dairy breeds to procure calves to raise for beef. Otherwise it will be advisable to purchase stockers (grades of beef breeds) to consume the surplus food and convert it into beef. Although they are rather scarce at present, still there are numbers of lean cattle sent to the shambles every week, many of which might be profitably fed for beef and thus avoid glutting the market with inferior stock. Among them are to be found grades of the various dairy breeds. These are what dealers usually class as "scrubs." It is almost certain that they are a source of profit to no person, from the man who raises them until they are served as second-class fare on the tables of the inhabitants of towns and cities throughout the country. The late Professor Stewart, author of "Feeding Animals," estimates two-thirds of a full ration as required for the food of support. This being the case, it shows how unprofitable it is to raise and sell lean stock, as they have received too little beyond the food of support from which the profit is derived. In order to leave a fair margin for profit they should realize almost the same price per pound as finished cattle. But only in times of scarcity do they command anything like the price of beef, except for first-class animals. Under proper management the practice of purchasing stockers to feed should be a profitable business. Of course if the man who raises stockers for others' profit does not succeed in life he may rest with an easy conscience that he may at least be remembered by the next generation as a philanthropist.

It is an undisputed fact among the best stock-raisers that the system of early maturity is the only method by which success may be attained. The stock require to be maintained in a healthy condition and kept growing steadily. It is not considered advisable to feed much grain until the cattle are being finished for market. The greatest importance should be attached to feeding a ration suitable to secure rapid growth. The bulky part may consist of oat straw, ensilage or corn fodder and chaff, with sufficient roots to assist digestion and increase the appetite. Clover hay may be fed to advantage in place of the oat straw for one or more of the daily meals, especially in the case of yearlings. In fitting for beef much the same food may be used, with the addition of ground oats and peas. The grain should be fed sparingly at first and gradually increased until they are getting all they can digest properly. This is the critical period. The greatest gain in flesh and weight is now required at the least possible cost. There is a difference in the constitutions of individual animals, and one pound too much grain may put an animal off its feed, and at this stage it is not likely to thrive so well afterwards. When clover hay is not too expensive it may be fed largely in place of the straw and chaff, but a little variety in the bulky ration is always satisfactory to the animals. If it is convenient to run the coarse fodder through a cutting box it may be made more palatable by mixing with the grain and pulped roots. But under no consideration should the grain be fed separately. By adopting a careful system along these lines the stock may be marketed at least a year earlier than otherwise.