



Nature.

O BOUNDLESS benefactor, Mother Earth!  
 Year after year the corn out-tassels tall,  
 The golden grain rears bearded head to fall  
 Before the reaper's hand; at springtime's birth  
 Thou mak'st the waste to blossom, wealth and worth  
 From never failing treasure house for all  
 Unfolding with a power magical,  
 Giving new life and joy, O bounteous Earth.

Nor dost thou leave the soul of man unfed:  
 The violet blooms for prince and peasant's eye;  
 With ceaseless roll the wave breaks on the beach;  
 The cataract falls in foam; for all and each  
 A living beauty, breathing harmony  
 O'er field and forest, moor and mount, is shed.

—E. F. Emerson.



Up to August 26th the hopes of farmers in Manitoba ran high, as they had every prospect of being able to harvest their immense crops in good condition. But that night the province was visited by that dreaded enemy—frost—in a more or less severe form, and gloom prevailed. It is, of course, impossible to say to what extent the crops have been damaged, as that will not be known till the grain is threshed, but it is believed that in the north-western parts of the Province, where the frost was most severe, considerable injury has been done. About 25 per cent. of the grain had been cut and

was, of course, saved. North Dakota and Minnesota were also visited by severe frosts and considerable damage done to the crops. In England and Ireland the crops have been ruined by heavy rain storms, and farmers have lost all hope of a harvest, as the fields are entirely covered with water. Harvesting operations in Manitoba and the North-West are being carried on vigorously, and it is to be sincerely hoped that the weather will continue favorable, and that the loss by frost will be found to be much less than is now supposed.

THE count of the farm and home transcripts made in accordance with the mortgage collection clause of the United States Census Act, shews some most interesting figures. There were returned by the enumerators 2,491,930 farms and homes occupied by owners which are encumbered by mortgages. This number includes some farms and homes about which the enumerators made no report, and which partly belong to the class of hired and partly to the class of owned free, as well as partly to the class of owned and encumbered. Until this unknown quantity, due to the failure of the enumerators, is eliminated, it may be regarded as approximately true that two and a quarter million families of the United States occupy and own encumbered farms and homes, and that ten and a quarter million families occupy farms and homes that are either hired or owned free. The proportions of hired and owned free homes and farms will be known when the population division completes the count of the returns pertaining to them. The preliminary results indicate that the average debt for

a farm in the agricultural state of Iowa is \$1,283; home \$719; average for farm and home, \$1,140. If these averages hold good for the union the encumbrance on the farms and homes of the United States, occupied by owners, is about \$2,565,000,000. Incomplete returns from several western states indicate that farms and homes are mortgaged for about one-third the value put upon them by the owners.

WE referred some months ago to the result of experiments made with electricity in France, on vegetation, and it appears that more recent experiments have been successfully made in Russia. These have demonstrated that certain vegetables, the growth of which was previously considered to be retarded by the application of electricity, are in fact highly susceptible to that influence. Four years ago elaborate experiments were made in Finland. A small field was selected, and wheat was planted in it. Over a part of this field was stretched a system of parallel wires, from which points extended downward. The space between each wire and its nearest neighbour was one meter, and the distance from one point to the next one was also a meter. An electric current was supplied from machines set up in an adjoining shed. The crop of wheat grown under the wires was greater by nearly fifty per cent, than that taken from an adjoining and equal area where electricity was not supplied. By this experiment and others, it was concluded that the development of wheat, rye, barley, oats, beets, parsnips, potatoes, beans, and strawberries could be accelerated by electricity, but that the growth of carrots, turnips, cabbage, peas, and tobacco might be retarded by the same agent. But the Russian experiments showed that the growth of peas was greatly accelerated by electricity and that it caused carrots to grow with astonishing rapidity and to an extraordinary size. In the course of time it is not therefore improbable that the electric current will be, at least, used profitably by market gardeners and in connection with hot-house culture.

THE August bulletin of the Ontario Bureau of Industries states that in the three points of yield, quality, and housing the crop of fall wheat this season has an enviable record. The average yield for the province is estimated at 24.4 bushels to the acre, while for the nine years 1882-90 the average was but 19.4 bushels per acre. The average yield of spring wheat is estimated at 18.8 bushels per acre, the average for the previous nine years being 15.2. The total estimated yield of fall wheat is 20,833,986 bushels, and of spring wheat 9,603,666 bushels, or altogether about eight and a half million bushels more than last year. The total area in fall and spring wheat is 1,363,067 acres as compared with 1,321,854 acres in 1890. The area in barley has been diminished by 148,160 acres but the yield per acre is estimated at 27 bushels per acre as compared with 22.2 last year. The total estimated yield is 14,910,750 bushels. The area in oats is a little less than last year, but the yield will be enormous, being estimated at 68,305,213 bushels, or 37.1 bushels per acre as compared with 28 bushels last year. The area in rye has been reduced by one-third. Less peas were sown than last year, but the total production will be two and a half million bushels more, which means an increase of four bushels to the acre. Although the area in hay has increased by about 87,000 acres, there were nearly two million tons less cut than in 1890, but last year's was an exceptionally heavy crop. Altogether the bulletin shows that the harvest throughout Ontario has been a most bountiful one.

THE result of the census has, we fancy, been received generally with surprise and disappointment. The total population of the Dominion is 4,823,344, an increase during the past ten years of only 498,534 or 11.52 per cent as compared with 17.31 during the previous decade. The three Maritime Provinces combined have only added 10,209 to their population, New Brunswick's share being only 61. In the western territories and provinces there has been a gross increase of 172,699, the percentages being Manitoba, 148.01; the Territories, 140.98; British Columbia, 87.56; unorganized, 4. Ontario