lair than there there's generalto hear them re no womano' the case a's in yer time, at if they are a pretty high ad. And noo his Twentieth pace they can ng moral an' ntion. They're t'again, which d as there is 'll say that."

na swear to,

chaps in this

well of women

always speak

"We'll let it

w in localities he Shad-flies. shed by their with the very laments, two es, at the end

aymphs, (see either under bottom, or ey are active breathe by sides of the hout coming

atic insects.
er and lower
air-tube, or
nches. An
he walls of
en, which is

ars, dependhat is after he situation ult. When f the water, nged insect henomenon of found in the winged the nymph and after

the imago the sunees, fences

sting from called the sythology, oot comes eat at all or reduced

st of the cs, fences nanner of In some

In some ged in a to the time, the while in the water

lt stages, of fresh-

The World's Wheat Situation.

The present and future position of wheat in the food economy of the world is a matter of vital importance to Canada. It is our big cash crop, upon the successful marketing of which individual and national prosperity largely depends. The war has given wheat a place of fundamental importance in assuring ultimate military success. The munitioning and arming of our soldiers at the front, contrary to the opinion of many manufacturers and traders, is a problem of no greater urgency than providing the troops and civil populations of the Allies with food. And, among breadstuffs, no commodity compares in value with wheat.

August 8, 1918

Before dealing with the conditions that confront Western farmers with respect to the wheat question, we may glance at some of the outstanding factors in connection with the growing of this crop. The most notable feature in the production of wheat is the worldwide extent of its growth. It is produced everywhere except within the tropics. Nevertheless, in certain parts of Italy and India, the grain is successfully cultivated, although these regions are sub-tropical in nature. This is made possible by the altitude and the consequent coolness of the climate. In addition to this feature of universality of cultivation, wheat shares

with cotton leadership as an export crop. In normal years, owing to the steady demand and uniformity of supply, the price of wheat fluctuates but little. And yet, because it is used largely as a food for man, the demand is 'inelastic''—that is to say, the demand is practically unvarying. With corn and other grains that are used for animal food, prices are controlled by the principle of substitution. This explains in part why wheat prices have reached such high levels since the outbreak of war.

A word may be said in passing, also, with reference to future markets for wheat grown on this continent. From time to time pessimistic articles have been produced, in the past, bearing upon the wheat situation; the opinion being expressed that the Prairie Provinces were concentrating unduly upon this staple crop, and that there were definite limits to the supply that could be produced and sold at a profit.

Notwithstanding the undeniable fact that wheat production has increased amazingly during the past century, the demand has more than kept pace with the supply. At the outbreak of the Napoleonic struggle, the population of Europe was 175,000,000, while during the nineteenth century it increased so rapidly that, at the outbreak of war in 1914, it stood at 450,000,000. And, what is of greater significance, owing to economic transformation in the industrial life of Europe, the culture of wheat in some of the most progressive nations represents a dying industry. From the long-time point of view, there is no need to worry, therefore, over securing markets for the outlet of all the wheat we can grow.

The most important sections in the world for the production of this staple are that section of America stretching from Texas almost to the Arctic Circle, and from the Mississippi to the foothills of the Rockies; that part of Europe which embraces France, Austria-Hungary, Northern Italy and Russia; Northern and Northwestern India; the Argentine Republic, and Southeastern Australia. Even a superficial study of the countries covered discloses a vast range of climatic and soil conditions, under which wheat is produced without wide fluctuations in the world's supply from year to year. The varieties cultivated, the production of spring and winter wheat, the effects of rain upon wheat cultivation in humid and semi-arid regions respectively, and the wide ramifications of trade and commerce, all make for the elimination of variations in the world's normal supply of this basic foodstuff. When it is recalled that the wheat belt extends from the sub-tropical areas of Italy and Morecco to regions

of long winters with severe climates in Russia and Canada, one begins to understand the reason why fluctuations in the supply of this staple, from year to year, are reduced to a minimum.

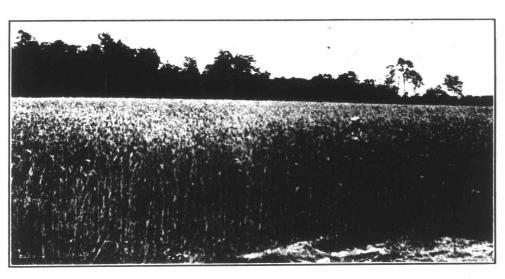
The great bulk of the world's wheat supply is grown in pioneer countries and upon semi-arid lands. France, Great Britain, the Castern parts of Canada and the United States grow wheat, and good wheat, it is true, but under unfaverable conditions of culture. Court Britain and France produce more bushels per dere than the Argentine or made, but less bushels Carata. Where land is or dear, labor costs and competition of crops keen, it beincreasingly difficult onemically grow

BY W. W. SWANSON, PH.D., PROFESSOR OF POLITICAL ECONOMY, UNIVERSITY OF SASKATCHEWAN.

wheat. It is almost certain that Canada, the Argentine and Australia will gradually secure for themselves an increasingly important place in the wheat exchanges of Europe. As already remarked, in the United Kingdom, France and Germany, wheat cultivation is a dying industry. The business of wheat production needs to be carried on on a large scale to secure success. And, as Canadian farmers introduce more scientific methods of seed selection and tillage, and secure better drought-resisting varieties, the cultivation of wheat will be extended and increased. This, doubtless, is also true of the Western United States, and especially of the semi-arid regions of that country.

arid regions of that country.

Owing to the fact that wheat is relatively easily transported, that it is handled mechanically, and that it is a world commodity, it is plain that no one country can dominate the wheat markets with respect to either supplies or price. Each month of the year an important part of the world's supply of wheat is being harvested. However impatient, therefore, we may be of facts and figures and statistical data, it is a matter of imperative



Prospects for a Heavy Yield.

importance to every well-informed farmer to understand something of the conditions bearing upon the world's supply of this, his most important cash crop. And at this juncture, when the winning of the war depends largely upon speeding up food supply, it is scarcely less vital to understand just what the situation is, with respect to wheat, in the principal producing countries.

The nations at war produce at, or near, the battlefield, 37 per cent. of the world's normal supply of wheat, and consume 45 per cent. of that supply. It is plain, therefore, that a heavy responsibility rests upon Canada and the United States in furnishing wheat to the Allies, especially in view of the fact that France has recently lost additional wheat territory, and since no supplies can be drawn from the Ukraine or Russia. It is useless for Canadians and Americans to urge Britain and France to substitute other commodities for wheat. For some time, in the American press, there was an agitation to compel the Allies to substitute cornmeal for wheat, to relieve the situation at home. When it is recalled, however, that during the Irish famine shiploads of commeal were despatched to that stricken country, and that it was received as "hog feed," one can easily understand how difficult, if not impossible, it is to change national habits overnight.

Turning directly to the actual situation with respect to the wheat supply throughout the world, we find no reasons for being unduly pessismistic. It will be necessary first to glance at the figures of wheat production in 1917, since part of that supply is available for the market this year. It is not possible to get more than an estimate of the wheat production in enemy countries;

but the data presented in the following table may be regarded as approximately correct, being the estimate of the International Institute of Agriculture. The figures for the chief wheat-growing countries are alone presented:

	1917
Countries	Bushels
United States	650,828,000
Canada.	233,743,000
Argentina	218,628,000
France.	144,151,000
United Kingdom	64,321,000
Italy	.140,001,000
Portugal	7,440,000
South Africa	8,833,000
Australia	122,584,000
Belgium	9,000,000
Austria	36,500,000
Hungary	135,000,000
Germany	91,000,000
Bulgaria	34,000,000
Russia-in-Europe	550,000,000
Russia-in-Asia	86,000,000
Roumania	70,000,000

It is important to point out that in 1917 France produced 144,151,000 bushels as against 204,910,000 in 1916; Great Britain 64,321,000 as against 59,775,000; Italy, 140,001,000 as against 176,531,000; while Canada and the United States fell short about 45,000,000 bushels. Nevertheless, neglecting the estimate for the Central Powers, the total production of wheat in 1917 was 66,574,000 bushels greater than in 1916, or three per cent. more; 217,745,000 bushels, or nine per cent. less than the average for the five years 1911-1915; and three per cent. less, or 73,687,000 bushels than the average for the five years 1909-1913. The total world production of wheat in 1917, including the estimate of production in the enemy countries, was 3,349,978,000 bushels as against 3,401,043,000 in 1916.

Acreage figures are unreliable, since, as every farmer knows, there

is no parallel movement between acreage sown and crop harvested. The world acreage in 1917 was 161,661,000 as compared with 168,810,000 in 1916, while the yields were practically the same. The increased acreages in Argentina and India were more than offset by the decreases in the United States, Canada, France, Italy and Australia. Nevertheless, with the decreased acreage, in 1917, of 6,375,000, the United States produced nearly 15,000,000 more bushels of wheat than in 1916; while an increase of 1,787,000 acres in Argentina produced over 148,000,000 bushels more. In view of these facts one may expect a large crop will be harvested on the American continent this year with the increased acreage of winter wheat in the United States, and the increased spring wheat acreage in that country as well as in Canada.

The available data with respect to the acreage in winter wheat shows 3,293,000 acres sown in 1917-1918, as against 2,900,000 in 1916-1917. No accurate figures are at hand for some of the countries growing winter wheat, but Italy is presumed to have an area under crop about equal to that of 1917, with the prospect of a good harvest. England and Wales report an increase of 15 per cent. in this cereal. The outstanding fact is the great increase of wheat acreage in the United States and India, being 36,392,000 for the former country and 34,470,000 for India, as against 27,430,000 and 30,924,000 respectively for the preceding period of 1916-1917. The requirements of the Allies and the neutral nations of Europe must be met almost solely from the United States, Canada, Argentina, Australia and India. These countries, for the nine months

from August 1, 1917, to April 30, 1918, exported 324,583,215 bushels, which is far behind requirements. If exports were to continue at the same rate, they would scarcely reach 434,000,000 bushels, against estimated world requirements of 595,000,000 bushels, including Allied requirements of 497,000,000. There has been a heavy falling off in the exports of India and Australia; but the figures for Argentina may very well lead us to believe that the bulk of the 93,000,000 bushels bought by the British Government in that country will be shipped by August, 1918. This would require an additional 65,000,000 from the South American

Continued on page 1298.



A Forty-five Bushel per Acre Wheat Field.