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FOREIGN NEWS ON WHEAT

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## WORLD WHEAT CROP AND MARKET PROSPECTS

During the past month, two factors in the world wheat situation have greatly increased their immediate significance. They are: (1) new crop prospects, and (2) evidences of supplies available from Argentina. In case of each of these factors, developments have been such as to strengthen the market situation. The winter wheat crop of the United States has shown marked deterioration from April 1 to May 1 and now promises to be smaller than any crop harvested since 1925. Shipments of wheat from Argentina decreased sharply about the middle of April, and have since remained at a low level, thereby reducing supplies of Argentine wheat immediately available in Europe and tending to confirm other indications that only small quantities for export now remain. Both of these developments have reduced the seriousness of the large stocks in the United States.

In the United States, May 1 crop conditions indicate a production of winter wheat of 525 million bushels. This is 53 million bushels less than the estimated harvest of last year and smaller than any winter wheat crop since that of 1925. The greatest reduction, as compared with last year, is indicated for soft winter wheat. The indicated hard winter crop, while the smallest of any recent years except 1925 and 1927, is still large enough to provide a considerable exportable surplus. A notable feature is that an especially great decrease in production is indicated

for Texas and Oklahoma. This will tend to reduce the quantity of very early marketings and will tend to postpone the time when a large volume of wheat will need to be moved into export in order to avoid congestion of the markets.

For several months past it has been evident that supplies of wheat available for export from Argentina were very much smaller than a year ago. Though weekly shipments since the first of the year have been less than half as large as in 1929 they have nevertheless been maintained at a fairly constant level and have averaged 2.7 million bushels weekly from the beginning of the year through April 12. At about the middle of April there was a very sharp drop and for the past five weeks Argentine shipments have remained at a much lower level, averaging 1.7 million bushels weekly. With European stocks already much reduced, this has tended to tighten the supply situation and to increase the demand for North American wheats.

Stocks of wheat available for export from Argentina are now estimated to be about 120 million bushels less than a year ago. Supplies available for export on May 1, 1929 are estimated at 174 million bushels, of which 150 million were shipped from May to December. On the basis of the official estimate of the Argentine crop (and a carryover of 25 million bushels), supplies remaining for export as of May 1, 1930 amount to only 33 million bushels. There are, however, indications that the official estimate is an under-statement and that the crop may be about 160 million bushels. Assuming the crop to be 160 million bushels, supplies remaining for export on May 1 amounted to only 56 million bushels compared with 174 million bushels a year ago. These conditions indicate a more favorable

prospect for moving United States wheat supplies into export than was the case a year ago.

The prospect for the 1930 world wheat crop is quite uncertain. The area reported in 17 countries amounts to 150 million acres, which is 3 million acres or 2 per cent less than was harvested in the same countries in 1929. The corresponding areas in 1929 amounted to over 50 per cent of the total world area as reported for the season. The most significant reduction has been due to heavier winter killing in the United States. It may be remembered that the area seeded was 43,400,000 acres, about 2 per cent greater than the area seeded for the 1929 crop. However, farmers reported abandonment to May 1 amounting to 11 per cent of the area seeded, in comparison with 6.5 per cent of the area seeded for the 1929 crop. The area reported in 16 foreign countries totals 91 million acres, which is one million less than for the 1929 crop. Reports generally indicate some reduction in Canadian spring wheat seedings. An analysis of factors influencing seedings in recent years indicates that the total Canadian area may not exceed 24 million acres, 1,255,000 less than in 1929.

Table 1.--WHEAT, INCLUDING FLOUR: Shipments from principal exporting countries

| Date | Argentina | Australia | Danube | North America |
|---|---|---|---|---|
| | 1,000 bushels | 1,000 bushels | 1,000 bushels | 1,000 bushels |
| 1929-30 | | | | |
| Dec. 7 | 3,408 | 524 | 736 | 8,153 |
| 14 | 3,312 | 1,056 | 360 | 5,350 |
| 21 | 2,208 | 1,036 | 1,240 | 3,626 |
| 28 | 3,208 | 2,132 | 144 | 3,417 |
| Jan. 4 | 1,512 | 1,180 | 200 | 4,868 |
| 11 | 2,316 | 1,772 | 328 | 5,678 |
| 18 | 2,580 | 2,072 | 144 | 6,230 |
| 25 | 4,216 | 2,728 | 80 | 5,619 |
| Feb. 1 | 2,732 | 1,220 | 128 | 6,212 |
| 8 | 2,416 | 2,056 | 16 | 6,136 |
| 15 | 2,892 | 1,592 | 272 | 5,203 |
| 22 | 3,048 | 2,064 | 96 | 5,540 |
| Mar. 1 | 3,028 | 2,260 | 0 | 3,050 |
| 8 | 2,688 | 2,304 | 96 | 5,746 |
| 15 | 2,284 | 1,484 | 496 | 5,641 |
| 22 | 1,516 | 1,248 | 360 | 3,602 |
| 29 | 2,412 | 1,696 | 376 | 5,870 |
| Apr. 5 | 3,152 | 2,012 | 88 | 5,586 |
| 12 | 4,124 | 868 | 120 | 4,886 |
| 19 | 1,696 | 1,248 | 40 | 4,183 |
| 26 | 1,600 | 390 | 128 | 3,902 |
| May 3 | 1,565 | 1,536 | 120 | 5,912 |
| 10 | 2,465 | 1,904 | 144 | 5,121 |
| 17 | 1,070 | 960 | 112 | |

## Wheat prices

After reaching a peak early in April, United States wheat prices declined until early in May when new low levels for the crop year were reached by both cash prices and prices for the future deliveries which are now current. At a low of 100.0 cents per bushel, reached on the 5th and 8th of May, Chicago May futures were 2.8 cents below the low of any previous downswing in the present season, the figure 102.8 having been reached in February. During the February downswing, however, March futures at Chicago had reached a low of 98.8 cents per bushel. On May 8th July, September and December futures at Chicago reached lows of 100.6, 103.0 and 107.8 cents per bushel, respectively.

Cash wheat prices in United States markets declined along with futures. The all classes and grades average for six markets, which was 107.8 cents for the week ended April 11, declined to 97.5 cents for the week ended May 9. During this period the greatest decline of the representative wheats was that of No. 2 hard winter which dropped 11.6 cents to 95.8 cents per bushel. No. 2 red winter at St. Louis declined 9.7 cents to 110.8 cents per bushel, No. 1 dark northern spring at Minneapolis 9.6 cents to 108.4 cents per bushel and No. 2 amber durum at Minneapolis 9.1 cents to 93.9 cents per bushel.

The declines in cash prices were somewhat less than in futures. Thus while the weekly average of No. 2 hard winter at Kansas City dropped 11.6 cents, the weekly average of the May futures closing price fell 12.6 cents and of the July futures 13.7 cents per bushel. There was an even greater difference at Minneapolis where No. 1 dark northern spring declined 9.6 cents while May futures declined 12.1 cents and July futures 12.0 cents per bushel. At Chicago the decline in the average closing price of May futures was 13.3 cents and of July futures 13.6 cents per bushel from the week ended April 11 to the week ended May 9.

In the principal foreign markets the decline of futures prices were smaller than in the United States markets. Thus while May futures at Chicago declined 13.3 cents from the week ended April 11 to the week ended May 9, Winnipeg May futures declined only 10.5 cents and Liverpool 10.4 cents per bushel. During the same period July futures declined at Chicago 13.6 cents, at Winnipeg 10.8 cents and at Liverpool 10.2 cents per bushel.

Prices of wheat parcels at Liverpool have fluctuated largely with the fluctuations of futures. There have, however, been significant changes as between the different wheats. During December No. 3 northern Manitoba was selling at around 16 to 17 cents per bushel over 63.5 pound Rosafe while during April the difference averaged only about 6 cents per bushel. Quotations for No. 2 hard winter at Liverpool, on the other hand, have seldom been more than 7 cents over 63.5 pound Rosafe and have shown no marked trend as compared with the Argentine wheat. They have, however, risen as compared with No. 3 Manitoba northern.

On May 15 wheat futures prices closed higher than a week previous. Advances during the week were irregular, but amounted to nearly 3 cents per bushel in United States markets. July futures at Chicago closed at nearly 104 cents per bushel compared with slightly over 101 cents May 8 and 108 cents per bushel on the corresponding date a year ago. At Kansas City July futures closed at about 97 cents compared with 94 cents per bushel a week before while at Minneapolis the corresponding figures were 104 and 101 cents per bushel respectively and at Winnipeg the close on May 15 was about 109 cents per bushel compared with 107 cents a week before.

Overseas, prices were also higher, advances being recorded at both Liverpool and Buenos Aires. July futures at Liverpool rose from a close of 111 cents a week previous to a close of 115 cents per bushel on May 15. The Liverpool close was consequently approximately 11 cents over Chicago and 18 cents over Kansas City closing prices. There has been a marked tendency during the past few weeks for the spread between Liverpool and Chicago quotations to widen; thus on April 3 the spread was only about 3 cents, two weeks later it had increased to 6 cents, then to 8 cents on May 1. There have, of course, been irregular fluctuations in the spread as will be seen by the fact that it amounted to 10 cents on April 24, nevertheless the general increase is indicative of the tendency for the United States prices to reach more definitely an export basis. The spread between Buenos Aires and Liverpool quotations, while fluctuating, has shown no corresponding upward trend during the past six weeks - Argentina having been upon a definitely exporting basis throughout the period. On May 14 Buenos Aires June futures closed at 104 cents compared with 101 cents per bushel a week before.

Table 2.--WHEAT: Closing price per bushel of July futures

| Date | Chicago | | Kansas City | | Minneapolis | | Winnipeg | | Liverpool | | Buenos Aires a/ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1929 | 1930 | 1929 | 1930 | 1929 | 1930 | 1929 | 1930 | 1929 | 1930 | 1929 | 1930 |
| | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents |
| Mar. 27 | 125 | 106 | 116 | 98 | 120 | 105 | 128 | 110 | 135 | 113 | b/112 | b/103 |
| Apr. 3 | 122 | 115 | 113 | 107 | 117 | 114 | 126 | 118 | 133 | 118 | b/111 | b/105 |
| 10 | 124 | 115 | 116 | 108 | 120 | 113 | 128 | 118 | 135 | 122 | b/110 | b/111 |
| 17 | 121 | 109 | 112 | 100 | 117 | 108 | 126 | 112 | 133 | 115 | b/110 | b/106 |
| 24 | 117 | 106 | 108 | 98 | 114 | 106 | 123 | 111 | 128 | 116 | b/108 | b/105 |
| May 1 | 118 | 104 | 110 | 96 | 117 | 104 | 124 | 109 | 126 | 112 | b/106 | b/104 |
| 8 | 108 | 101 | 100 | 94 | 106 | 101 | 112 | 107 | 117 | 111 | 101 | b/101 |
| 15 | 108 | 104 | 101 | 97 | 108 | 104 | 116 | 109 | 119 | 115 | 102 | b/104 |
| 22 | 106 | | 99 | | 106 | | 115 | | 117 | | 99 | |
| 29 | 100 | | 93 | | 99 | | 110 | | 116 | | 94 | |
| June 6 | 109 | | 102 | | 107 | | 117 | | 115 | | | |

a/ Prices are of day previous to other prices.
b/ June future.

Table 3.--WHEAT: Weighted average cash price per bushel at stated markets

| Week ended | All classes and grades six markets | | No. 2 hard winter Kansas City | | No. 1 dk.n.spring Minneapolis | | No. 2 amber durum Minneapolis | | No. 2 red winter St. Louis | | Western White Seattle a/ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1929 | 1930 | 1929 | 1930 | 1929 | 1930 | 1929 | 1930 | 1929 | 1930 | 1929 | 1930 |
| | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents |
| Mar. 21 | 115 | 99 | 117 | 98 | 135 | 110 | 123 | 99 | 139 | 115 | 120 | 109 |
| 28 | 110 | 100 | 112 | 100 | 128 | 112 | 117 | 97 | 130 | 117 | 116 | 110 |
| Apr. 4 | 109 | 103 | 110 | 102 | 129 | 114 | --- | 101 | 130 | 120 | 117 | 112 |
| 11 | 112 | 108 | 114 | 107 | 130 | 118 | 118 | 103 | 130 | 120 | 117 | 112 |
| 18 | 112 | 102 | 113 | 101 | 133 | 113 | --- | 98 | 128 | 117 | 118 | 110 |
| 25 | 107 | 99 | 107 | 98 | 125 | 109 | 119 | 94 | 122 | 114 | 116 | 107 |
| May 2 | 107 | 99 | 107 | 97 | 128 | 110 | 112 | 96 | 118 | 113 | 115 | 106 |
| 9 | 101 | 97 | 104 | 96 | 123 | 108 | 113 | 94 | 122 | 111 | 110 | |
| 16 | 103 | | 103 | | 124 | | 109 | | 118 | | 109 | |
| 23 | 101 | | 100 | | 121 | | 114 | | 116 | | 108 | |
| 30 | 95 | | 94 | | 112 | | 102 | | 110 | | 104 | |

a/ Weekly average of daily cash quotations basis No. 1 sacked 30 days delivery.

Table 4.--British wheat prices
(Converted to cents per bushel)

| Week ended Friday | Near futures close Liverpool | Parcels | | | |
|---|---|---|---|---|---|
| | | No. 3 Manitoba northern Liverpool | No.2 hard winter shipping Liverpool | Rosafe 63½ lb. Liverpool | British parcels a/ |
| | Cents | Cents | Cents | Cents | Cents |
| 1929-30 | | | | | |
| Dec. 6 | 137 | 156 | 143 | 140 | 145 |
| 13 | 133 | 152 | 136 | 136 | 140 |
| 20 | 132 | 149 | 135 | 132 | 138 |
| 27 | 134 | 151 | 136 | 135 | 141 |
| Jan. 3 | 144 | 157 | 146 | 139 | 147 |
| 10 | 139 | b/ 153 | 142 | 137 | 142 |
| 17 | 130 | b/ 147 | 137 | 133 | 139 |
| 24 | 132 | 145 | 136 | 131 | 139 |
| 31 | 123 | 140 | 132 | 132 | 135 |
| Feb. 7 | 123 | 137 | 128 | 127 | 127 |
| 14 | 122 | 135 | 127 | 123 | 129 |
| 21 | 115 | 128 | 126 | 117 | 121 |
| 28 | 113 | 125 | 120 | 116 | 120 |
| Mar. 7 | 112 | 124 | 120 | c/ 113 | 119 |
| 14 | 104 | 119 | 118 | 108 | 115 |
| 21 | 106 | 118 | d/ 115 | 106 | 116 |
| 28 | 109 | 121 | 116 | 111 | 116 |
| Apr. 4 | 115 | 122 | 118 | 115 | 119 |
| 11 | 120 | 129 | 122 | 120 | 120 |
| 18 | 114 | 124 | 120 | 114 | |
| 25 | 112 | 119 | 117 | 116 | |
| May 2 | 111 | 119 | 115 | 116 | |
| 9 | 109 | | | | |

a/ Computed by Food Research Institute, averages for weeks ended Saturday.
b/ Afloat.
c/ 63 pounds.
d/ 15th and 17th only.

## The Wheat crop of the United States

Reports to the Department of Agriculture indicate that 11 per cent of the winter wheat area seeded is being abandoned, and the conditions reported indicate a yield of 13.6 bushels per acre upon the area remaining for harvest, which would result in a crop of 525 million bushels. The abandonment is slightly below the average but considerably larger than last year when only 6.5 per cent was abandoned. The acreage remaining for harvest is still larger than average but is smaller than that of 1923 and 1929. The indicated yield is below that of the previous season and below average. The indicated production is 53 million bushels less than last year and the smallest since 1925 when the winter wheat crop amounted to 402 million bushels.

May 1 conditions indicate a reduction in the production of all classes of winter wheat. The most significant reduction is in soft red winter which would be reduced from about 190 to 165 million bushels. This would be the smallest crop in eight years with the exception of 1928. It is nearest to the production of 1925 when both hard and soft red winter wheat crops were small. In studying the relation of the recent soft red winter wheat crops to prices, it should be observed that the supply of low-protein hard red winter wheat is also a factor in the hard red winter wheat markets. Furthermore, the supply of soft red winter wheat will not be so low in relation to the previous season as indicated by the production figures. The short crop of 1928 left a very small carryover of soft red winter wheat, and a part of the 1929 crop is being utilized to restore stocks to normal. The supply from the 1930 harvest, therefore, is to be added to a stock of old wheat larger than that of July 1, 1929. Nevertheless, considering that the exports of soft red winter wheat in recent years have been very small except in years when the harvest was considerably larger than now indicated for 1930, it appears that this crop would scarcely meet usual domestic requirements for this class of wheat in the United States.

The hard red winter wheat crop is the smallest in recent years with the exception of 1925 and 1927, but the crop is still large enough to provide a considerable exportable surplus. The carryover of hard red winter wheat also is likely to be large and possibly larger than on July 1, 1929.

Conditions indicate a production of about 37 million bushels of fall sown types of white wheat, as compared with 45 million bushels produced in 1929. The significance of this reduction will depend largely on the outturn of the white spring wheats. The reduction in winter sown white wheats probably will be made up to some extent by more extensive seedings of spring wheat.

The record for the several classes of wheat in the 1929-30 season is not yet complete, but available data indicate that exports and prices are fairly well in line with what might have been expected from the estimates of the crop. The inspected exports through January show that the bulk of exports for the season consist of the hard red winter and white wheats. Only very small amounts of durum and soft red winter wheats have been exported. Out of the 191 million bushels of soft red winter wheat, only 2 million bushels have been counted in exports in the first seven months of the season, and nearly all of this was from the Pacific Coast.

## Stocks of grain in the United States

Domestic wheat in store and afloat decreased from 150 million bushels as of April 5 to 135 millions as of May 3. Stocks as of the latter date still amounted to 22 million bushels more than on the corresponding date a year ago, but the reduction in the stocks in the four weeks was 15 million bushels, compared with 10 millions in the corresponding period a year ago. Exports were light and mill grindings probably not much in excess of a year ago. Exports during April amounted to only about 5 million bushels of wheat including flour, compared with 9 millions in April a year ago. The greater reduction in visible supply was due more to the fact that the supplies coming into these markets were small rather than to a large utilization.

The stocks of wheat in all positions as of March 1 were probably about 479 million bushels, 21 millions in excess of the stocks on hand March 1, 1929. The exports of wheat as grain and mill grindings in March were probably about as large as in March a year ago. It appears that grain exports in April were smaller than a year ago. Therefore, unless more wheat has been fed or more used in mills, the supply of wheat in the United States as of May 1 was possibly nearly 25 million bushels in excess of the supply on May 1 a year ago. Exports in May and June a year ago amounted to 16 million bushels, and mill grindings to 89 million bushels, a total of 105 millions. Unless exports are increased or utilization within the country is increased by about 25 million bushels, carryover in the United States on July 1 will be in excess of the 245 million bushels accounted for as of July 1, 1929.

The new crop will soon begin to move from the Southwest and, at present, prospects are more favorable than a year ago for the movement of the southwestern wheat. If the crop turns out to be no larger than indicated by May 1 conditions, the supply to be moved will be smaller than a year ago. The stocks of old wheat on farms and in country elevators will be somewhat smaller. Elevators at Kansas City are still fairly well occupied, but the Gulf ports have been fairly well cleared for the new crop. The amount of all grain in store at Galveston and New Orleans as of May 3 was less than on the corresponding date a year ago.

Elevator space remaining unfilled

| Market | Space for | Percentage of total |
|---|---|---|
| | 1,000 bushels | Per cent |
| Kansas City a/ | 3,455 | 12.3 |
| New Orleans b/ | 4,566 | 89.1 |
| Galveston b/ | 4,377 | 83.4 |
| Houston b/ | 1,188 | 59.4 |

a/ New elevator space amounting to one million bushels were added during the week.
b/ Export elevators only.

Grain may move from the Gulf ports more freely than a year ago in July and August. One important cause of congestion at Galveston a year ago was the smallness of the export movement of the grain after it reached that

port. Argentina, having a large surplus, was shipping in large volume thus greatly reducing the outlet for winter wheat from the United States. With only a small supply of wheat at present in Argentina, wheat from the Gulf ports will have to compete mainly with Canadian wheat which is of a different class and the supply of which is somewhat smaller than a year ago.

Canadian wheat acreage

The present probabilities appear to be for a decrease in the Canadian wheat acreage for the 1930 harvest, although no very accurate criterion has been discovered for determining the acreage in advance of the Canadian official report which is not usually published until in July. An analysis of certain of the factors related to acreage throws some light on the question and suggests the most probable acreage for 1930 to be between 23,500,000 and 24,000,000 acres. The official estimate for 1929 was 25,255,000 acres.
Carried = 24583,000

In Saskatchewan where roughly about half of the Canadian wheat crop is grown these factors indicate an area of around 13,500,000 acres, compared with 14,445,000 seeded in 1929. There appears to be a fairly close association during the past eight years in Saskatchewan between the value of the crop per acre and the area seeded the following spring. In determining the value a rough measure was used, obtained by multiplying the yield per acre by the average price of No. 1 Manitoba Northern at Winnipeg for the months September through March. The per acre value thus computed for 1929 is the lowest reported in recent years, amounting to $14.00 compared with $27.00 in 1928, $29.00 in 1927 and previous low points of $18.00 in 1925 and $16.00 in 1921. A 1930 acreage in line with these value estimates would not be greater than 13,000,000 acres, but other circumstances are expected to tend to offset the discouraging effect of the low yields and low prices of the 1929 crop. They include a slight upward trend in acreage, which may be associated with immigration, the optimism resulting from a series of good crops before 1929, and the early spring with its consequent long seeding time.

The upward trend in acreage in this province, which was so pronounced before and during the war, appears to have been continued since the war at a less rapid rate. The slowing up of the rate of increase in acreage in recent years may be partly accounted for by a falling off in immigration. After 1921 the immigration to the province has averaged less than 14,000 annually, compared with 40,000 in the period 1909-10 to 1913-14. The post-war immigration may also be partially offset by increasing diversification in farming and by a movement farther to the west of some of the earlier settlers. Consul Blohm at Regina reports increased immigration and many new homesteads in the past year.

There appears to be a slight association between the earliness of the planting season and the acreage seeded. This year the Dominion crop report of May 12 indicated 61 per cent of seedings in the ground in Saskatchewan by April 30, a greater proportion than in any preceding year since 1919.

The Saskatchewan crop reports tended to confirm other indications of probable reduction in acreage although it gave no indication of the amount of decrease which might be expected. The report indicated some tendency to shift from wheat to feed crops which were scarce last winter; Consul Blohm also reported a tendency to shift to feed crops and flax.

In Alberta the upward trend of acreage before 1921 has continued up to the present time, and appears to have more influence on acreage than the value of the preceding harvest. The greatest decrease noted in acreage was 10 per cent in 1923. The probable Alberta acreage for 1930 appears to be between 90 and 100 per cent of the 1929 area or probably between 7,000,000 and 7,500,000 acres. The Alberta crop report for April 26 indicated a slight decrease in wheat acreage but an increase in coarse grain and total grain acreages.

In Manitoba and eastern Canada, acreage has not followed the value of the crop as closely as in the western provinces, and the general trend since 1921 has been downward. A continuation of this downward trend appears probable this year, which would place the acreage between 2,800,000 and 3,200,000 compared with 3,259,000 acres in 1929.

The recommendation of the Canadian Wheat Pool may also contribute to a decrease in wheat acreage in 1930. The Manitoba Free Press reports 65 to 75 per cent of seedings completed in Alberta, 60 to 70 per cent in Saskatchewan and 80 to 85 per cent in Manitoba by April 30.

Table 5.--Wheat acreage in Canada, computed wheat value per acre for preceding season in Saskatchewan, seeding dates and immigration into Saskatchewan, 1920 - 1930

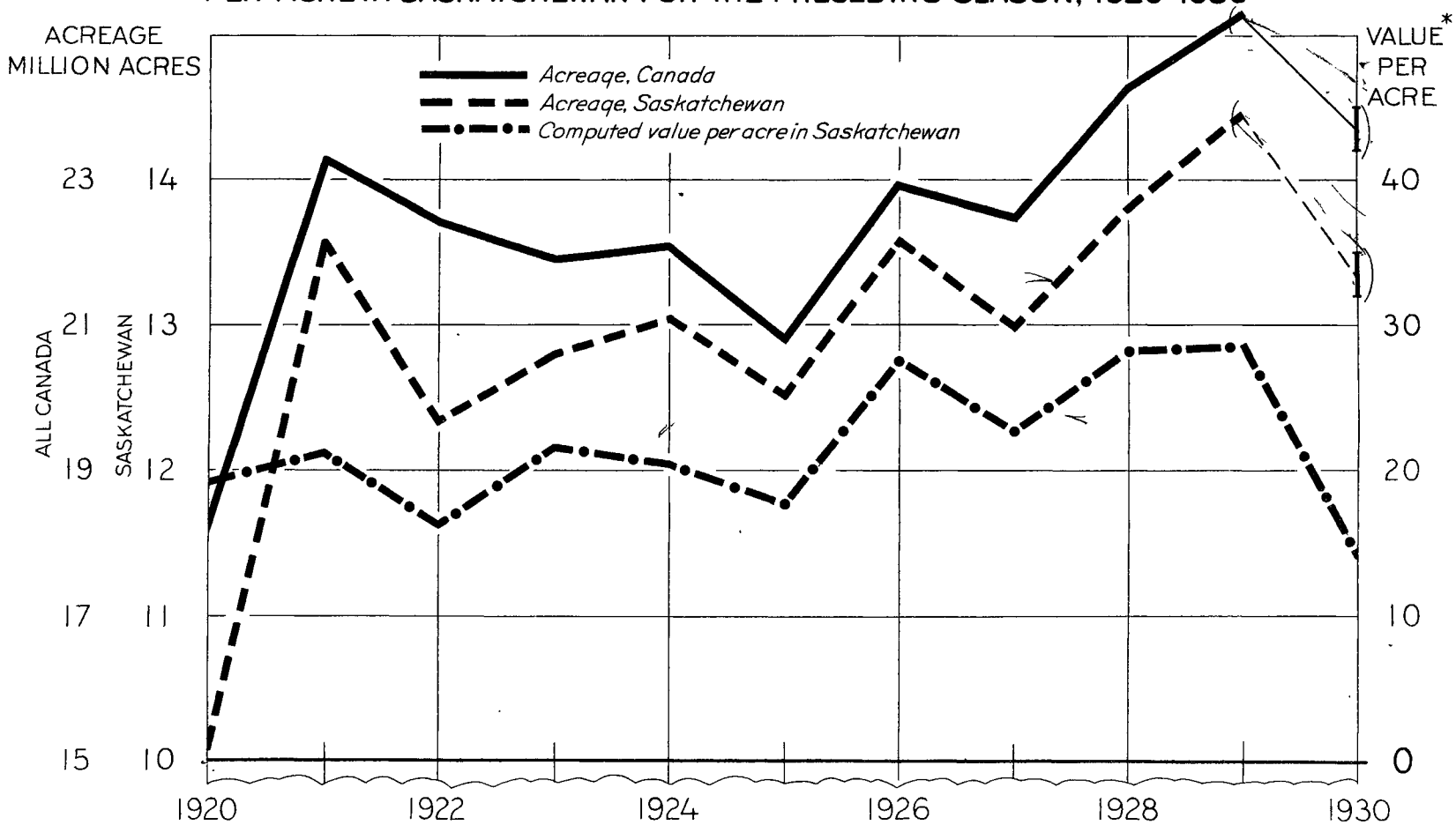
| Year of seeding | Acreage: All Canada | Acreage: Manitoba and Eastern Provinces | Acreage: Alberta | Acreage: Saskatchewan | Saskatchewan: Computed wheat value per acre preceding season a/ | Saskatchewan: Percentage of seeding completed by Apr. 30 | Saskatchewan: Immigrant arrivals, year ended Mar. 31 |
|---|---|---|---|---|---|---|---|
| | 1,000 acres | 1,000 acres | 1,000 acres | 1,000 acres | Dollars | Per cent | Thousands |
| 1920 | 18,232 | 4,097 | 4,074 | 10,061 | 19.04 | 4 | 14.3 |
| 1921 | 23,261 | 4,581 | 5,123 | 13,557 | 21.13 | 21 | 13.4 |
| 1922 | 22,423 | 4,325 | 5,766 | 12,332 | 16.15 | 17 | 9.9 |
| 1923 | 21,886 | 3,922 | 5,173 | 12,791 | 21.52 | 18 | 8.2 |
| 1924 | 22,056 | 3,449 | 5,574 | 13,033 | 20.45 | 15 | 13.2 |
| 1925 | 20,790 | 2,933 | 5,348 | 12,509 | 17.65 | 32 | 14.0 |
| 1926 | 22,895 | 3,177 | 6,161 | 13,558 | 27.45 | 45 | 13.8 |
| 1927 | 22,460 | 3,230 | 6,251 | 12,979 | 22.68 | 2 | 20.1 |
| 1928 | 24,119 | 3,620 | 6,708 | 13,791 | 28.08 | 8 | 15.3 |
| 1929 | 25,255 | 3,259 | 7,551 | 14,445 | 28.43 | 39 | 14.8 |
| 1930 | 24,583 | | | | 14.02 | 61 | b/ |

Acreage and yield figures and percentage of seeding completed, compiled from reports of the Dominion Bureau of Statistics, prices from Winnipeg Farmer's Advocate and Minneapolis Daily Market Record, and immigration from reports of Saskatchewan Department of Agriculture.

a/ Computed by multiplying price of No. 1 Manitoba Northern at Winnipeg for the period September through March prior to seeding by the Saskatchewan yield per acre of the harvest prior to seeding. Values thus computed from No. 1 Manitoba Northern at Winnipeg were more closely associated with the acreage seeded than were values based on average Saskatchewan prices.

b/ Consul Blohm at Regina reports an increase in immigration and new homesteads.

# WHEAT: ACREAGE IN ALL CANADA AND IN SASKATCHEWAN COMPARED WITH COMPUTED VALUE* PER ACRE IN SASKATCHEWAN FOR THE PRECEDING SEASON, 1920-1930




* THE CURVES SHOW ACREAGES FOR THE YEAR INDICATED AND VALUE FOR THE PRECEDING SEASON. THE VALUE PER ACRE IS COMPUTED BY MULTIPLYING THE ANNUAL YIELD PER ACRE IN SASKATCHEWAN BY THE PRICE OF NO. 1 MANITOBA NORTHERN AT WINNIPEG, AVERAGE FOR SEPTEMBER-MARCH, FOLLOWING HARVEST.

U.S. DEPARTMENT OF AGRICULTURE

BUREAU OF AGRICULTURAL ECONOMICS

## Canadian wheat crop

Weather conditions in the Prairie Provinces prior to and during the wheat planting season have been moderately favorable in spite of a tendency to drought. A statistical study of the relationship between weather conditions through April and yield, indicates that the outlook at present is for a wheat yield about average or a little above. It should be borne in mind that weather conditions through April can not be expected to provide an accurate indication of yields, for yields are greatly influenced by subsequent weather conditions.

The statistical study based on weather conditions through April indicates the most probable size of the crop to be between 425 and 450 million bushels for all Canada as compared with a harvest of 290 to 300 million bushels in 1929, 567 million in 1928 and an average of 430 million bushels in the past five years. However, conditions between now and harvest will have an important bearing on yield, especially rainfall between now and July, and May rainfall so far has not been as heavy as could be desired. A year ago preliminary data on weather conditions for the same period indicated a below average yield per acre for all Canada in 1929 of 15 to 16 bushels to the acre, or a drop of 6 to 7 bushels from that of the preceding harvest.a/. Revised and more complete weather data for the same period indicated a yield of 14 to 15 bushels. The drought during the spring and summer did considerable damage and the yield as indicated statistically from both winter and summer weather conditions through July was about 12 to 13.5 bushels to the acre. The crop was estimated to be about 290 to 330 million bushels. The final Canadian official estimate of the yield was 11.9 bushels per acre on the revised acreage and the total crop was 300 million bushels.

Saskatchewan produces over half of the total Canadian wheat crop, and conditions in that province are of especial importance in indicating the crop for the country as a whole. Present indications are for a 1930 wheat yield of 17 to 18 bushels to the acre in that province compared with 10.7 bushels in 1929. These yields on the area indicated above would give a harvest of about 230 to 245 million bushels in 1930 compared with 155 million bushels officially reported for 1929. Wheat yields in all Canada are usually higher than in Saskatchewan, averaging about a bushel to the acre more. A yield of 18 to 19 bushels on the estimated acreage would result in a Canadian harvest of 425 to 450 million bushels.

In Saskatchewan autumn precipitation, part of which is retained in the soil over winter and gives a reservoir of soil moisture in the spring, was nearly average in the fall of 1929 whereas in 1928 it was about the lowest on record. At the beginning of autumn this season, however, the soil was unusually dry and at the beginning of winter was noticably drier than average. Statistical analysis indicated that heavy January-March precipitation may have a detrimental effect on yields, possibly by retarding the spring preparation of the soil and

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a/ Published in F.S./WH-36, June 1929, pages 10-16. The present study is based on conditions from August through April, whereas that published a year ago was based on conditions September through April. Normally better results are obtained by omitting August, but in view of the unusual dryness at the beginning of September 1929, the longer period was considered better for analysis of the present season.

seeding, giving the crop a late start. In 1930 the precipitation in this period was below average whereas in 1929 it was just about average. Warm weather in April tends to be associated in this statistical analysis with high yields, probably by allowing early preparation of the soil and seeding, enabling the crop to reach maturity before summer droughts and to ripen before the frosts hurt it. Weather data are not yet available for all stations used in the analysis for the complete month of April. Date from stations reporting, however, indicated warm weather, especially the first part of April. An early seeding season is also indicated by the Saskatchewan crop report of April 14 and later unofficial reports. Seeding was expected to be general by about April 20 and nearly completed by the end of the month. Cold weather the latter part of the month, by delaying the growth of the young plants may partially offset the advantage of the early start. Plentiful rains in some regions the latter part of the month were probably sufficient to overcome the dangers indicated by surface drought at the beginning of seeding. Rainfall during the first half of May, although apparently sufficient for current needs, has averaged much less than the daily average for May in earlier years, and has not made up the deficiency in soil moisture. In the Table below are shown weather conditions as reported to date in Saskatchewan, and also conditions in other years which have had early conditions generally somewhat similar to those of this season.

Table 6.--SASKATCHEWAN: Precipitation, temperature and wheat yields in specified years

| Item and period | Average 1904-05 to 1927-28 | 1905-06 | 1906-07 | 1911-12 | 1924-25 | 1929-30 |
|---|---|---|---|---|---|---|
| | Inches | Inches | Inches | Inches | Inches | Inches |
| Precipitation total, | | | | | | |
| Aug. | 2.08 | .95 | 1.97 | 2.48 | 2.58 | .4 |
| Sept.-Nov. | 3.02 | 2.93 | 2.94 | 2.90 | 3.51 | 2.9 |
| Jan. -Mar. | 1.97 | 1.23 | 1.41 | 0.62 | 2.47 | 1.2 |
| Apr. | .89 | 1.03 | .51 | 0.51 | 1.32 | a/(1.4) |
| May-July total | 7.48 | 9.57 | 5.48 | 8.33 | 7.02 | --- |
| Average daily temperature | | | | | | |
| degrees F. | Degrees | Degrees | Degrees | Degrees | Degrees | Degrees |
| Dec.-Jan. | 7.2 | 13.6 | -4.5 | 4.1 | 2.9 | 2.4 |
| Apr. | 39.6 | 45.5 | 26.9 | 42.6 | 44.0 | (44.3) |
| June-July | 62.8 | 62.8 | 60.5 | 62.1 | 62.4 | --- |
| Wheat yield per acre | Bushels | Bushels | Bushels | Bushels | Bushels | Bushels |
| Dominion report | 17.5 | 23.7 | 14.0 | 19.2 | 18.8 | --- |
| Provincial " | 16.9 | 21.4 | 13.5 | 19.9 | 18.5 | --- |
| Estimated from weather | | | | | | |
| Aug. through Apr. b/ | --- | 18.1 | 14.2 | 23.4 | 19.8 | 17.7 |
| Aug. through July c/ | --- | 18.2 | 16.4 | 20.2 | 17.9 | 17.0 |
| Sept. through July | --- | 20.5 | 14.7 | 21.3 | 17.4 | --- |

a/ This average is exclusive of Moose Jaw, which station may not have received as much precipitation near the end of the month as did the western part of the province. b/ From study using only weather data through April. Yields as estimated from weather September through April were 19.6 bushels in 1906, 14.0 in 1907, 22.2 in 1912, 18.6 in 1925 and 20.3 in 1930. c/ From study using weather data through July but assuming average conditions the balance of the season.

Alberta, which produces much of the balance of the Canadian crop, appears to have had weather conditions somewhat more favorable to wheat growth than Saskatchewan and an above average yield is indicated. Since yields in Alberta average higher than in Saskatchewan the outlook at present is that yields in all Canada may be higher than in Saskatchewan, as usual.

Table 7.--WHEAT INCLUDING FLOUR: Exports from principal exporting countries February, March and April, 1929 and 1930

| Country | Feb. | | Mar. | | Apr. | |
|---|---|---|---|---|---|---|
| | 1929 | 1930 | 1929 | 1930 | 1929 | 1930 a/ |
| | 1,000 bushels | 1,000 bushels | 1,000 bushels | 1,000 bushels | 1,000 bushels | 1,000 bushels |
| United States | 8,948 | 9,535 | 9,090 | 7,321 | 9,151 | 4,963 |
| Canada | 19,710 | 8,895 | 27,565 | 14,656 | 10,554 | b/13,250 |
| Argentina | 27,541 | a/11,384 | 29,861 | a/ 8,890 | 22,381 | 10,527 |
| British India | c/-5,182 | a/ 0 | c/-3,875 | a/ 0 | c/-3,133 | 0 |
| Australia | 16,564 | a/ 7,972 | 16,023 | a/ 6,732 | 17,619 | 4,504 |
| Russia a/ | 0 | 1,928 | 0 | 360 | 0 | 1,688 |
| Danube and Bulgaria | 0 | 384 | 160 | 1,328 | 88 | 376 |
| Total | 67,581 | 40,098 | 78,824 | 39,287 | 56,650 | 35,308 |

Compiled from official and trade sources.
a/ Preliminary. b/ Estimated. c/ Net imports.

Table 8.--WHEAT: Stocks at certain European points on specified dates

| Date | On passage | United Kingdom a/ | French ports | Italy | Rotterdam | Amsterdam | Antwerp | Hamburg | Berlin | German farm stocks | Hungarian warehouses |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1,000 bush. | 1,000 bush. | 1,000 bush. | 1,000 bush. | 1,000 bush. | 1,000 bush. | 1,000 bush. | 1,000 bush. | 1,000 bush. | 1,000 bush. | 1,000 bush. |
| 1930 | | | | | | | | | | | |
| Jan.15 | 52,672 | 14,680 | | | | | 1,546 | 1,100 | 700 | 51,535 | 4,200 |
| Jan.31 | 35,800 | 13,200 | 853 | 1,601 | 482 | 81 | 864 | 1,100 | 880 | | 4,000 |
| Feb.15 | 40,720 | 14,000 | | | | | 577 | 1,800 | | 41,779 | 3,700 |
| Feb.28 | 39,200 | 13,016 | 922 | 1,172 | 1,784 | 99 | 968 | 1,800 | 1,000 | | 3,500 |
| Mar.15 | 38,496 | 12,480 | | | | | 2,027 | 1,500 | | 32,213 | 3,000 |
| Mar.31 | 34,216 | 11,040 | 611 | 697 | 698 | 88 | 1,467 | 1,300 | 900 | | 2,600 |
| Apr.15 | 36,448 | 12,160 | | | | | 1,354 | 1,100 | | 17,438 | 2,000 |
| Apr.30 | 34,608 | 10,184 | | | 300 | | 1,500 | 900 | 900 | | 1,700 |

a/ Port stocks.

Table 9.--WHEAT: Stocks at certain European points on April 15, 1929 and 1930

| Position | Apr. 15, 1929 | Apr. 15, 1930 |
|---|---|---|
| | 1,000 bushels | 1,000 bushels |
| On passage to Europe | 65,296 | 36,448 |
| United Kingdom port stocks | 8,000 | 12,160 |
| England and Wales - farm stocks | a/ 6,347 | a/ 8,101 |
| Germany - farm stocks | 23,874 | 17,438 |
| Antwerp | 2,454 | 1,354 |
| Hungarian warehouses | a/ 3,700 | a/ 3,000 |
| Total | 109,671 | 78,501 |

a/ April 1.

Table 10.--WHEAT, INCLUDING FLOUR: Net imports into European importing countries 1928-29 and 1929-30

| Country | Net imports reported | | |
|---|---|---|---|
| | July 1 to | 1928-29 | 1929-30 |
| | | Million bushels | Million bushels |
| United Kingdom | Mar. 31 | 150 | 158 |
| Italy | Mar. 31 | 63 | 19 |
| Germany | Mar. 31 | 48 | 52 |
| France | Feb. 28 | 30 | 25 |
| Belgium | Feb. 28 | 28 | 29 |
| Netherlands | Mar. 31 | 22 | 23 |
| Czechoslovakia | Feb. 28 | 12 | 9 |
| Greece | Feb. 28 | 13 | 14 |
| Irish Free State | Feb. 28 | 12 | a/ 9 |
| Austria | Feb. 28 | 10 | 11 |
| Switzerland | Mar. 31 | 11 | 13 |
| Sweden | Mar. 31 | 5 | 6 |
| Norway | Feb. 28 | 6 | 5 |
| Denmark | Feb. 28 | 10 | 6 |
| Finland | Feb. 28 | 4 | 4 |
| Poland | Feb. 28 | 3 | b/ |
| Estonia | Feb. 28 | 1 | 1 |
| Latvia | Jan. 31 | 2 | 2 |
| Spain | Dec. 31 | 7 | 0 |
| Portugal | Feb. 28 | 5 | 2 |
| Total | | 442 | 388 |

a/ Does not include wheat flour from October to February.
b/ Less than 500,000 bushels.

Export encouragements and import restrictions relative to wheat and flour

The wheat and flour of the United States have had to meet in the present season, an unusual amount of competition from foreign countries in the form of assistance to exports, and have been confronted with unusual restrictions on the part of importing countries for the purpose of protecting their domestic markets. A few countries have continued to maintain an open door, importing wheat and flour free of duty. Among these are the United Kingdom, the Netherlands, Norway, and Denmark. Belgium charges no duty but has introduced the licensing of imports as a protective measure. The domestic production of these countries is small and they import most of what they consume. The United Kingdom and the Netherlands have imported more wheat including flour in the season to date than in the corresponding months of the previous season. These countries, however, appear to have taken less than half of the net exports of the United States in the season, July through March. Many countries which produce little or no wheat are regular markets for flour and some wheat from the United States, and impose duties primarily for revenue purposes. Importing countries which undertake to maintain domestic production and protect their own producers by high duties and other restrictions on imports are also important markets. Two successive seasons of low prices have resulted in many of these countries increasing duties and taking other measures to maintain higher prices for their domestic wheat and flour.

Special aids to exports which relieve producing countries of surpluses and raise domestic prices, are also important factors in our world wheat market situation. Some measures, such as the export or import certificate system, tend to increase international trade in wheat by moving local and seasonal surpluses out of importing countries, and at the same time facilitate imports into other localities and at other times in the season; but in many cases these are being supplemented by other measures which restrict imports.

Many countries that have not yet taken definite measures for protecting producers against imports or improving the domestic market by encouraging exports are discussing such measures. Even the United Kingdom is considering measures for protecting or aiding home producers. It is proposed to introduce some control over flour imports and require millers to use a fixed percentage of home grown wheat in the manufacture of flour. A series of short crops, on the other hand, might result in reductions in import duties and discontinuance of import restrictions on the part of many countries as well as export aids on the part of others.

A brief summary of measures intended to restrict imports or to encourage exports is submitted below. The summary is not complete but may convey an impression of the extent and character of the measures now in effect. Many other countries are now considering the introduction or enactment of similar measures.

Germany has made the greatest efforts to protect wheat producers against a depression in domestic wheat prices. The import certificate system of Germany provides that exporters of wheat and certain other grains may receive an "import certificate" which can be used later in payment of import duties on these grains. This system encourages the export of wheat from the surplus producing areas of eastern Germany and tends to encourage imports of foreign grain into western Germany where the domestic supply is far from sufficient for domestic needs. As an aid to domestic producers, this measure has been supplemented by increased tariff duties and milling regulations. The first increase in duty was in July when it was raised from 32 to 42 cents per bushel for "the most favored nations". Then on January 20 the duty was raised from 42 to 62 cents. The next increase became effective March 27, raising the duty to 78 cents, and the last, effective April 25, increased it to 97 cents. The increase in duty in July was supplemented by a requirement that mills use at least 30 per cent of home grown wheat in their milling operations for the season. During the first four months of the season they were to use 40 per cent. Later the milling percentage was raised from 40 to 50 per cent, and the time of operation has been extended through May. It is also proposed to compel bakers to use more rye in bread in combination with wheat flour.

In Czechoslovakia, as in Germany, the import certificate tends to facilitate the export of domestic wheat from local surplus producing areas, and it may facilitate to some extent the import of foreign wheat into deficit areas or for mixing with domestic wheat. According to a report by the Department of Commerce, the government has had under consideration a measure which limits the use of wheat flour in baker's bread to 10 per cent, the balance to be rye. The object of this measure is to increase the consumption of rye and to reduce the imports of wheat and wheat flour. A bill has been submitted providing for a sliding scale tariff on wheat and rye, the tariff to be increased or lowered with changed in prices. The minimum duty on wheat is now the equivalent of about 24 cents per bushel.

Sweden, with an export certificate system, is considering additional measures. In February a bill was presented to grant discretionary power to the government to require flour mills to mix a percentage of domestic with imported wheat, and also to require the mixing of imported and domestic flour. The bill further provided appropriations for cooperative storage houses and credit for purchasing grain. The import duty is about 27 cents per bushel. It is also proposed to increase the duties on wheat, rye and flour.

Estonia is considering a plan for improving the position of her bread grain producers. According to a report from Consul Carlson of Tallinn, Estonia, dated April 7, 1930, "the Department of Agriculture has prepared a bill covering this matter, which is soon to be presented to the Government for its approval. According to the terms of this bill, all persons, institutions or firms engaged in the importation of wheat, rye or flour produced therefrom will be required to purchase from Estonian farmers or cooperatives domestic wheat and rye at prices and on conditions fixed by the Government, and which bear a certain relation to the quantity of rye, wheat and flour to be imported."

Good crops of wheat and rye in Poland depressed prices. On November 16 the Polish Government introduced an export bounty of 18 cents per bushel on wheat and 17 cents on rye. Agricultural organizations formed a syndicate for exporting grain. Poland also entered into an agreement with Germany for controlling rye exports, so as to prevent each country from dumpting into the other.

During the past six years Italy has been engaged in an active campaign to increase wheat production and reduce her dependence upon foreign countries. The large crop of the past year undoubtedly was due in some measure, however, to favorable climatic conditions. Producers have not only been encouraged by the government to produce more, but the domestic markets have been protected by high import duties. A year ago in May, when wheat prices were very low, Italy increased her import duty from about 58 to 73½ cents per bushel, and the duty on flour was raised proportionately.

The Swiss Government has undertaken to reduce her dependence on foreign bread supplies. By referendum, March 3, 1929, a Federal Grain Board was established on a permanent basis. The purpose of the organization is primarily to encourage the production of grain in Switzerland, but also to maintain adequate supplies of foreign grain without unduly increasing the cost to the consumer. It is estimated that the money cost to the Federation for the payment of bonuses over the world market price, the milling bounty, and a reduction in freight rates, together with storage costs on warehoused grain, will approximate three million dollars per year.

France has undertaken to maintain domestic production and domestic prices by a high duty limiting the use of foreign wheat and by encouraging exports. In May a year ago the duty was raised from 37 to 53 cents per bushel. In December it was decreed that only 3 per cent of foreign wheat should be mixed with domestic wheat in the manufacture of flour for ordinary purposes. Appropriations have been made to refund duties on wheat or flour exported against imports of foreign wheat or flour. On April 25 the French Chamber of Deputies approved an appropriation amounting to nearly $4,000,000 to permit the export of about 7 million bushels of wheat in addition to 17 millions provided for previously.

Various export promoting measures are being considered or undertaken in the Danubian countries. Mr. Dawson, Assistant Agricultural Commissioner at Berlin, reports that Rumania intends to reduce her export duties. Yugoslavia will open a Central Export Institute and continue preferential freight rates. Hungary has made a deal with Italy favorable to exporting to that country.

The Russian Government is in a position to dump wheat on the world markets whether or not that country has an actual surplus of wheat. Since the Russian wheat crop of 1929 was estimated to be less than that of 1928 when no wheat was exported, it might be assumed that Russia had no exportable

surplus. However, some wheat has been exported. The exports are apparently due to the fact that the government has been unusually successful in its grain collection program and to a more favorable distribution of the export crop. Large crops of other grains were harvested and the country seems to be in need of making foreign sales to improve its exchange position for purchasing goods in other countries.

Government protection and government aid are not limited to European countries. For the first time in its history, the Union of South Africa produced a crop about sufficient for domestic requirements. In March the Governor-General of the Union agreed to a wheat importation restriction act.

New Zealand put into effect in 1927 a sliding-scale import duty on wheat. It was declared to be the policy of the government that New Zealand should if possible grow sufficient wheat for its own requirements, and thus be independent of outside supplies.

Australia is discussing a compulsory wheat pool. Most of the state governments have approved the federal government's proposal for the marketing of Australian wheat by setting up a marketing pool with pools in each state under one big Commonwealth Board. The federal government proposes to guarantee a price of about 96 cents a bushel for wheat delivered at country railway sidings during the next year.

Table 11.--WHEAT: Import duties per bushel in foreign countries a/

| Country | | Duty in United States currency b/ |
|---|---|---|
| | | Cents |
| Austria | | 11.03 |
| Belgium | c/ | Free |
| Canada: | | |
| General (from United States) | | 12.00 |
| Prferential (British Empire) | | 8.00 |
| Czechoslovakia: | | |
| Maximum | | 48.34 |
| Minimum d/ | d/ | 24.17 |
| Denmark | | Free |
| France | | 53.31 |
| Germany | | 97.24 |
| Greece: | | |
| Conventional rate | e/ | 22.59 |
| Italy | | 73.54 |
| Japan | f/ | 33.92 |
| Netherlands | | Free |
| Norway | | Free |
| Poland | g/ | 33.59 |
| Portugal | h/ | |
| Spain: | | |
| First tariff | | 220.61 |
| Second tariff | i/ | 73.537 |
| Sweden | f/ | 26.99 |
| United Kingdom | | Free |

a/ Bushels of 60 pounds. b/ Foreign currency converted at par rate of exchange except as otherwise stated. c/ Import license required. d/ Imports from the United States enjoy minimum rate, which is extended to countries having a most favored nation treaty with Czechoslovakia. e/ Duty stated in metallic drachmas, but payable in stabilized paper drachmas at the ratio of 15 paper drachmas to 1 metallic drachma. In addition to the duty, there are surtaxes amounting to three fourths of basic duty, payable at the same ratio. f/ Conversion to United States currency made on the basis of the rate of exchange prevailing on July 17, 1929. g/ Free of duty under special permit. h/ Wheat may be imported only by authority of special decrees, which also fix the rates of duty. i/ Applies to imports from the United States. Surtax on wheat 7 gold pesetas per 100 kilos (equivalent to 36.77¢ per bushel). Duties are paid one fourth in gold and the remainder in silver or Bank-notes, plus gold surtax varying periodically.

## The Oriental Situation

Oriental takings of American wheat and flour have been much less during recent months than they were a year ago. The situation is apparently largely due to the fall in the price of silver which is the monetary unit of China. Other conditions have contributed, for example the decline of silk prices which has greatly affected the Japanese situation.

The Japanese wheat market continues weak, with poor export demand for Japanese flour. The situation does not promise any considerable improvement in the demand for imports of wheat and flour in the near future. Stocks of wheat, however, are now about normal.

Reports from Hongkong, Shanghai, and Tientsin all indicate that the import trade in wheat and flour has been dull. Hongkong reports complain that flour orders placed by South China merchants fell off abruptly after the sharp drop in silver exchange and that orders now being placed are less than half those of a year ago. Flour stocks, which at times in the past year have been exceptionally high, have now been reduced to normal levels. South China merchants are said to be unable to pay the premium for the better quality imported flour at Hongkong and have turned to the poorer flours which they can buy more advantageously from Shanghai merchants.

From Shanghai, however, come complaints that the market is not strong, due to light demand from North and South China ports. Flour milling operations have recently been still further reduced by small arrivals and stocks of old wheat, and mills are awaiting the new crop in the lower Yangtze valley. Flour stocks as well as wheat stocks are small.

At Tientsin, despite curtailed production of local mills due to the exhaustion of stocks of locally grown wheat, very few orders have been given for Canadian and American flour because of the uncertain and unfavorable level of exchange. Stocks of flour are below normal and declining. Japanese flour milled from low grade United States and Canadian wheat has been underselling American flours and constitutes a principal item in flour supplies.

## The Continental European wheat market situation during April 1930 a/

Activity in continental wheat markets increased in the early part of April with an upward price tendency, and slackened with the decline of prices in the latter part of the month. The main influences responsible for these changes were prospects of new farm relief measures in Germany and other central European countries the first part of the month and reports of dry weather in the United States. During the latter part imminent increases in duties ceased to be a factor and beneficial rains in America brought about a weakening tendency.

Europe still has important requirements to fill, and stocks with exception of France are not considered heavy, but crop reports have continued favorable and world prices have showed no decided upward movement and consequently buyers have continued reluctant to make large commitments. Serious reduction in next season's crop prospects would bring about a decided revival of buyings the last part of this season or early in the next season. Crops in a few weeks will be in a critical stage of growth and more attention than usual will be centered on developments at that time.

The price movement in Germany during the past month was quite pronounced and was governed largely by the prospective increase in duty rates which took place during that period. Wheat prices rose from $1.49 per bushel on February 28 and $1.66 on March 31 to $1.72 on April 15 and $1.80 on April 26, the day following the date when the new duty in Germany became effective. It is interesting to note that the recent increases in the German wheat duty (by 19½ cents in February, 16 cents in March and 19½ cents in April, or a total increase of 55 cents per bushel) was accompained by a raise of the German wheat prices relative to world market prices to the extent of the increase in duties.

| Date | Berlin, above Chicago | German Duty |
|---|---|---|
| | Cents per bushel | Cents per bushel |
| Jan. 10 . . . . . | 31 | 42 |
| May 2 . . . . . | 86 | 97 |
| Increase . . . . . | 55 | 55 |

Price spreads between the Continent and Chicago during April outside of Germany increased so that continental wheat excepting French wheat, became relatively dearer in comparison with American wheat.

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a/ By Assistant Agricultural Commissioner Owen L. Dawson, Berlin, Germany, April 29, 1930. Supplemented by cable May 10.

Table 12.--Price spread per bushel, Chicago - Europe a/

| Date | BERLIN "Markischer" Wheat spot | | PARIS Domestic Wheat nearest month | | GENOA Domestic Wheat nearest month | | VIENNA "Vienna Boden" Wheat spot | HUNGARY "Tisza" Wheat 79/80 kg spot |
|---|---|---|---|---|---|---|---|---|
| | 1928-29 | 1929-30 | 1928-29 | 1929-30 | 1928-29 | 1929-30 | 1929-30 | 1929-30 |
| | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents |
| Sept. 6 | + 30 | + 18 | + 54 | + 22 | + 23 | - 13 | - 5 | - 6 |
| Dec. 6 | + 19 | + 31 | + 48 | + 23 | - 6 | - 6 | - 3 | + 3 |
| Jan. 10 | + 18 | + 31 | + 48 | + 21 | + 14 | + 1 | - 6 | + 0 |
| Jan. 31 | + 16 | + 40 | + 44 | + 26 | + 9 | + 9 | - 1 | + 9 |
| Feb. 23 | + 19 | + 39 | + 46 | + 32 | + 8 | + 4 | + 13 | + 20 |
| Mar. 31 | + 28 | + 57 | + 40 | + 33 | + 13 | + 4 | + 12 | + 14 |
| Apr. 15 | + 23 | + 64 | + 44 | + 34 | + 7 | + 5 | + 15 | + 17 |
| Apr. 25 | + 33 | + 77 | + 51 | + 31 | + 14 | + 7 | + 17 | + 21 |
| May 6 | + 34 | + 86 | + 54 | + 28 | + 15 | + 10 | + 21 | + 24 |

a/ Above (+) or below (-) Chicago.

Table 13.--WHEAT: European price per bushel

| Date | BERLIN "Markischer" Wheat spot | | PARIS Domestic Wheat nearest month | | GENOA Domestic Wheat nearest month | | VIENNA "Vienna Boden" Wheat spot | HUNGARY "Tisza" Wheat 79/80 kg spot |
|---|---|---|---|---|---|---|---|---|
| | 1928-29 | 1929-30 | 1928-29 | 1929-30 | 1928-29 | 1929-30 | 1929-30 | 1929-30 |
| | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents |
| Sept. 6 | 139 | 150 | 163 | 154 | 133 | 119 | 127 | 126 |
| Dec. 6 | 134 | 158 | 163 | 141 | 122 | 121 | 124 | 130 |
| Jan. 10 | 134 | 160 | 165 | 150 | 130 | 130 | 123 | 129 |
| Jan. 31 | 140 | 155 | 166 | 142 | 133 | 125 | 123 | 133 |
| Feb. 28 | 142 | 149 | 169 | 142 | 131 | 113 | 124 | 132 |
| Mar. 31 | 145 | 165 | 167 | 141 | 129 | 113 1/4 | 121 | 123 |
| Apr. 15 | 145 | 172 | 167 | 142 | 130 | 113 1/4 | 121 | 125 |
| Apr. 25 | 147 | 180 | 165 | 135 | 128 | 111 | 121 | 125 |
| May 6 | 146 | 186 | 165 | 128 | 126 | 110 1/4 | 121 | 125 |

Small arrivals at the ports and limited farm offerings recently have resulted in a general important reduction of visible stocks on the Continent during the period of a more active buying. There is an indication in private reports of such reductions, but the rather meager figures available on visible stocks are not conclusive. They do show, however, the important decline toward the end of March when the revival in continental buying began.

The continental wheat deficit for 1929-30 is proving to be much smaller than that of 1928-29 due to decreased consumption, especially for livestock and to some extent for human food as well. It also appears at the present time that some of the deficit for the year will be made up from continental stocks rather than imports, unless there is a decided revival in buying during the closing weeks of the campaign. In Poland and Czechoslovakia there have been increases in estimates of 1929 crops since our last report, but it does not appear at this time that increases in other countries beyond what we have already allowed for will be of great importance.

| Country | Jan. estimates of wheat crop | New estimates |
|---|---|---|
| | 1,000 bushels | 1,000 bushels |
| Poland . . . . . | 60,259 | 65,771 |
| Czechoslovakia . . . . . | 48,065 | 52,902 |

Considering the new factors such as protective measures, price relationships of wheat to other grains, imports to date and new crop developments, we now estimate the 1929-30 deficit of the Continent about 1/3 below 1928-29 i.e. 257,000,000 bushels as compared with 386,000,000 bushels in 1928-29.

Continental wheat imports for July 1 to March 15 have reached only 4,593,000 bushels per week as compared with 6,834,000 bushels during the same period last season. If the estimated deficit of 257,000,000 bushels is to be covered, weekly imports from March 15 to June 30 will have to average 5,916,000 bushels as compared with 9,186,000 last year.

Table 14.--WHEAT: Average weekly net imports into the Continent of Europe

| Season | 1928-29 | 1929-30 |
|---|---|---|
| | 1,000 bushels | 1,000 bushels |
| Estimate July 1 - June 30 . . . . . | 7,496 | 4,997 |
| July 1 - Nov. 15 . . . . . | 6,614 | 5,107 |
| Nov.15 - Dec. 15 . . . . . | 11,758 | 3,785 |
| Dec.15 - Jan. 15 . . . . . | 7,716 | 6,430 |
| Jan.15 - Feb. 15 . . . . . | 4,997 | 4,005 |
| Feb.15 - Mar. 15 . . . . . | 4,446 | 2,352 |
| Mar.15 - June 30 . . . . . | 9,186 | 5,916 |

The opinion is quite general in the continental trade that crop conditions from now on will be the outstanding factor affecting the extent of actual imports to the Continent. Adverse crop prospects during the coming important period may cause much greater importation than now assumed, and continuance of the present fairly favorable prospects, particularly on the Continent itself, will make the present estimate sufficiently high. The wheat and flour stock situation on the Continent, so far as can be judged from rather meager statistics available, seems to show that the small importation estimated for the remainder of the campaign, in the event of a favorable crop outlook, is possible, although in that event, stocks carried over into the next season would be materially lighter than a year ago. On the other hand the stock situation at present is such as to stimulate buying in case of unfavorable crop reports on the Continent or in important surplus countries elsewhere.

Wheat stocks on the Continent

While data are very incomplete the following considerations and information have some importance.

Private reports indicate that the stocks of domestic wheat are small in Italy, Czechoslovakia, Austria and the Danubian surplus countries while Germany's supplies are less than a year ago and France considerably above. German supplies of all wheat at the present moment, though considerably reduced during February and March, are yet sufficient to cover requirements with relatively small importation during the remainder of the campaign. Exports from France will be nearly equivalent to imports for the remainder of the year and according to our estimate of the crop and net imports for the season, a larger amount will be carried over into the next crop year than the rather important stocks of a year ago.

Table 15.--WHEAT: Stocks end of March or middle of April

| Position | 1929 | 1930 |
|---|---|---|
| | 1,000 bushels | 1,000 bushels |
| Antwerp | 1,700 | 1,400 |
| Rotterdam | 2,200 | 660 |
| Berlin | 1,400 | 900 |
| German farm (available for sale) | 14,800 | 12,400 |
| Hungarian warehouses | 2,900 | 2,600 |

Crop prospects

Information on crops to date for the Continent for both winter and spring grains indicates fairly favorable prospects. Spring sowing on the Continent has been mostly completed under satisfactory conditions. The condition of wheat in France, except for the North, has suffered some because of too much humidity with a consequent fear of rust and lodging. The wheat is also off color in places and it is the general opinion that the condition of the crop is below last year. Dry clear weather is needed in May.

Germany's wheat sowings appear in satisfactory condition but the moisture supply in much of the wheat area is below normal, and weather in May will be very important in the development of the crop. Italy reports very good conditions in the North, and medium to good conditions elsewhere. Spain reports a promising outlook for wheat. Crop prospects in the Danubian areas are likewise fairly good. April rains improved conditions. Lack of moisture is, however, still reported from sections, especially eastern Rumania. Seasonal rainfall and temperatures will be especially important during the coming weeks. In general the crop to date is considerably more advanced than a year ago, especially in Southern areas.

Feed grain markets

The market for feed grains was quite active during the first half of April with prices increased above March levels. The demand for feed grains on the part of England and other European countries showed some improvement during the latter part of March and the first half of April but with the increase of corn and barley shipments to the Continent, the market weakened again late in the month.

The German feed grain market is now linked up quite loosely with the world market because of very high tariffs on barley and the establishment of a corn monopoly. The German import demand for feed grain is expected to be very small in the succeeding weeks as a consequence of protective Government measures. The reduced German demand will doubtless be reflected to some extent in the world market.

Germany

The German wheat and flour market during April was considerably affected by the tariff measures of March 28 and the expected tariff measures which were later passed and became effective April 25. The wheat market strengthened during the second half of March and after a temporary weakening in early April again assumed an upward tendency in anticipation of another tariff increase. Imports dropped off after the tariff increase of March 25 but picked up again prior to the last increase on April 25. From price tendencies in Germany in comparison with other countries it appears that the increase in duties have been

effective in raising prices of grain, especially wheat. The Berlin wheat prices increased from $1.49 per bushel on March 1 to $1.80 on April 24, while the two increases of the tariff amounted to 36 cents per bushel. A third tariff increase to $.97 per bushel became effective on April 25. During the same time world wheat prices showed a slight increase. The German duty policy in connection with the obligation of the flour mills to mill at least 50 per cent domestic wheat has been a strengthening factor in the German market. This order has just been extended through May. As the present wheat tariff will remain in force during the rest of the campaign, wheat imports will continue under the extra handicap.

Rye prices also increased in April but the increase was much smaller than in the case of wheat. The rye prices in Berlin averaged $1.02 per bushel on April 24 and wheat prices $1.80. The following table shows the development of the German grain prices.

Table 16.--GERMANY: Price per bushel of domestic wheat and rye, March 5 - May 7, 1930

| Date | Wheat | | | Rye |
|---|---|---|---|---|
| | Hamburg a/ | Breslau b/ | Berlin c/ | Berlin d/ |
| | Cents | Cents | Cents | Cents |
| Mar. 5 | 156 | 147 | 151 | 97 |
| 12 | 159 | 148 | 151 | 86 |
| 19 | 161 | 154 | 157 | 89 |
| 26 | 170 | 158 | 160 | 86 |
| Apr. 2 | 178 | 167 | 171 | 100 |
| 9 | 182 | 167 | 171 | 100 |
| 16 | 180 | 167 | 173 | 101 |
| 23 | 189 | 175 | 178 | 101 |
| 30 | 193 | 178 | 185 | 100 |
| May 7 | 194 | 180 | 185 | 98 |

a/ Wheat of any German district of at least 58.7 pounds per Winchester bushel.
b/ Wheat of any German district in carloads of 370 bushels of at least 58.7 pounds per Winchester bushel.
c/ "Markischer" wheat of 59-60 pounds per Winchester bushel.
d/ "Markischer" rye of at least 56 pounds per Winchester bushel.

Wheat imports during March were only about 1,618,000 bushels as compared with 6,085,000 bushels in February 1930 and 3,843,000 bushels in March 1929. April imports will probably show a substantial increase over the March imports as the cut off in the monthly statistics from present information seems to be

around the 20th, which make the April figures include the increase of imports the latter part of March and part of the increase in April prior to the new duty. According to our present estimate imports the remainder of the season, April 1 to June 30, will run about 14,000,000 bushels making a total of 66,000,000 bushels for the 1929-30 season. In spite of the heavy wheat duty this amount may be exceeded if any serious damage to the new crop occurs. According to some trade opinion the 1929 German crop appears underestimated, but according to our calculations on the utilization of the crop this may not be true unless imports the remainder of the season fall much shorter than now estimated. The table below assumes that 8,000,000 bushels less will be fed to stock this year, which is based on farm records for past years and a survey of the German Agricultural Council on per cent of the crop fed to date this year. The following calculation indicates some decrease in human consumption and materially reduced stocks if the present crop estimate is substantially correct and imports take place as indicated.

| | 1928-29 | 1929-30 |
|---|---|---|
| | 1,000 bushels | 1,000 bushels |
| Domestic crop . . . . . | 141,593 | 123,075 |
| Seed requirements . . . | 9,186 | 9,186 |
| | 132,407 | 113,887 |
| Net imports . . . . . | 68,498 | 66,000 |
| | 200,905 | 179,887 |
| Fed stock . . . . . | 15,500 | 7,300 |
| Human consumption if no difference in stocks beginning and end of season . . . . | 185,405 | a/ 172,587 |

a/ Lower stocks at end of year will probably raise this figure, or more will be imported than we estimate.

The disappearance of wheat and rye on German farms between March 15 and April 15 was somewhat larger than a year ago and considerably larger than during the preceding months. The prospect of farm relief has caused farmers to delay their marketings of grain but the various protective measures recently enacted have apparently accelerated sales as stocks of domestic wheat have declined to a point below last year. Stocks figures of the German Agricultural Council as of April 15, 1929-30 are as follows:

Table 17.--GRAIN: Stocks on German farms

| Grain | Total farm stocks, Apr. 15 | | Stocks available for sale, Apr. 15 | |
|---|---|---|---|---|
| | 1929 | 1930 | 1929 | 1930 |
| | 1,000 bushels | 1,000 bushels | 1,000 bushels | 1,000 bushels |
| Winter wheat . . . . . | 19,800 | 15,800 | 11,800 | 11,300 |
| Spring wheat . . . . . | 4,000 | 1,660 | 3,000 | 1,100 |
| Winter rye . . . . . | 70,800 | 79,200 | 52,700 | 41,200 |
| Spring barley . . . . . | 24,400 | 15,400 | 9,800 | 5,100 |

Based on the percentage estimate of the German Agricultural Council.

Exports in February and March were quite heavy, and important transactions also took place in April, but slackened off toward the end of the month. For the remainder of the season it is probable that imports will about balance the exports. As the export figures reported officially are somewhat late in appearing we have adjusted our net import figures for the season slightly downward to allow for some reduction when the heavy export figures for March and April became available. Farm offers have been generally moderate but price declines have taken place recently due to cautious buying on the part of flour mills together with a slackening in the exports and price declines in other markets. Farm stocks in France are considered much heavier than a year ago but do not appear so burdensome as was thought probable earlier in the season. According to our present estimate of the crop, and net imports for the season, there is likely to be an important increase in stocks at the end of this season as compared with a year ago.

At the present time it is generally believed that the new crop will be somewhat shorter than last year's good crop. There are many complaints of too much humidity with the fear of rust and lodging. Dry and clear weather is now needed. Reports on the Algerian wheat crop to date are quite favorable. Prospects in Northern Tunis are good but are only medium in the central section and poor in the south. Morocco's crop may not equal last year's because of the poor weather at the beginning of the season and some grasshopper damage. In considering next year's wheat supply for France and the Colonies, although prospects at present are not bad, it is not probable that supplies will attain last year's figures.

Italy

Imports of wheat into Italy have shown a small increase but have so far failed to register any marked revival. Some quantities of Australian, French and Hungarian wheat were imported recently with only small quantities from North America.

The total imports during the period July 1929 to March 1930 were 19,000,000 bushels as compared with 63,394,000 bushels in the corresponding period of the preceding year. Trade reports indicate that stocks of domestic wheat are rather small and that some revival of the import market may take place. The fact, however, that crop reports from most parts of the country are favorable has caused the trade to be reluctant in their purchases. On the basis of present indications it appears that the total import requirements of wheat will not exceed 33,000,000 bushels. Unusual developments in the crop outlook may change this estimate. An important factor in the season this year appears to be an increased consumption of corn. Italy's corn crop and imports July-March 1929-30 exceeded those of the previous year by more than 20,000,000 bushels.

Netherlands and Belgium

Import business in Holland and Belgium was quite active during the first part of April with a firm undertone in the market being shown. Sales during the latter part of the month became slower, however, and a weaker price tendency developed with the demand generally restricted and a quieter tone prevailing. April 15 stocks at Rotterdam were much smaller than on March 15.

Port stocks at Antwerp on March 31 were somewhat higher than in February but remained much smaller than in the last quarter of 1929.

Danube Basin

The wheat market in the Danube deficit countries, Czechoslovakia and Austria, showed some increased activity during the first part of April which is largely attributed to plans for an increase in grain import duties. Flour sales, however, remained limited. Wheat purchases during the latter part of the month showed a falling off when the Easter holidays contributed to the lack of buying interest. It was also said that the trade hesitancy was caused to a considerable extent by uncertainty as to what agrarian measures will be taken in Czechoslovakia and Austria and when, if taken, they may become effective. Stocks of wheat were thought to be small in Czechoslovakia and at least not burdensome in Austria, while flour stocks were more plentiful in both countries. The situation in the surplus countries of the Danube Basin is becoming less important as the season draws to a close. Yugoslavia appears to have very little more to export, Rumania's wheat exports this year are insignificant in any event, and Hungary's remaining surplus is small. Hungary's total surplus for the current season, however, is doubtless higher than previously estimated, and some exports took place during March and April, chiefly to Italy. Recent negotiations between Rome and Budapest are said to have resulted in an understanding, that Hungarian wheat exports to Italy from now on (1930-31) should be promoted in every way possible. Hungary seems to have secured in this way some advantage which is particularly important in view of prospective difficulties with exports to the increasingly protected German market.

Price movements in the Danube surplus areas during the first part of April showed some stimulation as the result of improved demand from Austria and Czechoslovakia.

Poland

Wheat and rye prices showed some increase after the middle of March, in connection with a decline of farm offers. Some market observers attribute this decline of marketings to the occupation of farmers in the spring sowing campaign and believe that increased offers can be expected before the season closes. Stocks in the country are comparatively small and therefore a further rise in prices, which are still lower than world market prices, is likely to occur. The official estimate of the 1929 crop of both rye and wheat was raised recently. The rise in the estimate of the wheat crop at least tends to confirm a low estimate for this year's import requirements. Prospects for the new crop to date are also reported favorable.

Russia

The movement of Russian grain to South Russian ports during the second half of March and up to April 23 totaled about 125,700 short tons of which nearly half was wheat. Total shipments of the five chief grains from the Southern Russian ports since the beginning of the campaign up to April 23 amounted to 769,000 short tons distributed as follows:

Shipments from Southern Russian ports to April 23, 1930

| Grain | 1,000 bushels |
|---|---|
| Wheat | 4,225 |
| Barley | 23,516 |
| Rye | 1,339 |
| Oats | 827 |
| Corn | 984 |

Changes in organization of Russian agriculture taking place this year, chiefly because of the increased movement of peasants into collective farms, will no doubt, be reflected in the outturn of the sowing campaign, although the government has made strenuous efforts to carry through the reorganization as smoothly as possible. The large movement into the collectives had so threatened the arrangements of the government's plans and made them fear that they could not handle the situation that a stipulation was made checking the rapid movement. Many difficulties have resulted, however, from peasants moving out of the collectives into which they were previously driven involuntarily. Cases have occurred where the peasants leaving the collectives did not receive their seed and cattle which they had passed over to the collective farms at the time of their entry, and as a result they were unable to start sowing, and in other instances allotting of land was delayed, thus preventing peasants from beginning field work. It seems that such cases were rather frequent and had an important effect on the spring sowing campaign. In many instances local organs and managers of the collective farms were completely at a loss as to how to carry on the work under the new arrangement and were unable to work out a solution of the problem. At the same time the new stipulations of the government and tax reductions granted to the collective farms as inducement toward their formation were being discussed and explained to the peasants with a resulting increase in the movement into collectives, thus aggravating the already unfavorable situation.

Moisture supplies are reported very deficient in important sections of the lower Volga. Middle Volga and in the eastern part of the Central Black Soil Region as well as in some parts of the eastern region although reports early in May mentioned rain. The most important and most frequently mentioned difficulties in the spring sowing campaign are shortage of draft cattle and feed stuffs, shortage of agricultural implements and, recently, shortage of

gasoline for tractors. Poor preparatory work of the local organs, such as timely explanation of the new statutes of the collective farms, propaganda toward an increase of acreage of individual peasants and extension of productional help to them in cases of necessity, were also claimed as causes of slow progress in the sowing campaign. It is still uncertain how the individual peasants, operating about 45 to 50 per cent of all farms in Russia, will carry through this year's campaign. The necessity of bringing about an increase of their acreage was strongly encouraged by the government but the peasants seem to show an inclination to sow only for their own needs. It is difficult to say how pronounced this tendency is. It is reported that the government is, in some cases, requiring the workers on Soviet farms as well as the collective farms, who have completed their sowing to help the individual peasants with their spring work. At the same time a recent stipulation of the government granted exemption from taxation to all acreage sown by individual peasants surpassing that of 1929. The acreage seeded to spring wheat up to May 1 was 29,400,000 acres or only about half the "plan". In the Ukraine, however, the "plan" was fully executed and the acreage exceeds the acreage of last year by 11 per cent.

At the present time there are no statements of any large amount of winter kill in any region except the southeastern section of the Ural-region where winter kill reaches 50 per cent in some instances and averages about 25 per cent and more on the whole. The mention of some winter kill without any definite statements as to the extent was also made for the Central Black Soil region, parts of the Leningrad region and Siberia, with some uncertainty existing as to the extent of winter kill in the Volga regions and Ukraine. These regions (Ural, Siberia, and Central Black Soil) where considerable winter kill was observed this year are predominately winter rye regions. Crop conditions in Ukraine, except in the extreme east and north Caucasus, two very important winter wheat regions, are reported somewhat above average with certain localities showing even better conditions.

## Pernambuco as a wheat flour market

Brazil is one of the important markets for flour from the United States. The flour import of that country in the past three years has been equivalent on the average to a little more than 30 million bushels of wheat, and a considerable part of this import is wheat flour from the United States. Consul Nathaniel P. Davis of Pernambuco contributes an interesting report upon the market area of that port. According to the Consul, Pernambuco ranks third among the ports of Brazil as an importer of wheat flour. He estimates the population of the market area served by the port at about 1,600,000. The standard of living of the upper class of the population compares favorably with that in the United States or Europe, but this class is relatively small. People living in rural communities and the wage earning classes in the cities have a low standard of living. In the city practically no bread is baked at home. The standard loaf of baker's bread (175 gr.) costs something over 2 cents. Laborers buy this bread in relatively small quantities, their chief diet being black beans, dried beef, and dried cod-fish. In the country districts wheat bread is seldom seen on the tables of the poor, a sort of pancake made from mandioca flour taking its place to a large extent. These pancakes are home baked.

Living standards are rising, but very slowly, and while it is probable that the greater use of baker's bread will spread among the laboring classes, this development is certain to be so slow as to be almost imperceptible. Expansion of the flour market is to be looked for rather in the steady increase in population than in improved living conditions.

There is only one wheat flour mill operating in the area. This mill grinds Argentine wheat almost entirely. Occasionally small shipments of wheat are received from the United States when world market prices favor the American grain. The capacity of the mill is not far from 500 American barrels daily. From receipts it is estimated that the mill is operating at only about one-fourth to one-fifth capacity. This mill falls far short of satisfying local demand and the deficiency is made up almost entirely by flour imports. Relatively small shipments from mills in Southern Brazil exert practically no influence on market conditions.

During the past five years imports of wheat flour through the port of Recife have been as follows:

Wheat flour: Imports into Recife, Pernambuco

| Year | Bags a/ |
|---|---|
| 1924 | 414,938 |
| 1925 | 372,257 |
| 1926 | 213,398 |
| 1927 | 399,909 |
| 1928 | 495,269 |

a/ Bags of 44 kilos, or 97 pounds.

In 1928 approximately ninety per cent of the flour imports came from the United States, eight and a fraction from Argentina, and the remainder from Canada. It is safe to assume that ordinarily fully ninety-five per cent comes from the United States and most of the remainder from Argentina, with only a few isolated shipments from Canada via New York. In December, 1928, unusually large shipments were received from Argentina owing to the considerably lower price asked for Argentine flour at that time and unusually large stocks on hand at the Argentine mills. This situation continued through the first part of 1929, up to the time of writing (April 10, 1929).

Estimating the 1928 production of the local mill at 60,000 bags, total consumption in the Recife district in that year appears as approximately 555,000 bags, or about 33½ pounds per capita.

Local preferences

Few of the bakers in Recife, and still fewer in the country districts, are able to distinguish between a strong or a weak flour with any degree of accuracy, yet most of them express a decided preference for one brand or another. These preferences, it is believed, are largely a matter of habit. One baker, for instance, has used a certain brand for several years with satisfactory results. He is convinced that this brand is the best, and it is extremely hard to sell him a rival brand unless there is a material difference in price.

There is one peculiarity in the situation which it is understood exists to a greater or less extent in some other parts of Brazil as well. This is that the bakers maintain that American flour used by itself does not give satisfactory results because of its "low grade". The writer has never been able to obtain a satisfactory explanation of what is meant by this, but the fact remains that the belief is firmly implanted in most of the bakers. They state that Argentine flour, or the product of the local mill ground from Argentine wheat, is of a "higher grade". In fact many bakers, without being able to explain their meaning clearly, will tell the inquirer that the Argentine flour is too "high grade" to be used by itself. It is therefore the general custom in Recife to mix the two, half and half, or 40 per cent Argentine with 60 per cent American. In the country districts this is not so common, owing probably to the better distribution of American flour and the greater quantities available. Cracker bakers, both in city and country, use American wheat or flour exclusively. The same is true of macaroni manufacturers.

About the only test applied by the average baker to flour is that of color. A white flour is good, one slightly darker is not so good. One American salesman recently proved conclusively to a baker that he actually got more bread and of equal quality from his slightly darker flour, than from the brand he had been using. The baker had to accept demonstrated facts, yet remained unconvinced. Whatever the logic of such a situation may be, the belief in color as a test of quality is a factor which the seller must take into account.

Baking methods

The baker's art in Pernambuco is a simple one. The formula used is one liter of fluid yeast to 75 kilograms of flour, with three quarters of a kilogram of salt added and enough water to bring the dough to the desired consistency. The dough is prepared in the following manner: The fluid yeast is mixed with a few kilograms of flour and allowed to ferment for five hours. This mass is then mixed with ten kilograms of flour and some water and allowed to ferment for another five hours. The rest of the flour and water are then added, the whole mixed thoroughly by hand, and the salt added. After this has again set for five hours it is cut into loaves and hearth baked. The final product is French and Vienna bread and rolls and dough breaks.

Flour prices in the Pernambuco market follow the market in the country of origin. When flour milled from hard spring wheat sells in New York below Southwestern the same is true in Pernambuco, and when Argentine flour undersells all American flours on the world market, it does so in Pernambuco as well.

The average cost of clearing a bag of flour (97 or 98 pounds) through the Customs House, as of April 10, 1929, was about 60 cents United States currency, distributed as follows:

| | Cents |
|---|---|
| Import duty ..... | 41 |
| Port improvements tax ..... | 12 |
| Miscellaneous ..... | 7 |
| Total ..... | 60 |

These charges, of course, vary from time to time and are affected by changes in the rate of exchange, or rate of gold to Brazilian paper currency.

Table 18.--WHEAT: Inspected receipts, all United States inspection points, by classes, July-March, 1928-29 and 1929-30

| Class | 1929 | 1930 | 1928-29 | 1929-30 |
|---|---|---|---|---|
| | Mar. | Mar. | July-Mar. | July-Mar. |
| | Cars | Cars | Cars | Cars |
| Hard red spring | 9,246 | 4,662 | 145,148 | 83,157 |
| Durum | 3,463 | 1,782 | 47,794 | 21,365 |
| Hard red winter | 15,702 | 8,289 | 300,352 | 309,409 |
| Soft red winter | 1,145 | 1,497 | 29,619 | 39,464 |
| White | 2,158 | 1,473 | 27,221 | 25,761 |
| Mixed | 2,923 | 2,038 | 45,007 | 33,275 |
| Total | 34,637 | 19,741 | 595,141 | 512,431 |

Table 19.--WHEAT: Inspections of United States grain exports, July-January, 1928-29 and 1929-30

| Class | 1929 | 1930 | 1928-29 | 1929-30 |
|---|---|---|---|---|
| | Jan. | Jan. | July-Jan. | July-Jan. |
| | 1,000 bushels | 1,000 bushels | 1,000 bushels | 1,000 bushels |
| Hard red spring | 172 | 138 | 1,258 | 791 |
| Durum - | | | | |
| U.S.Ocean ports | 23 | 16 | 888 | 322 |
| Canadian inspections of "U.S. Grain" | 1,162 | 171 | 15,854 | 2,386 |
| Total U.S. durum | 1,185 | 187 | 16,742 | 2,708 |
| Hard red winter | 1,645 | 4,658 | 25,836 | 38,186 |
| Soft red winter | 210 | 42 | 1,852 | 2,162 |
| White | 657 | 2,139 | 9,850 | 12,371 |
| Mixed | 138 | --- | 943 | 533 |
| Total | 4,007 | 7,184 | 56,481 | 56,761 |

Table 20.--WHEAT, INCLUDING FLOUR: Shipments from principal exporting countries

| Country | Total shipments or exports | | Shipments, week ending | | | Net movement from July to and including May 3 | |
|---|---|---|---|---|---|---|---|
| | 1927-28 | 1928-29 a/ | Apr. 19 | Apr. 26 | May 3 | 1928-29 | 1929-30 |
| | 1,000 bushels | 1,000 bushels | 1,000 bushels | 1,000 bushels | 1,000 bushels | 1,000 bushels | 1,000 bushels |
| North America b/ | 452,425 | 499,942 | 4,183 | 3,902 | 5,912 | 432,194 | 245,558 |
| Canada 4 mkts. c/ | 533,335 | 458,649 | 874 | 1,469 | 3,521 | 412,371 | 2146,970 |
| United States | 206,259 | 163,687 | 1,442 | 1,175 | 1,747 | 121,051 | 119,309 |
| Argentina | 178,135 | 217,159 | 1,696 | 1,600 | 1,565 | 171,805 | 146,115 |
| Australia | 72,962 | 107,937 | 1,248 | 390 | 1,536 | 102,145 | 52,591 |
| Russia | 5,408 | 8 | 128 | 0 | 312 | 8 | 4,544 |
| Danube & Bulg. d/ | 32,847 | 33,842 | 40 | 128 | 120 | 2,544 | 17,632 |
| British India | 15,668 | e/ 21,729 | 0 | 0 | 0 | e/ 19,725 | e/ 2,452 |
| Total f/ | 757,443 | 837,139 | 7,295 | 6,020 | 9,445 | 688,971 | 463,988 |
| Total European shipments g/ | | | 9,760 | 6,576 | --- | 577,820 | 399,056 |
| Total ex-European shipments g/ | | | 2,208 | 2,376 | --- | 183,632 | 121,672 |

Compiled from official and trade sources.

a/ Preliminary.

b/ Bradstreet's, weeks ending Thursday, including flour converted at 4.5 bushels per barrel.

c/ Fort William, Port Arthur, Vancouver and Prince Rupert.

d/ Hungary, Yugoslavia, Rumania and Bulgaria.

e/ Net imports.

f/ Total of trade figures including North America as reported by Bradstreets.

g/ Totals as reported by Broomhall's Corn Trade News.

Table 24.--WHEAT: Acreage, production, exports and prices, by classes, 1923-1930

| Year | Acreage winter wheat | | | Production a/ | | | | Exports b/ Year beginning July 1 | | | Prices c/ Year beginning July 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Seeded preceding fall | Percentage abandonment | Remaining for harvest | Total winter | Hard red winter | Soft red winter | White | Hard red winter | Soft red winter | White | No. 2 hard winter Kansas City | No. 2 red winter St. Louis |
| | Million acres | Per cent | Million acres | Million bushels | Million bushels | Million bushels | Million bushels | Million bushels | Million bushels | Million bushels | Cents | Cents |
| 1923 | 46,091 | 14.3 | 39,508 | 572 | 241 | 272 | 102 | 27 | 11 | 20 | 105 | 107 |
| 1924 | 38,916 | 8.4 | 35,656 | 592 | 365 | 189 | 52 | 121 | 8 | 11 | 135 | 159 |
| 1925 | 39,951 | 21.5 | 31,346 | 402 | 206 | 170 | 80 | 10 | 2 | 19 | 163 | 169 |
| 1926 | 39,887 | 7.3 | 36,987 | 627 | 360 | 229 | 73 | 73 | 31 | 28 | 135 | 138 |
| 1927 | 43,373 | 13.0 | 57,723 | 553 | 317 | 181 | 95 | 65 | 14 | 30 | 135 | 149 |
| 1928 | 47,303 | 23.5 | 36,207 | 579 | 385 | 139 | 86 | 38 | 3 | 15 | 112 | 139 |
| 1929 | d/42,820 | d/ 6.5 | d/40,162 | 578 | 342 | 191 | 80 | | | | | |
| 1930 | d/43,434 | d/11.0 | d/38,676 | 525 | 323 | 165 | e/37 | | | | | |

a/ Estimates of production by classes are based on surveys of the percentage of different varieties of wheat grown, supplemented by investigations and judgment of cereal specialists.

b/ Total as reported by the Department of Commerce. Distribution by classes made on basis of United States inspections for export by ports and inspections of United States wheat in the Eastern Division of Canada.

c/ Compiled by Division of Statistical and Historical Research. Prices are average cash price per bushel weighted by car-lot sales.

d/ Data as of May 1, 1930 crop report.

e/ Winter wheat only; previous years included spring wheat also.

Table 22.--BREAD GRAINS: Winter acreage in specified countries, average 1909-1913, annual 1927-1930

| Crop and countries reporting | Harvest year | | | | |
|---|---|---|---|---|---|
| | Average 1909-1913 | 1927 | 1928 | 1929 | 1930 |
| WHEAT | 1,000 acres | 1,000 acres | 1,000 acres | 1,000 acres | 1,000 acres |
| United States | 28,382 | 37,723 | 36,213 | 40,162 | 38,676 |
| Canada | a/ 1,019 | 853 | 819 | 834 | 636 |
| Total | 29,401 | 38,576 | 37,032 | 40,996 | 39,312 |
| France | 16,500 | 12,976 | 12,802 | 12,673 | 12,608 |
| Spain | 9,547 | 10,826 | 10,479 | 10,478 | 10,531 |
| Italy | 11,793 | 12,295 | 12,263 | 11,802 | 11,752 |
| Czechoslovakia | 1,718 | 1,855 | 1,871 | 2,023 | 2,112 |
| Bulgaria | 2,409 | 2,633 | 2,782 | 2,590 | 2,875 |
| Rumania | a/ 9,515 | 7,017 | 7,281 | 7,462 | 6,753 |
| Poland | 3,345 | 2,599 | 3,302 | 3,340 | 3,530 |
| Lithuania | 211 | 175 | 272 | 346 | 405 |
| Latvia | 85 | 106 | 120 | 96 | 120 |
| Finland | 8 | 27 | 26 | 27 | 30 |
| Total Europe (10) | 55,129 | 50,507 | 51,198 | 50,837 | 50,716 |
| Morocco | (1,700) | 2,304 | 2,665 | 2,843 | 2,757 |
| Algeria | 3,521 | 3,469 | 3,656 | 3,722 | 3,608 |
| Tunis | 1,310 | 1,377 | 2,011 | 1,730 | 1,730 |
| Total Africa (3) | 6,531 | 7,150 | 8,332 | 8,295 | 8,095 |
| Syria and Lebanon | (900) | 1,224 | 1,024 | 899 | 1,076 |
| India | 29,224 | 30,952 | 31,678 | 31,504 | 30,468 |
| Total Asia (2) | 30,124 | 32,176 | 32,702 | 32,403 | 31,544 |
| Total above coun. (17) | 121,185 | 128,409 | 129,264 | 132,531 | 129,667 |
| RYE | | | | | |
| United States | 2,256 | 3,648 | 3,480 | 3,225 | 3,521 |
| Canada | 117 | 568 | 599 | 664 | 765 |
| Total | 2,553 | 4,216 | 4,079 | 3,889 | 4,286 |
| France | 3,095 | 1,921 | 1,900 | 1,936 | 1,909 |
| Spain | 1,988 | 1,818 | 1,584 | 1,633 | 1,446 |
| Czechoslovakia | 2,605 | 2,460 | 2,487 | 2,690 | 2,676 |
| Bulgaria | 542 | 428 | 458 | 492 | 541 |
| Rumania | a/ 1,286 | 638 | 637 | 723 | 888 |
| Poland | 12,570 | 12,008 | 14,652 | 14,975 | 14,701 |
| Lithuania | 1,749 | 1,240 | 1,161 | 1,113 | 1,196 |
| Latvia | 888 | 627 | 631 | 581 | 651 |
| Finland | 589 | 563 | 563 | 565 | 556 |
| Total (9) | 25,312 | 21,703 | 23,873 | 24,706 | 24,544 |
| Total above coun. (11) | 27,665 | 25,919 | 27,952 | 28,595 | 28,830 |

a/ Four-year average.

Table 25.--WHEAT: Production, average, 1909-1913, 1923-1927, annual 1928-1929

| Country | Average 1909-1913 | Average 1923-1927 | 1928 | 1929 |
|---|---|---|---|---|
| NORTH AMERICA | 1,000 bushels | 1,000 bushels | 1,000 bushels | 1,000 bushels |
| United States | 690,108 | 809,668 | 914,876 | 806,508 |
| Canada | 197,119 | 403,714 | 566,726 | 299,520 |
| Mexico | a/ 11,481 | 11,090 | 11,031 | 11,333 |
| Guatemala | (200) | 201 | 167 | 152 |
| Total | 898,908 | 1,224,673 | 1,492,800 | 1,117,513 |
| EUROPE | | | | |
| England and Wales | 55,770 | 52,057 | 47,264 | 47,460 |
| Scotland | 2,273 | 2,137 | 2,515 | 2,165 |
| Northern Ireland | 287 | 191 | 183 | 142 |
| Irish Free State | 1,310 | 1,111 | 1,186 | 1,184 |
| Norway | 306 | 552 | 798 | 729 |
| Sweden | 8,103 | 11,727 | 19,155 | 19,031 |
| Denmark | 6,322 | 8,529 | 12,214 | 11,721 |
| Netherlands | 4,976 | 5,646 | 7,336 | 4,666 |
| Belgium | 15,199 | 13,988 | 17,215 | 13,225 |
| Luxemburg | 615 | 498 | 713 | 305 |
| France | 325,644 | 278,997 | 281,285 | 319,863 |
| Spain | 130,446 | 146,581 | 119,885 | 154,249 |
| Portugal | b/ 11,850 | 11,250 | 7,546 | 11,110 |
| Italy | 184,393 | 210,456 | 228,596 | 260,669 |
| Malta | 196 | 279 | 289 | 293 |
| Switzerland | 3,314 | 3,766 | 4,270 | 5,791 |
| Germany | 131,274 | 105,962 | 141,593 | 123,073 |
| Austria | 12,813 | 9,890 | 12,915 | 11,582 |
| Czechoslovakia | 37,879 | 37,821 | 51,499 | 52,902 |
| Hungary | 71,493 | 68,558 | 99,211 | 71,853 |
| Yugoslavia | 62,024 | 65,096 | 103,294 | 94,998 |
| Greece | b/ 16,273 | 10,620 | 13,085 | 8,502 |
| Bulgaria | 37,823 | 34,771 | 49,153 | 34,448 |
| Rumania | a/158,672 | 96,980 | 115,544 | 84,510 |
| Poland | 61,665 | 53,967 | 59,219 | 65,771 |
| Lithuania | 3,264 | 4,204 | 6,327 | 9,329 |
| Latvia | 1,475 | 1,977 | 2,499 | 2,336 |
| Estonia | 364 | 799 | 1,037 | 1,268 |
| Finland | 137 | 879 | 998 | 1,095 |
| Total | 1,346,160 | 1,239,289 | 1,406,624 | 1,414,270 |

Continued

Table 23.--WHEAT: Production, average, 1909-1913, 1923-1927, annual 1928-1929 Continued

| Country | Average 1909-1913 | Average 1923-1927 | 1928 | 1929 |
|---|---|---|---|---|
| | 1,000 bushels | 1,000 bushels | 1,000 bushels | 1,000 bushels |
| AFRICA | | | | |
| Morocco | (17,000) | 22,693 | 24,746 | 26,885 |
| Algeria | 35,161 | 27,542 | 30,302 | 32,833 |
| Tunis | 6,224 | 9,627 | 12,125 | 12,309 |
| Egypt | 33,662 | 38,513 | 37,296 | 45,228 |
| Total | 92,047 | 98,375 | 104,469 | 117,255 |
| ASIA | | | | |
| India | 351,841 | 344,729 | 290,864 | 317,595 |
| Syria and Lebanon | (4,000) | 13,115 | 6,490 | 16,343 |
| Japan | 25,088 | 29,216 | 30,812 | 30,496 |
| Chosen | 6,898 | 9,736 | 8,595 | 8,320 |
| Total | 387,827 | 396,796 | 336,761 | 372,754 |
| Total N. Hemisphere | 2,724,942 | 2,959,133 | 3,340,654 | 3,021,792 |
| SOUTHERN HEMISPHERE | | | | |
| Chile | 20,062 | 26,628 | 29,679 | 37,037 |
| Argentina | 147,059 | 219,864 | 307,362 | 137,420 |
| Union of South Africa | b/ 6,034 | 7,307 | 6,693 | 10,273 |
| Australia | 90,497 | 136,604 | 159,657 | 125,669 |
| New Zealand | 6,925 | 6,347 | 8,833 | 7,100 |
| Total | 270,577 | 396,750 | 512,224 | 317,499 |
| Total, 46 countries | 2,995,519 | 3,355,883 | 3,852,878 | 3,339,291 |
| Est. World total excl. Russia and China | 3,041,000 | 3,448,000 | 3,950,000 | 3,430,000 |
| Russia | 758,941 | 672,678 | 795,289 | 738,908 |

a/ Four year average.
b/ One year only.

Table 24.--UNITED STATES: Exports of wheat, and wheat including flour, by weeks 1929 and 1930

| Week ended | Wheat | | Wheat including flour | |
|---|---|---|---|---|
| | 1929 | 1930 | 1929 | 1930 |
| | 1,000 bushels | 1,000 bushels | 1,000 bushels | 1,000 bushels |
| Jan. 4 | 976 | 1,996 | 1,878 | 2,635 |
| 11 | 420 | 1,382 | 1,553 | 2,656 |
| 18 | 506 | 1,578 | 1,535 | 2,513 |
| 25 | 260 | 1,001 | 1,021 | 1,786 |
| Feb. 1 | 975 | 1,593 | 1,783 | 2,970 |
| 8 | 896 | 2,380 | 2,024 | 2,775 |
| 15 | 212 | 1,422 | 1,895 | 2,136 |
| 22 | 582 | 373 | 1,404 | 1,111 |
| Mar. 1 | 785 | 734 | 2,444 | 1,848 |
| 8 | 824 | 224 | 1,600 | 873 |
| 15 | 590 | 371 | 1,878 | 968 |
| 22 | 471 | 913 | 1,754 | 2,088 |
| 29 | 932 | 357 | 2,168 | 1,363 |
| Apr. 5 | 274 | 842 | 1,430 | 1,538 |
| 12 | 718 | 329 | 1,414 | 808 |
| 19 | 867 | 563 | 2,075 | 1,442 |
| 26 | 2,130 | 545 | 3,108 | 1,175 |
| May 3 | 745 | 939 | 1,685 | 1,747 |
| 10 | 1,537 | 1,363 | 2,129 | 1,889 |
| Total | 14,700 | 18,905 | 34,779 | 34,321 |

Compiled from weekly report of the Department of Commerce.

Table 25.--WHEAT, INCLUDING FLOUR: Exports from the United States, by countries, July-March, 1928-29 and 1929-30

| Country to which exported | Wheat, incl. flour | | Wheat | | Wheat flour | |
|---|---|---|---|---|---|---|
| | July-Mar. | | Mar. | | Mar. | |
| | 1928-29 | 1929-30 | 1929 | 1930 | 1929 | 1930 |
| | 1,000 bushels | 1,000 bushels | 1,000 bushels | 1,000 bushels | 1,000 barrels | 1,000 barrels |
| United Kingdom | 15,195 | 26,129 | 920 | 208 | 66 | 130 |
| Irish Free State | 2,944 | 3,196 | 0 | 261 | 3 | 10 |
| Netherlands | 8,968 | 7,598 | 172 | 208 | 104 | 120 |
| Italy | 4,962 | 699 | 44 | 58 | 2 | 3 |
| Greece | 3,709 | 6,847 | 0 | 0 | 4 | 3 |
| Germany | 2,397 | 5,807 | 0 | 40 | 28 | 40 |
| Belgium | 2,379 | 5,247 | 40 | 297 | 1 | 1 |
| France | 2,136 | 1,998 | 38 | 208 | 1 | a/ |
| Denmark | 1,801 | 2,171 | 50 | 17 | 34 | 31 |
| Finland | 1,377 | 1,090 | 0 | 0 | 24 | 18 |
| Gibraltar | 1,159 | 3 | 0 | 0 | a/ | a/ |
| Norway | 876 | 1,467 | 0 | 17 | 22 | 54 |
| Sweden | 472 | 591 | 0 | 0 | 6 | 8 |
| Malta, Gozo and Cyprus | 150 | 330 | 0 | 0 | 2 | 4 |
| Other Europe | 3,745 | 1,867 | 0 | 5 | 3 | 10 |
| Total Europe | 52,270 | 65,040 | 1,264 | 1,319 | 300 | 432 |
| Canada | 31,365 | 12,540 | 559 | a/ | 6 | 6 |
| Panama | 4,480 | 4,634 | 558 | a/ | 11 | 8 |
| Cuba | 4,268 | 4,344 | 4 | 5 | 112 | 112 |
| Mexico | 2,102 | 2,386 | 207 | 275 | 10 | 8 |
| Haiti, Republic of | 1,598 | 798 | 0 | 0 | 23 | 26 |
| Brazil | 3,049 | 2,477 | a/ | a/ | 79 | 61 |
| Peru | 1,248 | 319 | 0 | 0 | 10 | 11 |
| Colombia | 815 | 681 | 13 | 23 | 8 | 8 |
| Japan | 4,189 | 8,637 | 442 | 632 | 15 | 10 |
| China | 5,757 | 2,470 | 455 | 0 | 150 | 51 |
| Hongkong | 3,609 | 2,985 | 0 | 2 | 92 | 45 |
| Kwantung | 1,648 | 3,921 | 0 | 0 | 72 | 18 |
| Philippine Islands | 2,914 | 2,549 | 0 | 0 | 81 | 48 |
| Other countries | 10,094 | 9,343 | 5 | 158 | 243 | 200 |
| Total exports | 129,406 | 123,124 | 3,487 | 2,414 | 1,192 | 1,044 |
| Total imports | 17,409 | 9,272 | 1,503 | 2,449 | a/ | 1 |
| Total reexports | 20 | 53 | 0 | 0 | 0 | a/ |
| Net exports | 112,017 | 113,905 | 1,984 | b/ 35 | 1,192 | 1,043 |

Compiled from official records of the Bureau of Foreign and Domestic Commerce.
a/ Less than 500. b/ Net imports.

Table 26.--WHEAT: Stocks in United States as of March 1 and April 1, 1926 - 1930

| Date and location of stocks | 1926 | 1927 | 1928 | 1929 | 1930 |
|---|---|---|---|---|---|
| | Million bushels | Million bushels | Million bushels | Million bushels | Million bushels |
| Mar. 1 | | | | | |
| Farm | 100.2 | 130.3 | 130.9 | 151.4 | 129.2 |
| Country mills and elevators | 76.4 | 85.9 | 75.4 | 82.4 | 96.0 |
| Commercial | a/ 44.0 | 56.3 | 72.9 | 126.4 | 160.7 |
| Merchant mills b/ | (57.0) | (70.0) | (69.0) | (84.0) | (84.0) |
| In transit b/ | (6.0) | (10.0) | (14.0) | (14.0) | (9.0) |
| Total | (283.6) | (352.5) | (362.2) | (458.2) | (478.9) |
| Estimated mill grindings, total for Mar. | 42.1 | 44.7 | 49.0 | 45.1 | (46.0) |
| Exports for Mar. | 3.8 | 5.1 | 2.7 | 3.5 | ( 2.4) |
| Total | 45.9 | 49.8 | 51.7 | 48.6 | (48.4) |
| Mar. 1 stocks minus Mar. mill grindings and exports | 237.7 | 302.7 | 310.5 | 409.6 | 430.5 |
| Apr. 1 | | | | | |
| Commercial | a/ 34.0 | 49.9 | 68.8 | 124.8 | 155.1 |
| Merchant mills | 49.8 | 65.6 | 62.9 | 78.7 | 73.1 |
| In transit | 3.6 | 7.0 | 10.0 | 9.2 | 8.5 |
| Total | 87.4 | 122.5 | 141.7 | 212.7 | 234.7 |

a/ Estimated from visible supply data. b/ Represent an interpolation between December 31 and March 31 stocks.

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