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WORLD WHEAT SURVEY AND OUTLOOK SEPTEMBER 1941

Helen C. Farnsworth and Bernhardt M. Jensen

Heavy British takings of overseas wheat in the last quarter of 1940-41 brought world exports for the crop year to about 490 million bushels. This is higher than was expected in the early spring, but is the smallest export total since 1917-18. It appears that some 270 million bushels were dispatched to the United Kingdom. After allowance for sinkings of less than 10 per cent, and for some diversions, British imports may have approximated 240 million bushels. Such imports presumably permitted expansion of British year-end wheat reserves to a record level. In contrast, imports into the Axis-dominated area were notably light, and wheat carryovers throughout that territory were considerably reduced.

In the major exporting countries, wheat-surplus problems continue pressing. Old-crop stocks on August 1 were unprecedentedly large in Canada, in North America, and in the four chief exporting countries combined. New-crop prospects indicate aggregate exportable supplies in 1941-42 heavier than last year, with a substantial reduction in Canada more than offset by the large net increase indicated for the other three exporters. In these countries, as in Europe, levels of wheat prices have been determined by governmental actions. Prices have changed little since May, except in the United States; here a rise of 30 cents mainly reflected transition from a basic loan rate of 64 cents last year to 98 cents in 1941-42.

Unless large wheat shipments are sent to relieve distress in Russia or elsewhere, world exports seem likely to be smaller under continued war this year than in 1940-41—perhaps no more than 400 to 450 million bushels. Much will depend on Britain's import policy and the international status of Spain. Bread-grain supplies within the Axis area appear to be about the same size this year as last. Unless German-sponsored imports are obtained, serious shortages may develop in Greece, Belgium, and Norway, and possibly in the Netherlands, Finland, and Poland.

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WORLD WHEAT SURVEY AND OUTLOOK

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Crop developments, usually dominant at this season of the year, have recently attracted less attention than various public measures pertaining to wheat. In Continental Europe, governmental activities have been directed toward adjusting wheat consumption to the limited supplies available. In the overseas exporting countries, governmental officials have been concerned with problems arising from burdensome wheat surpluses — problems of storage, of price maintenance, and of production control.

Year-end adjustments to the war-imposed scarcity of bread grains and other foods in Continental Europe resulted in considerable suffering from hunger among substantial portions of the populations of Spain, Belgium, Poland, Greece, France, Norway, and Finland. Yet widespread starvation was successfully prevented in the face of serious difficulties. Bread supplies were stretched by raising extraction rates for wheat and rye, enlarging admixtures of other cereals and potatoes in bread flour, and further tightening of existing rations. By these means, minimum national bread rations were kept at or above seven ounces per day through July in virtually all countries but Spain and perhaps Poland. In a few countries, local shortages prevented continuous fulfillment of the national rations; but this was true for other foods more commonly than for bread. Small German shipments of rye and potatoes alleviated extremely critical food shortages in Belgium, France, and Finland near the end of the crop year.

European wheat stocks must have been markedly reduced during 1940-41, but not to a really low level. As of August 1, 1941, the aggregate carryover on the Continent ex-Russia was probably 150 to 175 million bushels

lower than a year earlier, with sizable reserves remaining only in Germany, France, part of the Danube basin, and perhaps Italy. In contrast, the British carryover was probably substantially higher than in 1940 and far higher than in any preceding year.

The net reduction in year-end stocks in Europe ex-Russia, northern Africa, and afloat positions between 1940 and 1941 was considerably more than offset by increases in the major overseas exporting countries. Australia, because of her poor 1940 crop, held substantially smaller stocks on August 1 this year than last, but Argentina undoubtedly carried more wheat this year, and the two North American ex-

porters reported an aggregate carryover 267 million bushels above the previous record of 1933. "World" stocks of old-crop wheat doubtless stood higher on August 1, 1941 than ever before—perhaps in the neighborhood of 1,550 million bushels as compared with 1,400 million in 1940.

The huge wheat surpluses that remained in the leading exporting countries on August 1 were partly the result of war-imposed restrictions on exports. Yet in total, world wheat exports (and particularly the exports of the four overseas countries) were surprisingly well maintained in 1940-41 in view of the large loss of Continental European markets. If, as we believe, world wheat exports totaled about 490 million bushels, they fell only about 25 million below the recent peacetime low of 1935-36. Exports to Continental Europe were the smallest in two decades or more; but non-European takings were only slightly below average, and exports to the United Kingdom were of record or near-record size and heavily concentrated by government order in the last

CONTENTS	
	PAGE
<i>World Exports, 1940-41</i>	2
<i>Price Developments</i>	5
<i>New-Crop Prospects</i>	10
<i>Supply Position of Major Exporters</i>	16
<i>European Situation and Outlook</i>	20
<i>Outlook for Trade, 1941-42</i>	29
<i>Appendix Tables</i>	31

four months of the crop year. The large British imports went mainly to replenish and expand Britain's wheat reserves.

In both importing and exporting countries, prices fixed by government agencies have determined the levels at which farmers have sold both their old- and new-crop wheat. Throughout Europe wheat prices have been maintained at high levels, and for 1941-42 many of these have been raised. Canadian, Argentine, and Australian prices have remained fairly close to government-guaranteed minimum limits. Only in United States markets have wheat prices recently shown any large movements. In the face of growing evidence that the new crop would be a bumper and that domestic supplies would be of record size, wheat futures prices at Chicago advanced 29 cents from the beginning of May to September 13. This rise largely reflected the transition from the government's average farm loan basis of 64 cents for 1940 wheat to 98 cents for the 1941 crop. A significant contributing factor, however, was firm holding by owners of wheat that will not be placed under loan—holding influenced by "inflation talk" and by prospects that the Congressional "farm bloc" might do something more to raise prices.

Meanwhile, the neglected supply position was clearly shaping up to show unprecedentedly heavy wheat supplies in 1941-42 in the United States, in North America, in the four major exporting countries as a group, and in the "world ex-Russia." In Europe, on the other hand, the shortage of wheat witnessed last year seems likely to persist through the current season, with little change except as to distribution. Consumption developments in the different countries will depend in no small measure on German policies with regard to requisitioning, distributing for consumption, and storing the available supplies.

Of the three remaining Continental neutrals that now have access to overseas wheat, Spain and Portugal are starting the year with somewhat larger domestic supplies than they had in 1940-41, while Switzerland has smaller supplies. We are inclined to guess that if these nations can maintain their neutrality they may import 35 to 40 million bushels of

overseas wheat this year, or roughly about as much as in 1940-41.

Exports to Britain seem unlikely to be as large as last year, and there is good reason to expect non-European imports to be reduced unless substantial quantities of wheat are shipped by government arrangement to Russia or elsewhere. We tentatively anticipate that overseas exports of wheat may decline 75 million bushels or more from 1940-41, and that world exports may be reduced by 50 to 75 million.

WORLD EXPORTS, 1940-41

Although trade data are still lacking for a number of exporting countries (the most important of which is Australia), there is good reason to believe that world wheat exports totaled 475 to 500 million bushels during the crop year just ended. These figures are within the range of the forecast we suggested a year ago. On the other hand, they are significantly higher than our reduced forecasts of last January and May, which were unduly influenced by the low level of British takings in the first eight months of the season.¹

British shipping orders for wheat, mainly Canadian wheat, expanded so sharply during April-July as to cause a notable increase in shipments from North America and from the four major exporters together (Chart 1). Canada cleared over 120 million bushels in those four months—the largest April-July exports she has ever made, and this with the leading markets of Continental Europe closed to overseas wheat. To us it is not clear why British authorities should have taken so little import wheat through March and then practically doubled their monthly takings in the last third of the crop year. It may have been part of a long-term shipping or food-storage plan. Or it may have come mainly as a result of the course of the Battle of Britain or of the Battle of the Atlantic. Or it may have been due to some other factor or factors, such as export

¹ In May, however, we noted that the British government might see fit to maintain the high level of imports apparent in April and that such a policy would result in net exports much larger than the 435 million bushels that then seemed to be in prospect.

pressure from Canadian authorities, who were facing the critical problem of storing an unprecedentedly heavy carryover of Canadian grain.

Regardless of the cause, there is no question that British officials undertook to increase Britain's takings of overseas wheat just when the Battle of the Atlantic was running most

April and remained exceptionally high during May and June. April and May were both characterized by continued heavy shipping losses—close to or exceeding 500,000 tons each; but in June the tonnage lost declined to less than 350,000 and the July figure was apparently about 100,000 lower still.¹

The percentage of wheat shipments to the United Kingdom that were sunk during April-June must have been heavy—probably well over the 7.3 per cent reported for November-July 1916-17, when monthly losses of British, Allied, and neutral vessels averaged 535,000 tons. But although sinkings during April-June 1941 may well have exceeded 10 per cent, those in the crop year as a whole were probably materially under that percentage.

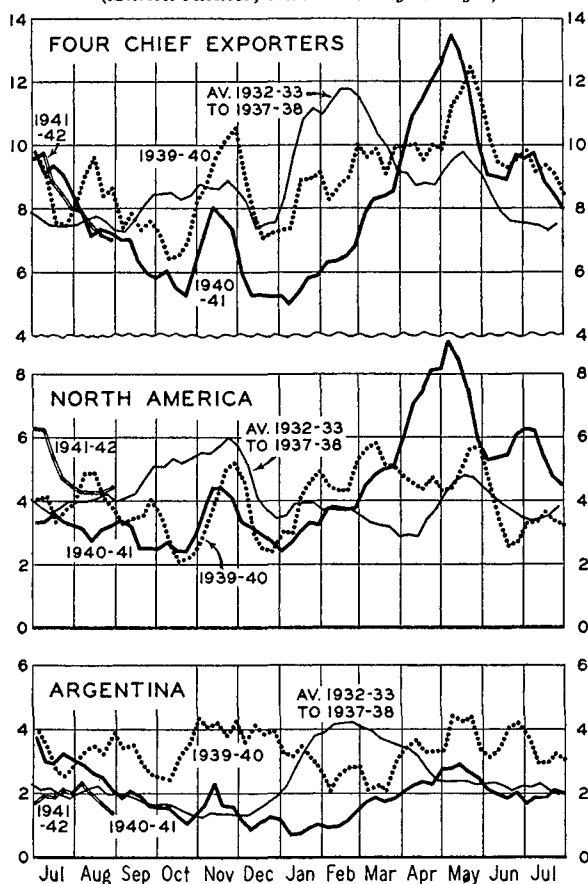
Britain's takings constituted the great bulk of all wheat shipments to Europe during 1940-41. We judge that as much as 270 million bushels of wheat may have been dispatched to that country during July-June and that British *net imports* may have totaled 235 to 245 million bushels during August-July (with allowance for diversions and losses en route). In contrast, gross *overseas* exports to the European Continent probably fell below 40 million bushels. Even with exports from the USSR, the Danube basin, and northern Africa included, the Continent's wheat takings probably did not exceed 80 million bushels, as compared with over 200 million in the first year of the war and 172 million on the average in 1934-39.

Non-European imports were fairly well maintained in 1940-41, in the face of higher freight rates and scarcity of shipping space. They were only moderately below their average in the five preceding years, and about the same as in 1939-40. Largely responsible for the maintenance of these imports was the unusually heavy demand for wheat in China. To a considerable extent, this reflected purchases made by Japanese interests in North China. The bulk of China's imports were furnished by Australia and the United States. A large part of the purchases in this country were negotiated prior to October 8, when China, Hong Kong, and Dairen were dropped

¹ *New York Times*, Aug. 10, 1941, Section 4, p. 2.

CHART 1.—INTERNATIONAL SHIPMENTS OF WHEAT AND FLOUR FROM FOUR EXPORTING COUNTRIES, FROM JULY 1940, WITH COMPARISONS*

(Million bushels; 3-week moving averages)



* Based mainly on Broomhall's weekly data (Table VII) but including, for Australia, smoothed monthly official exports in September-June 1939-40 and our approximations for July 1940 through August 1941.

strongly in favor of the enemy. In that battle Germany scored notably high in March 1941, when British, Allied, and neutral losses reached a total of 512,000 tons. As if in response to that challenge, wheat exports to England from Canada increased sharply in

from the list of destinations covered by the flour-export indemnity program of the American government.

The aggregate net imports of other non-European importing countries were the smallest since 1932-33, when the imports of Manchukuo were first reported separately. Manchukuoan imports in particular were low in 1940-41 owing to current shipping difficulties and to exchange and import restrictions imposed by Japan. Moreover, Brazil's imports were apparently smaller than in any of the five preceding years except 1939-40, when Brazilian milling regulations were about as restrictive of wheat utilization as in 1940-41.¹ Takings of the remaining countries varied little from the corresponding averages over the past five years.

The approximate distribution by sources of the world wheat exports of 1940-41 is shown in the following table. Our "guesstimates" of

WORLD NET EXPORTS OF WHEAT AND FLOUR,
ANNUALLY FROM 1933-34*

(Million bushels)

Aug.- July	Total	Canada	U.S.	Australia	Argentina	USSR, Danube, North Africa	Others
1933-34 ..	557	192	33	86	147	89	10
1934-35 ..	540	163	... ^a	109	182	50	36
1935-36 ..	518	246	... ^a	102	70	74	26
1936-37 ..	623	210	... ^a	102	162	100	49
1937-38 ..	555	89 ^b	117	126	72	112	39
1938-39 ..	643	158 ^b	103	96	122	129	35
1939-40 ..	620	192 ^b	44 ^c	86	180	102	16
1940-41 ^d ..	490	230 ^b	31 ^c	90	95	37	7

* Figures in italics are our rough approximations.

^a Net imports, ignored in totals.

^b Series B in Table VIII. Earlier figures are Series A, adjusted for changes in stocks of Canadian wheat in the United States.

^c Data in Table VIII, adjusted for changes of United States stocks in Canada. Earlier figures are roughly comparable.

^d Preliminary.

the net exports of countries for which data are now unreported are shown in italics. The largest export figure that we have been forced to estimate is that for Australia. Yet we believe that more reliance can be placed on this figure than on the combined guesstimate of 37 million bushels for the USSR, the Danube basin, and French North Africa.

Published data on Australian exports are available through June 1940;² and we have previously estimated the exports for July and August-December 1940³ on the basis of information on deliveries, sales, and stocks of wheat published by the Australian Wheat Board. It is now possible to estimate Australian exports during January-July. Since the Australian wheat carryover on November 30, 1940 presumably totaled 80 to 85 million bushels and the new crop is reported as 83 million, total supplies were around 165 million bushels. Allowing for domestic wheat utilization (including seed) of about 34 million bushels during December-July and a carryover of 70 million on August 1, 1941 (see p. 16), December-July exports of wheat may be estimated at 61 million bushels. If December exports approximated 13 million, as we previously estimated, January-July exports would be 48 million. Adding this figure to our previous estimate of 41 million bushels for August-December, we get net exports of 89 million bushels (which may be rounded to 90 million) in August-July.

Our guesstimates for the USSR, the Danube basin, and French North Africa are based upon scanty and scattered information that may not be entirely trustworthy. Official export data for these areas consist only of an August-March export total of .03 million bushels for Rumania, a July-December figure of 4.23 million for Hungary, and an August-September figure of .06 million for Yugoslavia. In addition, Broomhall reported Black Sea shipments of 3.4 million bushels during August-July from the USSR; and officials of the Vichy government announced that October-February shipments of grain by sea to France (almost wholly from North Africa) had totaled

¹ Effective June 1, 1941, Brazil's requirements for admixture of other flours with wheat flour were reduced in accordance with the terms of the Brazilian-Argentine trade agreement signed in March (*Foreign Crops and Markets*, June 30, 1941). The various sources of information available to us differ as to the exact percentages of manioc, corn, and rice flours required before and after June 1.

² Australia, Commonwealth Bureau of Census and Statistics, *Quarterly Summary of Australian Statistics* (Bull. 160, June 1940).

³ "World Wheat Survey and Outlook, May 1941," *WHEAT STUDIES*, May 1941, XVII, 390-91.

260,000 tons and that exports of 125,000 tons of North African wheat were expected during April–July.¹

Besides these quantitative reports, there have been numerous statements and bits of evidence that support the view that Russian and Danubian wheat exports combined did not significantly exceed 20 million bushels during the past crop year and that exports from French North Africa to France were almost as large as this figure. However, it should be noted that this year a sizable amount of Danubian wheat presumably went to feed German soldiers in southeastern Europe. Though not technically “exported,” such wheat was unavailable for ordinary domestic purposes.

Of the various exporting countries, only Argentina, Australia, and probably the United States exported much less wheat in 1940–41 than they would have in the absence of the war in Europe. Canada’s losses in Continental European markets were about made up by her increased exports to Britain, and the countries of the Danube basin and French North Africa presumably shipped out the bulk of their exportable supplies. The sharp decline in the net exports of “other” countries in 1940–41 mainly reflected the combination of unusually small exports from India, Japan, and the Near Eastern countries. Under peace conditions, Japanese exports would probably have been even smaller, Near Eastern exports slightly larger, Indian exports much the same, and the total virtually unchanged.

In contrast, Australia and Argentina would have shipped much more wheat than they did in 1940–41 if Continental European markets had been open for imports and if war factors had not made it necessary for Britain to take a larger proportion of her wheat supplies than usual from the closer Canadian markets. *Commercial* exports of United States wheat would probably not have been any larger under peace than under actual war conditions; but government-subsidized exports would almost certainly have been larger under pressure of government agencies anxious to maintain America’s “share” in world markets.

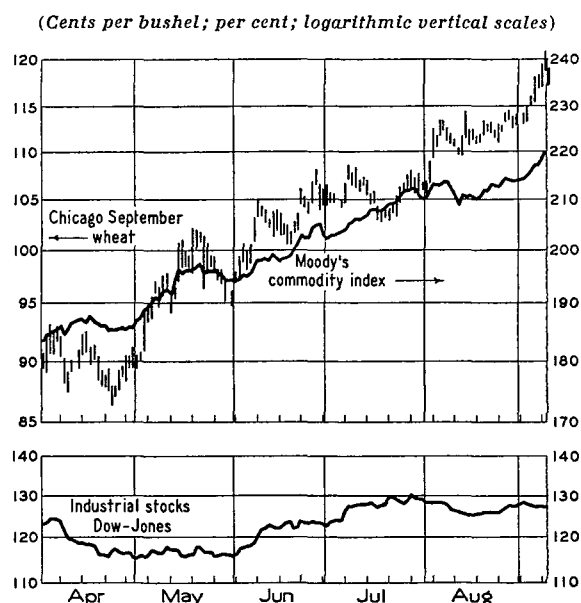
¹ *New York Times*, Mar. 28, 1941, p. 9, and Mar. 29, 1941, p. 2.

PRICE DEVELOPMENTS

Wheat prices continue to be determined primarily by governmental regulations rather than by the free interplay of private supply and demand. Only in United States wheat markets has there been any considerable price movement in recent months, and here prices have been raised far above levels current in other exporting countries.

United States.—The upward trend of wheat futures prices in the United States since early May has closely corresponded with the Moody index of sensitive commodity prices (Chart 2).

CHART 2.—CHICAGO SEPTEMBER WHEAT PRICES AND INDEX NUMBERS OF PRICES OF SENSITIVE COMMODITIES AND STOCKS, DAILY FROM APRIL 1941*



* High and low prices of the Chicago future; index of closing prices of 15 sensitive commodities, base December 1931 = 100, compiled by Moody’s Investors Service; index of closing prices of 30 industrial stocks, compiled by Dow-Jones News Service. The scales represent a change of 10 per cent in stocks prices by the same vertical distance as a change of 5 per cent in either the wheat price or the Moody index.

Yet it cannot be said that wheat prices have risen mainly in response to market factors of a general nature, which have operated more or less similarly in various commodity markets. Rather, the trend of United States wheat prices has been determined largely by changes and anticipated changes in the government’s policy relating to wheat. Most important has

been the legislative influence of the Congressional farm bloc—a bloc so powerful that it has repeatedly forced the Administration to concessions even more liberal than those originally embodied in an already generous farm program.¹

Passage on May 31 of the referendum on wheat marketing quotas, by a vote of roughly 4 to 1,² automatically put into effect the 85 per cent parity loan law³ which had been signed by the President only five days earlier. The parity price for wheat on July 1, 1941 (the legal basis for the determination of the loan rate) was calculated by the Department of Agriculture to be \$1.149, and the average farm loan rate was accordingly set at 98 cents.⁴ Loan rates on basic wheat at the principal terminal markets were placed higher to allow for costs of transportation. The Chicago loan rate for No. 2 Hard and No. 2 Red wheat was put at \$1.15 as compared with 80 and 81 cents in 1939 and 1940, respectively; and in Kansas City, St. Louis, and other lead-

¹ An instance of such action was the increase of the wheat loan rate for 1941 to 85 per cent of parity over the opposition of the Secretary of Agriculture, who advocated a rate of 75 per cent. A measure designed to require the Commodity Credit Corporation to withhold from the market until after the war all stocks of wheat and cotton now owned by the corporation was also passed by Congress despite the Secretary's opposition; but this was vetoed by the President on August 25.

² This was the first referendum on wheat quotas, and a two-thirds vote was required for approval. Cf. WHEAT STUDIES, XVII, May 1941, p. 412. Farmers in 40 states voted: 453,569 (81 per cent) in favor, 106,061 (19 per cent) opposed. ³ Public, No. 74, 77th Cong.

⁴ With the addition of wheat parity and conservation payments, which for 1941-42 have been set at 18 cents, average wheat returns slightly exceeding the July 1 parity price are now in prospect for co-operating farmers.

⁵ Representative loan rates are shown below, in cents per bushel, during each of the past four seasons. These are roughly comparable with the weekly prices in Table XI.

Market and grade	1938-39	1939-40	1940-41	1941-42
Chicago, No. 2 Hard Winter.....	77	80	81	115
Chicago, No. 2 Red Winter.....	75	80	81	115
Kansas City, No. 2 Hard Winter.....	72	77	77	110
St. Louis, No. 2 Red Winter.....	73	80	81	115
Minneapolis, No. 1 Dark N. Spring	81	87	87	115
Portland } { No. 1 Hard White...	68	74	74	108
Seattle } { No. 1 other Pacific..	67	73	73	105

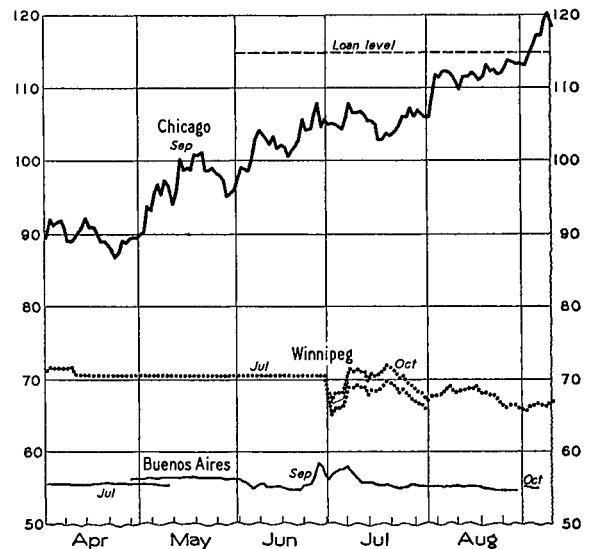
⁵ This figure is based on calculated price parity of \$1.19 on August 15.

ing markets similar increases were established.⁵

The advance of wheat futures prices at Chicago from the beginning of May to September 13 is primarily attributable to expectation and subsequent establishment of the higher level of loans for the new crop year. Through September 3 the near future at Chicago failed to rise to the loan level, but in the next few days it rose to over \$1.18, and thereafter remained 3 cents or more above the basic Chicago loan rate (Chart 3).

CHART 3.—WHEAT FUTURES PRICES, DAILY FROM APRIL 1941, AND NEW LOAN RATE FOR No. 2 HARD WINTER AT CHICAGO*

(U.S. cents per bushel)



* Closing prices of futures, from Chicago Daily Trade Bulletin and Winnipeg Grain Trade News.

During the latter part of July and early August, inflation expectations and prospects for additional favorable farm legislation apparently contributed to the general price advance. The request of Leon Henderson, head of OPACS (Office of Price Administration and Civilian Supply), for legislation authorizing his office to fix "ceilings" on various commodity prices aroused anew the talk of inflation. Moreover, it led to a Congressional proposal (still in committee on September 13) that price ceilings on farm products be fixed at not less than 110 per cent of parity, apparently implying for basic cash wheat at Chicago a ceiling in the neighborhood of \$1.48.⁶ The bill

to freeze CCC stocks of wheat and cotton (vetoed by the President on August 25) was indirectly important in that it demonstrated the determination of Congress to secure higher prices for farmers regardless of inflation dangers and difficult postwar readjustments.

In early September, renewed talk of inflation, which accompanied price rises in other commodity markets, exerted a dominant influence on wheat prices. By September 9, the Chicago September future had reached \$1.20, the highest price in four years, and sufficiently above the loan rate to make redemption of loan wheat profitable. Over the next four days there was only a slight decline from the peak prices of September 9, but farmers continued to hold unpledged wheat tightly and showed no desire to redeem loan wheat.

The upward price movement to mid-September was briefly interrupted by a few minor declines, of which three warrant special mention. The first came after May 21, when the Chicago September future fell nearly 6 cents to a low of 95¼ on May 29. This decline was perhaps mainly a reaction from the new highs scored in anticipation of passage of the 85 per cent loan bill, but it was partly a reflection of some uncertainty as to the outcome of the pending farm referendum. News concerning British reverses in Crete and the announcement of heavy shipping losses may have added slightly to the temporary pessimism. After a renewed advance to \$1.04½ on June 9 (mainly in response to the favorable vote on the marketing referendum) prices again reacted moderately, the Chicago September declining almost 4 cents over the next nine days. This setback and the following one of similar magnitude in mid-July seem largely attributable to temporary concern over increased marketings and storage congestion at the major terminal markets.²

Canada and Argentina.—Wheat futures prices at Winnipeg and Buenos Aires remained close to their legal minimum levels during the period under review (Chart 3). Buenos Aires futures showed virtually no fluctuation except for a temporary rise of less than 3 cents per bushel on June 26–27.³

At Winnipeg, futures prices remained inactive until July 2. On that date, the Grain

Exchange (at the request of the Canadian Wheat Board) reduced the minimum price for July wheat to 70 Canadian cents (63.6 U.S. cents), which was the minimum set for the October future in which trading began on the same day. Prices broke sharply on the announcement of the new policy, but recovered most of the loss by July 8. During the following two weeks the October future sold 7 to 8 Canadian cents above the minimum level, or at the largest premium recorded since the adoption of minimum prices in May 1940. After July 22, however, October wheat declined, and by the end of August it was within 2 to 3 cents of the legal minimum price—a relation similar to that common in earlier months.

North American spreads.—With Winnipeg wheat prices relatively steady, the rapid widening of the price spread between Chicago and Winnipeg during April–August (Chart 4, p. 8) reflected scarcely more than the striking upward movement of Chicago prices during those months. As Chicago and Minneapolis prices rose to 25 and then 30 cents over Winnipeg prices in April–May, the threat of large Canadian imports attracted renewed at-

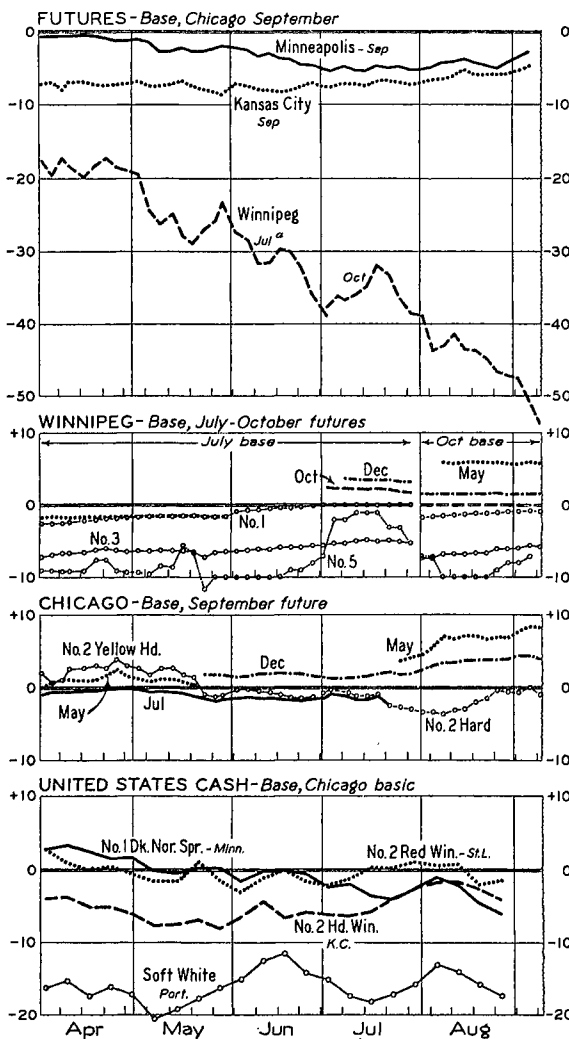
¹ As of August 30, the CCC reported under loan 117 million bushels of 1941 wheat, of which 10 million were stored on farms.

² On July 9 the Directors of the Kansas City Board of Trade ordered discontinuance of country shipments of wheat to Kansas City unless provision had already been made for its storage, or unless the grain was intended for immediate sale. Less than one week later, the Car Service Division of the Association of American Railroads placed a similar embargo against shipments into Kansas City, and shortly thereafter the order was extended to include St. Louis, Wichita, and other Southwestern terminals. Similar railroad embargoes were effective July 25 against the principal Northwest terminals (St. Paul, Minneapolis, Duluth, and Superior), and August 3 against the Pacific Northwest terminals (Spokane, Seattle, Tacoma, Longview, Portland, and Astoria). Water-borne shipments between Chicago and Buffalo were embargoed July 28. Thus by the beginning of August, with the system extended also to many East Coast ports, the leading terminals were embargoed literally from coast to coast. Through July, only Chicago and Omaha of the leading midwestern markets remained exempt from a formal embargo, but lack of storage space, particularly in the former city, effectively curbed inward shipments.

³ On June 30 the Argentine Grain Regulating Board raised its export price from 6.50 to 6.65 pesos per quintal or roughly 1 cent per bushel, but by that date the price gain of June 26–27 had been lost.

tention.¹ To meet this threat and allow United States wheat prices to advance independently of the level of Canadian prices, the President on advice of the Tariff Commission² announced a system of import quotas on wheat and wheat flour, effective May 28.³ Thereafter, the Chicago-Winnipeg and Minneapolis-Winnipeg spreads continued to widen to 45 and even 50 cents, without any chance of inducing heavy imports of millable Canadian wheat into the United States.

CHART 4.—NORTH AMERICAN WHEAT PRICE SPREADS, FROM APRIL 1941*
(U.S. cents per bushel)



* Price differences based on Tuesday and Friday closing quotations, except for United States cash wheats; these are weekly averages of daily quotations at Chicago (taken as the base) and Portland, and weekly averages of all reported cash sales of the designated grades at Minneapolis, Kansas City, and St. Louis.

The increased Chicago-Winnipeg spread was not, however, completely without effect on United States-Canadian trade relations. Although the new import quotas restricted United States imports of Canadian wheat for human consumption, they did not curtail imports of wheat for feed. At the wider price spreads recorded in late June and early July, American dealers found it profitable to buy Nos. 5 and 6 Northern wheat for import as feed, subject to a duty of only 5 per cent ad valorem.⁴ Purchases of this sort resulted in such sharp price increases for Nos. 5 and 6 Northern at Winnipeg that these lower grades sold in mid-July 3 to 4 cents above the price of No. 3 Northern (Chart 4, second section). During late July, however, the abnormal premiums lessened, and throughout August price relationships among Winnipeg cash wheats were about as in previous months.⁵

Prices of Minneapolis futures and cash wheats advanced less rapidly than Chicago prices from early April to mid-July (Chart 4, top and bottom sections). This probably reflected pressure from the large stocks of marketable loan wheat in the Northwest and the reported excellent progress of the new spring-wheat crop. Since early July there has been little net change in these price spreads, except for some relative weakening of Minneapolis prices late in August—a weakening probably associated with the new-crop movement in the northwest. In the last week of August, Minneapolis prices were 6 to 7 cents farther below loan rates than Chicago or Kansas City prices.

Although price spreads between correspond-

¹ For a discussion of the background of this movement, see J. S. Davis, "The World Wheat Situation, 1939-40: A Review of the Crop Year," *WHEAT STUDIES*, December 1940, XVII, 188-89; and our last survey and outlook issue, *ibid.*, May 1941, XVII, 407.

² United States Tariff Commission, *Wheat and Wheat Flour: Report to the President Under Section 22 of the Agricultural Adjustment Act of 1933 as Amended, May 1941.*

³ Aimed primarily at possible Canadian imports, 795,000 of the total quota of 800,000 bushels of wheat and 3,815,000 of the total quota of 4,000,000 pounds of wheat products, are allotted to Canada. Feed wheat and feed wheat products are not subject to the quota.

⁴ This rate was established under the Reciprocal Trade Agreement with Canada, effective on Jan. 1, 1939.

⁵ After August 25 the exportation of Canadian wheat grading No. 4 and lower was prohibited except under license.

ing deferred futures at Kansas City and Chicago changed little during April–August. No. 2 Hard Winter at Kansas City advanced relative to the same wheat at Chicago during late July and early August, but receded again toward the end of the month. The earlier strengthening reflected, on the one hand, factors associated with the weakening of cash wheat premiums at Chicago (see below) and, on the other hand, relative strength of cash wheat at Kansas City. In spite of storage congestion in the latter market, “free” cash wheat was relatively scarce during these weeks, especially in relation to the unusually heavy mill demand at that time, which partly resulted from large new flour orders.¹

The St. Louis–Chicago cash price spread showed little sustained change during April–August. The Portland–Chicago spread, on the other hand, showed substantial changes. Portland prices did not follow the full rise at Chicago during April and early May. Pacific Coast farmers were eager sellers of redeemed loan wheat during these weeks, and buyers were apparently unwilling to purchase the enlarged offers except at a discount of about 20 cents under Chicago—a discount that would permit some of the interior wheat in the Pacific Northwest to move eastward. After the period of liquidation of loan wheat was over,

farmers held more firmly and the Portland–Chicago spread narrowed, not only while Chicago prices were declining during the latter part of May, but also on the sharp advance in Eastern markets during early June. However, when Chicago prices continued to rise from mid-June to mid-July, Pacific Northwest farmers sold readily enough to satisfy the moderate current demand at prices that advanced less steeply. Again the Portland–Chicago spread approached the 20-cent difference that is commonly associated with movements eastward. But farmers were reluctant sellers even in the face of a large new harvest and the prospect of a reduced export demand. The Portland–Chicago price spread thus continued to fluctuate most of the time between 14 and 18 cents, standing closer to the latter figure at the end of August.

In the Chicago market, after early in May, cash prices declined relative to futures prices, and nearer futures weakened relative to more distant futures (Chart 4, third section). These price tendencies were strongest from mid-July to mid-August, when Chicago, along with other leading markets, was adjusting to abnormal storage congestion. In early August, with the available storage space filled nearly to capacity, buyers could be found for cash wheat only at unusual discounts under the September future.

In June, the Chicago September future commanded a premium of almost 2 cents (2 per cent) over the Chicago July. This relationship was consistent with a carryover of about 170 million bushels remaining in private hands on June 30, 1941.² The contrast between this spread and the negative May–July spread in April—a spread that seemed to suggest anticipation of a much smaller private carryover³ may be explained largely by release of redeemed loan wheat following termination of the loan period.

Europe.—In Europe, government-fixed prices are in force in most countries, with distinctions between rates for purchase and for sale. In general, the prices set for the new crop year show substantial increases over those in effect last year (Table X). German prices will again be subject to predetermined changes as the season progresses, though the

¹ The spurt in flour buying in early August was said to be the greatest since May 1940. According to data published in *The Northwestern Miller*, the weekly flour sales made by Kansas City and Minneapolis mills during weeks ending as specified in July and August were as follows in terms of percentage of capacity:

City	July				August				
	5	12	19	26	2	9	16	23	30
Kansas City	80	148	216	98	49	268	117	56	93
Minneapolis	58	120	93	160	120	235	110	70	108

² The CCC then owned outright 169 million bushels, and held under loan and in insurance reserves 50 million more. This left in private hands about 170 million of the 387 million bushel carryover. For a discussion of past relationships of July–September and May–July price spreads to year-end stocks see Holbrook Working, “Price Relations between July and September Wheat Futures at Chicago since 1885,” *WHEAT STUDIES*, March 1933, IX, No. 6, and “Price Relations between May and New-Crop Wheat Futures at Chicago since 1885,” *ibid.*, February 1934, X, No. 5.

³ It is possible that trade views on the volume of prospective private stocks changed between April and June, but there is no real evidence on this point.

system of uniform monthly increases observed in 1940-41 will give way to irregular increases through February 1942 and possible reductions from March 1. Germany, Italy, and a number of other European countries are this year offering premiums for early grain deliveries, presumably in order to discourage hoarding and feeding and to put into early operation government plans for grain storage and disposition. In contrast, Britain has this year offered storage payments to farmers who withhold deliveries of wheat until after December (see p. 26).

NEW-CROP PROSPECTS

The new world wheat crop now seems to be slightly larger than last year's moderately large harvest. Indicated increases of 140 million bushels in Europe ex-Russia and 141 million in the United States somewhat more than offset a decrease of 245 million in Canada and scattered small reductions in India, Japan, the Near East, and elsewhere (Chart 5).

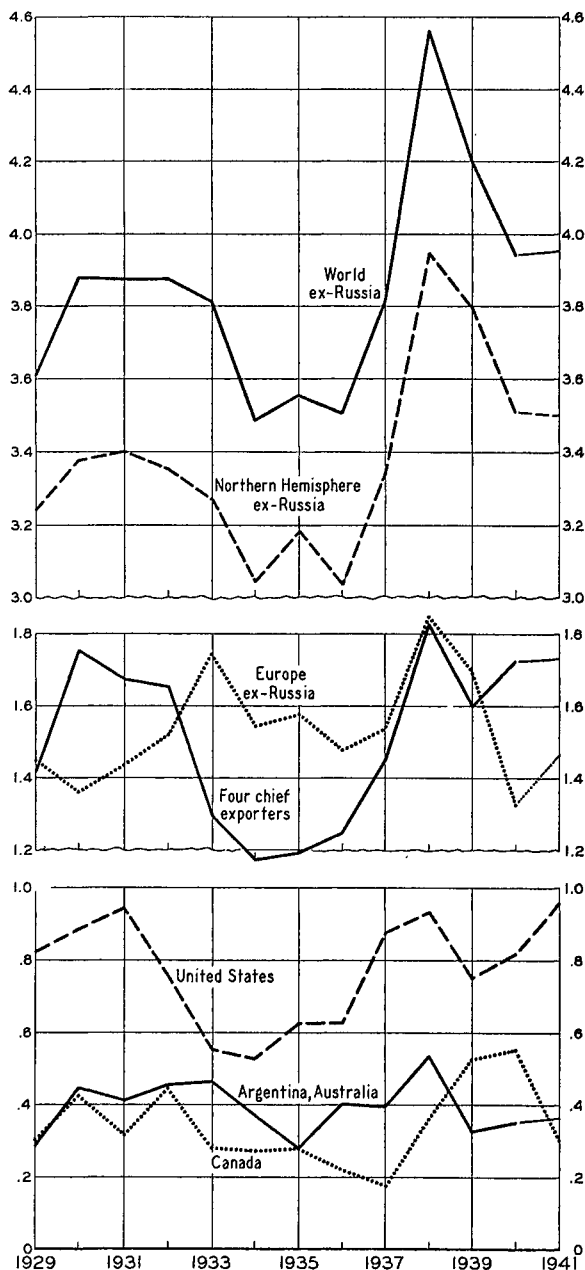
United States.—The United States wheat harvest of 1941 is accounted the largest in twenty-six years. The latest official estimate of 958 million bushels is 141 million above that of 1940 and within 51 million of the only larger crop, that of 1915.

The area seeded for this bumper crop was one of the four smallest planted over the past fifteen years. However, since abandonment from winterkilling and drought was unusually light, the harvested acreage was slightly above most recent averages. Yields per acre were exceptionally high for both winter and spring wheat, but for neither was a new record established. The average yield per seeded acre for all wheat was indicated as of September 1 to be just equal to the 22-year record of 15.1 bushels in 1924; and the average yield per harvested acre was reported as a new record, 16.8 bushels, or slightly above the earlier record of 16.7 bushels in 1915.

As the high yields imply, weather developments were exceptionally favorable for both winter and spring wheat. The bulk of the winter crop was seeded under unusually favorable moisture conditions, and as of December 1 the officially reported condition of the crop was the highest since December 1930.

Winterkilling took less than an average toll, and well-distributed spring rains in the Plains states promoted the later growth. Between

CHART 5.—WHEAT CROPS EX-RUSSIA, 1929-41*
(Billion bushels)



* See Tables I and II.

April 1 and June 1, the official forecasts of winter-wheat production rose from 616 to 698 million bushels. Continued rains in the Great

Plains during late May and early June, however, resulted in considerable damage to the hard winter crop; and this was not fully offset by improvement brought by June rains to the drought area east of the Mississippi River. The official July and August estimates of the entire winter-wheat crop were 682 and 685 million bushels, respectively.

As evidenced by inspections through August 31, the quality of the 1941 winter-wheat crop seems to be somewhat inferior to that of last year, but about equal to the 1934-40 average. Hard winters have graded 58 per cent No. 2 or better, as compared with 70 per cent in the same period in 1940 and an average of 59 per cent for July-September 1934-40. Corresponding inspections of soft winters ran 65, 75, and 53 per cent, respectively, while a considerable increase in the gradings of tough soft winter was suggested by respective figures of 24, 9, and 17 per cent.

Spring wheat was planted somewhat later than usual this year, but under generally favorable conditions. The sown acreage was

¹ This was due in large measure to shifts from spring wheat to winter in response to favorable fall seeding conditions in areas (chiefly the Pacific Northwest) where both of these types of wheat can be grown successfully.

² See WHEAT STUDIES, May 1941, XVII, 411, footnote 1.

³ The Dominion Bureau of Statistics announced in June a new basis for estimating wheat condition in the Prairie Provinces. The new estimates take account of preseasonal and seasonal rainfall, and seasonal temperature. It is stated that "in 7 out of 10 instances the condition figures based on weather factors approximate more closely the final yield of the crop than have the previously published condition figures." See that bureau's *Monthly Review of the Wheat Situation*, June 21, 1941, pp. 14-17; and *Quarterly Bulletin of Agricultural Statistics*, April-June 1941, pp. 116-17. In addition, the bureau is now using long-time average yields for all crops based on the period 1908-40, whereas 1908-30 averages had been used over the past ten years.

⁴ Official spring-wheat condition figures, calculated as percentages of the long-time normal yields (new series) were as follows at the end of May, June, and July:

Area	May	June	July
All Canada	98	80	72
Manitoba	128	121	123
Saskatchewan	92	71	65
Alberta	98	80	65

⁵ Plantings of oats were increased over 1940 by 1.5 million acres (13 per cent), barley by 1.2 million acres (28 per cent).

close to the lowest reported on records that go back to 1919.¹ In contrast, the spring-wheat crop, forecast as of September 1 at 273 million bushels, appears to be the largest crop harvested since 1928 and one of the largest on record. Throughout the growing season weather conditions were unusually favorable, and the average yield per acre (15.8 bushels, according to the official estimate as of September 1) slightly exceeded the former record of 15.7 bushels in 1924. Early reports suggest that the new spring wheat is satisfactory as to grading and protein content, though in both respects it is inferior to last year's excellent crop.

Canada.—As a joint result of drastically reduced wheat sowings and adverse weather, the 1941 Canadian harvest appears to be little more than half as large as last year's bumper outturn. Officially estimated as of September 1 at 306 million bushels, the current crop is well below average size and presumably will not yield total marketings in excess of the 230 million bushels that the Wheat Board has undertaken to accept.

In response to the acreage-reduction program announced by the Canadian government last spring,² farmers in the Prairie Provinces planted only 21.6 million acres to wheat in 1941 as compared with 27.8 million in 1940. With allowance for sowings in other provinces, the total Canadian acreage was apparently reduced about 22 per cent, or more than ever before between two successive years.

Canadian spring-wheat prospects early in June represented by a reported condition figure of 98 per cent, were promising and somewhat better than a year earlier.³ This was attributable mainly to unusually favorable spring rains, though partly also to generally satisfactory preseasonal moisture conditions outside of Saskatchewan. Hot, dry weather which began in mid-June and persisted well into July seriously reduced crop prospects in Saskatchewan and Alberta.⁴ In Manitoba, on the other hand, wheat continued to develop favorably, promising yields materially above the long-term average.

Plantings of feed grains in Canada were considerably increased this year,⁵ partly as a result of government payments to farmers who

substituted such grains for wheat. These crops, like wheat, suffered striking reverses due to hot, dry weather in June–July, and their aggregate production will be small. In the face of a prospective heavy demand for feedstuffs, the impending feed shortage (which extends also to hay and pasturage) led the Canadian government to prohibit the exportation except under license of millfeeds, wheat grading No. 4 or lower, feed grains and mixtures thereof, and numerous other sorts of feedstuffs.¹ These measures, however, and also such increased diversion of wheat to feed use as may develop, will not go far to relieve the basic feed shortage.

Europe.—Trustworthy reports concerning European crops have become increasingly scarce as the war has progressed. But while official estimates are mostly lacking for the current year, unofficial reports agree in indicating a total European outturn somewhat larger than the extremely poor one of 1940, though still considerably below the average for the last prewar decade. The United States Department of Agriculture, offering one of the few estimates expressed in figures, suggests that the Continental European harvest exclusive of the USSR may approximate 1,370 million bushels, about 125 million more than last year.² Since the crop of the British Isles is perhaps in the neighborhood of 95 million bushels, the total harvest of Europe ex-Russia

may tentatively be placed at 1,465 million bushels.

Certain general statements bearing on crop production seem to apply to practically the whole of Europe ex-Russia. Shortages of man power have been nearly everywhere of considerable concern. So, too, have been the widespread shortages of draft animals, agricultural machinery, and motor fuel. The general labor shortage was somewhat relieved by widespread resort to the conscription of youths and, in more limited cases, by the use of prisoners of war, soldiers on “harvest furloughs,” and women who do not ordinarily engage in field work.

In virtually all countries there has been intensification of government planning and supervision of agriculture. Better production methods have been urged as a means to increase yields. Nearly everywhere, except in the Danube basin,³ great efforts have been made to expand the bread-grain area. Fall sowings of wheat were considerably enlarged in most countries. On the other hand, significant expansion of spring seedings was probably prevented by unfavorable weather⁴ and, in the southeast, by mobilization associated with the military campaigns in Yugoslavia and Greece.

Weather conditions in Europe during the early fall gave the 1941 crop a good start. But the winter was not favorable, though in western and central Europe, at least, it was considerably less adverse than in the preceding year. Almost everywhere the spring came late and persistent cold weather interfered with spring seedings and delayed plant growth. Flooding was again general in the southeast, particularly in Hungary where much grain stood in flood water for considerable periods. Good crop weather—in some areas excellent—in the early summer brought substantial improvement in the outlook for wheat, though harvest rains in western and central Europe throughout August and in early September undoubtedly took substantial toll from the crop.

Despite unfavorable spring weather and a none too favorable harvest period, the outturn in the British Isles is expected to be of record size. No official estimate of the wheat

¹ See James Richardson & Sons, Ltd., *Recent Developments in the Canadian Feed Situation*, Weekly Grain Letter of Sept. 6, 1941.

² The Department of Agriculture has recently revised downward its 1940 estimate for Europe ex-Russia from 1,350 to 1,325 million bushels. The revised figure for the Continent is 1,245 million. All figures apply to 1939 boundaries.

³ Conforming to Axis plans, the Hungarian and Rumanian governments endeavored to divert some former wheat and corn acreage, respectively, to the production of fiber and oilseed crops. Agricultural experts argued that yields of wheat could be increased through better methods of cultivation to compensate for the reductions in acreage.

⁴ The International Institute of Agriculture (Rome) forecast that the total “area sown to wheat will equal and perhaps even considerably surpass the maximum registered in 1935 with 79 million acres.” *International Review of Agriculture*, April 1941, p. 150S. Later reports do not seem to us to support this view, though there is considerable question about the level of the wheat acreage in France.

acreage of the British Isles is available, but it is safe to say that it was significantly increased in 1941.¹ Moreover, yields per acre are unofficially reported to be well up to average. In Eire also, wheat plantings were increased, though not enough to insure self-sufficiency even at the reduced bread standards of January–July 1941. The Minister of Agriculture is reported to have announced that while the Eire wheat crop is the largest since 1846, it will be insufficient for bread for one year and for the next year's seed.²

Sweden technically ranks as a neutral, but British authorities have not allowed her the degree of access to overseas markets that the other neutral nations have been granted, and her whole economy is based very largely on trade and co-operation with the German-dominated area of Continental Europe.

Of the other leading neutral nations on the Continent, Spain seems to have harvested a very mediocre crop, Portugal and Switzerland crops of good size. Although the new Spanish crop has unofficially been placed at 110 million bushels, as compared with 121 million in

1940, most observers believe that the 1941 crop is significantly larger than last year's harvest, which we may reasonably regard as overestimated. In both Portugal and Switzerland wheat sowings are believed to have been considerably increased for 1941, and the resulting crops are said to be of record or near-record size, despite moderate yields per acre.

Germany's grain crops this year apparently somewhat exceed in total volume the disappointing outturn of 1940, which was reported to be about 2 per cent below the average for the ten preceding years. Winter-wheat sowings were said to be increased by about 10 per cent, rye plantings by 3 per cent.³ Both crops (and particularly wheat) were reported to have suffered less winter damage than in 1939–40, though late rains caused harvest losses. With the probable exception of phosphates, fertilizer shortages have not been apparent in Germany this year, and the labor force has been augmented by between one and two million men brought in from surrounding areas.⁴

Under present political conditions, there seems less reason than in past months to distinguish sharply between the occupied and unoccupied portions of France.⁵ According to certain reports from Vichy, wheat plantings for all France were expanded nearly 30 per cent over last year,⁶ but even thus expanded they may not have been up to the average for 1936–38. Weather conditions seem not to have been particularly favorable, and the total outturn of wheat, though substantially larger than last year, is believed to fall short of normal production. France apparently suffered as much as any other country in Europe from shortage of labor, fertilizers, coal and gasoline, agricultural machinery and tools, draft horses, and binder twine. A few agricultural workers were returned from German prison camps on "captivity furloughs,"⁷ and some agricultural conscripts and Spanish refugees were added to the deficient labor force, but in spite of these additions the labor shortage remained acute.

In one of the few official estimates released, the Italian crop is forecast at 268 million bushels. This is almost identical with the standing official estimate for 1940, and suggests continued or increased shortage of wheat in the

¹ The British Minister of Agriculture announced in February that between 3 and 4 million acres had already been added to the prewar ploughed area (*Corn Trade News*, Feb. 12, 1941, p. 3). Since it had been previously estimated that almost 2 million acres were ploughed up in the first year of the war, we assume that the cultivated area was increased by nearly 2 million acres during the crop year 1940–41.

² See *New York Times*, Aug. 27, 1941, p. 6.

³ See *Foreign Commerce Weekly*, Feb. 8, 1941, p. 235.

⁴ This group, according to the Reich Statistical Bureau, consists of 650,000 war prisoners from Poland and western Europe, 180,000 former prisoners from Poland still employed on farms, 469,000 farm laborers drafted from the civilian Polish population, and 92,000 Italians, Slovaks, Hungarians, and others. It was expected that this force of 1,391,000 men would be reinforced by perhaps 250,000 Yugoslav prisoners. See *New York Times*, May 5, 1941, p. 29.

⁵ Wheat production is estimated normally to be divided between occupied and unoccupied France roughly in the ratio of 3:1. See WHEAT STUDIES, January 1941, XVII, 225, footnote 1. In an effort to increase production this year the Vichy government evolved a far reaching plan of agricultural control through contracts with farmers, under which co-operators obtain premiums upon the sale of their crops.

⁶ *New York Times*, Apr. 24, p. 8; and Apr. 28, p. 23.

⁷ It is asserted that of 76,000 captured French soldiers returned, only 7,000 were agricultural workers. See *New York Times*, March 28, 1941, p. 11.

current season unless relief is afforded through expansion of imports.

The smaller countries of northern Europe—Belgium, Holland, Norway, Denmark, Sweden, and the Baltic states—all appear to have sown substantially larger acreages to bread grains than they did for 1940. For wheat, unofficial estimates suggest that the acreage changes may have ranged from a reduction of 8 per cent in Sweden to an increase of about 15 per cent in Norway. Apparently Sweden alone reduced her wheat acreage from 1940, and even in Sweden this year's acreage is presumably above all other earlier years except 1939. In spite of the high level of wheat acreage in all of these countries, however, wheat production is expected to be mediocre, and in Sweden even poor. Only in Norway is there a good chance for a record or near-record crop.

In the southeastern Axis area, the new Greek crop is said to be well below any recent five-year average and smaller even than the disappointing harvest of 1940. Wheat sowings in Greece were reduced last fall by mobilization and abnormal rains at seeding time, and spring plantings were further curtailed by the war. Weather conditions during the growing period were not particularly favorable and yields were adversely affected by shortages of labor and draft power.

Danubian wheat prospects seem, on the whole, little better than a year ago. Recent reports especially emphasize the expected poor harvest in Hungary, where bad weather and reduced plantings apparently resulted in an outturn as small as that of 1940 or even smaller. Rumania's wheat acreage, unlike that of Hungary, was presumably increased as compared with sowings in the same area for 1940;¹ but unfavorable weather was responsible for low yields per acre, and the new crop is probably only a little larger than last year's poor one. Yugoslavia's crop is hard to assess, partly because of conflicting reports with regard to winter-wheat sowings, partly because the spring invasion resulted in an uncertain amount of crop destruction. The new Yugoslav crop may be either slightly larger or smaller than last year's poor harvest, but it is almost certainly below recent averages. Bulgaria's wheat crop was undisturbed by

war, but recent reports suggest that the harvest was only of about average size.

Other Mediterranean areas.—With a record or near-record wheat crop unofficially reported for Morocco and good-sized outturns indicated for Algeria and Tunis, the new harvest of French North Africa is probably above average and substantially larger than in 1940. A preliminary official estimate of 41.5 million bushels for Egypt suggests the smallest outturn since 1934 in that country, but the crop of Syria and Lebanon is apparently unusually good. The Turkish crop is said to be somewhat smaller than last year's moderate harvest.

USSR.—From the standpoint of Soviet grain resources threatened by or lost to the Axis powers, interest centers at present on the Ukraine.² However, most of this densely populated region,³ though self-sufficient, does not normally produce wheat surpluses,⁴ the exceptions being the provinces of Odessa and Nicolaiev in the south. The great surplus-producing grain areas of the USSR are farther to the south and east—in Crimea, the area of the Don River, the North Caucasus, and the middle and lower Volga.⁵

Early reports of the winter-grain crops of

¹ *Monthly Crop Report and Agricultural Statistics* (International Institute of Agriculture, Rome), December 1940, p. 719S; "Continental European Food Situation and Outlook, May 1941," Supp. to *Foreign Crops and Markets*, May 26, 1941, p. 199.

² The invaded regions north of the Ukraine are grain-deficit areas; Bessarabia and Bukovina, part of the USSR for only a year, produce a net aggregate surplus.

³ Although the Ukrainian SSR comprises but 2.1 per cent of the total area of the Soviet Union, it contained in 1939 (according to preliminary Soviet census figures) 18.2 per cent of the total population. It is also somewhat more urbanized than the country at large, with 36.2 per cent of its population living in cities as compared with an average urban population of 32.8 per cent. Data from *Russian Economic Notes* (U.S. Dept. Comm.), July 30, 1939, p. 1. For good short articles on the Ukraine, see L. G. Michael, "The Soviet Ukraine—Its People and Agriculture," *Foreign Agriculture*, July 1939, pp. 281-306; *Economist*, June 28, 1941, pp. 854-55; and E. C. Ropes, "The Soviet Ukraine: Its Resources, Industries, and Potentialities," *Foreign Commerce Weekly*, July 5, 1941, pp. 3-4, 37-38.

⁴ The Ukraine, however, ranks after Germany and along with the United States as one of the greatest beet-sugar producers in the world.

⁵ See E. C. Ropes, "The North Caucasus and Transcaucasian Republics," *Foreign Commerce Weekly*, July 26, 1941, pp. 4-5, 7.

the Ukraine, as indeed throughout all these areas, gave indication that the total outturn would have been exceptionally good had there been no invasion. Sowings were early and above normal, and the crops developed well. The German invasion on June 22 led to a race to harvest and ship east as much of the crop as possible before the arrival of the enemy. In the face of conflicting war claims the degree of success of this effort can only be guessed. But the factors which need be known for a logical appraisal of the situation may be briefly noted.

The quantity of grain harvested in and moved eastward from the Ukraine must have been influenced not only by the amounts ripe enough for cutting,¹ but also by the physical facilities to cut and move the grain. Under the impetus of a national campaign to save the crops, harvesting progressed at a furious pace, according to the Soviet press news. Even if these reports were true, it is difficult to believe that the inadequate transportation systems, burdened as they were with the movements of troops and war supplies, were able to carry large quantities of grain to safety. Of the grain left standing (mainly in the western part of the Ukraine, invaded early), it seems unlikely that any large portion could have been destroyed, for much must have been still too green to burn.

Easier to demolish would have been stored old-crop stocks, stores and stacks of newly

¹ Harvests in the southern Ukraine, North Caucasus, and lower Volga areas began early in July. Probably not all the grain cut was fully ripe; some winter wheat and early spring barley were almost certain still to be immature, while oats and other spring-sown grains were too green for reaping.

² It is reported that the political commissars, whose reinstatement in the army after the German attack occasioned some surprise, were placed in charge of the program of destruction.

³ For the Russian campaign this is partially supported by reports of American journalists flying behind the Nazi front. Furthermore, in the south the encirclement of Odessa and Nicolaiev provinces was accomplished with great speed.

⁴ One distinct liability in the conquest of Russian agricultural lands is their current dependence on petroleum for draft power. Incomplete statistics indicate that (in 1937) the Ukraine operated 90,000 tractors, and (in 1936) 14,000 trucks, together with large quantities of mechanized farm equipment. See Ropes, "The Soviet Ukraine," p. 3.

harvested grain, livestock, and agricultural machinery. Where the retreat was slow, the program of destruction may have been fairly effective; where the retreat was fast, it must have been less so. Russian peasants expecting to remain on their farms would be reluctant to destroy their crops, equipment, and only food supplies for the coming winter; but organized civilian officials² or the Soviet troops presumably would, under orders, demolish whatever food assets time would allow.

Crop damage as a direct result of troop movements and actual conflict probably has been relatively unimportant. The encircling thrusts of *blitzkrieg* tactics leave large areas untouched.³ Moreover, most of the prolonged fighting in the western part of the Ukraine took place in wooded country, not in the grain-producing centers.

All things considered, we are inclined to guess that the bulk of the Ukrainian grain harvest was not moved eastward, and that the remaining supplies were only partly destroyed. But even if substantial quantities fell into German hands, the prospect of really heavy westward shipments is small (see p. 28). In terms of agricultural exploitation, the advantage to the Nazis of this conquest would seem small for the immediate future, although long-time occupation might be highly successful.⁴ To the Russians, the strictly agricultural loss (except for sugar) would seem less important than would the loss of the southeastern grain-surplus areas not yet touched by the Germans.

Orient.—The final official estimate places Indian wheat production at 374 million bushels, some 7 per cent below last year's record harvest and slightly under the 1936-40 average. Japan's new crop is officially estimated at 59 million bushels, considerably better than any outturn prior to 1939 but 7 million lower than last year's crop. The Manchukuoan harvest probably exceeds the exceptionally low outturn of 1940. According to the American consulate general at Shanghai, the 1941 Chinese crop probably approximates 720 million bushels, as compared with 700 million in 1940 and an average of 691 million for the five preceding years.

Southern Hemisphere. — In Australia, drought-relieving rains during December-

February partly restored moisture reserves and put the soil in good condition for seeding. Persistently dry weather during March–April delayed wheat sowings. May brought adequate rains for planting to a number of areas, and more widespread rains fell during June, making late seedings possible. July and August were characterized by a general deficiency of rainfall, most marked in the eastern states. In early September the Australian crop was in fair condition, though in need of further good rains if a crop failure similar to that of last year is to be avoided. Average yields on a sown acreage slightly smaller than last year (as suggested by unofficial reports) would produce about 150 million bushels. We use this approximation in our estimate of world production, though good September–October rains will be necessary to produce this crop.

Argentina, unlike Australia, was favored with good soil-moisture conditions at seeding time. However, the first official acreage estimate, 17.5 million acres, indicates that wheat sowings were the smallest since 1935, though barely below last year. With ample rains during the early growing period, the crop was reported in above-average condition in late August. An average yield would mean an out-turn of about 215 million bushels, roughly 30 million below the 1936–40 average.

SUPPLY POSITION OF MAJOR EXPORTERS

Although the United States is the only one of the four major exporting nations with a bumper wheat harvest this year, she is not alone in facing the problems of a burdensome wheat surplus. Canada and Argentina also have on hand much more wheat than they can possibly hope to export and use before another harvest adds to their problems. And Australia, with a moderately heavy carry-over in prospect for next December, will find her total wheat supplies for December–November 1941–42 seriously excessive unless her new crop falls far below figures currently mentioned.

Year-end stocks and recent marketings.—As of August 1, 1941 the four major exporters together held unprecedentedly heavy supplies of old-crop wheat. Now tentatively placed at 1,112 million bushels, these stocks were larger

than estimated “world” stocks in 15 of the 18 years immediately preceding the present war. In all that period the world’s wheat carryover had never been concentrated so heavily in the four major exporting nations, and particularly in North America. As a group, the four exporters appear to have held on August 1 this year over 70 per cent of the total “world” stocks, as compared with a previous maximum of 67 per cent in 1932.

The following table shows the distribution of old-crop holdings among the four major exporters, in relation to stocks in other principal positions. Our preliminary estimates for

WORLD WHEAT STOCKS EX-RUSSIA EX-ASIA, ABOUT AUGUST 1, 1941, WITH COMPARISONS*

(Million bushels)

Position	1934-38 av.	1938	1939	1940	1941
U.S. wheat in U.S.	159	152	252	281	387
U.S. wheat in Canada	1	1	1	1	0
Canadian in Canada.	112	24	95	273	448
Canadian in U.S.	9	1	8	27	32
North America	281	178	356	582	867
Australia	55	50	50	130	70 ^a
Argentina	76	72	230	75	175 ^a
Southern Hemisphere	131	122	280	205	245 ^a
Four chief exporters.	412	300	636	787	1,112 ^a
Europe, Fr. N. Africa ^b	342	239	460	545 ^a	390 ^a
Afloat, ^d Egypt	43	54	54	68 ^a	48 ^a
Total	797	593	1,150	1,400 ^a	1,550 ^a

* Official carryover estimates for the United States and Canada. Other estimates are our own approximations.

^a Preliminary approximation.

^b Europe ex-Russia, Morocco, Algeria, and Tunis.

^c For areas included within 1939 boundaries.

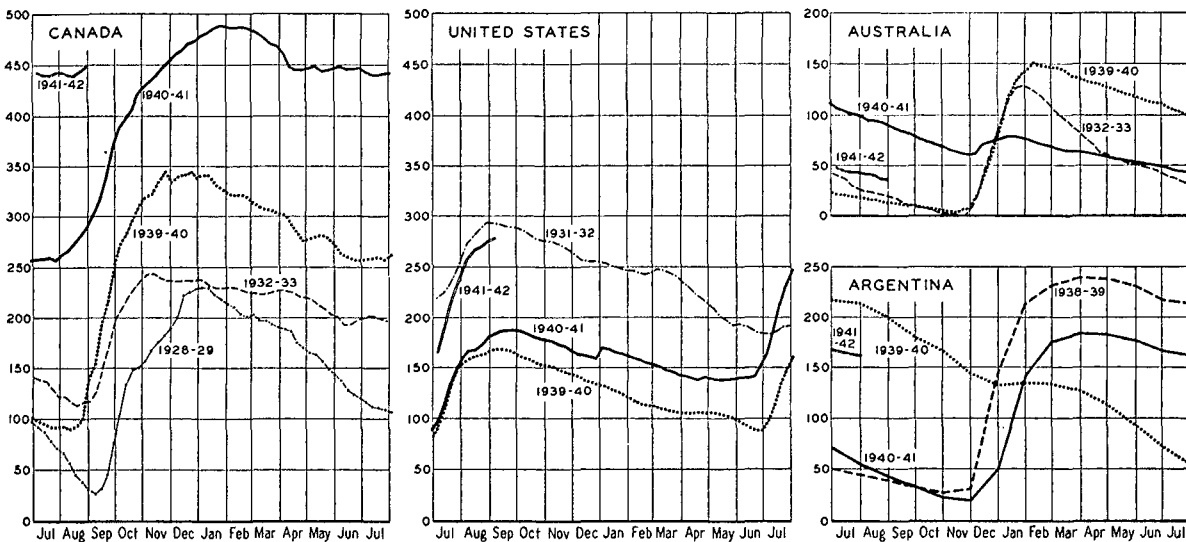
^d Afloat to Europe and to ex-Europe.

Australia and Argentina are based mainly on reports of commercial stocks (Chart 6), which include substantial holdings by government agencies as well as privately owned grain. The Australian visible on August 1 totaled 42 million bushels and Argentine commercial stocks were reported at 162 million. With about average allowance for wheat stored on farms and in other positions, total stocks in Australia and Argentina may reasonably be estimated at 70 and 175 million bushels respectively.

The Australian stocks figure is supported by evidence that in late July the Australian Wheat Board held total stocks of 67 million bushels.¹ It is also consistent with crop-year data on wheat disposition in Australia (Table IX). In contrast, the stocks estimate for Argentina suggests that the standing official estimate of the 1940 Argentine harvest (271 million bushels) was almost 20 million too low. If Argentine wheat stocks actually approximated 175 million bushels on August 1, 1941, as compared with 75 million a year earlier, and if August-July net exports from Ar-

At 448 million bushels, the Canadian carry-over of 1941 was over twice as big as the carry-overs that were regarded as burdensome in 1933-35, and it was 175 million bushels (almost 65 per cent) larger than the previous record carryover of 1940. On April 21 all restrictions on Canadian wheat marketings were removed; and Western farmers delivered the bulk of the remainder of their holdings before the end of the crop year. During May-July 1941 wheat receipts at country elevators and platform loadings in the Prairie Provinces totaled 93.3 million bushels (Table III) or

CHART 6.—VISIBLE SUPPLIES OF WHEAT, 1940-41, WITH COMPARISONS*
(Million bushels)



* Data for certain series summarized in Table IV. On Jan. 4 and June 14, the number of markets previously covered by the United States series was increased.

gentina totaled 95 million bushels, the 1940 wheat crop of that country would have had to approach 290 million bushels to cover these items of disposition and still leave enough wheat for domestic consumption (Table IX).

While Argentina's wheat stocks as of August 1 were clearly burdensome, and even Australia's were excessive in relation to available export outlets, these stocks cannot compare with the unprecedented glut of wheat in North America.

¹ These included 25 million bushels of wheat sold for export but not shipped and 42 million bushels of unsold wheat. See *The Land*, Aug. 1, 1941, p. 4.

20 per cent of the year's total marketings—an all-time record. These heavy marketings kept the visible supply of Canadian wheat in North America almost stationary during May-July at a level close to 450 million bushels (Chart 6). The absence of substantial decline in the Canadian visible during these months would have appeared remarkable even under ordinary export conditions. It is even more noteworthy in view of the fact that May-July clearances of Canadian wheat were larger this year than in any preceding year since 1928.

Although the level of the Canadian wheat carryover on July 31, 1941 and the volume of

wheat marketings in the Prairie Provinces during 1940-41 were widely interpreted in unofficial circles to indicate that the 1940 crop was substantially overestimated, recent calculations of the Dominion Bureau of Statistics suggest an overestimation of only about 5 million bushels.¹

On July 31, the Canadian wheat carryover was distributed as indicated in Table V. The major portion of the large increase in the Canadian carryover between 1940 and 1941 was stored in country mills and elevators, partly reflecting the great expansion in country-elevator capacity that took place during 1940-41.² The increase in stocks in terminal elevators was also substantial, if much less striking. In contrast, farm stocks were smaller than in either 1931 or 1940, while stocks in transit and in flour mills were about the same as in the preceding year. At 32 million bushels, Canadian wheat stocks in the United States were larger than ever before at the end of a crop year, but they stood over 20 million bushels lower than last December.

In the United States, as in Canada, unusually heavy wheat marketings toward the end of the crop year prevented the ordinary seasonal decline in visible wheat supplies during April-June (Chart 6). As of July 1, commercial wheat stocks were notably large as compared with most preceding years, but such stocks had been considerably larger in both

1931 and 1932. Farm and city-mill stocks had also been larger in one or two earlier years; but, as in Canada, stocks in country mills and elevators stood at a new high peak.³ In total, the United States wheat carryover of 1941, estimated at 387 million bushels, was slightly the largest on record, not counting United States grain stored in Canada. With the latter stocks included, however, the 1932 carryover might rank a trifle higher, though this is by no means certain.⁴

With United States elevators and mills glutted with old-crop wheat and corn on June 30, normal marketing of the oncoming near-record wheat crop was impossible. Before the end of June weekly wheat receipts at primary markets in the Southwest had risen above 9 million bushels; but during July the receipts in those markets were unusually light, largely in reflection of widespread embargoes on wheat shipments for storage (see p. 7 n. 2). Total receipts for the month of July (Table III) were above average, primarily as a result of extraordinarily heavy shipments to Minneapolis and Duluth—shipments consisting mainly of loan wheat that Northwestern farmers found it profitable to redeem and market at the high prices recorded in late June and July.

The wheat marketing quota provisions that first went into force on July 1 undoubtedly inconvenienced many growers and handlers and briefly delayed the wheat marketings of certain farmers. Nevertheless, we judge that the net effect of these provisions on the total wheat marketing movement has been slight. Fundamental to the operation of the marketing quota system are the marketing cards issued to individual growers by their respective county committees. Wheat marketed by the holders of such cards may be purchased by buyers without collection for the government of the 49 cents per bushel penalty on non-quota wheat. Wheat producers with a planted wheat acreage of 15 acres or less and all "co-operating" farmers are entitled to such cards simply by virtue of their status as small producers or co-operators. Non-co-operators, however, can obtain similar cards only after furnishing conclusive evidence (1) that they have paid the legal penalty of 49 cents per

¹ *Monthly Review of the Wheat Situation* (Dominion Bureau of Statistics), Aug. 26, 1941, p. 15.

² Between Dec. 31, 1938 and July 31, 1941, the storage capacity of Canadian country elevators is estimated to have been increased from 190 million bushels to 300 million, some 90 million of the extra space (largely temporary storage) having been supplied during August-July 1940-41. An additional 50 million bushels of temporary storage space was provided during the past crop year at Fort William-Port Arthur. See James Richardson & Sons, Ltd., *Canadian Wheat in Wartime*, Weekly Grain Letter of July 7, 1941.

³ Substantial additions were made to the nation's grain-storage capacity in 1940-41, and an official survey disclosed that new storage space either planned or under way as of March 1, 1941 totaled 70.8 million bushels. See *The Wheat Situation*, May 1941, p. 15.

⁴ Only since 1937 have official carryover estimates specifically excluded new-crop stocks in commercial positions and in city mills. Standing estimates for earlier years are therefore not strictly comparable with recent figures.

bushel on the "excess" wheat¹ they produced or (2) that they have properly stored the excess on their farms or in approved warehouses (with storage guaranteed by deposit of bonds, funds, or warehouse receipts)² or (3) that they have delivered their excess wheat to the treasurer of the county committee, for and on behalf of the Secretary of Agriculture.

On their "excess" wheat non-co-operating producers are allowed government loans equal to 60 per cent of the rate granted to co-operators. Thus, this year for the first time non-co-operators as well as co-operators may add to the holdings of the CCC. Both groups, too, can earn the regular government storage payment of 7 cents per bushel on farm-stored loan wheat delivered to the CCC at the date of maturity of the loan.³

Total supplies for 1941-42.—The existence of record heavy stocks of old-crop wheat in the four major exporting countries on August 1, 1941 and the current outlook for moderate to large new crops in those countries foreshadow the persistence of burdensome wheat supplies during 1941-42. Summations of crop and inward carryover figures for the past fourteen years are shown in the following table in comparison with approximations that now seem reasonable for the present season.

Of the four countries for which data are shown in the above table, only the United States is now expected to have to deal with unprecedentedly heavy wheat supplies this year. However, the supplies of the other three

countries will be scarcely less burdensome if they prove as large as anticipated. Except in the crop year just past Canada has never before been called upon to finance and find storage space for such huge supplies of wheat as she now has on hand. And the prospective supplies of the two Southern Hemisphere countries are smaller only than in 1928-29 and 1938-39, when the world's import demand was heavy instead of depressed, as now, by warfare in Europe and Asia.

TOTAL CROP-YEAR SUPPLIES IN THE FOUR MAJOR EXPORTING COUNTRIES, 1927-28 TO 1941-42*

(Million bushels)

Year	Four exporters	North America			Southern Hemisphere		
		Total ^{ab}	U.S. grain ^a	Canadian grain ^b	Total	Australia	Argentina
1927-28..	2,027	1,522	986	536	505	153	352
1928-29..	2,327	1,687	1,029	658	640	196	444
1929-30..	1,947	1,487	1,055	432	460	167	293
1930-31..	2,287	1,728	1,180	548	559	262	297
1931-32..	2,282	1,731	1,271	460	551	251	300
1932-33..	2,295	1,727	1,148	579	568	262	306
1933-34..	2,027	1,434	934	500	593	232	361
1934-35..	1,856	1,280	800	480	576	217	359
1935-36..	1,696	1,269	773	496	427	201	226
1936-37..	1,619	1,115	769	346	504	194	310
1937-38..	1,657	1,176	959	217	481	228	253
1938-39..	2,126	1,470	1,085	385	656	205	451
1939-40..	2,237	1,628	1,004	624	609	260	349
1940-41..	2,509	1,950	1,099	851	559	213	346
1941-42..	2,740 ^c	2,130	1,345	785	610 ^c	220 ^c	390 ^c

* New crops plus estimated stocks of old-crop wheat on August 1 (July 1 in the U.S.).

^a Including stocks of United States grain in Canada.

^b Including stocks of Canadian grain in the United States.

^c Preliminary approximation.

¹ Non-co-operators are permitted to market this year without penalty all old-crop wheat carried over from last year and the amount they actually produced in 1941 minus the normal or actual production (whichever is smaller) on the wheat acreage planted in excess of their individual acreage allotments.

² In July Congress relaxed the original provisions of the marketing quota system to permit non-co-operators to remove from storage and market without penalty an amount of wheat equal to the "normal" production on that part of their allotted wheat acreage for 1942 that they refrain from planting. The excess 1941 wheat thus freed for marketing will be released at different times on different farms, depending on when their wheat-sowing periods for 1942 are over and when acreage measurements can be taken.

³ Loans to co-operators mature on Apr. 30, 1942. Non-co-operators, however, may extend the loans on their excess wheat to Apr. 30, 1943, earning an additional 5 cents per bushel for storage payment if their wheat is farm-stored.

In total, the wheat supplies of the four major exporting countries in 1941-42 now seem likely to be 230 million bushels above the previous record supplies of 1940-41. Overflowing warehouses, general market congestion, government-financed storage schemes, and government price-controls will presumably be prominent features in all four countries this year. The large storage expansion movement in Canada in 1940-41 left that country in a good position to meet the supply problems of the current season. But the United States and Argentina may be forced to add to their storage room this year, with attention in the United States concentrated mainly on farm and temporary storage structures.

Wheat surpluses of such enormous size in the four major exporting countries—largely in the hands of government agencies—clearly hold the threat of serious competitive undercutting of export prices following termination of the present war. Partly with a view to avoiding such destructive international competition, the Department of State of the United States called a conference of government representatives from Argentina, Australia, Canada, the United Kingdom, and the United States to meet on July 10 in Washington to consider problems bearing on the world wheat situation. Among the problems considered by the conference were (1) plans for “equitable” sharing of the world export market; (2) post-war relief exports; (3) wheat acreage control. On August 3 the conference adjourned to meet later in the year¹ after the members could receive instructions from their respective governments pertaining to the tentative agreement drawn up prior to August 3. No subsequent developments have been reported up to September 13.

EUROPEAN SITUATION AND OUTLOOK

The crop year 1940–41 came to an end without fulfillment of early dire predictions of widespread starvation in Continental Europe. Fats and animal proteins were scarce—particularly in certain countries. The choicer foods were limited. Coarse cereals and potatoes were substituted in substantial measure for wheat and rye in bread. The diets of large sections of the populations of Spain, Poland, Belgium, France, and (after April) Greece were subnormal not only in vitamin and protein content but also in total bulk and calorie-count. Millions endured hunger, lost weight, and declined in general health. As yet, death rates

¹ The second meeting was first scheduled for August 18, but appears later to have been indefinitely postponed.

² One of the few attempts at expert appraisal available is that of Dr. E. J. Bigwood, technical adviser to the Belgian government in London. His report on “The Food Situation in Belgium as of July 1941,” with a foreword by Herbert Hoover, has been published by the National Committee on Food for the Small Democracies, New York City.

³ See Karl Brandt, “How Europe Is Fighting Famine,” *Foreign Affairs*, July 1941, XIX, 806–17.

⁴ *Neue Zürcher Zeitung*, Mar. 23, 1941.

due to “progressive starvation” have apparently not risen markedly; but there can be no doubt of the prevalence of undernourishment and malnutrition, even if their degree and extent are exceedingly difficult to appraise.² The situation would have been much worse in the absence of multifarious measures by which European governments and peoples are “fighting famine.”³

Reduced imports.—Such national food shortages as existed were based mainly upon war-imposed restrictions on imports. However, in certain countries these restrictions were scarcely less important than overstrained and disorganized transportation facilities and the tendency of producers and distributors to hoard and “bootleg” food. The degree of curtailment of food imports in the different countries is illustrated in a general way by the import position of wheat, discussed in the following paragraphs.

As noted before (p. 3), the United Kingdom took large imports of wheat in 1940–41. Continental imports, however, were seriously reduced as compared with other recent years, including 1939–40. The table on page 21 shows our estimates of the general distribution of European imports in the past two crop years, with reported official trade data for earlier years.

Britain and, with her permission, the several “neutral” countries had access to overseas wheat; but such access was limited by the scarcity and high cost of shipping space, the inadequacy of foreign credits, and Britain’s policy of withholding navicerts whenever stocks in the neutral countries threatened to exceed two months’ supply.⁴

Of the 245 million bushels that may have been imported by the British Isles, all but about 5 to 7 million probably went to the United Kingdom. Eire’s imports, therefore, were presumably much smaller than usual—only a third to a half of her 1934–39 average imports.

Spain, Greece, and Portugal received the bulk of the wheat shipped to Continental Europe from overseas. Spanish imports, probably amounting to something like 25 million bushels, consisted almost wholly of Argentine grain shipped on government-sponsored sales

based on long-term governmental credits. Greek imports, mainly from Australia and Russia, were confined to the first nine months of the crop year, prior to the German conquest. But in spite of this fact, Greece apparently secured about as much foreign wheat as in 1939-40, and only moderately less than on the average in the five preceding years. Portuguese imports, drawn almost wholly from Canada, apparently approximated 5 million bushels and were thus above the five-year average.

EUROPEAN NET IMPORTS OF WHEAT AND FLOUR,
ANNUALLY FROM 1935-36, WITH
COMPARISONS*
(Million bushels)

Country or group	1934-39 av.	1935-36	1936-37	1937-38	1938-39	1939-40	1940-41
U.K.	206	205	199	195	230	...	...
Eire	15	15	13	13	17	...	...
British Isles	221	220	212	208	247	235	245
Spain	10	...	15	16	21	25	25
Portugal	1	...	...	2	2	1	...
Switzerland	17	17	18	15	17	...	...
Finland	3	4	4	3	2	...	...
Sweden	1	...	1	...	2	...	...
Greece	17	15	22	18	13	12	...
"Neutrals"	49	36	60	54	57	60	50
Germ.-Aust.-Czech.	30	9	33	47	42	...	...
Italy	19	5	58	4	13	...	...
France	7	8	12	16	...	...	...
Belgium	39	39	39	37	38	33	...
Netherlands	23	22	21	24	30	24	...
Norway	8	8	9	7	9	...	...
Denmark	9	9	6	7	5	...	...
Axis area	135	100	178	142	137	145	80
Continent	184	136	238	196	194	205	80
Grand total	405	356	450	404	441	440	325

* Figures in italics are wholly or in part our rough approximations.

^a Net exports.

^b Less than 500,000 bushels.

^c Unreported. See text for discussion of 1940-41 estimations.

Switzerland and Finland, with lighter needs, secured only small imports of wheat under the navicert system. And Sweden, the only remaining neutral, was presumably a small wheat-exporter rather than an importer. Of these three countries, only Finland faced any

real difficulty in connection with her bread-grain position, based, as usual, more heavily upon rye than upon wheat. Both Switzerland and Finland drew small imports from neighboring European countries—Switzerland from Hungary, and Finland from Russia and Sweden.

The big reduction in Continental European imports in 1940-41 mainly reflected reduced imports into the territory under Axis control. Considerable uncertainty exists as to the exact level of those imports; but there is no question that they were far below average. Overseas shipments to the Axis territory were confined to the negligible quantities run through the British blockade and token shipments of 725,000 bushels of wheat in the form of enriched flour from the United States to unoccupied France. Thus virtually all of the wheat imported into that territory originated in Russia, the Danube basin, and French North Africa. Since total exports from those three areas probably did not reach 40 million bushels (p. 4), and since a portion went to Switzerland, Greece, and Finland, we infer that not more than about 30 million went to the territory under Axis control.

How imports of that magnitude were distributed within the wide Axis area it is impossible to say. We assume that roughly half of the imports originated in French North Africa and went first to unoccupied France. But the latter area is reported to have shipped some wheat and flour to Germany, and occupied France is said to have shipped more substantial quantities to Germany and Belgium.¹ Presumably most of the Danubian wheat shipped into Axis territory found its way to Germany and Italy, while the Russian wheat went mainly to Germany, though in some small part to Belgium and Norway.

As anticipated at the beginning of the past crop year, the wheat imports of the Low Countries were reduced the most drastically. Moreover, Norway and Denmark, normally small importers, received negligible quantities of foreign wheat. German, Italian, and French imports were presumably below average, but

¹ *New York Times*, Mar. 15, 1941, p. 1; Mar. 28, 1941, p. 9; Apr. 4, sec. 1, pp. 1, 44; June 4, 1941, p. 5; June 30, 1941, p. 3.

they had been as low or lower in at least one of the five preceding years.

Consumption.—Of the various European countries, Great Britain alone imported enough wheat to fill her normal consumption requirements and to maintain the level of her wheat stocks (p. 25). But even Britain was anxious to conserve shipping space and to increase her war reserves of wheat. Consequently, she took steps along with other European countries to curtail domestic wheat consumption by restricting and later prohibiting wheat feeding, and by raising the minimum legal extraction rate for milling wheat. But whereas the British government finally (on April 21) raised the minimum extraction rate for bread wheat to 75 per cent, Germany continued to enforce a minimum rate of 80 per cent or higher; Spain, Italy, France, Belgium, and Switzerland raised their minimum rates to 85 per cent; and Poland, Greece, and Eire, at least, specified minimum rates of 90 or 95 per cent.

Even more drastic measures of adjustment were adopted by most of the Continental countries. Such measures included (1) adoption of one or two standard types of flour for bread purposes; (2) compulsory admixture of potatoes, corn, and occasionally even barley with wheat and rye in bread flour; (3) prohibition of the sale of fresh bread; and (4) rationing of flour, pastes, and usually also bread.

In some countries rationing was resorted to only to prevent hoarding, feeding, or waste of bread grains. In other countries it was required to spread inadequate supplies of bread thinly throughout the population and to insure larger rations to manual workers and low-income groups. The different levels of bread rations in the various European countries near the end of 1940-41 are shown in the following table.

The rations most restrictive of bread consumption in the later months of 1940-41 were those of Spain, Greece, Poland, Belgium, Finland, Norway, and France. In all of these countries bread is normally consumed much more heavily than the bread rations of March-June 1940 permitted. Moreover, in these same countries other foods were so scarce and high priced in the spring and early summer of 1940 that bread consumption would have expanded

above normal if that had been possible. Food shortage, based in part upon shortage of bread, was apparent before the close of 1940-41 in all nine of the countries mentioned above. And wheat consumption was even farther below normal than was the consumption of

EUROPEAN "BREAD" RATIONS, PER CAPITA FOR ADULTS, MARCH AND JUNE 1941*

(Ounces per week)

Country	March 1941	June 1941
<i>United Kingdom and neutrals</i>		
United Kingdom	Unlimited	Unlimited
Eire	Unlimited ^a	Unlimited ^a
Switzerland	Unlimited ^b	Unlimited ^b
Portugal	Unlimited	Unlimited
Sweden	65-97 ^c	65-97 ^c
Finland	62-148 ^c	49-106 ^c
Spain	20-43	20-43 ^d
<i>Axis and occupied countries</i>		
Italy	Unlimited ^{ab}	Unlimited ^{ab}
Germany	85-170	85-170
Netherlands	{ 71-142 } { 89- ? } ^e	{ 71-142 } { 89- ? } ^e
Denmark	83-132 (17) ^o	83-132 (17) ^o
France: occupied . . .	75-99	68-86
France: unoccupied .	59-80	68-86
Norway	73-122 ^f	64-120 ^f
Belgium	56-112 ^g	56-112 ^g
Poland	49, 55 ^h	49, 55 ^h
Greece	Unlimited	47 ^h

* In so far as possible, these figures represent *total* rations for bread and baked goods made of wheat and rye, but exclude special rations for flour, groats, and pastes, except as specified. Ranges indicate the different rations allowed to "normal" consumers (low) and "very heavy workers" (high) except for Spain, where the lower limit represents the ration allowed the highest-income group, and the upper limit the ration allowed the lowest-income group.

^a Bread rationed on a national basis only in restaurants. In parts of northern Italy restrictive local rationing reported in June.

^b Flour, groats, and pastes rationed as follows, in ounces per week: Switzerland, 10 in March, 8 in June; Italy (including rice and maize for soup), 17-22 in both months.

^c Inclusive of flour, groats, and pastes in terms of bread equivalent. Figures in parentheses for Denmark show the ration for wheat bread included in the total. Norwegian ration covers also peas, beans, rice, potato flour, etc.

^d Ration in Madrid reduced to 10-21 ounces in early June; the same reduction may have been effected elsewhere.

^e Wheat-bread ration apparently maintained unchanged at 71-142 ounces; alternative basic rye-bread ration of 89 ounces probably unchanged, but upper limit of this ration uncertain.

^f Including flour. Pastes rationed separately.

^g Reported Warsaw rations; these probably do not represent the complete range for that city.

^h In Athens, Patras, and Salonika.

bread, since other cereals and potatoes were generally mixed in bread flour.

The food positions of Spain, Poland, Belgium, and (after April) Greece were apparently the most critical in Europe. In all of these countries, where bread and cereals ordinarily make up a major portion of the common diet, "normal" consumers counted themselves fortunate during the spring and early summer of 1941 if they were able to obtain as much as seven ounces of bread a day. About this amount (eight ounces in Belgium) was theoretically available to each "normal" consumer under the rationing systems in force; but only too often local shortages prevented the distribution of full rations. In Madrid, and perhaps also other parts of Spain, even the bread ration was changed: it was reduced in June from its original level of 3-6 ounces per day to 1½-3 ounces.¹ This striking reduction, however, may not have been associated with serious worsening of the already bad food situation in Spain, since by June market supplies of other foods were less scarce than they had been earlier.

Surprising to many people was the fact that the Belgian bread ration of one-half pound daily (itself far below normal consumption) was maintained unchanged and usually filled during the closing months of 1940-41. This situation was made possible partly through efforts of German officials to secure grain imports for Belgium. Most of the 225,000 tons (over eight million bushels of grain) promised Belgium by the USSR failed to arrive.² But Germany is reported to have delivered or agreed to deliver to Belgium 270,000 tons (10.6 million bushels) of rye and 55,000 tons (12.1 million pounds) of eating potatoes, and to have arranged for France to ship to Belgium 62,500 tons (2.3 million bushels) of wheat.³ These imports were important not only because they lessened suffering from hunger in Belgium, but also because they clearly demonstrated that Germany had assumed some re-

sponsibility for preventing the appearance of extreme famine and its train of diseases in part of the occupied territory.

Between March and June the most rapid worsening of food conditions occurred in Greece. In March, most foods were unrationed in that country, and the basic calorie foods were in adequate if not ample supply. But the German invasion and conquest in April quickly brought Greece to a desperate plight. Food stocks were destroyed, plundered, and hoarded. Horses and mules were killed; trucks were laid up for want of gasoline; bridges were destroyed; roads and railroads badly damaged; and all means of transportation seriously reduced. The fishing fleet was cut to a fraction of its normal size by sinkings and German requisitions. As new-crop surpluses of vegetables and fruits became available, they were often left to spoil on the ground, because neither animals, railroad cars, nor trucks were available to carry them to the hungry cities. By mid-May the situation in many of the cities had become critical and so it remained through July. Even if Germany did not, as has been charged, take one-half of the 1941 wheat crop of Greece,⁴ the outlook for Greece for the coming winter is extremely serious.

In France, Norway, and Finland bread rations were only a little higher and the general food conditions only a little better than in Spain, Poland, and Belgium. Moreover, local food shortages assumed almost equally serious proportions in both groups of countries.

France, like Belgium, stands as an example of German-sponsored aid in supplying food. But the food released by German authorities to prevent the spread of serious hunger in France was mainly of French origin. The small remainder—principally potatoes—came from Germany, which had previously received through requisition and "purchase" French and North African food supplies far in excess of the meager quantities later returned. In fact, the French food position might have been reasonably satisfactory in 1940-41, despite war destruction, if the country had not been artificially divided into two zones separated by trade barriers, and if enormous quantities of French food had not been shipped to Ger-

¹ *Neue Zürcher Zeitung*, June 6, 1941.

² Some sources put the figures at 250,000 tons. Cf. *Neue Zürcher Zeitung*, May 13, 1941; *New York Times*, June 30, 1941, p. 3.

³ Cf. *ibid.*; *Die Tat*, May 31, 1941; *Neue Zürcher Zeitung*, June 6, 1941. ⁴ *Time*, Aug. 25, 1941, p. 28.

many or held in France for future use by the German army or, under emergency conditions, by civilians in the German-dominated areas.

It is interesting to recall that Darlan and Achard both implied in February–March 1941 that France would face widespread starvation within a few weeks if she could not promptly obtain 500,000 to 600,000 tons (18.4 to 22.0 million bushels) of overseas wheat.¹ This pessimistic forecast, met only with token shipments of .7 million bushels in the form of flour from the United States, was associated with a reduction in the weekly bread ration in unoccupied France from 75–99 ounces in February to 59–80 ounces in March. The latter ration was extended in April to apply to the occupied as well as the unoccupied zone, and despite growing evidences of undernourishment, the reduced ration was retained through May. Efforts to relieve distress through shipments of potatoes from Germany to the areas of greatest food shortage were only partially successful.² In general, the situation remained critical until June, when new potatoes and other vegetables began to appear on the markets and the weekly bread ration was raised to 68–86 ounces. The increase in the bread ration is said to have been made possible through enlarged deliveries of German-requisitioned wheat from occupied to unoccupied France and through increased shipments from French North Africa.³

Norway and Finland were both forced by shortage of bread-grain supplies (predominantly rye) to reduce their bread rations as from June 1. For some time a reduction in the Norwegian ration had been expected, but Finland, as a neutral, had had restricted access

¹ *Neue Zürcher Zeitung*, Feb. 19, 1941; *New York Times*, Mar. 11, p. 1; *ibid.*, Mar. 29, p. 2.

² Such shipments were made to the Marseille area, where the potato ration for April was raised to 500 grams or 1.1 pounds (*Neue Zürcher Zeitung*, Apr. 21, 1941).

³ *Neue Zürcher Zeitung*, May 31, 1941; *New York Times*, June 26, p. 8.

⁴ The British-Finnish agreement of October 1940 was terminated by the British on June 14 (*New York Times*, June 19, 1941, p. 5).

⁵ *Neue Zürcher Zeitung*, May 17 and 22, 1941.

⁶ *Ibid.*, June 1, 1941.

⁷ *Foreign Crops and Markets*, July 21, 1941, p. 77, 82 n.

to overseas grain. Just why Finland's imports were so inadequate is not entirely clear. Shortage of shipping facilities may have been partly responsible, but perhaps more important is the fact that Britain did not grant navicerts to Finland as freely as she might have if Finland had been better able to maintain strict neutrality. Indeed, even before Finland formally allied herself with Germany against the USSR, British officials announced that no further navicerts would be granted for shipments to Petsamo.⁴ Probably bread consumption was significantly below normal in both Norway and Finland in 1940–41. In any case bread was short relative to the heavy demand for it, a demand increased by the serious shortage of other foods. Wheat, which is relatively unimportant in the bread position of these two countries, was perhaps utilized for bread as much as or even more than on the average over the past five years.

The remaining European countries—Portugal, Switzerland, Sweden, Denmark, the Netherlands, Germany, Italy, and the Danube countries—have been more adequately supplied with bread and other foods. Of these countries only Sweden, Denmark, the Netherlands, and Germany rationed bread on a national scale during March–June 1941, and these rations were not seriously restrictive as to quantity. However, the quality of the bread sold in all of these countries was definitely poor, being made from flour of high extraction with admixtures of other cereals and potatoes ranging up to 45 per cent. Furthermore, local shortages even of these poorer types of bread were reported in Italy, Yugoslavia, and also Rumania.

As the end of the crop year approached, there were evidences of tightening in the bread positions of the two major Axis countries. The evidence for Italy was the more striking. It included (1) an increase in bread flour admixture requirements from 25 per cent corn flour in previous months to 30 per cent corn and rice flour in May, with permission to use an additional 25 per cent of cooked potatoes;⁵ (2) prohibition of the production after June 15 of biscuits containing grain flour, rationed fat, and milk;⁶ (3) local rationing of bread in northern Italy;⁷ and (4) governmental offers

of price premiums for new-crop wheat delivered to the official collecting agency during June–July.¹

The new measures adopted by Germany were less drastic, and they seem to have been aimed at reducing wheat consumption rather than bread consumption. The German bread ration remained unchanged as to total, but from early April consumers were required to take specified minimum proportions of their total ration in rye bread or rye flour.² Moreover, after April 15 the government required 15 per cent rye flour to be added to the standard wheat flour used for bread products; and from mid-July a lower grade of wheat flour (with higher ash content and perhaps of higher extraction) was designated as the “standard” type.³

We judge that the measures taken by Germany late in 1940–41 were partly in response to evidences of increased wheat consumption in earlier months, and that during the full crop year wheat utilization was about the same as in 1939–40. In Italy, however, wheat consumption probably declined substantially in the face of an increased demand for bread. This was made possible by increased extraction rates for wheat, heavy admixtures of other cereals and potatoes in bread and pastes, and restrictive rationing of flour and pastes. Moreover, in Italy the full increase in the demand for bread was not filled, a fact illustrated by the reported local shortages.

In total, the wheat utilization of Continental Europe was perhaps something like 13 per cent smaller in 1940–41 than it had been in 1939–40 and 15 per cent less than on the average in the five preceding years of peace. Even this reduced level of utilization, however, was made possible only through drafts on stocks of wheat built up in previous years.

Wheat carryovers.—The wheat reserves of the United Kingdom were almost certainly

¹ *Ibid.*, July 28, 1941, p. 90. These premiums were apparently later extended into August.

² *Der Führer*, Mar. 29, 1941; *Deutsche Allgemeine Zeitung*, Mar. 29, 1941.

³ *Ibid.*, Mar. 23, 1941, and May 10, 1941; *National Zeitung* (Essen), July 4, 1941. Until July rye flour of Type 997 was combined with wheat flour of Type 812, but in July the wheat flour in this admixture was changed to Type 1050.

enlarged during 1940–41, perhaps by more than 25 million bushels. In contrast, year-end stocks in Continental Europe ex-Russia were probably reduced by something like 150 to 175 million bushels, or 35 to 40 per cent. We judge that carryovers this year were near minimum levels in all Continental countries except Germany, Sweden, occupied France, Hungary, Bulgaria, and perhaps Rumania and Italy; and in practically all of these countries stocks were apparently considerably lower than they had been a year earlier.

Germany's wheat stocks probably remained relatively the largest in Continental Europe, even though they were substantially reduced from 1940. Moreover, it is quite possible that the bulk of the surplus stocks remaining in the Danube basin and in occupied France were as completely under German control as if they had been in government warehouses in Germany. In addition to the requisitioned supplies held in France and other occupied countries, Germany may have held title to substantial stocks of wheat stored in Hungary, Bulgaria, and even Rumania. However, some of the surplus old-crop stocks in the Danube basin were almost certainly in the hands of peasants and other growers, who have hoarded moderate quantities of wheat in response to the uncertainties engendered by the war.

The carryover position of Italy is almost impossible to assess. However, we are inclined to believe that the Italian government held fair reserves of old-crop wheat at the end of 1940–41, in spite of official tightening of milling and baking regulations in the spring and subsequent evidence of local shortage of bread. Such developments might have resulted either from an actual scarcity of wheat or from an artificial scarcity brought about by governmental storage for future military or emergency uses. We have no way of knowing which of these alternatives is closer to the truth. However, in our calculation of European stocks, we have rather arbitrarily assumed that Italian wheat stocks, though reduced from 1940, were still of fair size.

Outlook for 1941–42.—Such evidence as is now available on the size and distribution of the European wheat crop of 1941 has been summarized on pages 12–14. It is now pos-

sible to consider the wheat-supply positions of the major groups of countries and to obtain a general idea as to the adequacy of European bread supplies in the current season—all on the assumption of continued warfare.

There is no question that the United Kingdom has entered the present crop year with larger supplies of wheat on hand than ever before. Partly to meet the storage problems thus introduced and partly to lessen bombing losses, British farmers are to be paid for holding back deliveries of native grain through April 1942, and additional storage depots for wheat and other foods are being constructed at widely scattered points.¹

Thus far, the British government has done very little toward curtailing human consumption of wheat. This year more may be done in that direction, especially since the British potato harvest is expected to be large. Moreover, if it should become necessary further to economize in the use of shipping space, the British Ministry of Food could reduce year-end wheat stocks below the high peak reached on August 1, 1941. In any case, it seems improbable that the British wheat carryover will be further enlarged during 1941-42. Unless it is, or unless bombing losses are greatly increased, British imports of wheat will presumably be considerably smaller in 1941-42 than in 1940-41—perhaps not in excess of 150 to 200 million bushels. We judge that net imports of 200 million would probably be associated with maintenance of year-end wheat stocks near the high level witnessed in 1941.

The favorable outlook for Britain is not shared by Eire. In spite of a record domestic wheat crop, Eire faces the prospect of further substantial curtailment of wheat utilization in 1941-42, because of the difficulty of obtaining shipping space. However, Eire is basically an agricultural country which produces substantial food surpluses (including potatoes) for export; consequently, there is little danger that reduced wheat supplies will result in widespread critical undernourishment in that country.

¹ Broomhall's *Corn Trade News*, Aug. 6, 1941, and his American cable service, Aug. 16, 1941.

² Sweden, though neutral, has had adequate supplies of domestic grain and has not been granted navicerts for grain imports from overseas.

So far as one can now judge, total bread-grain supplies in Continental Europe ex-Russia are roughly the same size this year as they were last. The new Continental crop is apparently almost enough larger to make up for the decline in old-crop stocks. Perhaps slightly more wheat will be imported this year from French North Africa, but overseas imports will presumably be lighter in reflection of the recent extension of the British blockade to Greece and Finland. We doubt that bread grains will be drawn westward in substantial volume from the Soviet Union, though that development is not beyond the range of possibility.

During 1940-41 the Axis area was so extended on the Continent that there now remain only three neutral countries with access to overseas grain—Spain, Portugal, and Switzerland.² Each of these countries is said to have secured a larger wheat crop in 1941 than in 1940, and only Switzerland started the current season with much smaller old-crop stocks. The available domestic bread-grain supplies are nevertheless inadequate, particularly in Spain. So long as that country remains "neutral," she will presumably be allowed to continue to import overseas wheat and corn under the British navicert system, though perhaps less heavily in the early than in the later part of the season. In total, Spanish imports of wheat in 1941-42 may be about as large as or a little larger than in 1940-41; if so, the bread position of Spain should be somewhat less critical than it has been in recent months.

Switzerland apparently needs foreign wheat more this year than she did last; but her purchases of overseas grain seem likely to continue to be seriously restricted by the difficulty of securing shipping space. Unless Switzerland can import significantly more wheat than she did in 1940-41 her bread position may be expected to show signs of worsening as the year advances, though probably not to the point of serious danger. In contrast, Portugal's bread position, which was fairly satisfactory last year, will perhaps be even better in the current season. If the new Portuguese wheat crop is as large as some recent estimates imply, that country may not need any foreign wheat this year. On the other hand,

we are inclined to guess that Portuguese imports will be small rather than negligible. In total, the three neutral nations—if they remain neutral—may import some 30 to 40 million bushels of wheat in 1941–42, about the same as or a little more than in 1940–41.

Virtually all of the remainder of Europe ex-Russia is Axis territory—mostly German-occupied. Four of the countries, Hungary, Yugoslavia, Rumania, and Bulgaria, are normally wheat-exporting countries. The rest usually rank as net importers.

For various reasons, it seems desirable to consider the Danubian exporting countries separately. This year, as in 1940, these countries harvested relatively poor wheat crops. Under the influence of German pressure, they seem likely to continue in force, and perhaps even to strengthen, most of the governmental measures adopted last year with a view to reducing domestic wheat utilization without rationing bread. The measures thus far introduced have resulted in the production of poorer but not necessarily less bread than was sold in previous years. This fact, and the presumption that various other foods are in fairly adequate supply in these predominantly agricultural countries, suggest that the food danger zone in Europe does not extend far, if at all, into the Danube basin.

Probably the section most threatened is that portion of Yugoslavia (a grain-deficit area) now under Italian domination. The danger zone might be extended further if the two major Axis governments should start to “requisition” or “purchase” abnormally heavy food supplies without regard to Danubian domestic needs. Thus far, however, there is no reason to expect such a development. Under less heavy pressure from the Axis countries, and with Bessarabian exports again included in the Danubian total, wheat exports from the Danube basin might reach 25 to 45 million bushels during 1941–42.

In the remainder of the Axis-dominated territory there are undoubtedly serious problems of food scarcity to be met during 1941–42. Fat supplies are particularly deficient. Shortages of meat and poultry, partially relieved by abnormally heavy slaughter in 1940–41, will be more pronounced this year. The

same holds true for the major animal products—milk, cheese, and eggs. On the other hand, this area can be expected to harvest in 1941 a large potato crop and a mediocre to large crop of sugar beets if subsequent weather conditions are favorable. Whether these crops will come up to or exceed the corresponding crops of 1940 is still an open question.

Bread-grain supplies in the Axis area outside the Danube basin are apparently not appreciably smaller this year than they were last. Serious bread shortage might thus be prevented if German officials would assume responsibility for equitable distribution of the available supplies. Without some such superplan, however, serious local and national shortages of bread and other basic foods are almost certain to arise in the latter part of the current crop year.

Greece, Belgium, Norway, and possibly Finland, Holland, and Poland are the chief food-danger points. These face a prospective shortage of bread and of other foods. At present, Greece with her disrupted trade and transportation systems is in the worst position. In time these systems will probably be restored. But starvation cannot be avoided in Greece except by means of food (including bread-grain) imports from the Danube basin or elsewhere. Belgium, Norway, and possibly Finland and the Netherlands will also need substantial imports; but in Poland the major problem is not imports but the avoidance of excessive German takings. It is noteworthy that the countries that stand in greatest need of grain imports are small countries, for each of which imports of only a few million bushels of bread grain might mean the difference between widespread starvation and subsistence at a low level of nutrition. Such imports might well come to the northern countries from France, Germany, the Baltic states, or Poland.

France, which was one of the principal sufferers from food shortage last year, may occupy a more secure position in 1941–42. The French bread-grain crop is said to be larger this year; increased imports are expected from French North Africa; transportation difficulties are somewhat lessened; and the closed

boundary, which separated the occupied and unoccupied zones of France during the early part of 1940-41, is a less formidable barrier today. But whether or not these improvements and the recent adjustments made in French agriculture will redound to the benefit of the French people will depend in large measure upon the quantities of French and African food that the Germans see fit to requisition or "purchase." If German takings are not heavy, France may be able to raise her domestic bread ration and at the same time send enough wheat and other food to Belgium and Norway to prevent suffering on a large scale in those countries. However, until more information is available as to the size of the new French wheat crop, and also as to Germany's Continental food policy, such possible favorable developments can not be counted as really in prospect.

Italy, whose bread and general food position clearly worsened during the course of 1940-41, does not appear to be facing any happier outlook in the current season. Unless the new Italian wheat crop is considerably larger than current reports suggest, or unless Italy is able to import substantially more wheat this year than she apparently did in 1940-41, no increase in Italian bread and macaroni supplies can be expected. Moreover, since Italy, like most other Continental countries, faces reduced supplies of other kinds of food, her net food position (without enlarged imports) may prove to be somewhat worse this year than last.

Germany's food position is, from certain viewpoints, more important than that of any other European country. Many persons in Britain and in Allied and sympathetic countries have long been hoping for the emergence of serious food shortage in Germany—a shortage that might result in the breakdown of German morale. Over the past two years the German people have withstood certain qualitative deficiencies in their diet (mainly arising from shortage of fats), but they have faced no shortage of the other high-calorie foods. In 1941-42 qualitative food deficiencies may well become even more pronounced,¹ but there is still no prospect of the spread of ordinary hunger in Germany. Although Germany's do-

mestic bread-grain position may be slightly less favorable this year than last (because of reduced old-crop reserves), it is nevertheless quite satisfactory. And even if her growing potato and root crops should turn out to be somewhat smaller than last year's bumper harvests, they would still be fairly adequate. Moreover, Germany's position as military conqueror and economic ruler of most of the Continental Europe gives her precedence in securing food imports—imports not only from surplus-producing countries but also from countries whose people may be in dire need of the exported supplies.

Whether Germany will gain for herself or for the rest of the Axis area substantial supplies of food from the Soviet Union can not yet be determined. Probably most of the grain fields in the Baltic states, Russian Poland, and Bessarabia were harvested without serious loss. But in the Ukraine, the "scorched-earth" policy may have been more effective. There the winter-grain crops had ripened and had largely been harvested before the Germans moved in. On the other hand, even if large Russian food supplies have come into the hands of the German army, there is no certainty that these will be shipped westward. Part will undoubtedly be used to feed the invading army; part must be kept for the inhabitants of the occupied territory; and part may be held as military reserves near the Black Sea for later consignment to any fighting front opened up in the Eastern Mediterranean area. Even if there should be a remaining part that German officials would like to send back home, transport difficulties might stand in the way of large shipments westward. Until further evidence of Germany's food gains in Russia comes to hand, it seems unreasonable to count on any improvement this year in the food position of the present Axis territory through shipments of bread grain or other foods westward from the Ukraine.

As the year progresses, the most critical food scarcity in Europe may emerge within the Soviet Union itself. Heavy harvesting losses, the "scorched-earth" policy, and seri-

¹ To offset this possibility the German government has been distributing vitamins and vitamin compounds on an increasing scale.

ously inadequate and disrupted transport facilities may leave the populations of large areas in the Soviet Union without sufficient food even for maintenance of life. Britain and the United States might endeavor to ship large quantities of wheat to Russia to relieve distress in areas not occupied by German troops, but such shipments would presumably be limited (see below), and in any case would probably be of no aid to sufferers within the occupied zone.

OUTLOOK FOR TRADE, 1941-42

In the preceding section we discussed the outlook for European imports in 1941-42 on the joint assumptions that war will continue throughout the crop year and that Britain will retain command of the seas. Our conclusions, based on these general assumptions and on some less fundamental specific ones, are as follows: (1) Although British imports may be small or large depending on the course of the Battle of Britain and the Battle of the Atlantic and on the government's policy with respect to reducing, maintaining, or increasing the record heavy year-end reserves indicated as of August 1, 1941, we tentatively place the most probable range at 150 to 200 million bushels; (2) Eire will probably be unable to obtain shipping space for more than a few million bushels of wheat imports; (3) the three Continental neutral nations that now have access to overseas grain—Spain, Portugal, and Switzerland—will perhaps import some 30 to 40 million bushels of wheat in the current year, if they remain neutral; (4) the Axis importing area may obtain 25 to 45 million bushels from the Danube basin (though some of this may go to German troops in Russia), 20 to 25 million from French North Africa, and an indefinite quantity (which we now assume will be small to negligible) from the Soviet Union—a total, perhaps, of 50 to 75 million bushels. Relaxation of the British blockade to allow relief shipments from overseas to go to countries like Greece and Belgium would considerably raise this total, but as yet there is no reason to expect such a development.

Our detailed "guesstimates" suggest prospective Continental imports of something like

100 million bushels in 1941-42 and total European imports of 250 to 300 million. Comparable estimated figures for 1940-41 are 80 and 325 million bushels, respectively.

Non-European imports will presumably be handicapped in 1941-42 by the general shortage of shipping space, a shortage much greater than that witnessed last year. Moreover, unless Japan and the United States should come to an agreement involving release of Japanese funds and possible American credits for Japanese purchase of foodstuffs, for Japan, Manchukuo, or Japanese-controlled areas in China, Oriental imports will almost certainly be substantially smaller this year than last. The reduction might well amount to 20 million bushels or even more. Enlarged shipments to Egypt and the Near East—to supply British troops and the civilian populations now under British control—would only partly offset the decline in Oriental takings.

Brazilian imports seem likely to be slightly increased in 1941-42, following relaxation of last year's restrictive milling regulations and the recent purchase by Argentina of belligerent ships (about 140,000 gross tons) previously held unused in Argentine ports.¹ The wheat imports of other North and South American countries may also be slightly increased, partly because several of the countries harvested small crops in 1940, and partly because the recent emphasis on intra-hemisphere trade agreements may result in increased takings of Argentine, and perhaps also United States wheat.

It is possible, but as yet not to be counted probable, that non-European imports will this year be swelled by substantial shipments of American, Australian, and perhaps Indian wheat to the Soviet Union. Whether such shipments will occur will depend on many factors, including the course of the war in Russia, decisions and plans of the Soviet government relative to the feeding of the civilian populations in food-deficit cities and areas, British-American policies with respect to the Soviet Union, and the availability of shipping space and land transport facilities for carrying overseas food into the interior of the Soviet Union.

¹ Note 1, p. 4, and *New York Times*, Aug. 14, 1941, p. 3.

We judge that the difficulties to be overcome in effecting shipments of this character are too great to warrant anticipation of *large* wheat exports to the Soviet Union, even if the British, American, and Soviet governments should agree in principle on a policy of promoting such exports.

If substantial shipments are not made to Russia and if existing relations between the United States and Japan are not improved, it seems reasonable to expect non-European imports to approximate 120 million bushels in

1941-42, as compared with an estimated total of 140 million last year.

Such imports, combined with possible European takings of 250 to 300 million bushels, would seem to imply a net-export total of 400 to 450 million bushels, if wheat sinkings are not materially increased as compared with last year. In actual fact, the world exports of 1941-42 may be considerably above or below this range, depending on the course of the war and innumerable governmental decisions relating to wheat shipments.

The writers are indebted to the Office of Foreign Agricultural Relations of the United States Department of Agriculture for certain foreign information, to Rosamond H. Peirce and Marion Theobald for the tables and statistical assistance, and to P. Stanley King for the charts.

APPENDIX TABLES

TABLE I.—WHEAT PRODUCTION IN PRINCIPAL PRODUCING AREAS, 1936-41*

(Million bushels)

Year	World ex-Russia ^a			United States	Canada	Argentina, Australia	Europe ex-Russia				French North Africa ^o	India	Others ex-Russia ^a	USSR
	Total ^a	Northern Hemisphere	Southern Hemisphere				Total	British Isles	Continent					
									Total	Lower Danube ^b				
1936 ..	3,509	3,038	471	627	219	401	1,480	63	1,417	384	50	352	380	1,128
1937 ..	3,812	3,344	468	876	180	395	1,537	63	1,474	361	72	364	388	1,722
1938 ..	4,563	3,944	619	932	360	535	1,847	81	1,766	466	72	402	415	1,502
1939 ..	4,198	3,794	404	751	521	330	1,695	71	1,624	451	100	372	429	.....
1940 ^a ..	3,965	3,540	425	817	551	355	1,350	82	1,268	296	64	403	425	.....
1940 ^b ..	3,938	3,513	425	817	551	354	1,325 ^f	82	1,243 ^f	295 ^f	62	403	426	.....
1941 ^b ..	3,950	3,505	440	958	306	365	1,465	95	1,370	...	80	374	402	.....

* Data summarized from Table II (except for India and USSR). Figures in italics are in part unofficial approximations. Dots (...) indicate no data available.

^a Excludes China, Iran, Iraq, and various small producers.

^o As of about Sept. 15, 1941, for 1939 boundaries.

^b Hungary, Yugoslavia, Rumania, Bulgaria.

^f Our approximation, not necessarily summation of data in Table II.

^c Morocco, Algeria, Tunis.

^d As of about May 20, 1941, for 1939 boundaries.

TABLE II.—WHEAT PRODUCTION IN PRINCIPAL PRODUCING COUNTRIES, 1936-41*

(Million bushels)

Year	U.S. winter	U.S. spring	Canada	Australia	Argentina	Uruguay	Chile	Brazil, Peru	Hungary	Yugoslavia	Rumania	Bulgaria	Morocco	Algeria	Tunis
1936.....	519.9	106.9	219.2	151.4	249.9	9.2	28.6	8.36	87.8	107.4	128.7	60.4	12.2	29.8	8.1
1937.....	685.8	189.9	180.2	187.3	207.6	16.6	30.3	9.58	72.2	86.2	138.2	64.9	20.9	33.2	17.6
1938.....	688.1	243.6	360.0	155.4	379.1	15.5	35.5	10.52	98.8	111.3	177.2	79.0	23.2	34.9	14.0
1939.....	569.7	181.7	520.6	210.3	119.5	9.9	31.6	....	113.1	105.7	163.6	69.0	38.8	42.6	18.6
1940 ^a	589.2	227.5	551.4	83.8	271.1	6.4	30.1	....	76.0	69.3	89.3	61.8	23.9	27.6	12.5
1940 ^b	589.2	227.5	551.4	83.2	271.2	7.1	29.8	....	76.0	69.3	89.3	61.8	23.9	27.6	10.7
1941 ^b	685.0	272.6	306.5	150.0	215.0	....	....	....	....	....	....	....	....	32.0	14.7

Year	United Kingdom	Ireland	France	Italy	Germany	Austria	Czechoslovakia	Switzerland	Belgium ^c	Netherlands	Denmark	Norway	Sweden	Spain	Portugal
1936.....	55.3	7.84	254.6	224.6	162.7	14.0	55.6	4.47	17.2	15.4	11.3	2.09	21.6	121.5	8.7
1937.....	56.4	6.99	257.8	296.3	164.1	14.7	51.3	6.18	16.8	12.7	13.5	2.50	25.7	110.0	14.7
1938.....	73.3	7.40	360.1	300.7	205.0	16.2	66.7	7.34	22.0	15.9	16.9	2.64	30.2	96.0	15.8
1939.....	61.6	9.52	273.5	293.2	206.3 ^d	....	40.0 ^e	5.89	13.8	15.3	15.4	2.86	31.4	105.7	19.0
1940 ^a....	....	11.68	....	268.2	....	....	....	5.40	....	....	....	2.60	15.9	121.3	9.9
1940 ^b	70.0 ^f	11.68	188.0	268.2	170.0 ^f	....	30.0 ^f	5.40	9.0 ^f	10.0 ^f	7.0	2.54	15.9	121.3	9.9
1941 ^b....	....	....	....	268.0	....	....	....	....	....	....	....	....	....	110.0	....

Year	Poland	Lithuania	Latvia	Estonia	Finland	Greece	Turkey	Other Near East ^g	Egypt	Japan	Chosen	Manchukuo	Mexico	South Africa	New Zealand
1936.....	78.4	8.0	5.27	2.43	5.26	19.5	141.6	20.3	45.7	45.2	8.2	35.2	13.6	16.1	7.17
1937.....	70.8	8.1	6.30	2.79	7.66	30.0	133.0	24.1	45.4	50.4	10.2	41.4	11.0	10.7	6.04
1938.....	79.8	9.2	7.05	3.14	9.40	36.0	156.7	27.3	45.9	45.2	10.4	34.3	11.8	17.1	5.56
1939.....	83.4	9.4	7.77	3.13	8.50	38.3	154.5	28.1	49.0	61.1	12.6	34.8	14.8	15.3	8.01
1940 ^a....	....	....	....	2.79	6.91	29.4	150.8	....	50.0	66.1	10.2	32.0	12.9	16.5	....
1940 ^b	60.0 ^f	....	20.0 ^f	....	6.91	29.4	150.8	....	50.0	66.1	10.2	32.0	12.8	16.5	8.40
1941 ^b....	....	....	....	....	....	....	....	....	41.5	59.4	10.1	....	....	....	....

* Data of U.S. Department of Agriculture and International Institute of Agriculture. Figures in italics are unofficial approximations. Dots (...) indicate no data available.

^a As of about May 20, 1941, for 1939 boundaries.

^b As of about Sept. 15, 1941, for 1939 boundaries.

^c Including Luxemburg.

^d Including the Sudeten area.

^e Bohemia-Moravia and Slovakia.

^f Unofficial approximations from supp. to *Foreign Crops and Markets*, May 26, 1941.

^g Syria and Lebanon, Palestine, Cyprus.

WORLD WHEAT SURVEY AND OUTLOOK, SEPTEMBER 1941

TABLE III.—WHEAT RECEIPTS IN NORTH AMERICA, MARCH–AUGUST 1941, WITH COMPARISONS*
(Million bushels)

Year	United States (12 primary markets)						Canada (country elevators and platform loadings)							
	March	April	May	June	July–June ^a	July	Aug.	March	April	May	June	July	Aug.–July ^a	Aug.
1936 ^b	9.8	7.4	11.1	14.8	229.6	84.2	29.5	7.2	4.6	5.5	8.7	4.0	217.0	42.9
1937.....	7.6	8.9	7.6	19.4	218.1	111.9	62.2	5.8	4.2	4.1	3.6	3.1	161.7	20.5
1938.....	10.6	10.9	14.3	17.0	330.9	101.2	61.1	4.0	4.6	2.8	3.9	3.1	125.6	39.6
1939.....	13.7	16.0	25.5	44.0	382.8	99.0	43.9	5.5	5.1	5.0	5.2	8.0	290.5	54.0
1940.....	21.9	28.4	29.4	13.4	339.5	103.9	46.2	7.9	6.0	7.0	12.8	20.0	426.5	35.6
1941.....	12.6	17.0	29.9	49.3	354.8	102.2	50.3	18.0	24.0	32.5	33.4	27.4	457.9	21.4

* United States data unofficial, compiled from *Survey of Current Business*; Canadian data computed from official figures given in *Canadian Grain Statistics*.

^a From 1935–36 to 1940–41.

^b Thirteen markets, including Detroit, through 1936.

TABLE IV.—WHEAT VISIBLE SUPPLIES, MAY–SEPTEMBER 1941, WITH COMPARISONS*
(Million bushels)

Date	Grand total	Total four exporters	Total North America	United States grain		Canadian grain		Afloat to Europe	U.K. ports	Total U.K. and afloat	Australia	Argentina
				United States	Canada	Canada ^a	United States					
1941												
May 1.....	.....	827.4	586.9	139.1 ^b	.2	415.9	31.7	.....	.....	.....	58.0	182.5
June 1.....	.....	817.0	586.1	139.5 ^b	.2	407.3	39.1	.....	.....	.....	53.5	177.4
July 1.....	.....	816.3	599.4	151.9 ^c	.2	408.8	38.5	.....	.....	.....	49.5	167.4
Aug. 1.....	.....	893.2	689.4	246.7 ^c	.2	411.2	31.3	.....	.....	.....	42.2	161.6
Sept. 1.....	.....	911.9	724.1	274.6 ^c	.2	421.2	28.1	.....	.....	.....	37.0	150.8
Sept. 1												
1938.....	293.2	237.0	184.2	133.7	.1	49.7	.7	39.6	16.6	56.2	13.8	39.0
1939.....	578.0	519.1	305.6	166.3	.6	131.5	7.2	29.9	29.0	58.9	13.5	200.0
1940.....	.....	605.4	470.0	180.1	.6	257.8	31.5	.....	.....	.....	92.2	43.3

* Selected, for dates nearest the first of each month, from weekly data in *Commercial Stocks of Grain in Store in Principal U.S. Markets*, *Canadian Grain Statistics*, *Broomhall's Corn Trade News* (for Afloat to Europe, U.K. ports, and Australia), and *Boletín Informativo* for Argentina.

^a Excluding, for comparability, stocks in transit by rail which are now included in officially published totals.

^b Including two markets not reported in earlier years.

^c Including four markets not reported in earlier years.

TABLE V.—UNITED STATES AND CANADIAN CARRYOVERS OF WHEAT, FROM 1936*
(Million bushels)

Year	United States (July 1)						Canada (July 31)						
	On farms	In country mills and elevators	Commercial stocks	In city mills ^a	Total in four positions	U.S. grain in Canada	On farms	In country mills and elevators ^b	In terminal elevators	In transit	In flour mills ^c	Total in five positions	Canadian grain in U.S.
1936.....	44.0	21.9	25.2	50.6	141.7	.0	5.5	36.2	59.7	5.0	1.7	108.1	19.3
1937.....	21.9	11.5	9.0 ^d	40.4 ^d	82.8 ^d	.1	4.0	7.4	17.7	2.8	1.0	32.9	4.1
1938.....	59.1	30.6	22.2 ^d	40.8 ^d	152.7 ^d	.7	5.1	2.8	12.2	2.4	1.1	23.6	1.0
1939.....	90.4	36.6	64.1 ^d	61.1 ^d	252.2 ^d	.6	4.7	16.8	67.2	4.8	1.1	94.6	8.3
1940.....	83.1	33.6	84.2 ^d	80.7 ^d	281.6 ^d	.6	17.3	73.3	159.3	21.9	1.1	272.9	27.5
1941.....	89.1	73.2	142.7 ^d	81.6 ^d	386.6 ^d	.2	14.0	224.4	187.6	21.1	1.2	448.3	31.8

* Official data of U.S. Department of Agriculture and Dominion Bureau of Statistics.

^a Estimates of U.S. Department of Agriculture, based on stocks in city mills reported to the Census Bureau, raised to allow for stocks in non-reporting mills.

^b Includes private terminal elevators and flour mills in Western Division.

^c In Eastern Division only.

^d Excluding new-crop wheat. See *The Wheat Situation*, August 1941, p. 2.

TABLE VI.—UNITED STATES FLOUR PRODUCTION, EXPORTS, AND NET RETENTION, MONTHLY, SEPTEMBER—AUGUST 1940—41, WITH COMPARISONS*

(Thousand barrels)

Month or period	Production						Net exports and shipments to possessions			Estimated net retention		
	All reporting mills			Estimated total			1938-39	1939-40	1940-41	1938-39	1939-40	1940-41
	1938-39	1939-40	1940-41	1938-39	1939-40	1940-41						
Sept.	9,699	11,191	9,288	10,285	11,867	9,850	444	741	452	9,841	11,126	9,398
Oct.	9,634	9,428	9,960	10,216	9,997	10,562	572	663	711	9,644	9,334	9,851
Nov.	8,838	8,298	8,737	9,372	8,800	9,265	466	610	786	8,906	8,190	8,479
Dec.	8,416	8,119	8,166	8,925	8,610	8,659	607	464	459	8,318	8,146	8,200
Jan.	8,476	8,649	8,818	8,989	9,171	9,351	548	471	436	8,441	8,700	8,915
Feb.	7,757	8,025	8,063	8,226	8,510	8,550	698	557	571	7,528	7,953	7,979
Mar.	8,951	8,320	8,764	9,492	8,823	9,293	612	740	441	8,880	8,083	8,852
Apr.	8,244	8,269	9,002	8,742	8,769	9,546	802	478	821	7,940	8,291	8,725
May	8,516	8,514	8,596	9,030	9,028	9,115	853	485	725	8,177	8,543	8,390
June	8,440	7,682	8,552	8,950	8,146	9,068	671	309	607	8,279	7,837	8,461
July	8,432	8,504	8,918	8,942	9,018	9,457	947	439	...	7,995	8,579	....
Aug.	9,522	8,881	....	10,098	9,418	9,007 ^a	698	499	...	9,400	8,919	....
July-June ..	104,638	104,448	105,330	110,963	110,761	111,695	7,172	7,163	6,947	103,790	103,598	104,748

* Reported production and trade data from U.S. Department of Commerce, *Wheat Ground and Wheat Milling Products*, and *Statement No. 3009*. Total production and net retention are our estimates.

^a Preliminary.

TABLE VII.—INTERNATIONAL SHIPMENTS OF WHEAT AND FLOUR, WEEKLY FROM MAY 1941*

(Million bushels)

Week ending	Total ^a	Shipments from							Shipments to Europe				To ex-Europe		
		North America	Argentina ^b	Australia ^c	South Russia	Danube	India	Other countries	Total ^a	United Kingdom	Orders	Continent	Total ^a	Brazil	Others
May 3	10.87	8.83	2.04	...	.00	.00	...	.00	9.40	...	...	...	1.47	...	...
10	12.35	8.62	3.73	...	.00	.00	...	.00	10.47	...	...	...	1.88	...	...
17	12.25	9.59	2.66	...	.00	.00	...	.00	10.71	...	...	...	1.54	...	...
24	9.52	7.12	2.40	...	.00	.00	...	.00	7.50	...	...	...	2.02	...	...
31	8.68	5.78	2.90	...	.00	.00	...	.00	6.73	...	...	...	1.95	...	...
June 7	7.22	4.99	2.22	...	.00	.00	...	.00	6.15	...	...	...	1.07	...	...
14	6.42	5.23	1.19	...	.00	.00	...	.00	5.06	...	...	...	1.36	...	...
21	8.51	5.98	2.53	...	.00	.00	...	.00	6.45	...	...	...	2.06	...	...
28	7.01	5.20	1.81	...	.00	.00	...	.00	5.55	...	...	...	1.46	...	...
July 5	8.83	7.11	1.72	...	.00	.00	...	.00	7.99	...	...	...	.84	...	...
12	8.14	6.59	1.55	...	.00	.00	...	.00	6.63	...	...	...	1.51	...	...
19	7.53	5.02	2.51	...	.00	.00	...	.00	5.76	...	...	...	1.77	...	...
26	6.10	4.55	1.55	...	.00	.00	...	.00	4.65	...	...	...	1.45	...	...
Aug. 2	6.98	4.74	2.24	...	.00	.00	...	.00	4.30	...	...	...	2.68	...	...
9 ^d	6.44	4.22	2.22	...	.00	.00	...	.00	4.87	...	...	...	1.57	...	...
16 ^d	6.47	3.91	2.56	...	.00	.00	...	.00	4.90	...	...	...	1.57	...	...
23 ^d	6.03	4.77	1.26	...	.00	.00	...	.00	4.57	...	...	...	1.46	...	...
30 ^d	5.53	4.20	1.33	...	.00	.00	...	.00	3.81	...	...	...	1.72	...	...
Sept. 6 ^d	5.78	4.38	1.40	...	.00	.00	...	.00	4.64	...	...	...	1.14	...	...

* Here converted from data in Broomhall's *Corn Trade News*. Dots (...) indicate that data are not available.

^a Excluding Australia.

^b Including Uruguay.

^c Weekly data not received since September 2, 1939.

^d Preliminary.

WORLD WHEAT SURVEY AND OUTLOOK, SEPTEMBER 1941

TABLE VIII.—NET EXPORTS AND NET IMPORTS OF WHEAT AND FLOUR, MONTHLY FROM JULY 1940, WITH SUMMATIONS AND COMPARISONS*

(Million bushels)

A. NET EXPORTS (In parentheses, net imports)

Month or period	United States ^a	Canada ^b		Australia	Argentina	Hungary	Yugoslavia	Rumania	Turkey
		A	B						
July	3.31	13.26	12.05	....	13.51	} 4.23 }	.25	.12	.01
Aug.	2.69	13.99	11.56	....	10.66		.02	.03	.04
Sept.	2.39	11.98	9.62	....	7.56		.04	.00	.04
Oct.	3.81	13.03	10.81	....	6.58		...	.00	.01
Nov.	3.51	20.35	13.71	....	7.01		...	.00	.01
Dec.	1.92	13.32	8.95	....	5.57		...	.00	.00
Jan.	1.31	6.48	15.22	....	3.81		...	.00	.00
Feb.	2.05	12.19	18.11	....	5.51	...	.00	.00	
Mar.	3.41	14.14	21.50	....	7.89	...	...	...
Apr.	4.16	24.15	30.76	....	11.96	...	...	...
May	2.42	35.66	36.81	....	11.56	...	...	...
June	1.25	30.99	31.08	....	7.91	...	...	...
July ....	....	27.99	22.29	....	....	...	...	...
Aug.-July									
1940-41	33.00	224.27	230.42	90.00	95.00	...	.10	.10	.10
1939-40	44.09	207.45	192.67	86.00	179.92	39.00	9.82	31.08	2.34

B. NET IMPORTS (In parentheses, net exports)

Month or period	Greece	Portugal	Egypt	Iraq	China	Cuba ^c	Brazil	Uruguay	New Zealand
Aug.	1.02	.00	...	(.03)	1.40	.29	} 13.38 }	.00	.34
Sept.47	...	(.00)	1.20	.32		.05	.31
Oct.	} 2.75 }	...	(.00)	2.91	.42		...	.13
Nov.	(.00)	2.72	.41		} .50 }	.18
Dec.03	2.91	.44			.09
Jan.04	...	.02	4.28	.45		} 4.38 }	.16
Feb.	3.00	.80			...	.03
Mar.	2.53 ^d	.25	} 5.03 }		.08
Apr.	2.63 ^d	.50		...	.03
May	3.17 ^d	.52		...	.04
June	3.22 ^d	.33	...	...
July41	...	...
Aug.-July									
1940-4105	32.00	5.14	33.00	...	1.50
1939-40	12.01	.92	(.46)	(2.24)	16.93	5.03	32.69	(2.88)	1.31

* Data from official sources and International Institute of Agriculture. Dots (...) indicate that data are not available. Official trade data no longer published by the United Kingdom, Eire, France, Italy, Germany, Czechoslovakia, Switzerland, Belgium, Netherlands, Denmark, Norway, Sweden, Spain, Finland, Poland, USSR, Bulgaria, Morocco, Algeria, Tunis, India, Japan, Manchukuo, Syria and Lebanon, and South Africa. Figures in italics are our approximations.

^a Derived by subtracting imports of wheat and flour for consumption from total domestic exports of wheat and flour plus flour shipments to possessions (our approximations of shipments to possessions from April 1941). This series includes grain imports for milling in bond and exports of flour milled from foreign as well as from domestic grain. Flour is converted to grain equivalent at 4.7 bushels per barrel.

^b Series A (carried previously) shows total customs exports of wheat and flour minus customs imports of wheat and flour. Series B is derived by subtracting customs im-

ports of wheat and flour from the total of overseas clearances of Canadian wheat grain plus customs exports of Canadian flour plus United States imports of Canadian wheat for consumption and for milling in bond. Flour is converted to grain equivalent at 4.5 bushels per barrel. For a description of the difference between customs exports and overseas clearances of wheat, see Canada, Dominion Bureau of Statistics, *Monthly Review of the Wheat Situation*, Feb. 23, 1940, p. 3.

^c Gross imports of flour from the United States.

^d Gross imports.

TABLE IX.—WHEAT DISPOSITION ESTIMATES, ANNUALLY FROM 1936-37*

(Million bushels)

Year	Domestic supplies			Domestic utilization				Surplus over domestic use ^c	Net exports	Year-end stocks
	Initial stocks	New crop	Total	Milled (net)	Seed use	Balancing item ^e	Total ^b			
A. UNITED STATES (JULY-JUNE)										
1936-37.....	142 ^d	627	769 ^e	471	97	+141	709	60	(23) ^f	83
1937-38.....	83	876	959	468	94	+137	699	260	107	153
1938-39.....	153	932	1,085	475	75	+174	724	361	109	252
1939-40.....	252	751	1,003	472	73	+129	674	329	47	282
1940-41 ^g	282	817	1,099	475	75	+129	679	420	30	390
1940-41 ^h	282	817	1,099	476	75	+129	680	419	32	387
1941-42 ^h	387	958	1,345	475	68	+132	675	670	...	...
B. CANADA (AUGUST-JULY)										
1936-37.....	108	219	327	44	34	+21	99	228	195	33
1937-38.....	33	180	213	43	33	+26	102	111	87	24
1938-39.....	24	360	384	47	35	+42	124	260	165	95
1939-40.....	95	521	616	49	36	+51	136	480	207	273
1940-41 ^g	273	551	824	43	29	+72	144	680	190	490
1940-41 ^h	273	551	824	42	30	+80	152	672	224	448
1941-42 ^h	448	306	754	44	31	+74	149	605	...	...
C. AUSTRALIA (AUGUST-JULY)										
1936-37.....	43	151	194	32	15	+ 4	51	143	102	41
1937-38.....	41	187	228	30	15	+ 7	52	176	126	50
1938-39.....	50	155	205	31	14	+14	59	146	96	50
1939-40.....	50	210	260	33	13	- 2	44	216	86 ⁱ	130
1940-41 ^g	125	84	209	32	12	+15	59	150	80	70
1940-41 ^h	130	83	213	32	13	+ 8	53	160	90 ⁱ	70
1941-42 ^h	70	150	220	32	13	+10	55	165	...	...
D. ARGENTINA (AUGUST-JULY)										
1936-37.....	60	250	310	67	25	+11	103	207	162	45
1937-38.....	45	208	253	71	25	+13	109	144	72	72
1938-39.....	72	379	451	74	21	+ 4	99	352	122	230
1939-40.....	230	120	350	73	21	+ 1	95	255	180	75
1940-41 ^g	75	271	346	74	21	+ 6	101	245	90	155
1940-41 ^h	75	271	346	74	21	-19	76	270	95	175
1941-42 ^h	175	215	390	74	21	+ 5	100	290	...	...

* Based on official data so far as possible; see WHEAT STUDIES, December 1940, Table XXX.

^a Total domestic utilization minus quantities milled for food and used for seed.^e Not including net imports.^f Net imports.^b Total domestic supplies less surplus over domestic use.^g Estimates as of May 1941.^c Summation of net exports and year-end stocks.^h Estimates as of September 1941.^d Including new-crop wheat in some positions.ⁱ Our approximation.

TABLE X.—EUROPEAN DOMESTIC WHEAT PRICES, AUGUST 1941, WITH COMPARISONS*

(Indicated currency per quintal; except as noted for the U.K.)

August	United Kingdom (<i>shillings per cwt.</i>)		Germany ^a (<i>RM</i>)	France ^a (<i>francs</i>)	Italy ^a (<i>lire</i>)	Bulgaria ^a (<i>leva</i>)	Rumania (<i>Braila</i>) (<i>lei</i>)	Hungary (<i>Budapest</i>) (<i>pengő</i>)	Yugoslavia (<i>northern</i>) (<i>dinars</i>)
	Standard	Gazette							
A. DOMESTIC CURRENCY									
1937	10.0	9.4	19.9	180	125	320	474	20.5	173
1938	10.0	6.8	19.7	199	135	340	400	20.2	158
1939	10.0	4.3	19.6	198 ^b	135	350	420 ^a	19.7	148
1940	14.5	13.1	19.6	214 ^b	155	430	750 ^a	23.0 ^c	313
1941	14.5	14.9	20.4	290 ^b	155	...	1,100 ^a	30.0 ^c	...
B. DEFLATED									
1937	10.2	9.6	25.5	188	130	500	592	26.3	231
1938	11.5	7.8	25.6	191	134	507	519	23.5	209
1939	11.6	5.0	25.1	185	134	538	500	22.9	195
1940	11.8	10.6	24.2	... ^o	... ^o	558	551	22.1	261
1941 ^d	10.9	11.2	24.9	... ^o	... ^o	...	780	26.1	...

* Price data from official sources, the International Institute of Agriculture, and (1941) foreign news sources. Prices are deflated by general indexes of wholesale prices (1929 = 100) from the *Federal Reserve Bulletin*, and the League of Nations *Monthly Bulletin of Statistics*.

^a Fixed price to producers; in Germany for Berlin area.

^o Wholesale price index no longer available.

^b Less a tax of from 14 to 49 francs per quintal.

^d Latest available index used.

TABLE XI.—SELECTED WHEAT PRICES, WEEKLY FROM MAY 1941, WITH COMPARISONS*

(U.S. cents per bushel)

Week ending	United States							Canada (Winnipeg) ^a				Argentina (B.A.) ^a		Australia f.o.b.
	Futures (Chicago)		Cash					Futures		Cash		Futures	Cash	
	July	Sept.	Basic cash (Chl.)	No. 2 H.W. (K. C.)	No. 2 R.W. (St. L.)	No. 1 Dk.N.S. (Mnpls.)	Soft White (Port.) ^b	July	Oct.	Wtd. aver- age	No. 3 Man.	July	78-kilo	
1940														
May 4..	106	106	108	105	110	109	85	82	84	80	76	81	77	69
June 1..	83	83	85	82	88	86	72	68	70	66	61	69	68	68
July 6..	76	77	78	72	77	80	73	65	67	64	58	75	74	67
Aug. 3..	...	76	76	71	77	78	74	..	67	64	58	72 ^o	70	67
Sept. 7..	...	75	76	74	81	80	74	..	67	65	61	65 ^o	66	67
1941														
May 3..	90	90	93	87	93	95	76	70	..	67	65	56	55	69
10..	95	96	98	91	97	98	78	70	..	67	65	55	55	69
17..	97	98	100	92	98	99	81	70	..	68	65	55	55	69
24..	99	100	99	93	101	100	82	70	..	67	64	55	55	69
31..	95	97	96	88	95	96	80	70	..	68	65	55	55	69
June 7..	98	100	99	93	96	98	84	70	..	68	65	55	55	69
14..	101	103	102	98	101	102	90	70	..	69	65	55	55	69
21..	100	102	101	94	100	100	89	70	..	69	65	55	55	69
28..	104	105	104	98	102	104	90	70	..	69	65	55	55	69
July 5..	104	105	105	98	102	102	89	67	..	65	62	55	55	69
12..	105	107	106	99	104	104	88	69	71	68	64	55	55	69
19..	102	104	103	97	103	99	84	69	71	68	64	55	55	69
26..	...	105	103	98	103	98	85	68	70	67	64	55 ^o	55	69
Aug. 2..	...	107	104	101	105	101	88	..	68	65	61	55 ^o	55	69
9..	...	112	108	106	109	107	95	..	68	66	62	55 ^o	55	69
16..	...	111	108	107	109	106	94	..	69	66	63	55 ^o	55	69
23..	...	112	110	108	108	106	95	..	68	66	62	55 ^o	55	69
30..	...	113	113	108	111	106	95	..	66	64	61	55 ^o	55	69

* For methods of computation see WHEAT STUDIES, December 1940, XVII, 217. For the United States, prices are from *Daily Trade Bulletin* and *Foreign Crops and Markets*; for Canada, *Grain Trade News* and *Canadian Grain Statistics*; for Buenos Aires, *Revista Oficial* and *Daily Trade Bulletin*; for Australia, Broomhall's cables.

^a Converted at constant official exchange rate.

^o September future.

^b Western White (Seattle) in May 1940.

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