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# W H E A T   S T U D I E S

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## WORLD WHEAT SURVEY AND OUTLOOK

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*Helen C. Farnsworth and Bernhardt M. Jensen*

Of the record "world" wheat supplies of 1941-42, roughly half was concentrated in the four chief exporting countries—the largest proportion since 1928-29. In contrast, domestic wheat supplies in Continental Europe were relatively the smallest in two decades. This abnormal distribution of supplies was associated with storage congestion and other problems of surplus in the four exporting countries and with an increasingly serious bread position in Continental Europe. Limited by various factors associated with the war, world wheat and flour exports in August-December were smaller this year than last, and perhaps the smallest in the present century. The imports of the United Kingdom appear to have been of about average size, but those of the Continent were far below average and insufficient to cover current needs. Oriental imports, already reduced, ceased on the outbreak of war in the Pacific. International trade in wheat in the latter half of the crop year is expected to be similarly restricted.

Within Continental Europe ex-Russia, there has been wide variation in the bread and general food positions of the different countries. Only Switzerland and Portugal have continued to sell bread without ration cards. These two countries, Germany, Denmark, Sweden, and the Netherlands appear so far to have enjoyed the best food conditions outside of the Danube basin. In contrast, famine has existed in the large cities of Greece and Poland, and many persons in Spain, Belgium, France, and Finland have suffered chronic hunger. Generally throughout Continental Europe, bread rations were lower in December 1941 than a year earlier, and in several countries they have been reduced since last spring.

In both exporting and importing countries, wheat prices have recently been either fully controlled or heavily influenced by government regulations. Prices of wheat in domestic currencies have generally been higher this year than last—in the United States, sharply higher—but in many countries the purchasing power of wheat over other commodities has fallen.

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# WORLD WHEAT SURVEY AND OUTLOOK

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*Helen C. Farnsworth and Bernhardt M. Jensen*

The world wheat supply position for 1941-42 now appears much as it did in mid-September when our last "Survey" was published. The aggregate supplies of the four major exporters are believed to have been something like 225 million bushels or 9 per cent larger than the peak supplies of the preceding year. In Europe ex-Russia, Britain's wheat supplies from new crop and inward carryover were unprecedentedly large, whereas supplies on the Continent were notably small and probably a little smaller even than in 1940-41. Of the record world supplies of the current year, roughly half was held by the four chief exporting countries—the largest proportion since 1928-29, when wheat could flow freely from exporting to importing areas.

The lack of similar freedom in international trade in wheat this year has greatly augmented the wheat-surplus problems of the chief exporting countries and the shortages endured in Europe and other deficit regions. In August-December 1941, world exports were probably smaller than in the corresponding period of any year since at least 1917. They apparently fell almost 90 million bushels or nearly 35 per cent short of the low average for the last five prewar years. Overseas exports of wheat to Europe went predominantly to the United Kingdom. On the Continent only three of the four remaining "neutral" countries, Spain, Portugal, and Switzerland, were authorized to receive limited supplies of wheat through the British blockade, though small shipments also went to Greece in the form of British-Turkish relief. For the Continent ex-Danube ex-Russia these small imports were supplemented by small quantities of wheat from the Danube

basin and French North Africa. The greatest unfulfilled need for imports of bread grain was in Greece and Poland, but less critical shortages were evident in Spain, Belgium, France, Finland, Norway, and parts of Yugoslavia. Non-European imports were more or less similarly curtailed, not by naval blockade but by exchange controls, "frozen" exchange funds, import restrictions, shortage of shipping, and high freight rates. The imports of China, Manchuria, and Japan were the most strikingly reduced, and these ceased after the outbreak of war in the Pacific.

The huge stocks of wheat dammed up in North America, Australia, and Argentina were in large part under government control, and their full size was nowhere reflected in the level of wheat prices.

In the United States the government's wheat-loan program, and bullishness engendered by rising commodity prices and legislative developments, not only supported Chicago prices at the loan basis but stimulated advances to levels not reached since 1937. War developments, including the entry of the United States into the war, had little sustained effect. As prices rose, increasing attention was given to the possibility of establishing price ceilings for wheat. In December, the Commodity Credit Corporation announced a general sales program for its pooled holdings, which was so operated after mid-January as to impose ceilings on wheat prices at 16 cents above loan rates. At the end of January Congress adopted a general price-control measure, which authorized the Office of Price Administration to establish ceilings on individual agricultural prices at the highest values calculated according to four alternative bases. For wheat, the current permissible

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ceiling would work out to about \$1.60 at Chicago, on the basis of 110 per cent of parity.

The volume of exports in the remaining months of the crop year will be heavily influenced by two unpredictable elements—the course of the war, especially on the two oceans, and decisions of governmental officials with regard to the use of scarce shipping for the maintenance of heavy wheat reserves in Britain. Despite these uncertainties, it seems clear that world wheat exports will be considerably smaller in the present crop year than they were in 1940–41. At present we are inclined to put the probable reduction at 75 to 100 million bushels, implying a world export total of 400 to 425 million. Within this range, world exports of wheat and flour would be the smallest since 1896–97.

“World” wheat stocks seem likely to be about 225 million bushels larger on August 1, 1942 than they were a year earlier. A large increase in the United States is assured, and increases in the two Southern Hemisphere exporters will considerably more than offset a prospective reduction in Canada. In Europe, wheat carryovers will presumably be down to minimum levels in most countries, though Britain and Germany are both expected to hold substantial, if not heavy, reserves.

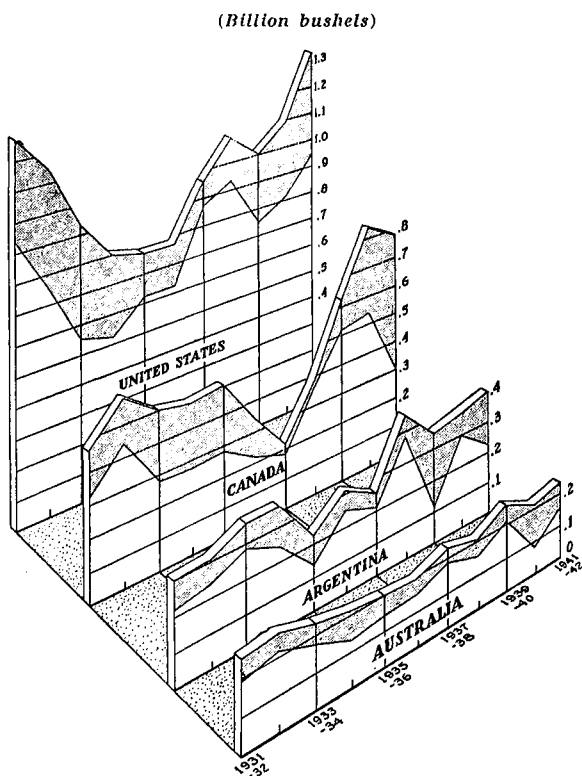
#### SUPPLIES OF THE MAJOR EXPORTERS

**Wheat crops.**—The aggregate wheat crop of the four major exporters in 1941 is now estimated at 1,635 million bushels (Table I), some 100 million below that of 1940, but still 150 million above the 1931–40 average. Only the United States secured a large harvest—roughly equalled in three previous years but appreciably exceeded only in 1915. The crops of Australia and Argentina were mediocre, while Canada’s crop was not much larger than the average harvest in the disastrous drought years of 1933–37 (Chart 1).

Since last September, when our previous “Survey” was published, the official crop estimate for the United States has been reduced by some 12 million bushels to 946 million, and that for Canada has been lowered 7 million bushels to 299 million. In contrast, the preliminary official estimates recently published for Australia and Argentina are in the

aggregate 25 million bushels higher than the approximations we accepted for the growing crops of those countries last September.

CHART 1.—CROPS AND TOTAL SUPPLIES IN THE FOUR CHIEF EXPORTING COUNTRIES, 1931–32 TO 1941–42\*



\* Data for recent years mainly in Table VIII. Shaded portions represent initial wheat stocks as of about August 1.

The first official Australian estimate (issued early in November) indicated an outturn of 166 million bushels, or roughly double the poor harvest of 1940. Recently this estimate was revised to 162 million bushels. At this figure, the 1941 crop coincides reasonably well with the crop goal incorporated in the Wheat Industry Stabilisation Scheme adopted by the Australian government in November 1940.<sup>1</sup> The seeded area for the 1941 crop was officially estimated at 12.65 million acres. This was slightly larger than the acreage sown for the preceding crop, but

<sup>1</sup> The official program is based upon the assumption of a *marketed* crop of 140 million bushels, which implies a total production of about 160 million, allowing for normal farm retention. This year the board anticipates deliveries of 145 million bushels.

.7-.8 million acres smaller than the average plantings of the three or four preceding years, which the Wheat Industry Stabilisation Board had advised farmers not to exceed.<sup>1</sup> The average yield this year, about 12.9 bushels per sown acre, was close to the long-time average and nearly double the low yield of 6.6 bushels in 1940. Seeding was delayed and early development was hampered by dry weather that extended into June. Thereafter, rains were reasonably adequate except in New South Wales, where the crop suffered from insufficient moisture throughout the season. Late November rains in Victoria and South Australia apparently caused appreciable damage to the crops, though the extent of the damage is not yet clear.

The Argentine crop made an excellent start on an area of 18.0 million acres, roughly half a million larger than in 1940. But severe frosts in September resulted in substantial losses in the north, where the frosts were followed by a spell of dry weather. In late October, frosts again threatened the crop, but little damage was done, partly because the frosts were light and partly because rains fell soon thereafter. In November, the condition of the growing wheat was markedly improved by beneficial rains; and the first official estimate of the crop (issued December 12) was 220 million bushels. This figure was raised to 228 million by the second official estimate, released January 21. The latter implied an average yield of approximately 12.7 bushels per seeded acre—a yield appreciably above average, but far below the 17.1 bushels indicated by the revised estimate of the bumper harvest of 1940.

**Total supplies (including August 1 stocks).**

—The four major exporters, individually and as a group, continue to hold burdensome wheat surpluses. Their aggregate supplies

(new crops plus old-crop stocks as of about August 1) totaled 2,747 million bushels for 1941-42, about 225 million more than the previous high record of 1940-41. During the past few years the supplies of the major exporters have constituted an increasingly large proportion of world total supplies. This is indicated in the following tabulation, in million bushels.

Area	1935-39 av.	1940	1941
World ex-Russia . . . . .	4,738	5,328	5,480
Four exporters . . . . .	1,867	2,522	2,747
Percentage in four exporters . . . . .	39.4	47.3	50.1

Of the individual nations, only the United States had wheat supplies of record size this year (Chart 1). These exceeded the supplies of 1931-32 (previously the largest) by 88 million bushels, or 6 per cent. The inward carry-over of Canada was far greater than that of any earlier year and more than half again as large as the new harvest. Together these added to a total unsurpassed in any year except 1940-41. Unlike the other major exporters, Australia's stocks as of August 1 were little more than half those of the previous year, but her total supplies were some 20 million bushels larger. August 1 stocks in Argentina were 100 million above those of the preceding year; combined with the good new harvest they brought total supplies to a level previously exceeded only in 1928-29 and 1938-39.

**Marketings and visible supplies.**—Weekly marketings of Canadian wheat were uncommonly small in August-December 1941, reflecting the small new crop and also a slow rate of delivery. With a crop now estimated at 279 million bushels, Western Canada apparently has only about 230 million bushels of wheat available for both marketing and farm carryover on July 31. Total deliveries in that area are therefore likely about to equal the quota of 223 million bushels established under the government's wheat program for 1941-42.

Despite unfavorable harvest weather, rapid marketing<sup>2</sup> in the Prairie Provinces this year began on August 22, as it had in 1940 when harvest weather was excellent. In six of the preceding eight years, however, rapid market-

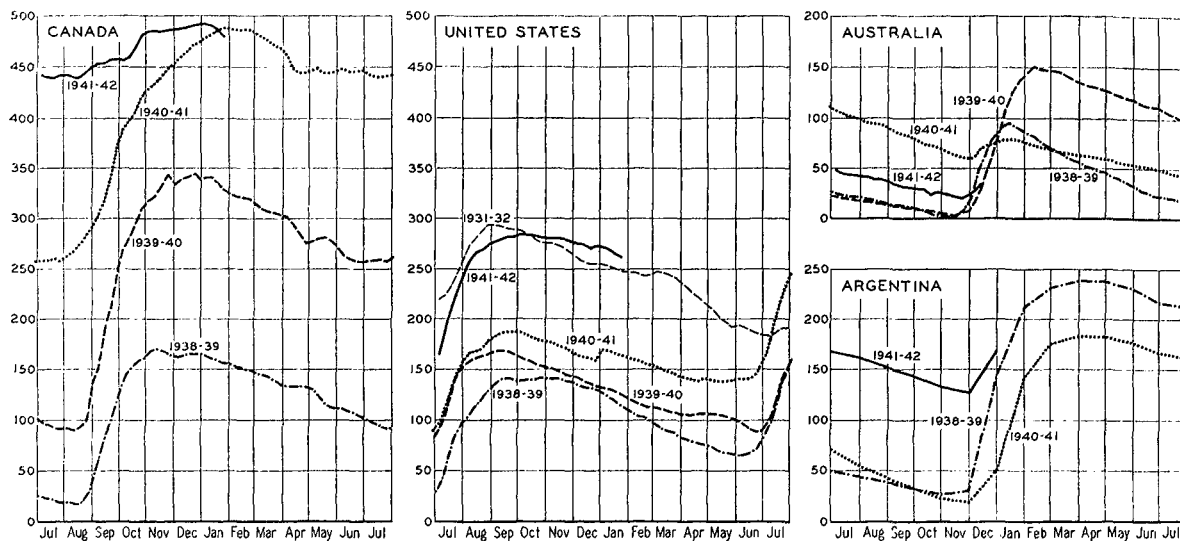
<sup>1</sup> See Helen C. Farnsworth, "The World Wheat Situation, 1940-41: A Review of the Crop Year," WHEAT STUDIES, December 1941, XVIII, 122-23.

<sup>2</sup> The beginning of rapid marketing is defined as the date on which daily deliveries reach 0.5 per cent of the estimated seasonal total; the end of rapid marketing occurs when daily deliveries fall below 0.5 per cent of the seasonal total. See Holbrook Working, "Price Effects of Canadian Wheat Marketing," WHEAT STUDIES, October 1937, XIV, 52.

ing began earlier. The initial 25 per cent of the estimated total for marketing was not delivered until October 9, after an unprecedented period of 48 days instead of an average of 24 days. Deliveries in this period, rarely less than 5 per cent weekly, averaged but 3 per cent this year as compared with the low rate of 4.8 per cent in 1940 and a normal rate of

For the third consecutive year, the Canadian visible stood at a record high level during August–December (Chart 2). When new-crop deliveries started, the visible was already about 440 million bushels. A brief upward movement was halted in the neighborhood of 460 million bushels during late September and early October when poor weather delayed de-

CHART 2.—VISIBLE SUPPLIES OF WHEAT, 1941–42, WITH COMPARISONS\*  
(Million bushels)



\* Data for certain series summarized in Table IV.

about 7 per cent. But while in 1940 marketings in the second 25 per cent period fell to a record low of 2.7 per cent weekly, 1941 marketings in the same period were 4.1 per cent—a substantial increase over those in the initial period. When the end of rapid marketing occurred December 12, an unusually low proportion—59 per cent—of the supplies available for marketing had been delivered.

Congestion of storage facilities, as last year, had much to do with the slow rate of marketing. But marketing quotas were less restrictive this year than last, both because of the reduced yields and the earlier dates at which the quotas were enlarged and finally removed.<sup>1</sup> An additional reason for continued farm holding may have been the hope or expectation of farmers that the Canadian government would raise prices in the near future.

liveries; but by November 1 the Canadian visible had reached 485 million. Thereafter, with weekly exports and mill purchases roughly offsetting current farm deliveries, the visible increased slowly to a peak of 492 million bushels on December 27. The visible then began to decline and by January 24 had fallen below that of the preceding year.

July–December marketings of United States wheat, while large in an absolute sense, were

<sup>1</sup> The general quota at the beginning of the season was set this year, as last, at 5 bushels per seeded acre. As before, the CWB raised quotas at individual points above the general minimum as soon as storage facilities warranted. This season the general quota was raised to 8 bushels per acre on October 8 and to 12 bushels on October 16. By mid-December, all quota restrictions had been removed. For the crop of 1940-41, a minimum quota of 12 bushels per acre was not set until December 13, and quota restrictions were not finally removed until April 21.

small considering the size of the 1941 crop—particularly since deliveries in the early season contained substantial amounts of old-crop wheat. In the first few months deliveries were retarded, in part by storage tightness and railroad embargoes, in part by bullish legislative developments at Washington, and in part by the availability of government loans on farm-stored wheat. The influence of the loan program and legislative news from Washington continued important. In reflection of these factors, farm stocks of wheat on January 1, 1942 were abnormally large in relation to the total farm supplies that had been available at the beginning of the season.

The United States visible rose rapidly during most of July, partly as a result of the movement to Northwestern terminal markets of recently redeemed 1940 loan wheat. But the more restricted marketings of the next two months were reflected in a tapering off of the upward movement of the visible supply during August–September. This year commercial wheat stocks reached their peak at 286 million bushels on October 4. While this was more than half again as large as the highest point reached in 1940–41, it was slightly below the record peak in 1931–32.

**Stocks position on January 1.**—In North America, January 1 wheat stocks were larger than ever before, though the two chief nations fared differently. Reflecting the bumper crop and huge carryover of 1941, stocks in the United States were at a new record level—approximately 280 million bushels higher than a year earlier. Farm stocks rose to an unprecedented total of 374 million bushels. An important factor in the financial ability of farmers to hold stocks of such magnitude was the Commodity Credit Corporation (CCC) loan program, under which 112 million bushels of wheat were reported stored on farms on December 31. In contrast, January 1 stocks in Canada were considerably—perhaps 15 per cent—below those of the previous year, though the visibles were larger than at the beginning of 1941. Canadian wheat stored in bond in the United States, roughly 31 million bushels as of January 1, was down 23 million from the level of a year before.

In the Southern Hemisphere, Australian

stocks of old-crop wheat on November 30, 1941 were significantly lower than a year earlier—on the basis of our rough approximations, probably only 35 to 40 million bushels as compared with about 85 million in 1940. Australia's exportable wheat supplies on January 1, 1942, however, were probably about half again as large as those of the year before and larger than in at least four of the five years preceding. In Argentina, the December 31 wheat carryover seems likely to have been in the neighborhood of 120 million bushels, or roughly about the same as the huge carryover of 1939. Added to the moderate new crop, these large stocks brought Argentina's total wheat supplies to an unusually high level on January 1, 1942—a level exceeded only in 1928–29 and 1938–39, when extremely large crops were harvested.

**Crop quality.**—The large United States wheat crop of 1941 was generally of good average quality, though it tested lower than the 1940 crop. Hard red winter wheat graded 58 per cent No. 2 or better—about average, but materially below the 70 per cent for the same grades in 1940. Protein content was about average and somewhat higher than in the previous year. Both soft red winter and hard red spring graded lower than in 1940, though still somewhat above average. Harvest rains resulted in unusually high moisture content for both types, however, the former grading 24 per cent tough, and the latter 7 per cent, as compared with averages of 17 and 1 per cent respectively in 1934–40. The 1941 crop of durum graded exceptionally low, largely because of damage from the harvest rains. Far Western wheats were considerably better than in 1940.

Inspections of Canadian wheat in 1941–42 do not supply a completely adequate picture of the current crop, since much old-crop wheat was inspected along with the new. However, it is certain that the 1941 harvest proved to be of higher quality than had earlier been expected in view of the rainy harvest season. Through December, 82.3 per cent of inspections graded No. 3 Northern or better, as compared with 87.8 per cent in the same period last year and 82.4 per cent on the average in 1935–39. Tough and damp wheat in 1941 rep-



resented 12.6 per cent of the inspections—by far the largest proportion since 1931–32. Protein content this year averaged the highest on record—15.1 per cent.

#### PRICE DEVELOPMENTS

**United States.**—Interest in government proposals and actions affecting agriculture continued during the current crop year to outweigh all other considerations in the determination of wheat prices in the United States. Even in the face of record stocks (p. 193) and limited export markets (p. 203), prices advanced to levels previously unequalled since 1937, and “free wheat” continued to be somewhat scarce, primarily because of the loan program.

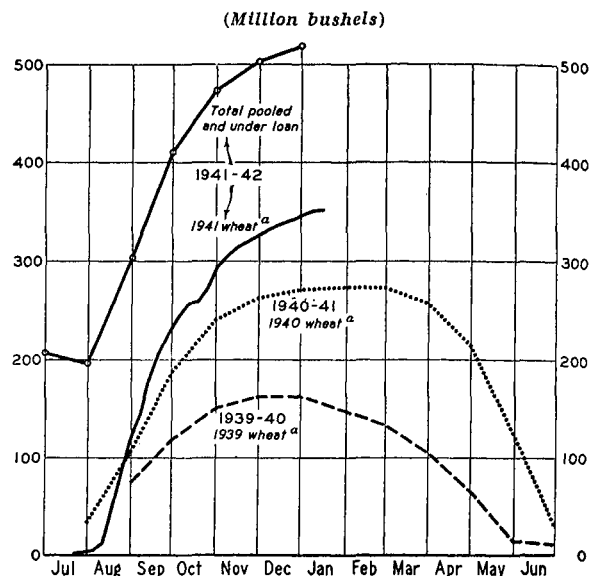
On January 17 (14 days before the closing date for filing loan applications),<sup>1</sup> loans outstanding on 1941 wheat reached 352 million bushels (Chart 3), roughly 75 million bushels higher than the highest level of loans reported for the 1940 wheat crop. Pooled holdings of the CCC this year plus wheat under loan exceeded half a billion bushels. The contrast between the situation this year and last may be approximated by reference to Chart 3, for in 1940, resealed and pooled old-crop wheat amounted to only about 10 million bushels.

Only in the spring-wheat region of the Northwest, where much wheat was ineligible for loan because of high moisture content, was there a decline this year in the relative amount of the crop put under loan (from 54 to 44 per cent), and even there a slight absolute increase was recorded. For the country as a whole, 37 per cent of the crop was placed under loan. The largest percentage increase was in the Pacific Northwest, where the percentage under loan rose from 28 to 44.

Prices of wheat futures in the United States during August–January corresponded rather closely with the Moody index of sensitive commodity prices (Chart 4). Spurred on through August by general anticipation of inflation, as well as by the hopes of still more liberal farm legislation, the May future at Chicago moved closer to the loan rate plus costs—about

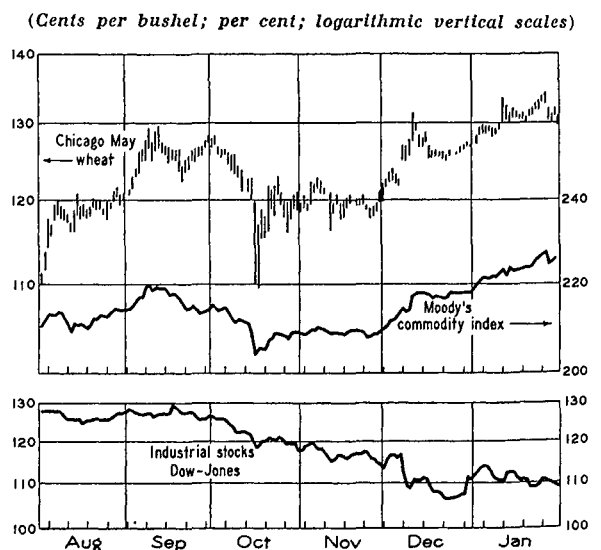
<sup>1</sup> On December 13, the closing date for filing applications for loans on spring wheat was moved from December 31 to January 31.

CHART 3.—NEW-CROP WHEAT UNDER LOAN FROM AUGUST 1939, AND WHEAT POOLED AND UNDER LOAN FROM AUGUST 1941\*



\* Loan data from weekly press releases of the U.S. Department of Agriculture (1941–42) and monthly statements of the CCC (1939–40, 1940–41, and “total” for 1941–42).  
 \* Wheat of designated crop under loan.

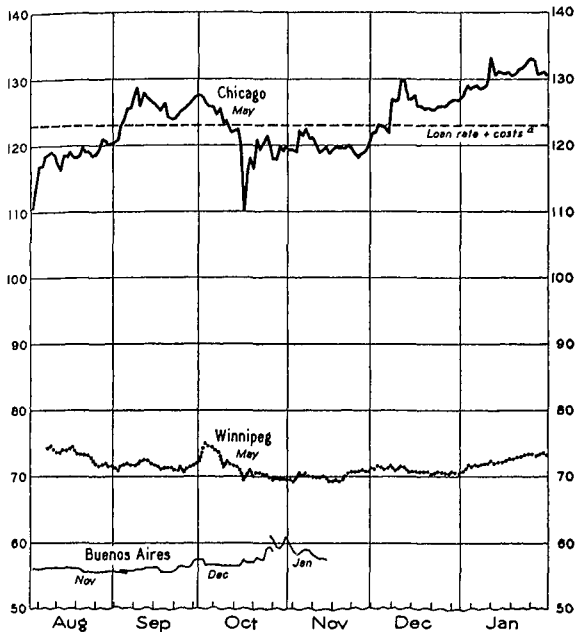
CHART 4.—CHICAGO MAY WHEAT PRICES AND INDEX NUMBERS OF PRICES OF SENSITIVE COMMODITIES AND STOCKS, DAILY FROM AUGUST 1941\*



\* 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.

\$1.23 (Chart 5). The presidential veto (August 25) of the bill to freeze CCC stocks of wheat and cotton failed to develop strong bearish tendencies. Passing the loan rate plus

CHART 5.—WHEAT FUTURES PRICES, DAILY FROM AUGUST 1941, WITH COMPARISONS\*  
(U.S. cents per bushel)



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

\* Figure commonly accepted as equivalent to loan rate at Chicago on wheat deliverable on Chicago futures plus approximate costs involved in carrying wheat to May 1.

costs on September 4, the May future continued to climb to a peak of about \$1.29 on September 9. Despite the premiums above the loan rate then existing, liquidation of loans was small, and farmers persisted in their policy of holding. After reacting about 5 cents per bushel, in terms of closing prices, futures recovered during the last eight days of the month to near their previous peak. Moderate redemptions of pledged wheat occurred on the bulge, as evidenced by declines in five states of the quantities of 1941 wheat under loan.<sup>1</sup>

From the end of September, prices moved downward. Depressing influences included tight storage conditions, which encouraged the opinion that farmers would be forced to sell more freely, and heavier marketings of new-crop spring wheats, particularly of lots which were too damp to be eligible for loans.

Additional factors were a growing appreciation of the strength of the anti-inflation group in the Administration, and renewed fears that the CCC might unload its holdings in a move to control prices. In mid-October unfavorable war news from the Russian front and the overthrow of the Konoye cabinet may also have played some part.

Once it was apparent that the loan rate plus costs had not put a floor under prices, a short-lived panic ensued. It culminated in the extreme break of October 16, when prices dropped 10 cents per bushel—stopped only by the 10-cent limit on daily price changes. Early next day, the May future fell still lower, but it quickly recovered, and closed at \$1.15½. At the bottom of the decline, the price of the May future was more than 13 cents below the loan rate plus costs.

No doubt much of the selling on the main break was attributable to the execution of stop-loss orders. Additional pressure may have resulted from advance rumors of the intention of the Department of the Treasury to forbid nationals of the credit-blocked nations to use their frozen funds for the purchase or sale of commodity futures.<sup>2</sup> Apparently a considerable investment in such commodities existed, and the wave of sudden liquidation which occurred simultaneously in many commodity markets<sup>3</sup> lends support to this belief.

More remarkable in some respects than the sharp price decline in mid-October was the subsequent rapid recovery. Within four days the May future was again above \$1.20 per bushel. For some six weeks thereafter, prices continued with moderate variations about that level—a tribute to the supporting influence of the loan program.<sup>4</sup>

<sup>1</sup> Because of delays in reporting loans, these declines were shown in the CCC loan statement for the week ending October 18, which indicated that loans on 1941 wheat in Nebraska were reduced by more than 5 million bushels. Lesser declines were reported in Missouri, Texas, Kansas, and Oklahoma.

<sup>2</sup> This ruling was not made until October 24.

<sup>3</sup> Sharp declines occurred simultaneously in markets for grains, soybeans, hogs, lard, butterfat, cotton, cottonseed oil, and flaxseed.

<sup>4</sup> CCC announcements of programs for the sale of soft winter wheat in Missouri (November 12) and for the subsidy-sale of wheat for export (November 22) had no discernible effects upon futures prices.

On December 8, following the Japanese attack at Pearl Harbor, wheat prices jumped the full 5 cents per bushel permitted by the regulations.<sup>1</sup> Buying of futures by mills to cover extraordinarily heavy forward purchases of flour seems to have been a more prominent influence in this advance than

<sup>1</sup> The limit on daily price changes in wheat futures had been reduced from 10 cents to 5 cents per bushel on November 7 by request of Secretary Wickard.

<sup>2</sup> Some increase in flour purchases, no doubt stimulated by growing tension in the Pacific, was already evident prior to the outbreak of war. But a tremendous rush is reported to have begun Sunday afternoon shortly after the news of the attack on Hawaii became known. Buying was principally to supply the hoarding demands of small consumers and the family trade; chain stores and large bakers had apparently made their heavy buying commitments earlier (WHEAT STUDIES, September 1941, XVIII 9). Orders as a per cent of mill capacity in Kansas City and Minneapolis for the period November 22 to December 20, in successive weeks ending as indicated below, were reported by the *Northwestern Miller* as follows:

Market	Nov. 29	Dec. 6	Dec. 13	Dec. 20
Kansas City .....	29	74	202	43
Minneapolis .....	35	130	340	37

<sup>3</sup> Notice of the intention of the CCC to sell its pooled 1939 and 1940 wheat stocks inaugurated the first general sales program in the whole period of the United States wheat loan program. It was announced that the wheat would be sold at market prices, subject to a minimum offering price based on the 1941 loan rate prevailing in the given market, plus a differential (initially 15 cents per bushel) to be set twice monthly. On January 15, the differential was increased one cent, and the minimum prices so set thereafter became maximums as well, thus in effect imposing a ceiling on wheat prices. By announcement at the end of January these prices were continued in effect until February 15. All prices set under this program are "in storage," and to them must be added 1½ cents per bushel as a loading-out charge if the wheat is to be moved. By January 17, the combined sales of wheat under the various programs of the CCC amounted to almost 34 million bushels.

<sup>4</sup> Secretary Wickard announced that, in his belief, recent increases in the price of corn were not justified, and that the Department of Agriculture would use every means at its disposal to maintain reasonable prices for feed. In reaction, prices of wheat, soybeans, corn, and rye dropped sharply, the latter two the full 5-cent limit imposed on daily price changes.

<sup>5</sup> Throughout the period Canadian wheat sold at discounts substantially exceeding the 42c tariff differential, but no imports occurred after September 20, when the quota on imports of Canadian wheat for human consumption was filled (p. 202).

<sup>6</sup> See James Richardson & Sons, *Weekly Grain Letter*, Oct. 8, 1941, for comment on this point and also for an excellent discussion of the influences in the Winnipeg futures market under existing abnormal trade conditions.

speculative buying of futures.<sup>2</sup> During nearly two hours after trading commenced at Chicago on December 8, much wheat was offered for sale and trading was active in a price range of nearly 2 cents per bushel. On December 9, by special request of the Commodity Exchange Administration, the same price limits were in effect as on the previous day, and again trading was active in a price range of about 2 cents. A further sharp advance on December 11, occasioned apparently by reports that Congressional action on the price-control bill would be delayed, was followed by declines on December 13 and 17, in response to unexpected announcements of ceilings on fats and oils prices (December 13) and a new program for sale of the pooled wheat of the CCC (announced on December 16).<sup>3</sup> These declines brought prices back to the lower part of the range in which they had fluctuated during the first two days following the outbreak of war with Japan. For over a week thereafter trading was dull and price fluctuations very narrow at this level.

Following Christmas, prices resumed the general inflationary trend evidenced in most commodity markets. On January 26, a peak of \$1.33½ for the May future was reached, a level at which Chicago spot prices virtually equaled the prices set by the CCC for its pooled wheat stocks in that market. Under the sales program of the CCC then current, these offers in effect imposed a ceiling on wheat prices. A decline of 2 cents per bushel on January 28 followed a statement of policy in which Secretary Wickard decried the recent increases in the price of corn.<sup>4</sup>

**Canada.**—During most of September the price of the Winnipeg May future fluctuated narrowly at a price equivalent of about 71 or 72 U.S. cents per bushel (Chart 5, p. 197). At this level—more than 50 cents below comparable Chicago prices<sup>5</sup>—Canadian wheat seemed a good investment to some speculative traders in both the United States and Canada. Their purchases suddenly drove the May future at Winnipeg to a high of 74½ U.S. cents on October 3, but the Wheat Board apparently sold futures freely on the advance.<sup>6</sup> Prices thereafter drifted downward through the rest of October. Only a mild sympathy with the

break of October 16 in the United States was noted. Minor strengthening occurred in late November and more pronounced in January. The announcement of the new Canadian price-control plan on October 18 seems to have had no major influence on the market.

**North American spreads.**—A conspicuous feature of price spreads during September-January was the extreme weakness of cash wheats as compared with futures—a condition which eased somewhat in later months as storage facilities became less congested. The narrowing of price spreads between both the Kansas City and the Minneapolis May futures and the Chicago May (Chart 6, top section) reflects the relative easing of the storage situation in the former markets. Likewise the decline in discounts and the temporary premiums for both Kansas City<sup>1</sup> and Minneapolis cash wheat as compared with the Chicago basic cash again suggests this earlier improvement of the storage condition outside Chicago (Chart 6, bottom section). In early November, a tendency toward the more normal discounts in Kansas City was in evidence, and shortly thereafter in Minneapolis. These relative declines reflected the rapid increase in price of cash wheat in Chicago and suggested that the relative seriousness of the storage problem there was abating.

The extreme congestion of storage facilities in the early months of the crop year resulted in heavy discounts on No. 2 Hard Winter in the Chicago market (Chart 6, third section). Prior to November, this grade sold for the most part 8 to 10 cents below the May. In November, however, it rose rapidly relative to both the near and distant futures, and throughout December commanded a premium over that month's future. From December 10 through January, No. 2 Hard sold for the most part at discounts ranging from 1 to 2½ cents below the May future.

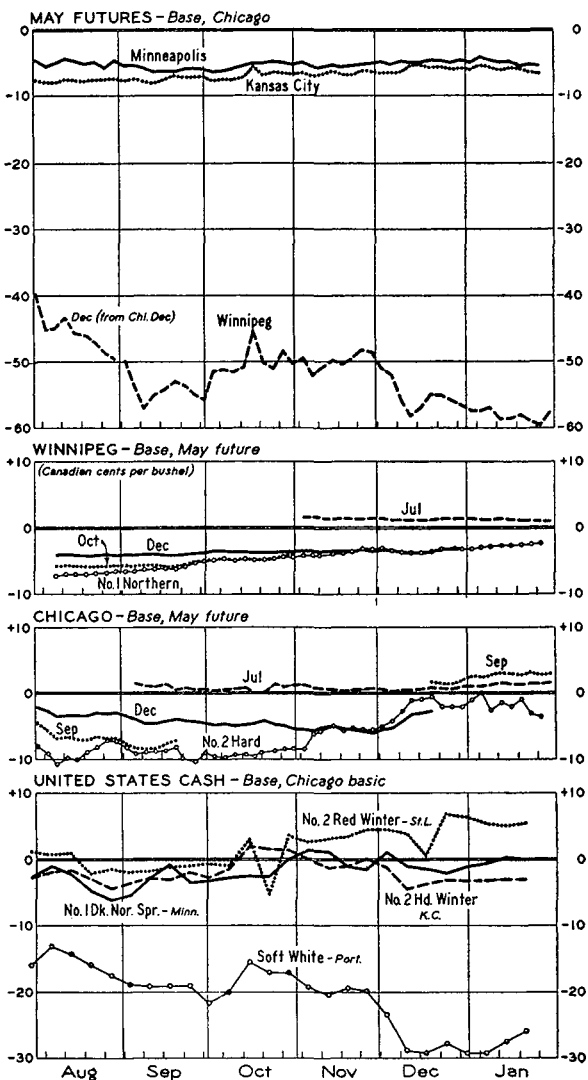
Canadian price spreads are of small interest.

<sup>1</sup> In some sections of the Southwest, prices later approached levels sufficiently high to make profitable the purchase of wheat for domestic use under the CCC export-subsidy plan, despite a penalty of 25 cents per bushel for non-export. Probably to forestall such purchases for domestic use, the plan (established Nov. 22) was modified Dec. 9, to raise the bond and penalty to 35 cents per bushel.

The narrowing between the October and December futures (Chart 3, second section) may be taken to indicate the somewhat better supply situation in the Dominion, as Canadian

CHART 6.—NORTH AMERICAN WHEAT PRICE SPREADS, FROM AUGUST 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.

export sales continued in fair amounts. The spread between the May futures in the Winnipeg and Chicago markets (Chart 6, top section) indicates little more than the course of

the Chicago May in reverse. Discounts of around 60 cents were reached in January.

Two movements of importance remain to be noted. Due to the scarcity of soft winters, No. 2 Red Winter at St. Louis shifted during the second half of October from a slight discount to a premium of 3 to 4 cents over the Chicago basic (Chart 6, bottom section). This scarcity may have been one of the factors that led the CCC to offer on November 12 to sell 2½ million bushels of its stocks of soft winters to Missouri millers.<sup>1</sup> However, the premium remained essentially unchanged until late December when it increased to 5–6 cents.

Prices in Portland were relatively weak during September, and cash wheat sold from 10 to 11 cents below the local loan rate. Export market had all but disappeared (p. 203) and shipping space for the few remaining was extremely scarce. Despite discounts of 19 to 20 cents under Chicago basic, only small shipments were made to points east of the Rockies. As usual, the greater fluctuations of the Chicago market were but dimly reflected at Portland during October, which accounts for the reduced discount evident in that month. The hope of substantial shipments to Russia under lend-lease was dampened during November. Following the outbreak of war in the Pacific, prices of soft white wheat at Portland fell to nearly 30 cents below that of Chicago basic cash. At this discount, shipments in moderate quantities were made to Kansas markets,<sup>2</sup> which had shown mild interest in Pacific Coast soft wheats throughout the season. But in the second half of January this trade declined under the pressure of higher Portland prices and increased farm and CCC sales in the Midwest.

**Southern Hemisphere.**—In December, the

<sup>1</sup> To minimize secondary effects, the CCC agreed to offset its sales of soft winter wheat with equivalent purchases of hard winters.

<sup>2</sup> In the latter part of January, the Maritime Commission ordered a suspension of normal intercoastal shipping service. See the *Southwestern Miller*, Jan. 27, 1942, p. 25.

<sup>3</sup> As in the preceding year, purchase by the board was made contingent on the grower's agreement not to increase his wheat acreage for the next crop, and to decrease it by not more than 10 per cent if the board so requests.

Australian Wheat Board began purchase of the 1941 crop under the Wheat Industry Stabilisation Scheme which guarantees a minimum price of 3s. 10 d. (63 cents) per bushel, f.o.b. natural ports, bagged basis, for a maximum of 140 million bushels. Offerings to the United Kingdom remained, as they have since February 1941, at 69⅛ cents per bushel.

In Argentina, futures trading continued inactive during the period from September to mid-November (Chart 5, p. 197). The few appreciable fluctuations between mid-September and early October were apparently related to price changes in the United States. In late October a rise of about 3 cents per bushel was occasioned by reports of serious frost damage to the new crop, but prices soon reacted. On November 15 the Argentine government prohibited all wheat futures transactions. Open commitments still outstanding were ordered liquidated on the basis of the last day's closing prices (December, 6.90; January, 7.10 pesos per quintal). At the same time the Argentine Grain Regulating Board was authorized to purchase new-crop wheat from December 1 at the same basic purchase price (6.75 pesos per quintal) that had been in force for the 1940 crop.<sup>3</sup> The board was also empowered to make all export as well as domestic sales. The price for domestic sales to millers has been continued at 9.00 pesos per quintal (72.9 cents per bushel).

**Wheat price levels.**—During August–December 1941, wheat prices in Europe were higher than at any time in the past five years. In the United Kingdom and Germany, prices in December showed only very slight increases over comparable prices of a year earlier (Table IX). But the year's increase in wheat prices was roughly one-third in France, and among the Danubian states increases varied between 10 and 30 per cent. The deflated series, however, indicate that on the whole prices of wheat rose much less than did those of other commodities. In fact, the purchasing power of wheat over other commodities remained constant in Germany and decreased somewhat in the United Kingdom.

With but one noteworthy exception, wheat prices in the four exporting countries showed no appreciable changes, as indicated in the

accompanying table. In the United States, the December price of wheat showed an increase of nearly 40 per cent in the year. On a deflated basis, however, the increase is reduced to 20 per cent, indicating that a large measure of the advance was in harmony with the increase in general commodity prices. While

DECEMBER WHEAT PRICES IN MAJOR EXPORTING COUNTRIES, 1941, WITH COMPARISONS\*

Country	Domestic currency			Deflated		
	1934-38 av.	1940	1941	1934-38 av.	1940	1941
United States <sup>a</sup> . . . . .	101	89	124	119	106	127
Canada <sup>b</sup> . . . . .	87	68	69	108	77	71
Argentina <sup>c</sup> . . . . .	8.80	6.75	6.75	8.20	5.31	3.99
Australia <sup>d</sup> . . . . .	44.4	51.4	51.4	51.3	50.4	50.4

\* Price data from certain series summarized for recent weeks in Table X. Prices deflated by general indexes of wholesale prices, 1929 = 100. For 1941, latest available indexes used: November for the United States and Canada, October for Argentina, and May for Australia.

<sup>a</sup> Chicago basic cash, U.S. cents per bushel.

<sup>b</sup> No. 3 Manitoba at Winnipeg, Canadian cents per bushel.

<sup>c</sup> Buenos Aires price of 78-kilo wheat, Argentine pesos per quintal.

<sup>d</sup> For 1940 and 1941, f.o.b. Australian ports, Australian pence per bushel; for 1934-38, adjusted series that is roughly comparable.

Canadian wheat prices in December showed little change over those for the year previous, and those for Australia and Argentina were fixed, the deflated series show that wheat lost purchasing power in both Canada and Argentina. In the latter this decline amounted to nearly 25 per cent.

Each of the two northern exporters took steps during the fall of 1941 to combat gen-

eral price increases.<sup>1</sup> In Canada, a price-stabilization program announced October 18 was made effective December 1. Under it prices of neither goods nor wages could legally exceed the respective maximums reached during the four weeks ending October 11, 1941 except as might be provided through special orders.<sup>2</sup> In the United States, price control through January was limited to relatively few commodities. For this control, the government relied chiefly on the Office of Price Administration which was seriously hampered by lack of definite authority.

On January 30, President Roosevelt signed the long-delayed price-control bill, making clear that it was his understanding, confirmed by Congressional leaders, that it could not be construed to limit powers of the CCC and other agencies to make sales in the normal conduct of their operations.<sup>3</sup> The act provides for a Price Administrator who is empowered (with certain limitations) to set price ceilings for various commodities. On agricultural commodities, ceilings are to be set at the highest of the following four figures: (1) the market price October 1, 1941; (2) the market price December 1, 1941; (3) the average price for the period July-June 1919-29; (4) a price based on 110 per cent of parity. For wheat, farm prices on these criteria are \$.93, \$1.02, \$1.32, and \$1.42 (as of January 15), respectively. The Secretary of Agriculture has veto power over such ceilings. Agricultural stocks may not be sold by governmental agencies at prices below the ceilings set.

#### WORLD WHEAT EXPORTS

In spite of the existing paucity of trade statistics (Table VII), it is still possible to estimate within fairly narrow limits the total volume of wheat and flour exports and their distribution by sources. Our present estimates for August-December 1941 (subject to change when more information becomes available) are shown in the table on page 202. The two largest export figures shown—those for Canada and Argentina—are mainly or wholly official estimates.<sup>4</sup> The United States figure is based on official trade reports through September and on our rough approximation for exports in the three following months.<sup>5</sup>

<sup>1</sup> In the first 28 months after the outbreak of World War II, general commodity price levels in the United States increased 24 per cent; in a similar period of World War I, they increased 43 per cent.

<sup>2</sup> The maximum price for the May future (No. 1 Northern, Fort William) was set at 82% Canadian cents. Agitation for a higher ceiling began at once.

<sup>3</sup> On Jan. 31, the president instructed government agencies to release their agricultural stocks for lend-lease, army, navy, and relief purposes.

<sup>4</sup> The Argentine figure includes officially reported net exports through November, and Broomhall's cumulated shipments estimates for December.

<sup>5</sup> After the outbreak of war in the Pacific, it was officially announced that the publication of United States trade statistics would be discontinued until further notice.

The remaining trade figures are entirely our approximations, based on official and unofficial information regarding exportable supplies and shipping conditions and on trade reports and statements on export sales.

WORLD NET EXPORTS OF WHEAT AND FLOUR  
AUGUST-DECEMBER 1941, WITH  
COMPARISONS\*  
(Million bushels)

Country or group	1934-38 av. <sup>a</sup>	1938	1939	1940	1941
Canada .....	87 <sup>b</sup>	82	71	55	86
United States .....	15 <sup>b</sup>	34 <sup>b</sup>	23	14	9
Australia .....	34	31	23	40	10
Argentina .....	37	22	80	37	30
Total .....	173	169	197	146	135
Danube exporters...	29	39	51	7	5
USSR .....	19	33	(..) <sup>c</sup>	3	(..) <sup>c</sup>
India .....	4	2	2	0	2
Others .....	16	15	20	11	8
Grand total.....	241	258	270	167	150

\* Trade series are those shown in Table VII (series B for Canada) except that United States trade data are adjusted for changes in stocks of United States grain in Canada. Figures in italics are in substantial part our rough approximations.

<sup>a</sup> In calculation of averages and totals, net imports are disregarded.

<sup>b</sup> Roughly comparable with later figures.

<sup>c</sup> Net importer, at least during the crop year.

If, as we infer, world net exports of wheat and flour approximated 150 million bushels during August-December 1941, they were far below normal and some 15 million bushels smaller than in the corresponding months of 1940. Since the beginning of the present century, August-December exports had probably never been lighter, except perhaps in 1917.

In contrast with reduced world exports, clearances from Canada and Argentina were almost of average size and considerably larger than in some other recent years. Over half of Argentina's exports went to South American destinations, chiefly Brazil, though something like 8 million bushels were sent to the United Kingdom, and 3 million or more to Spain. Canadian exports, drawn from heavy exportable supplies, went mainly to the United Kingdom,<sup>1</sup> but partly to the Middle East and Russia, partly to such European neutrals as

Eire, Portugal, and Switzerland, and partly to regular non-European customers including the United States.

United States imports of Canadian wheat and wheat products for human consumption in the United States were limited, by the import-quota order of President Roosevelt on May 28, 1941, to 890,000 bushels for the year ending May 29, 1942. This small quota was filled by September 20. Somewhat larger quantities of Canadian wheat were imported into the United States for feeding and for milling in bond for export. During July-September the United States imported 1.54 million bushels of wheat designated as "unfit for human consumption"—an amount larger than in the same months of any of the four preceding years. Imports for milling in bond were also relatively heavy (2.90 million bushels through September).

As United States wheat prices advanced during August-September without any announced change in the "indemnity" rates on domestic flour exports allowed by the Surplus Marketing Administration,<sup>2</sup> United States mills found it increasingly profitable to grind Canadian rather than domestic wheat for export as flour. Indeed, by late September Canadian wheat was being shipped even to Texas for milling in bond for shipment from Gulf ports.<sup>3</sup> This unusual movement attracted much attention and presumably contributed to the development of an official plan to stimulate the grinding of domestic wheat for export. In any case, on November 22, 1941, the CCC announced that it would sell some of its pooled wheat to millers for grinding into flour for export. The announcement stated that the

<sup>1</sup> The Cereals Import Branch of the British Ministry of Food arranged in November for a new purchase of 120 million bushels of Winnipeg wheat futures (p. 205).

<sup>2</sup> On May 7, 1941 the "indemnity" rate on flour exports to authorized ports in Central and South America was set at \$1.35 per barrel and the "indemnity" rate on flour exports from the Pacific Coast to the Philippine Islands was \$.60 per barrel. These rates remained unchanged until October 14, when the latter was raised to \$.90. No subsequent change has been reported up to February 1.

<sup>3</sup> According to the *Southwestern Miller* (Sept. 30, 1941, p. 22), this was the first time that Texas mills had ever undertaken to grind Canadian wheat in bond for export.

prices at which such wheat would be offered would be lower than the corresponding prices on domestic markets, and initially the official prices were set at roughly 10 cents below the loan rates applicable in the different regions.<sup>1</sup> According to trade sources, this measure resulted in a prompt, significant increase in export sales of flour manufactured from domestic wheat, though such sales have necessarily been restricted by the war in the Pacific and the shipping difficulties associated therewith.

In total, United States exports of both flour and wheat grain were relatively small through December. Flour shipments from the Pacific Northwest to China were light; flour exports to the Philippines were apparently of average size or smaller; subsidized exports of flour to Central and South America were significant but not large; and only a small amount of flour seems to have been exported under the lend-lease program.<sup>2</sup> Exports of United States wheat *grain* were apparently confined mainly to subsidized exports of about 3 million bushels to Mexico, though a small shipment may have gone to Switzerland<sup>3</sup> and a part of the 375,000 bushels of Pacific wheat reportedly sold to Russia under lend-lease provisions near the beginning of December may have been exported before the end of the month.<sup>4</sup>

<sup>1</sup> In addition to this price advantage, millers could obtain on their flour exports the "indemnities" provided by the Surplus Marketing Administration.

<sup>2</sup> During April–November 1941 about 150,000 barrels of flour (.7 million bushels of wheat) were shipped to Britain under lend-lease provisions. Probably the bulk, if not all, of these shipments were made during July–September. See U.S. Dept. Agr., Press Release 1536–42, Jan. 18, 1942.

<sup>3</sup> *New York Times*, Oct. 29, 1941, p. 10.

<sup>4</sup> The evidence on this is somewhat conflicting. Cf. *Southwestern Miller*, Dec. 9, 1941, p. 35, and *Northwestern Miller*, Dec. 10, 1941, p. 12.

<sup>5</sup> Press release of the AWB, Sept. 20, 1941.

<sup>6</sup> Chinese imports by sources through September are available in *Foreign Crops and Markets*. During August–September China reported imports of only 192,000 bushels of Australian wheat.

<sup>7</sup> Details of the agreement reached between the British government and the Australian government with regard to the disposal and storage of storable foodstuffs in Australia were reported by the Minister of Commerce to the Australian House of Representatives on June 26, 1941. See Commonwealth of Australia, *Parliamentary Debates*, 16th Parl., 1st sess. (1940–41), pp. 504–09.

United States *net* exports of wheat and flour, which totaled 5.7 million bushels during August–September 1941, probably did not exceed 9 million bushels by the end of December. Regardless of the exact figure, there is no doubt that these exports were relatively small, and smaller than they would have been if the United States had not become involved in war in early December.

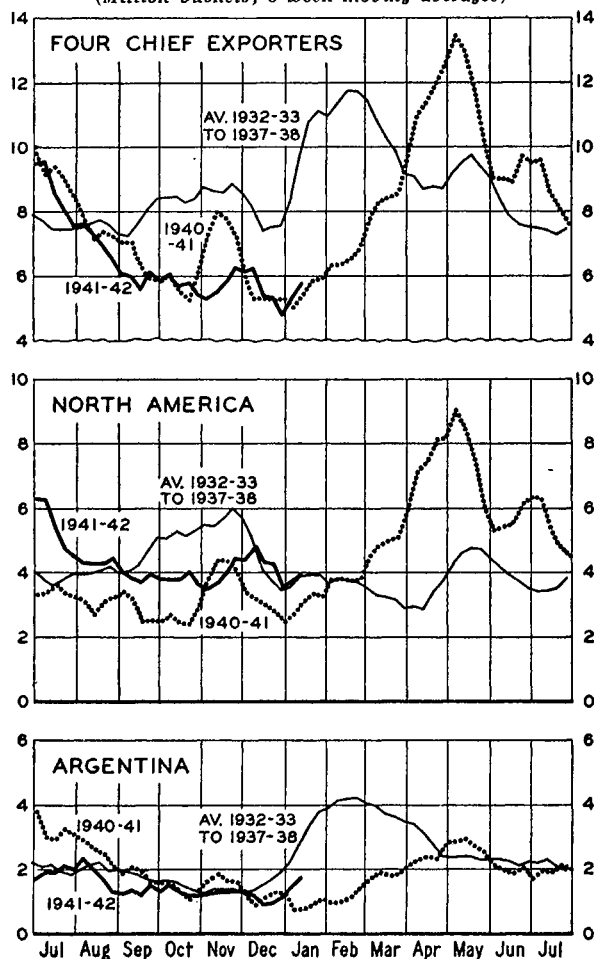
Of the four chief exporting countries, Australia undoubtedly suffered the largest reduction in August–December exports as compared with other recent years. Before the end of September, Sir Clive McPherson of the Australian Wheat Board (AWB) stated: "Shipments of wheat have almost ceased and the export of flour is little better."<sup>5</sup> Japanese–Chinese–Manchurian markets, seriously narrowed by exchange controls, the freezing of Japanese funds, and shipping difficulties, were later closed by war developments in the Pacific. Through December Australian shipments to those markets, confined to Hong Kong and China, probably did not exceed two million bushels.<sup>6</sup> The United Kingdom apparently took very little Australian wheat during this period, partly because the remaining Australian surplus was small and partly because the British government deemed it wiser to assume half of the financial responsibility for acquiring and holding unshipped surpluses of storable foodstuffs in Australia<sup>7</sup> than to undertake to have large Australian supplies shipped over the long route from Australia to Britain. Undoubtedly Australia shipped some wheat and flour to the Middle East and she made small sales to India; but probably something like half of Australia's reduced exports went in the form of flour to near-by areas.

The four chief exporting countries combined probably exported (net) something like 135 million bushels in August–December 1941. These exports were notably small—as is evident from the weekly shipment figures shown in Chart 7 (p. 204)—but they were only moderately smaller than those of the preceding year. Other exporting countries probably shipped only about 15 million bushels of wheat in August–December 1941, as compared with an average of 68 million in the same period



during 1934–38 and almost 75 million in 1939. The USSR was presumably a net importer this year (p. 205); the Danube countries had a below-average wheat crop and only a small exportable surplus after allowance for mili-

CHART 7.—INTERNATIONAL SHIPMENTS OF WHEAT AND FLOUR FROM OVERSEAS EXPORTING COUNTRIES, FROM JULY 1941, WITH COMPARISONS\*  
(Million bushels; 3-week moving averages)



\* Based mainly on Broomhall's weekly data (Table VI), but including our approximations for Australia for 1940-41 and 1941-42.

tary shipments to the Russian front, food for occupying German troops and prisoners, and sizable official and privately hoarded stocks; Japan's exports, in the face of a reduced crop and prospective warfare, were probably below average; and only Indian and northern African exports may be supposed to have been of about average size. In the Danube basin, Hungary alone seems likely to have ex-

ported any substantial amount of wheat during August–December. Rumania's reported exports were negligible through October, and in August the Bulgarian government put an embargo on exports of wheat, rye, and maslin, effective throughout the crop year.<sup>1</sup> Moreover, the two major divisions of Yugoslavia are said to have had scarcely enough wheat for their own use, while the western coast region under Italian occupation was presumably deficient in bread grain.

#### NON-EUROPEAN IMPORTS AND OUTLOOK

Regarding wheat and flour imports of non-European importing countries during August–December 1941, very little information is available. Certain broad tendencies, however, are fairly clear. In total, these net imports were apparently smaller this year than last, and probably smaller than in any other recent year except 1936–37 or 1937–38. Oriental imports were unusually light and their reduction was probably not fully offset by the increase in British-sponsored imports in the Middle East. In the aggregate, other import changes seem to have been small.

In the Orient, Chinese net imports were undoubtedly above the low average for the corresponding months in 1934–38, but smaller than in either 1939 or 1940.<sup>2</sup> Manchurian im-

<sup>1</sup> This presumably would not apply to the shipment from Bulgaria of German-owned stocks of wheat. The Bulgarian Grain Monopoly is reported to have made regular monthly deliveries of wheat during 1940–41 to the German Military Supply Agency in Bulgaria (*Bulletin Mensuel*, April 1941, p. 20, and May 1941, p. 25). These stocks, except for small amounts consumed locally by German troops, were probably still in Bulgaria in July 1941—retained there for future German military use in southeastern Europe or the eastern Mediterranean region. Since July 1941 these stocks have probably been increased through German purchases of 1941 wheat from Bulgaria, though it is possible that some of the wheat has been shipped to German troops in Russia and/or Greece and Africa. Bulgaria's exportable surplus of wheat was reduced this year through the acquisition of western Thrace and part of Serbian and Greek Macedonia—a net wheat-deficit area.

<sup>2</sup> During August–September 1941 Chinese gross imports of wheat and flour totaled 3.66 million bushels (*Foreign Crops and Markets*, Oct. 27, 1941, p. 516 and Dec. 1, 1941, p. 664). Through December the net-import total reached perhaps 5 to 6 million bushels, as compared with imports in the same period of earlier years as follows: 1934–38 average—2.2 million bushels; 1939—7.0 million; and 1940—11.1 million.

ports were presumably the smallest in recent years. Japan almost certainly ranked as a net exporter of wheat and flour in August–December 1941, though her net-export balance was probably small. India's net trade position in wheat is somewhat uncertain, but we infer that her exports exceeded imports through December (p. 202). In total, then, Oriental net imports of wheat must have been light during August–December—undoubtedly smaller than in the same months of 1940 and also below the 1934–38 average.

Outside of the Orient, several other countries, including New Zealand and the Union of South Africa, probably took less wheat this year than last, if not also less than on the average in 1934–38. But more than offsetting these reductions was the increased demand for foreign wheat in the Middle East—a demand arising from short domestic crops and the presence of British forces in that area.

Complete information as to the quantities of wheat imported or purchased for future importation in the Middle Eastern region is lacking, but certain scattered bits of information are suggestive. Broomhall reported in mid-November that "it is officially stated that Britain is to supply Turkey with 70,000 tons [2.6 million bushels] of wheat."<sup>1</sup> Most of this wheat was probably destined for consumption in Turkey, though part of it may have been intended for shipment to Greece under the auspices of the British and Turkish governments and the International Red Cross (p. 210).

In addition to the imports of Turkey (which are said to have reached 20,000 tons before

mid-November),<sup>2</sup> substantial shipments of Indian wheat went to Iran during August–November,<sup>3</sup> and some 40,000 tons (1.5 million bushels) were reported to have been "earmarked" for Syria.<sup>4</sup> Further small quantities of wheat were presumably shipped to Palestine, Malta, Cyprus, and African territories occupied by British troops.

In the Americas, Brazil's imports were well sustained and the aggregate imports of other countries were apparently somewhat larger than usual. Trade sources suggest that Mexico may have imported something like 3 million bushels of United States wheat during August–December, while Uruguay (often a net exporter) took about 2 million bushels of Argentine wheat.

In spite of many rumors of expected sales of North American wheat to Russia, very little wheat appears to have been actually shipped to that country through December. In November, Canada reportedly sold one million bushels of wheat grain and 5,000 tons of wheat flour for shipment to Vladivostok;<sup>5</sup> but at least the flour purchase was later cancelled. Soon, another sale of 5,000 tons of Canadian flour was reported for Russia, but after the outbreak of war in the Pacific this flour seems to have been taken over by the British Cereals Import Branch (CIB).<sup>6</sup> In the United States, 375,000 bushels of wheat were reported sold to Russia—presumably under lend-lease provisions—shortly before war broke out in the Pacific. Since the wheat purchased was Pacific Northwest wheat, we infer that it was never shipped to its intended destination. Some wheat was reportedly supplied Russia by Britain, but no details are available as to the quantity involved. We are inclined to guess that these shipments were small—perhaps only for consumption at the northern Russian ports which would otherwise have to depend on shipments of grains by rail from distant parts of Russia. At the end of October, Lord Beaverbrook told the House of Lords that Britain's aid to Russia included some of the wheat reserves held by Britain in Canada.<sup>7</sup> Several weeks later the CIB purchased from the Canadian Wheat Board, for the second time within little more than six months, 120 million bushels of Winnipeg wheat futures;<sup>8</sup>

<sup>1</sup> *Corn Trade News*, Nov. 19, 1941, p. 297.

<sup>2</sup> Broomhall's American cable service, Nov. 18, 1941.

<sup>3</sup> In early December Broomhall stated: "We understand that the Ministry of Food will place no further orders for Indian wheat . . . up to the end of the year." *Corn Trade News*, Dec. 3, 1941, p. 316.

<sup>4</sup> *London Grain, Seed and Oil Reporter*, Nov. 3, 1941, p. 124.

<sup>5</sup> *Southwestern Miller*, Nov. 18, 1941, p. 22.

<sup>6</sup> It may have been shipped instead to Russia (*Northwestern Miller*, Dec. 17, 1941, p. 9), but we are more inclined to believe that it was this flour that was later reported to have been taken over by the CIB (*ibid.*, Jan. 14, p. 28).

<sup>7</sup> *New York Times*, Oct. 27, 1941, p. 27.

<sup>8</sup> *Winnipeg Free Press*, Nov. 18, 1941, p. 13.

and many observers were inclined to attribute this second large purchase of Canadian grain to anticipated heavy shipments of Canadian wheat to Russia. But if heavy wheat shipments to Russia were then planned, we judge that they were not fulfilled through December.

**Present outlook.**—The outlook for Russian imports in the coming months is obscure. These may depend heavily upon future war developments which cannot be foreseen. At present, it seems reasonable to confine attention to the area controlled by the Soviet Union at the end of January 1942. We cannot be sure of any serious need for imported wheat in that area this year, outside of Vladivostok (which might take up to 5 million bushels if shipment could be arranged) and outside of the two major Arctic ports into which wheat can be shipped more conveniently from overseas than by rail from interior Russia. November–December news reports from the eastern European area suggested that there was little concern about the food situation there, partly because the agriculture of that region had been surprisingly well developed and partly because large grain stocks had been accumulated in that area from the last several big crops. Our own analysis suggests that for the territory under Soviet control at the end of January 1942 the available supplies of domestic bread grain were reasonably adequate and that the greatest food deficiencies were in sugar and fats.

Aside from the question of basic need, there is also the problem of shortage of ocean shipping tonnage and rail facilities within Russia. The improvement in the Allied shipping position that seemed to be foreshadowed by reports of the Battle of the Atlantic in October–November (p. 209) encouraged many observers to expect sizable food imports into Russia; but the outbreak of war in the Pacific and recent developments in the Atlantic have brought a new tightness in shipping, which has reduced the prospect for any but the most essential food imports. Moreover, even if adequate shipping were available, there would still be the difficult problem of transportation of the supplies from the few open ports in Russia to the needy cities, since the railroads constitute one of the chief bottlenecks in Rus-

sia's war economy. In view of these various considerations, then, we are inclined to anticipate that Russian wheat imports in 1941–42 will be small, probably not over 5 to 10 million bushels unless Russia's armies regain some of the larger cities in the west. If the area around Leningrad should soon be retaken, the presumption would certainly be that Russia's imports would be larger than indicated above, since Leningrad could then be supplied by rail from Murmansk or Archangel.

In the crop year as a whole, non-European imports of wheat and flour exclusive of Russian takings will probably be smaller than in any year since 1924–25. Oriental imports will be sharply below normal, and additional small declines will be registered for a large group of non-European countries whose imports will be affected by the tight shipping position. As a partial offset to these reductions, prospective increases in imports are in view only for the Middle East and for a few South American countries. In total, these net imports (exclusive of Russia's) might now be expected to approximate 110 million bushels.

In past years when Russia has been a net-importing country her imports have gone wholly or predominantly to Asiatic Russia. Largely for this reason we have customarily included Russian net imports in our *non-European* import total. It seems reasonable to continue this practice now, even if half or more of Russia's imports should this year go to European Russia. Including Russian imports of 5 to 10 million bushels, the non-European total for 1941–42 would still be notably small—115 to 120 million bushels as compared with 140 million last year and a 1934–39 average of 145 million.

#### EUROPEAN SITUATION AND OUTLOOK

**Wheat production.**—Recent indications of the 1941 bread-grain crops of Europe are notable mainly for their diversity. On only two major points is there general agreement: (1) the aggregate harvest of bread grains in Continental Europe ex-Russia was less strikingly below average in 1941 than in 1940; and (2) the outturn of wheat in the British Isles was the largest or close to the largest in recent years. In July–August 1941, leading quanti-

tative estimates of the 1941 European wheat crop ex-Russia ranged between 1,460 million bushels and 1,580 million. Then came a month or more of almost continuous rains which seriously lowered the *quality* of the wheat crops of western and central Europe and caused an uncertain reduction in *quantity*. The United States Department of Agriculture, which had been anticipating a European wheat crop of about 1,460 million bushels in late July, reduced this estimate to 1,430 million in September and to 1,410 million in October.<sup>1</sup> Broomhall's approximation of 1,520 million bushels in late August appears subsequently to have been reduced to 1,480 million.<sup>2</sup> Through September the International Institute of Agriculture (Rome) made no attempt to alter its July estimate of 1,580 million bushels for the European crop; and although this estimate may have been reduced later, we have seen no report to that effect in any of the foreign news sources that usually carry such information.<sup>3</sup> If any reduction was made it probably did not exceed 50 to 75 million bushels.

Our own analysis of official and unofficial acreage and crop-condition reports from the various European countries suggests that the

crop figure we accepted as reasonable for Europe ex-Russia in mid-September—1,465 million bushels—is still as good a guess as any, though we somewhat prefer the more rounded total of 1,450 million bushels. The following tabulation shows how a crop of that size might have been distributed in 1941, as compared with former years, with official crop estimates in Roman type in contrast with our own and other unofficial approximations in italics. The figures are in million bushels.

Country or region	1934-38 av.	1939	1940	1941
Europe ex-USSR .....	1,597	1,696	1,300	1,450
British Isles .....	71	72	82	90
Continent .....	1,526	1,624	1,218	1,360
Four neutrals <sup>a</sup> .....	184	162	111	143
Continent ex-neutrals .....	1,342	1,462	1,107	1,217
Danube <sup>b</sup> .....	362	451	295	340
Greece .....	28	38	33	24
Italy .....	267	293	261	263
Others (mostly German- controlled) <sup>c</sup> .....	685	680	518	590

<sup>a</sup> Spain, Portugal, Switzerland, Sweden.

<sup>b</sup> Hungary, Yugoslavia, Rumania, Bulgaria.

<sup>c</sup> Germany-Austria, Czechoslovakia, Poland, Finland, the Baltic States, Denmark, Norway, the Low Countries, and France.

<sup>1</sup> This estimate was repeated in *The Wheat Situation*, January 1942, p. 12.

<sup>2</sup> Reported in Broomhall's American cable service, Oct. 14, 1941. On the other hand, we have not seen this revision in any of the issues of the *Corn Trade News* that have reached us.

<sup>3</sup> The *Corn Trade News* of Oct. 15, 1941 credited an estimate of 1,460 to the International Institute of Agriculture, but both the date of the report and the indicated large decline from the International Institute's earlier estimate suggest that some mistake was involved.

<sup>4</sup> *Monthly Crop Report and Agricultural Statistics* (International Institute of Agriculture), November 1940, p. 663S and *Foreign Commerce Weekly*, Feb. 8, 1941, p. 235.

<sup>5</sup> *Journal de Genève*, Aug. 21, 1941; *Neue Zürcher Zeitung*, May 31, 1941; *Monthly Crop Report and Agricultural Statistics*, February 1941, p. 525. According to some sources (e.g. *New York Times*, Apr. 28, 1941, p. 8), wheat sowings in France were officially reported to have been increased from 7.83 million acres in 1940 to 10.13 million in 1941. Since we believe that the sowings for 1940 considerably exceeded 7.8 million acres and probably reached 9 million acres or more (*WHEAT STUDIES*, December 1941, 125n), we infer that the sowings for 1941 may have totaled about 11.5 million acres.

The difference of opinion that exists as to the size of the European crop probably centers mainly around the estimate for "other" countries, including the large wheat crops of Germany-Austria, Czechoslovakia, Poland, and France as well as a number of smaller crops. There is little doubt that the aggregate wheat outturn of these countries was substantially larger in 1941 than in 1940—if for no reason other than increase of acreage. Germany's winter-wheat plantings for 1941 were reported 10 per cent larger than those for the preceding year;<sup>4</sup> France's wheat acreage was reported increased by at least a million hectares (2.5 million acres);<sup>5</sup> and small acreage increases were officially or unofficially indicated for most of the other countries of this group. With such increases in acreage, we infer that a regional yield of wheat per acre as low in 1941 as in 1940 might have resulted in an increase of at least 75 million bushels in the aggregate wheat production of this area.

Prior to the August rains there was apparently good reason to anticipate for 1941 a higher average yield than had been secured in 1940—slightly higher according to Anglo-American sources of information, and materially higher according to Continental European sources, including the International Institute of Agriculture at Rome and neutral news sources in Switzerland. Nor is there agreement even now as to the amount of damage wrought by the August rains. In some past years, persistent rains at harvest time have resulted in a lowering of quality without any significant reduction in quantity. But we infer that quantitative losses this year were substantial, perhaps but not probably so important as to cut the average yield per acre of wheat in central and northwestern Europe to a level well below that of 1940. At 590 million bushels, the production figure for "others" shown in the above tabulation may be taken to imply a yield per acre about the same in 1941 as in 1940—the yields in both years being moderately below average.

The increase of some 70 million bushels here indicated for the 1941 wheat crops of Germany, the German-occupied countries, and unoccupied France mainly reflects crop increases in Germany and France. The German wheat and total bread-grain crop is quite generally believed to have been somewhat larger in 1941 than in 1940, though well below the bumper harvests of 1933 and 1938 and smaller than in 1939.<sup>1</sup> We are inclined to guess that the increase in the German wheat crop as compared with 1940 was something

<sup>1</sup> This view is presented by Continental news sources and also by the U.S. Department of Agriculture. See *Foreign Crops and Markets*, Nov. 24, 1941, p. 633.

<sup>2</sup> See the *Economist* (London), Oct. 25, 1941, p. 504; *Nationalzeitung* (Basel), Oct. 3, 1941.

<sup>3</sup> See *Die Tat*, Oct. 27, 1941; *Basler Nachrichten*, Nov. 21, 1941; *Monthly Crop Report and Agricultural Statistics*, September 1941, p. 343S.

<sup>4</sup> This probably implies a crop of about 240 million bushels—not very far below the estimate of 70 million quintals (257 million bushels) sent by the United Press from Vichy, France, in late September (*New York Times*, Sept. 27, 1941, p. 3). The U.S. Department of Agriculture reported in October that the French crop of 1941 was probably above that of 1940 but still considerably below average (*Wheat Situation*, October 1941, p. 9).

<sup>5</sup> *New York Times*, Nov. 9, 1941, sec. 4, p. 4.

like 15 to 20 million bushels, bringing the crop up to almost average size. Various recent estimates and statements regarding the French crop suggest a range in estimates of over 100 million bushels. A few sources have expressed the belief that the French crop of 1941 was no larger than that of 1940<sup>2</sup>—say 155 to 200 million bushels in total; while a few of the most optimistic sources imply that the French crop was of about average size or 275 to 300 million bushels.<sup>3</sup> We think there is little reason to doubt that the French wheat crop of 1941 exceeded last year's poor harvest, and tentatively we put the probable increase at about 50 million bushels,<sup>4</sup> indicating a crop materially below average. If the actual increase was much larger or smaller, the European wheat harvest may be supposed to have been correspondingly larger or smaller than here indicated.

Other marked increases in wheat production as compared with 1940 took place in the Danube basin (mainly Rumania) and in Spain. Although apparently increased by more than 25 million bushels, Rumania's harvest was nevertheless below average. Spain, whose 1940 wheat crop was a virtual failure at only 79 million bushels, is officially reported to have produced 109 million bushels in 1941, a crop still below the 1934-38 average of 134 million.

In the British Isles, the wheat harvest of 1941 was probably a record for recent years, not because the average yield per acre was high but because the area sown to wheat was greatly expanded under official pressure. In November, the British Prime Minister told Parliament that this year's *grain* harvest was 50 per cent larger than in 1939. We infer that the *wheat* harvest was much less markedly increased, since much of the additional 3.1 million acres cultivated since the beginning of the war<sup>5</sup> had been sown to barley and oats, and the yield per acre of wheat in 1941 was lower than in 1939. However, the 1941 wheat harvest of the United Kingdom was undoubtedly heavy, and probably the largest in more than two decades. In percentage terms, Eire's wheat crop was increased even more strikingly. At the end of August the Minister of Agriculture of Eire stated that the new wheat

crop was the largest since 1846.<sup>1</sup> Official crop figures published by the Irish Free State in 1930 indicate that the wheat crop of 1847 amounted to 20.7 million bushels and that all subsequent crops fell below 15 million bushels.<sup>2</sup> We infer that the 1941 harvest may have been the largest since 1847, but not the largest since 1846.

**Other grains and potatoes.**—Much less information is available with regard to the 1941 harvests of crops other than wheat. However, barley, oats, and potatoes apparently made strikingly large crops in the United Kingdom; and on the Continent the harvests of sugar beets, oil-bearing plants, and potatoes were materially above average.

The Continental potato harvest, however, was almost certainly below the record crop secured from a smaller acreage in 1940. This reduction, most marked in Central Europe, was at least partly offset by a very substantial increase in the production of rye. In 1940, the rye crop of Continental Europe ex-Russia was considerably below average, whereas in 1941 it was apparently average or above, though still below the bumper crops of 1938 and 1939. Maize, so important as a food in the Danube basin, apparently made a good harvest there

<sup>1</sup> *Corn Trade News*, Sept. 3, 1941, p. 165.

<sup>2</sup> Irish Free State, Department of Industry and Commerce, *Agricultural Statistics, 1847-1926* (Dublin, 1930).

<sup>3</sup> During July–November 1941 overseas exports of wheat to the British Isles appear to have included: (1) something like 70 to 75 million bushels of Canadian wheat and flour, (2) somewhat more than 8 million bushels from Argentina—the quantity separately reported to have been shipped from there to the United Kingdom, (3) a couple of million bushels from Australia, and (4) lend-lease shipments of United States flour that amounted to roughly .7 million bushels in terms of wheat grain (p. 203 n.).

<sup>4</sup> Broomhall's American cable service, Jan. 13, 1942. Eire's imports originated mainly in Canada and were transported in vessels recently purchased by Eire in the United States.

<sup>5</sup> WHEAT STUDIES, December 1941, XVIII, 174.

<sup>6</sup> In November, Prime Minister Churchill stated that the total (British, Allied, and neutral) shipping losses in July–October 1941 had been less than 750,000 tons (*Fairplay*, Nov. 20, 1941, p. 506). Later, it was indicated that losses in the four weeks ending Dec. 29 totaled 240,828 tons. If the average monthly loss through December was something like 200,000 tons, about 3 per cent of the wheat shipped to the United Kingdom may be supposed to have been sunk en route. See WHEAT STUDIES, December 1941, XVIII, 154 n.

in 1941; but it is not yet clear whether the total for Europe ex-Russia was larger or smaller than in 1940, since Italy, Spain, and Portugal have reported reductions. Scant information is available as to barley and oats production in Continental Europe this year; and at present we are unwilling to hazard any generalizations as to the size of those harvests.

**Wheat imports.**—European net imports of wheat and flour in August–December 1941 apparently approximated 100 million bushels. At this figure, they were perhaps about 15 million bushels smaller than in the corresponding period of 1940 and some 65 million below the average for the five preceding years. The great bulk of these imports—probably 80 to 85 million bushels—represented takings by the British Isles, predominantly from Canada.<sup>3</sup> In mid-January Eire's imports were unofficially reported to have amounted to only 1.48 million bushels to that date,<sup>4</sup> not even a fourth of the average for the corresponding months of 1934–38. The net imports of the United Kingdom, however, were apparently well up to average and practically the same as in 1940. In the face of the heaviest wheat carryover in the history of Britain<sup>5</sup> and the largest domestic wheat crop in more than two decades (p. 208), these sizable imports suggest that the policy of the British government has been to maintain huge stocks of wheat against a possible future emergency.

The emergency threatened by the adverse turn of the Battle of the Atlantic in the spring of 1941 appeared by the end of December to have vanished, at least for the time being. Monthly shipping losses were not announced by the British Admiralty after June 1941, but subsequent occasional official statements indicated that British, Allied, and neutral shipping losses averaged much lower in the second half of the calendar year 1941 than they had in the first half. Indeed, there is good reason to believe that the shipping losses of July–December 1941 were lower than those of the corresponding period of 1940, and that the percentage loss of wheat in transit to the United Kingdom during that six-months period may have approximated only 3 per cent in 1941 as compared with something like 6 per cent in 1940.<sup>6</sup>

The wheat imports of Continental Europe, far below average during August–December 1941, were apparently some 10 million bushels smaller even than in the corresponding period of 1940, when Greece and Finland still ranked as neutrals and the import needs of the neutral group were heavier than in the current season. As compared with average imports in the five prewar years 1934–38, the takings of Belgium, the Netherlands, Scandinavia, and Greece were most strikingly reduced. In 1934–38 this group of countries had imported about 43 million bushels of wheat and flour during August–December, whereas this year their aggregate imports (virtually confined to Greece) appear not to have reached 2 million. Greece reportedly received 1.1 million bushels of relief wheat under British-Turkish auspices<sup>1</sup> and Norway may have received a trickle of wheat with the rye that came from Germany. Sweden was the only one of these countries allowed to import limited quantities of merchandise under the British navicert system during August–December 1941, and Sweden's bread position was not sufficiently disturbing to warrant the issuance of navicerts for imports of bread grain.

Switzerland, Portugal, and Spain, the three other "neutrals" of Continental Europe, probably imported in total something like 7 million bushels of wheat in August–December 1941—several million less than in the same

period in 1940 or on the average in 1934–38. Switzerland, which in prewar years usually imported almost 8 million bushels of wheat during August–December, may not have obtained over one million bushels this year. Argentina reported shipments of half a million bushels to Switzerland in July–November 1941, and for the same period several small sales of Canadian wheat were reported in the trade press; but neither Hungary nor any of the other Danubian countries seems likely to have made any significant contribution to Switzerland's imports.<sup>2</sup> Portugal also was a very small importer of wheat this year. Although her imports presumably equaled or exceeded the insignificant prewar average of .54 million bushels, they almost certainly fell materially short of the 3.2 million bushels officially reported to have been imported in August–December 1940. This year as well as last, Portugal seems to have drawn the bulk of her imported wheat from Canada.<sup>3</sup>

In contrast with Switzerland and Portugal, Spain apparently imported appreciably more wheat this year than on the average in August–December 1934–38, and her imports were probably about as large as in the corresponding months of 1940. In each of the past two years Argentina has reported wheat shipments of roughly 5 million bushels to Spain during July–November, and in both years Spanish imports from other sources were presumably negligible through December.

Little is known about the wheat imports of the remaining Continental importers—Finland, France, Italy, and Germany-Czechoslovakia. Finland's entrance into the European war on the side of Germany cut off overseas exports of grain to Finland and left that country mainly dependent upon Germany's bounty for necessary imports. In the late summer and fall Germany arranged for small shipments of bread grain to Finland, but these probably consisted almost wholly of rye (see below). In addition to her imports from Germany, Finland apparently received a small amount of bread grain from Sweden—partly under trade arrangements made in 1940–41 for shipments up to October 31 and partly (300 tons of flour and macaroni) as a relief shipment for Finnish children.<sup>4</sup> In total, how-

<sup>1</sup> Broomhall's American cable service, Jan. 20, 1941.

<sup>2</sup> Under the commercial agreement signed by Hungary and Switzerland on Oct. 11, 1941, retroactive from Oct. 1, Hungary made no commitment with regard to wheat deliveries to Switzerland, whereas such deliveries had been provided for in the former trade treaty of July 1939. See *Foreign Commerce Weekly*, Dec. 20, 1941, p. 16. Of the four Danubian countries, Hungary alone seems likely to have made substantial exports of wheat during August–December 1941.

<sup>3</sup> Portugal's imports during August–December 1941 presumably included part of the 500,000 bushels of Canadian wheat purchased in Canada in May as well as part or all of the 130,000 bushels reportedly purchased on Sept. 20, 1941. See *Monthly Review of the Wheat Situation* (Canada), May 23, 1941, p. 4, and *Ibid.*, Sept. 26, 1941, p. 4.

<sup>4</sup> In Sweden, unused ration stubs were collected to get food for Finnish children. In this way the following supplies were reportedly secured and shipped: 230 tons of flour, 70 tons of macaroni products, 49 tons of sugar, and 40 tons of edible fat. *Neue Zürcher Zeitung*, Oct. 22, 1941.

ever, Finland's imports of wheat and wheat products probably did not exceed 300,000 bushels in wheat equivalent during August–December.

France presumably imported all of the wheat shipped from French North Africa during August–December 1941 (probably around 5 million bushels), but her *net* trade position depended also upon the exports of wheat and flour she made to Germany or German-occupied countries. One can only guess as to the size of those exports, but we are inclined to assume that they were small, and smaller than in the corresponding months of 1940. On the other hand, German officials in the occupied zone probably requisitioned a large amount of new-crop wheat to be held in France for future use at the discretion of the German government.

If Greater Germany received only a million bushels or so of wheat from France during August–December 1941, her net imports must have been considerably below average (1934–38) during that period. From the Danube basin Germany probably drew only Hungarian wheat (p. 204). And if Hungary's total wheat exports approximated 5 million bushels, Germany's share, under the terms of a recent trade agreement,<sup>1</sup> would probably have amounted to 2 or 3 million bushels. Since we do not know how large Hungary's exports actually were, the total wheat imports of Germany may have been either larger or smaller than the above figures suggest; but in any case they were almost certainly below the 1934–38 average of 13 million bushels for Germany and Austria.

Most of the remainder of Hungary's wheat exports were scheduled by agreement to go to Italy,<sup>2</sup> which was probably unable to draw

significant quantities of wheat from any other source this year. Exports of 5 million bushels from Hungary would thus imply total Italian imports of about 2 million—an amount roughly equal to Italy's average imports in August–December 1934–38 but below her current import needs.

*Imports of other grains.*—Trade transactions in feed grains among the various Continental countries of Europe are usually not reported unless they are strikingly large. Yet some of the available information adds considerably to our knowledge of the food position of certain European countries. For this reason we record below the more important bits of information that we have assembled on this subject.

Overseas exports to Europe of grains other than wheat were virtually confined in July–November 1941 to exports of maize from the United States and Argentina. United States exports of maize through September totaled 5.3 million bushels, presumably shipped almost wholly to Britain under the lend-lease program. The exports for the two following months have not been reported, but they undoubtedly swelled the earlier total and probably almost doubled it.<sup>3</sup> Indeed, it seems reasonable to believe that American shipments of maize to the United Kingdom came to about 10 million bushels in July–November 1941, as compared with only 2 million in the same period of 1940. This indicated increase was more than offset, however, by a reduction in Argentina's maize exports to the United Kingdom from 12 million bushels in July–November 1940 to 2 million this year.

No exports of United States maize appear to have gone to Continental Europe in either of the past two crop years. Argentina, however, reported the following shipments in July–November 1941 (corresponding figures for 1940 in parentheses): to Spain, 6.4 (.1) million bushels; to Switzerland, .6 (.1) million; to Portugal, .1 (.0) million. Within Continental Europe, surplus maize presumably flowed from the Danube basin to Germany and probably also to Switzerland, Denmark, Sweden, and a few other countries—mainly those that export livestock and livestock products to Germany.

<sup>1</sup> The agreement specifies that Germany is to receive 50 per cent of Hungary's exportable surplus of both wheat and rye. See *Neue Zürcher Zeitung*, Aug. 22, 1941.

<sup>2</sup> According to *Neue Zürcher Zeitung*, Oct. 21, 1941, Hungary agreed to send to Italy 40 per cent of the surplus wheat of the Bacska area and 50 per cent of the surplus wheat of the rest of the country.

<sup>3</sup> Lend-lease shipments of maize to the United Kingdom during April–November 1941 were officially reported at 10.0 million bushels; and we infer that these shipments took place almost wholly after the end of June. U.S. Dept. Agr., Press Release 1536–42, Jan. 18, 1942.



In European news sources more attention has been devoted to intra-Continental shipments of rye for food. Finland was one of the larger importers of such grain. From mid-July to mid-September Germany apparently delivered 25,000 tons of rye to Finland;<sup>1</sup> and within the next couple of months she delivered another 27,000 tons of "bread grain," promising additional future deliveries of 75,000 tons.<sup>2</sup> Through December, Finnish imports of this grain (presumably mainly rye) probably came to about 2 million bushels. In addition, Finland may have received a little rye from Sweden during August-October,<sup>3</sup> but such shipments must have been too small to swell Finland's imports appreciably.

Norway was the only other country that was reported to have received rye imports during August-December 1941. In early October, the Nazi Commissioner for Norway announced that Norway had received 55,000 tons of bread grain from Germany, though he apparently did not specify what type of bread grain was involved or in what months it had been received.<sup>4</sup> A later report indicated that Denmark was to send 30,000 tons of bread grain to Norway, on the understanding that Germany would subsequently replace the Danish grain.<sup>5</sup> If these reported shipments were all made during August-December, Norway must have imported in that period 85,000 tons (about 3 million bushels) of bread grain, the bulk of which was probably rye. But there is perhaps more reason to suppose that part of this was imported into Norway in June-July 1941.

**Bread position.**—In general, the bread position of Europe ex-Russia appears moderately worse for the current crop year than it was for 1940-41, while the total food position appears considerably worse. The increasingly stringent measures adopted during the course of 1940-41, to stretch and conserve existing supplies of bread grain, were almost nowhere relaxed after the harvest of new and larger

crops in the summer of 1941. Reductions in stocks of old-crop grain probably more than offset most of the increases in production, encouraging the maintenance and even tightening of existing rationing regulations and milling provisions.

A general view of developments in bread and flour rationing since the early months of the war is afforded by the following table. Some of the figures shown here for November

EUROPEAN BREAD RATIONS (FLOUR INCLUDED), PER CAPITA FOR ADULTS FROM DECEMBER 1939\*

(Ounces per week)

Country	Dec. 1939	Dec. 1940	July 1941	Nov. 1941
UNITED KINGDOM AND NEUTRALS				
U. Kingdom..	Free	Free	Free	Free
Eire.....	Free	Free	Free <sup>a</sup>	Free <sup>a</sup>
Switz. Bread.	Free	Free	Free	Free
Flour .	12 <sup>b</sup>	14 <sup>b</sup>	6 <sup>b</sup>	6 <sup>b</sup>
Portugal....	Free	Free	Free	Free
Sweden.....	Free	65-97	57-75 <sup>c</sup>	57-75 <sup>c</sup>
Spain.....	Free	37 <sup>d</sup>	20-43 <sup>d</sup>	20-43 <sup>d</sup>
AXIS AND OCCUPIED AREAS				
Germany....	86-170	80-165	80-165	80-165
Denmark....	Free	71-97(18) <sup>e</sup>	80-129(17) <sup>e</sup>	80-129(17) <sup>e</sup>
France.....	Free	87-111 <sup>f</sup>	68-86 <sup>f</sup>	68-86 <sup>f</sup>
Netherlands..	Free	84-168 <sup>g</sup>	84-168 <sup>g</sup>	68-7 <sup>g</sup>
Italy Bread..	Free	Free <sup>h</sup>	Free <sup>h</sup>	49-99
Flour...	Free	17 <sup>b</sup>	17-22 <sup>b</sup>	17-22 <sup>b</sup>
Belgium.....	Free	56-112	56-112	56-112
Norway.....	Free <sup>a</sup>	73-122 <sup>a</sup>	64-120 <sup>a</sup>	53-7 <sup>a</sup>
Greece.....	Free	Free <sup>i</sup>	47 <sup>i</sup>	25 <sup>i</sup>
Finland.....	Free	62-148	49-106	49-106

\* In so far as possible, these figures represent total rations (in terms of bread) for bread, baked goods, 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.

<sup>a</sup> Bread rationed on a national basis only in restaurants. In northern Italy local rationing was restrictive by June.

<sup>b</sup> Flour, pastes, and maize flour, without conversion to bread equivalents; for Italy also includes rice.

<sup>c</sup> Including oatmeal, etc.

<sup>d</sup> Perhaps applicable only in Madrid and a few other cities.

<sup>e</sup> Figures in parentheses show the ration for wheat bread included in the total.

<sup>f</sup> Exclusive of special rations for pastes and cake.

<sup>g</sup> Wheat-products ration; higher alternative rye-products ration was available.

<sup>h</sup> In December 1939, flour rationed at 82 oz. to prevent hoarding; later rations cover also peas, beans, rice, potato flour, etc.

<sup>i</sup> Macaroni rationed in Athens area at 2.5 ounces per week in December 1940; later ration figures apply only to the chief cities. By November, ration was largely theoretical.

<sup>1</sup> *Neue Zürcher Zeitung*, Sept. 18, 1941.

<sup>2</sup> *Ibid.*, Dec. 2, 1941.

<sup>3</sup> In completion of shipments arranged for in March 1941. See *Foreign Commerce Weekly*, Apr. 12, 1941, p. 68.

<sup>4</sup> *New York Times*, Oct. 5, 1941, sec. 1, pp. 1, 22.

<sup>5</sup> *Neue Zürcher Zeitung*, Oct. 20, 1941.

1941 will perhaps have to be changed when more information becomes available. Indeed, even some of the earlier figures may contain errors attributable to wartime restrictions on the publication and distribution of information. Such errors as may exist in this table, however, do not obscure the important facts that bread and flour rations have been widely reduced throughout Continental Europe since December 1940, and that some of the reductions have been effected since July 1941. The amount of bread and flour legally obtainable on ration cards has been lowered in recent months in the Netherlands, Norway, and Greece. Italy, which rationed only pastes and flour through September 1941, introduced bread rationing at a low level on October 1. Moreover, bread rationing has recently been extended into the Danube basin, where it is mostly on a local basis. In September, a bread ration of 62–148 ounces weekly was established for Budapest (Hungary) and the territory surrounding that city; on October 10 bread rationing was introduced in Sofia and Philippopolis (Bulgaria), with the weekly allowance set at 99–197 ounces; and effective January 8, rationing of bread was reportedly introduced throughout Rumania, with “normal” consumers legally entitled to 73 ounces a week against ration cards.<sup>1</sup>

Only a few changes in milling regulations have been reported since July 1941. Two of these—for Rumania and Germany—represented relaxation of earlier more stringent provisions: Rumania abolished the require-

ment that 45 per cent maize be mixed with wheat in the production of bread flour,<sup>2</sup> and Germany abolished a similar admixture requirement for 15 per cent rye.<sup>3</sup> On the other hand, Switzerland and Sweden endeavored to stretch their bread-grain supplies further—Switzerland by raising the minimum extraction rate for bread grain from 85 to 90 per cent, effective September 18,<sup>4</sup> and Sweden by providing that all wheat and rye flour should contain at least 6 per cent barley after October 15.<sup>5</sup>

The changes in bread-rationing and flour-milling regulations noted above mainly reflected corresponding changes from 1940–41 in the bread-grain positions of the countries concerned. In the current year, bread-grain supplies on hand and in prospect are clearly smaller than they were in 1940–41 in Greece, Italy, Switzerland, the Netherlands, Norway, and Sweden, and undoubtedly larger than in 1940–41 in Rumania. Only in Germany did the government make a regulatory change for which the grain-supply basis is not immediately apparent. Germany's wheat supplies are almost certainly smaller this year than last, reflecting reduction in the inward carry-over of wheat. In the face of this decline, Germany's lifting of the rye-admixture requirement enforced in the spring and summer of 1941 is noteworthy, but it probably means nothing more than that the balance of wheat-rye consumption in Germany is now believed to be subject to satisfactory control through the regional bread-ration cards introduced last April.<sup>6</sup>

Perhaps more significant is the continued maintenance of last year's low bread rations in Spain and France in the face of somewhat enlarged bread-grain supplies. In Spain, this action was presumably necessary to insure the availability of enough bread to cover the existing low rations, since Spanish bakeries and stores had often been unable to meet the total demand of holders of bread cards in the winter and spring of 1940–41. In France, the bread-grain supplies of 1941–42 were probably only moderately larger than those of last year, and in both years the effective size of the available supplies was lowered by German requisitions<sup>7</sup> and by sales on the “black” market.

<sup>1</sup> The Bulgarian ration is inclusive of flour, but we have not yet been able to learn the coverage of the other two rations. See *Neue Zürcher Zeitung*, Sept. 8, 1941; *New York Times*, Oct. 11, 1941, p. 2.

<sup>2</sup> *Neue Zürcher Zeitung*, Aug. 21, 1941, Nov. 20, 1941.

<sup>3</sup> *Deutsche Allgemeine Zeitung*, Sept. 25, 1941.

<sup>4</sup> *Neue Zürcher Zeitung*, Sept. 21, 1941; *Foreign Commerce Weekly*, Nov. 8, 1941, p. 31.

<sup>5</sup> *Foreign Crops and Markets*, Dec. 1, 1941, p. 666.

<sup>6</sup> See our “World Wheat Survey and Outlook, May 1941,” *WHEAT STUDIES*, May 1941, XVII, 403.

<sup>7</sup> The quantity of 1941 wheat demanded by Germany for her occupying troops was reported by the president of the French National Bureau of Cereals to represent 9 per cent of the total crop (*New York Times*, Nov. 30, 1941, sec. 1, p. 46). Whether this is a larger or smaller amount than was requisitioned last year is not entirely clear, but we infer that it is somewhat smaller.

Since a critical shortage of bread in unoccupied France had been averted in 1940-41 only through the release of something like 10 million bushels of German-requisitioned stocks, it is not surprising that the probable small increase in French bread-grain supplies this year did not encourage the French government to raise the bread ration above the June-July level (which in any case was higher than the level in April-May).

**General food position.**—It is impossible to pass judgment on the adequacy or inadequacy of the bread-grain supplies of any nation without consideration of the supply of other foods. Moreover, it is the total food position of a country that is of major importance in wartime. In the following paragraphs, therefore, we shall outline briefly our interpretation of the general food situation in the major European countries.

There is no country in Europe whose population as a whole enjoys the same freedom of choice in food consumption as before the war. In a number of countries, a few favored rich can buy all sorts of delicacies on "black" markets, but the masses of the people everywhere have a more restricted diet than they had in peacetime. Imported fruits and vegetables have been generally scarce and high-priced. Meat, eggs, cheese, butter, and other livestock products have become increasingly difficult to obtain. Throughout Europe there has developed a widespread scarcity of animal proteins and fats.

Within these general limits, imposed by the war, some countries have fared much better than others. This year, particularly, the United Kingdom has ranked at or close to the top of the list. Despite a greater scarcity of milk and cheese than was witnessed last year, and lower meat rations than in the corresponding months of 1940,<sup>1</sup> Britain's general food position has been quite satisfactory in recent months and in some respects better than in the preceding year. Bread and potatoes have continued in abundant supply and have remained unrationed. Moreover, since November 17 canned fish, canned meat, and canned beans produced in Britain or received from the United States under the lend-lease program have been distributed to British con-

sumers on a point system, which has allowed considerable freedom of choice in the purchase of these particular foods.<sup>2</sup> In mid-November, also, the regular sugar ration was raised from 8 to 12 ounces per week, and the weekly fat ration was raised from 8 to 10 ounces. These particular increases, which had been intended to apply to "the winter months," were abolished on January 12, owing to the expanded demand on British shipping attributable to the war in the Pacific.

On the Continent, Germany, as conqueror, stands in a favored position as regards food supplies. She has first claim on the surplus fruits and vegetable oils of Italy, Spain, and other southern European countries. She draws from the occupied territories large amounts of the choicer foods and has the deciding vote in determining agricultural plans for those countries. From Norway she takes the better grades of fish, leaving inadequate quantities of the poorer grades for the Norwegian population;<sup>3</sup> from the Netherlands and Denmark she "purchases" large amounts of meat, butter, cheese, and eggs needed for domestic consumption; at French ports such as Marseilles she deducts for shipment to Germany a specified percentage (rumored as high as 50 per cent) of all imports destined for France; and at these and other ports she apparently takes 10 per cent of all the food unloaded for Swiss destinations.

<sup>1</sup> Retail milk distribution had been reduced 15 per cent by mid-November (*Economist*, Nov. 15, 1941, p. 591). Children and expectant and nursing mothers are rated as priority consumers and allowed reasonably adequate amounts of milk, so that the reduction in deliveries has mainly affected the milk consumption of nonpriority consumers. In September-December 1940 fresh pork and offals were unrationed and each adult consumer was entitled to buy each week 2s. 2d. worth of other fresh meat in addition to 4 ounces of uncooked bacon and ham. In the corresponding months this year, only 1s. 2d. worth of fresh meat (including pork but not offals) has been available on the ration cards in addition to 4 ounces of bacon and ham.

<sup>2</sup> In early October, British-American plans were said to have called for the increase of lend-lease shipments until the United States should supply 25 per cent of Britain's animal protein needs; but the outbreak of war in the Pacific presumably modified this program (*New York Times*, Oct. 9, 1941, p. 10 and Oct. 11, 1941, p. 3).

<sup>3</sup> *Economist*, Dec. 20, 1941, pp. 752-53.

In spite of these various advantages, Germany's large population has had a much more restricted diet than in peacetime. The German people, like their neighbors, have had inadequate supplies of meat, dairy and poultry products, and fats. From the beginning of the war the policy of the German government has been to maintain constant food rations, with occasional extra distributions of available foods. The lowering of the German meat ration from 17½ to 14 ounces per week on June 2, 1941 therefore clearly pointed to reduced supplies of animal proteins. Official concern over the livestock situation was stressed again in September–October, when regulations were promulgated (1) establishing Reich reserves of potatoes, (2) requiring restaurants to serve unpeeled potatoes on three days a week, and (3) requiring consumers in the larger cities to register their purchases of potatoes (tantamount to unofficial rationing). These measures were adopted not to insure an adequate supply of potatoes for human consumption but to provide a sufficiently large *surplus* for animal feeding and for the production of alcohol.<sup>1</sup> No other important change has recently been made in Germany's system of food distribution for the present crop year, and as of January 1942 the German food position appears reasonably satisfactory.

Apparently almost equally satisfactory to date have been the food positions of Sweden, Denmark, Switzerland, Portugal, and the Netherlands. Of these countries, Portugal has relied least upon rationing, but the food position of that country is apparently no better than that of any of the others in this group. Whether rationed or unrationed, meat, dairy products, and eggs could be purchased only

sparingly, if at all, by the mass of the Portuguese population; and in lesser degree the same statement applies to some other foods commonly rationed in western Europe. On the other hand, the fact that bread, pastes, vegetables, wine (and probably olive oil) have been unrationed, and also apparently freely available, in Portugal suggests that the food situation for the common people has been fairly satisfactory.

Except for Portugal and Switzerland, all of the countries mentioned above rationed bread, flour, and pastes during August–December 1941, and even Switzerland permitted sales of flour and pastes only against ration cards. For "normal" consumers, the bread-flour rations of these favored countries ranged in November from roughly 8 ounces per day in Sweden to over 11 ounces in Germany and Denmark—all reasonably adequate in view of the supply of other foods.<sup>2</sup> To reduce meat consumption, Switzerland and apparently Denmark relied on the enforcement of "meatless days," but the Netherlands, Sweden, and Germany all rationed meat in the late fall at from 10 to 14 ounces per week for "normal" consumers. In addition, all five of the countries rationed butter and other edible fats and oils (apparently at 5 to 10 ounces per week) and sugar (apparently at 6 to 12 ounces per week, with some extra distributions).<sup>3</sup> Potatoes remained on the "free list," and in adequate supply, in all of these countries except the Netherlands, where a liberal weekly ration of 6½ pounds was allowed.

Although some of the highest of these rations would appear restrictive to American consumers, materially lower rations (especially for meats and fats) prevailed in most other European countries outside of the Danube basin. Moreover, in the low-ration countries, food supplies were often not adequate to cover the legally prescribed rations, and unrationed foods were generally scarce.

City inhabitants in Greece and the General Government of Poland have witnessed the most extreme forms of food scarcity in Europe ex-Russia. Over the past few months Greece has faced serious famine conditions. Deaths from starvation, cold, cholera, typhoid, typhus, and all other causes have been variously

<sup>1</sup> Not over 23 million tons of Germany's huge potato crop of 1940 (70 million tons) had been utilized directly for human consumption. Thus the reduced crop of 65 million tons in 1941 raised no question as to the adequacy of supply of potatoes for food.

<sup>2</sup> It is noteworthy, however, that the bread ration of the Netherlands was reduced in October, reflecting deterioration in the bread position of that country.

<sup>3</sup> We have seen no reports as to Denmark's fat and sugar rations since last spring, when fats were rationed at 12 ounces and sugar at 16 ounces; but we have here assumed that these rations were later materially reduced.

placed at from 200 to 2,000 per day in the Athens-Piraeus area.<sup>1</sup> Although the number of deaths is in doubt, the critical situation that produced them is all too clear. Greece, normally a food-deficit area, has been all but cut off from imports by sea (p. 210), has been systematically looted by German authorities, and has suffered disruption of her transport system. The conquerors and occupiers of Greece, responsible for these troubles, have made virtually no effort to avert starvation and disease. Hence, even the extremely low food rations established for the chief cities have recently been mostly unobtainable.

Only a little less serious than the spreading famine in Greece has been the situation in the large cities of the General Government of Poland. Death rates in Warsaw, Lwow, Krakow, Lublin—especially in the ghettos—have been far above normal,<sup>2</sup> reflecting inadequate food, severe cold, and unsanitary conditions. Typhus, which has raged in the Baltic states and back of the German line in Russia, has extended also into Poland. In practically all respects, persons of Polish ancestry have suffered greater hardships than those of German ancestry in the same cities, and members of the Jewish race have suffered even more severely. This has mainly represented Nazi policy; but not included in the German plans were the spread of typhus and the extension of food shortage to the German element of the population. Although official food rations favored the Germans, the supply of food—especially of meats, fats, eggs, dairy products, and sugar—has been chronically insufficient to cover the theoretical rations. Persons of Polish and Jewish extraction have had little to supplement their inadequate diet of potatoes, bread, and barley groats.

Spain, Belgium, France, Finland, and Norway have also faced food shortages—shortages

much less severe, however, than those endured in Greece and in Poland. In the spring of 1941 the food position of Spain was extremely critical; undernourishment and malnutrition were widespread, and the death rate was rising. The summer harvests of vegetables and fruits brought considerable relief. The later grain harvests, which were larger than those of 1940, insured a better food position than in 1940–41 provided overseas imports could be continued. But Spain's present food position, though better than that of last year, is still unsatisfactory. The basic food rations of that country (including bread) are low and even now not always obtainable.

Undernourishment is widely reported to have taken a substantial toll in both Belgium and France, not so much in increased deaths (though some increases have been reported) as in reduction of bodily weight and energy. The food rations of these two countries were notably low in 1940–41, especially in the late spring, and since then virtually no significant increases have been reported.<sup>3</sup> On the other hand, the legal rations appear to have been usually obtainable during August–December 1941, whereas they had often been unobtainable in the preceding six months. The well-to-do in France and Belgium have regularly been able to supplement the meager supplies procurable on their ration cards through purchases on the "black market," for nowhere in Europe has "bootlegging" of food been as widespread and well-organized as in these two countries. Indeed, for Paris it has been estimated that sales of food on the "black market" have amounted to about half of those made legally under the rationing system.<sup>4</sup> The percentage of illegal trade varies for different foods, being much higher for butter, cheese, and meat than for bread and flour.

France's bread-grain position (anticipated imports from northern Africa included) appears somewhat less critical this year than last, and her increased potato crop should insure each consumer a somewhat larger amount of potatoes. But these improvements, and others brought about through betterment of the system of food distribution (including the general system of transportation), have been partially or fully offset by decline in the

<sup>1</sup> See *New York Times*, Dec. 9, 1941, p. 4; *ibid.*, Jan. 28, 1941, p. 12; *Time*, Feb. 9, 1942, p. 32.

<sup>2</sup> In some Polish cities outside of the General Government—e.g. Lodz, now in the German portion—the general situation is scarcely, if any, better. The ghettos everywhere in Germany and Poland have had to endure the greatest hardships.

<sup>3</sup> Or increases in certain rations have been offset by reductions in other basic rations.

<sup>4</sup> *Deutsche Allgemeine Zeitung*, Nov. 17, 1941.

available supplies of meat, animal products, and fats. Thus, the general food position of France—particularly unoccupied France—continues to appear insecure. And the outlook for Belgium—a food-deficit country—is perhaps worse now than it was last year, except for the current presumption that German officials will probably again divert to Belgium enough rye and potatoes from central Europe and wheat from France to prevent serious famine conditions.

In Finland, and less strikingly in Norway, widespread hunger has been evidenced in many of the larger cities in recent months. Meat has been very scarce, fat has been rationed at a low level, and even the amount of bread obtainable on ration cards has been inadequate. As of January 1942 the food positions of both of these countries appear somewhat unsatisfactory. On the other hand, additional small imports of grain and other food, such as were sponsored by Germany earlier in the season, would be sufficient to cover minimum requirements until the 1942 harvests are available. We infer that the need for food imports in Finland is much more pressing than that in Norway, where supplies of potatoes and the poorer grades of fish have been fairly adequate.<sup>1</sup> Finland's agriculture had not recovered from the first war with Russia when the second was undertaken, drawing off more agricultural labor and interfering seriously with the normal transportation and distribution of food supplies.

The food positions of the remaining six countries of Europe ex-Russia seem less unsatisfactory. The four Danube countries, normally large exporters of agricultural produce, presumably have adequate supplies of food for their own populations and also for appreciable shipments to Germany or for the

building of reserves for that country. Food prices have risen sharply in the Danube area, and the higher prices supplemented by official restrictions on the consumption of certain foods have presumably resulted in significant changes in diet—changes involving decreased consumption of animal proteins and fats (already low) and increased consumption of cereals and other carbohydrate foods (previously high). Moreover, among the cereals, maize and rye have been increasingly diverted to human consumption, partly in place of wheat. The only portion of the Danube area where serious food shortage seems to exist is within the former boundaries of Yugoslavia. As yet the implications of the new boundaries established within that country are not completely clear. On the other hand, there is no doubt that the western coast region under Italian occupation is a grain-deficit area, and it is very likely a food-deficit area as well. Moreover, even in Croatia and Serbia, where food supplies would normally be adequate, local food shortages may exist this year as the aftermath of war and because of problems of transportation.

So far as we can judge from available information, the food situations of Bohemia-Moravia and Slovakia are far less satisfactory than that of Germany, yet still not critical. Basic food rations have been considerably lower in these areas than in Germany (including the rations for bread and flour),<sup>2</sup> and many of the choicer foods have been scarce or unavailable because they have been drawn off to the German Reich. On the other hand, potatoes seem to have been in adequate supply, and malnutrition has probably been more serious than undernourishment.

Italy, the only remaining country of Europe ex-Russia not yet discussed, has faced more difficult food problems this year than she did last, but there is no reason to suppose that her food position is truly critical. The deterioration in Italy's bread-grain position has already been noted (pp. 212-13). Not only was bread rationing introduced in Italy last October at a level considerably below normal consumption standards, but subsequent sales of potatoes, eggs, milk, and cheese were re-

<sup>1</sup> For a recent good summary of the Norwegian food position, see the *Economist* (London), Dec. 20, 1941, pp. 752-53.

<sup>2</sup> We are uncertain as to the exact bread rations of Bohemia-Moravia and Slovakia, but we infer from various reports that for the "normal" consumer they approximate 8 to 9 ounces a day as compared with 11½ ounces in Germany. Moreover, it is noteworthy that in Slovakia bread flour is reported to contain a maximum of 55 per cent wheat and 15 per cent rye and a minimum of 20 per cent barley and 10 per cent potatoes.

stricted and regulated (in some cities apparently informally rationed)<sup>1</sup> as supplementary to the existing low weekly rations of 3.5 ounces of meat, 3.5 ounces of fat and oil, 4.5 ounces of sugar, and 17.5 ounces of macaroni. Furthermore, the sale of all kinds of cakes and pastries was banned, and restaurant meals were limited to a few definitely prescribed courses. With these restrictive measures in force, Italy's food position is clearly far from satisfactory.

**Outlook for wheat imports.**—Overseas imports of wheat into Continental Europe now seem likely to be limited in 1941-42 to the takings of Spain, Portugal, Switzerland, and Greece. Should Finland make peace with Russia in the near future, Finland also might receive overseas grain, but at present there is no good basis for counting on such a development.

Spain will undoubtedly be the largest importer of overseas wheat this year. Through December she apparently took something like 5 million bushels of Argentine wheat (p. 210), and in mid-January she was reported to have completed the purchase of another 171,000 tons (6.3 million bushels).<sup>2</sup> We anticipate that Argentina will make further sales to Spain as the season progresses and that Spanish imports in the crop year may amount to about 20 million bushels, or a little less than in each of the two preceding years.

Portugal, in spite of her increased crop, seems likely to import a couple of million bushels of Canadian wheat. Switzerland will probably take a similar quantity from Argentina and the Danube basin. In total, the net imports of the four neutral nations may come to about 25 million bushels, roughly half of the total quantity they imported in 1939-40 but only a little less than their average imports in the five preceding years.

Greece may import as little as 2 million bushels of wheat or as much as 8 million, depending on the policies of the British and German governments. Through December or

early January, British relief shipments of wheat to Greece are reported to have amounted to a little over a million bushels (p. 210). In mid-January Broomhall reported that the Ministry of Economic Warfare was giving serious consideration to proposals for shipping 1.1 million bushels of wheat to Greece monthly, presumably out of British-owned stocks in the Middle East. If shipments of this size should be made during February-July, Greek imports would reach about 8 million bushels in the crop year. We doubt, however, that the shipments will be as large as this. The most recent news from London indicates that British authorities have approved a single new wheat shipment to Greece of .3 million bushels,<sup>3</sup> and we are inclined to guess that some additional shipments will be separately authorized later if German authorities do not take advantage of the situation. But such separate shipments, together with those already made, seem unlikely to add up to more than about 5 million bushels.

Overseas imports of wheat into Continental Europe ex-Danube ex-Russia might thus total 30 million bushels or more in 1941-42. In addition, imports of 15 to 20 million bushels will perhaps be received from the Danube basin and around 20 million from French North Africa. The Danubian exports will presumably go mainly to the two chief Axis partners, and the northern African exports will go initially to France. French *net* imports, however, may be expected to be appreciably smaller than the shipments from northern Africa: several million bushels of French wheat will perhaps go to Belgium and Holland and some millions more may go to Germany. In total, the net imports of wheat and flour of the Continent ex-Danube ex-Russia may tentatively be expected to approximate 70 million bushels in 1941-42 as compared with 205 million in 1939-40 and an average of 184 million in the five immediate prewar years. Russian imports have been considered in the preceding section (p. 206).

British imports in the current crop year will depend heavily upon Britain's other shipping obligations and the policy of the British government with regard to imported wheat

<sup>1</sup> Consumers in Milan and Rome are reported to have been limited to 14 ounces of potatoes weekly in October. *Die Tat*, Oct. 13, 1941; *New York Times*, Oct. 4, 1941, p. 2.

<sup>2</sup> Broomhall's American cable service, Jan. 14, 1941.

<sup>3</sup> *Ibid.*, Jan. 28, 1942.

reserves. We infer from past action of the Ministry of Food that the British government favors the maintenance of heavy wheat reserves so long as this does not take ships that can temporarily contribute a much greater service to Britain's war effort by carrying other cargo or by proceeding to other destinations. Whether the British government will deem it advisable or be able to maintain the year-end carryover of wheat in 1942 at the record level established in 1941, we cannot foresee. For reserves of that magnitude, net imports of roughly 200 million bushels would probably be required.

At present we can do no more than guess that the Allied shipping position will not become too tight to allow the United Kingdom to import between 175 and 200 million bushels (net) in 1941-42. Eire's imports will presumably be smaller than in most past years—something like 5 million bushels—concentrated more heavily in January-July than in August-December, when the shipping space at Eire's command was smaller than it now is. If the net imports of the British Isles should come to 180 to 205 million bushels and the net imports of Continental Europe ex-Danube ex-Russia should approximate 70 million, the indicated total would be 250 to 275 million bushels—the lowest European import figure in more than half a century, though only 30-55 million less than last year's low total.

OUTLOOK FOR EXPORTS, UTILIZATION,  
AND STOCKS

**Prospective exports.**—We have already observed that the outlook is obscure for both European and non-European imports of wheat in the remaining months of the crop year. Much depends on the course of the war—particularly as regards shipping on the two oceans—and on decisions to be made by British officials with respect to the maintenance of heavy emergency reserves of wheat. So far as we can now look ahead, it seems reasonable to suppose that European net imports might total 250 to 275 million bushels during 1941-42 (see above) and non-European net imports (including Russia's takings) 115 to 120 million (p. 206). These ranges, together with

allowances for wartime sinkings and for other factors that cause import and export aggregates to differ, suggest that world net exports might total no more than 400-425 million bushels in the current crop year. Such exports would be the smallest since 1896-97, and 70 to 95 million bushels smaller than the reduced exports of last year.

We infer that total net exports of 410 million bushels—the approximate midpoint of this range—might be distributed about as indicated in the following table. For the first time in history, Canada will perhaps export more wheat and flour than all other exporting countries combined. This prospect pri-

WORLD NET EXPORTS OF WHEAT AND FLOUR,  
ANNUALLY FROM 1934-35\*  
(Million bushels)

Aug.- July	Total	Canada	U.S.	Australia	Argentina	Others
1934-35 . . . . .	540	163	(..) <sup>a</sup>	109	182	86
1935-36 . . . . .	518	246	(..) <sup>a</sup>	102	70	100
1936-37 . . . . .	623	210	(..) <sup>a</sup>	102	162	149
1937-38 . . . . .	555	89 <sup>b</sup>	117	126	72	151
1938-39 . . . . .	643	158 <sup>b</sup>	103	96	122	164
1939-40 . . . . .	625	192 <sup>b</sup>	45 <sup>c</sup>	86	179	123
1940-41 . . . . .	495	231 <sup>b</sup>	31 <sup>c</sup>	90	96	47
Forecast						
1941-42 . . . . .	410	230 <sup>b</sup>	20 <sup>c</sup>	30	85	45

\* Figures in italics are our rough approximations.

<sup>a</sup> Net imports, ignored in totals.

<sup>b</sup> Series B in Table VII. Earlier figures are Series A, adjusted for changes in stocks of Canadian wheat in the United States.

<sup>c</sup> Data in Table VII, adjusted for changes of United States stocks in Canada. Earlier figures are roughly comparable.

marily reflects Canada's favored position, geographically close to the United Kingdom and politically a member of the British Commonwealth. It also reflects the "good-neighbor policy" of the United States, since the great economic power of this country could easily have been misused to force sizable exports of United States wheat at the expense of Canadian exports.

Our present forecast of United States exports, 20 million bushels, is based on the assumption that lend-lease shipments of wheat and flour over the next six months will be quite small in total, and that subsidized export sales of wheat flour and grain will not differ greatly from those of last year.



In spite of large exportable supplies of wheat as of January 1, Australia seems likely to export very little wheat during the second half of the international crop year. Not only will the major import markets of China, Japan, Manchuria, the Philippines, and British Malaya be closed, but shortage of shipping will probably curtail the flow of Australian wheat to other ports on the Pacific and Indian oceans. The precise degree of decline in Australian exports will depend in large measure upon the course of the war in the Pacific, but at present it seems likely that Australian exports in August–July 1941–42 will be smaller than in any corresponding crop year since 1914–15.

Argentina's wheat exports will probably be confined mainly to South American markets, Spain, Switzerland, and the British Isles. We infer that Britain will load most of the ships she can spare for the Argentine trade with meats and wool rather than grain, though wheat will continue to be given a preferred place over corn.

The forecast of exports indicated in the table for "other countries" includes an allowance of 35 to 40 million bushels for French North Africa and the Danube basin (exclusive of Danubian shipments to the Russian front and of similar shipments of German-owned stocks to German troops in Greece and Africa). Actual exports from those areas, however, may fall well outside this range, which is based on inadequate information as to available wheat supplies and transport facilities. Aggregate exports from the remaining net-exporting countries will undoubtedly be small, particularly as compared with years of substantial Russian exports.

**Wheat utilization.**— In 1941–42 domestic utilization of wheat in the four major exporting countries combined will presumably be heavy, while in Europe ex-Russia wheat consumption will be abnormally light, though probably not quite so small as last year.

For each of the four major exporting countries detailed forecasts of crop-year utilization are shown in Table VIII. We infer that the amount of wheat utilized domestically for flour and seed and feed in Australia and Argentina in 1941–42 will differ little from other

recent years. On the other hand, we anticipate a considerable expansion in wheat feeding in both Canada and the United States.

It is not yet possible to evaluate the probable effects in the United States of the new CCC program involving the sale of pooled wheat for feeding. Although the official announcement of the program indicated that approximately 100 million bushels would be offered for sale, the terms of sale suggest that the quantity that will be sold over the remaining five months of the United States crop year may be much smaller.<sup>1</sup> In some trade circles it is believed that the wheat-feed program will be effective mainly, if not solely, in the Pacific Northwest; but in that area the CCC holds relatively little pooled 1939 and 1940 wheat,<sup>2</sup> and the 1941 wheat now under loan will not be defaulted, if unredeemed, until after April 30. In any case, we now see no

<sup>1</sup> According to the original announcement (U.S. Dept. Agr., Press Release 1545–42, Jan. 19, 1942) cracked wheat will be offered under this program at the lower of the two following values: "(1) the 1941 wheat loan value at point of delivery; or (2) the Commodity Credit sales price for corn per bushel at point of delivery." However, "no sales of cracked wheat will be made at a price delivered of less than 90 cents per bushel except wheat produced and stored in those counties where the 1941 wheat loan value is below 90 cents." Moreover, "the Commodity Credit sales price for corn at point of delivery will be the announced sales price for No. 2 yellow corn, basis Chicago, in store, plus cost of freight and handling to point of delivery." Whole wheat grain will be offered at 4 cents under the price of cracked wheat.

<sup>2</sup> The amount of pooled 1939 wheat in that area is presumably negligible. Of the 1940 crop in Washington, Oregon, and Idaho, only 24.5 million bushels were placed under loan, and reported redemptions through Apr. 15, 1941, amounted to 8.6 million bushels, leaving then unredeemed about 16 million bushels. This figure was probably reduced further by subsequent redemptions, and perhaps by some CCC sales to mills. Thus, truly large sales of wheat for feed over the next few months would probably necessitate shipments of CCC wheat from other areas to the Pacific Northwest or some offsetting of sales and purchases by the CCC.

According to the *Commercial Review* (Portland), Jan. 27, 1942, p. 5, the base price at which cracked wheat is offered under this program in Oregon is \$1.05 per bushel at Portland. At any other delivery point, the price is \$1.05 minus \$.03 minus the freight rate from Portland to the point of delivery. Thus, at Eugene, the price is \$.92 per bushel. "But, purchasers are not permitted to sell whole or cracked wheat or mash or any part of it in any form into the higher rate territories"—a restriction that feed dealers complain is not practicable.

reason to suppose that the government's new program will increase the total amount of wheat fed on farms during July-June 1941-42 to more than about 130 million bushels, as compared with 100 million both last year and on the average in the five preceding years.

On January 27, another government program was announced which seemed likely to increase the utilization of wheat.<sup>1</sup> This provided that the CCC will sell wheat to processors of ethyl alcohol, acetone, and butyl alcohol at 91 cents per bushel (in some cases as low as 80 cents) delivered. These prices are comparable, on a weight basis, to the prices previously quoted by the CCC for corn for the same uses.<sup>2</sup> Under the original program for corn, roughly 60 million bushels of that grain had been expected to be used for alcohol during the calendar year 1942. Secretary Wickard announced that the new wheat program would probably cut the amount of corn required from 60 to less than 25 million bushels.<sup>3</sup> This suggests that perhaps 33 million bushels of wheat may be diverted to alcohol production in 1942, or something like 15 million bushels during February-June.

These anticipated increases will be partially offset by a reduction of about 10 million bushels in the amount of wheat seeded in the United States. However, the total domestic utilization of wheat in this country will be relatively high—perhaps in the neighborhood of 705 million bushels. Of this total, something like 480 million will probably be ground for flour for domestic retention. A very substantial portion of the flour produced will be “enriched” by the addition of thiamin (vitamin B<sub>1</sub>), niacin,<sup>4</sup> and iron. To date the bread and flour enrichment program has been carried on voluntarily by millers and bakers; but recently there has been agitation for govern-

mental regulations making “enrichment” of flour compulsory for the duration of the war.

Throughout Europe ex-Russia, wheat utilization is now controlled, with a view to keeping the utilization as low as possible while covering necessary food needs. In the United Kingdom, where wheat consumption for food was heavy last year, it will be heavy again in the current season; but wheat utilization for feed, sharply curtailed in 1940-41, will be negligible this year. The British government's program for eventual fortification of all white bread with vitamin B<sub>1</sub> made considerable progress during the early months of the current crop year. By early December, 25 per cent of the bread and flour sold in Great Britain was officially reported to be so fortified.<sup>5</sup>

On the Continent, the use of millable wheat for feed is everywhere forbidden and its use for human food is controlled and restricted. Only in Germany, Portugal, and Bulgaria may the total use of wheat in 1941-42 be expected to be almost up to prewar normal levels. On the other hand, wheat utilization will be far below normal this year in Greece, Poland, Spain, France, the Low Countries, Scandinavia, Finland, and Italy. The factors responsible for these widespread reductions are discussed in the preceding section (pp. 206-19).

**Outlook for stocks.**—On one aspect of the current outlook for wheat everyone is agreed—world stocks of old-crop wheat on August 1, 1942 will be much larger than ever before. Should export and consumption developments be about as indicated above, the four major exporting countries would probably hold in store almost 260 million bushels more wheat at the end of the present crop year than they held a year earlier. In Europe-North Africa some reduction is to be expected, but the “world” stocks total for 1942 will perhaps approximate 1,775 million bushels, as compared with the standing record of 1,550 million for 1941.

The table on page 222 gives some idea as to how the huge wheat stocks of 1942 may be distributed in comparison with earlier years. The figures shown for 1942 are presented only as indicative of the general levels to be expected in the different areas and not as actual forecasts.

<sup>1</sup> U.S. Dept. Agr., Press Release 1623-42, Jan. 27, 1942.

<sup>2</sup> *Ibid.*, 1526-42, Jan. 15, 1942.

<sup>3</sup> *Ibid.*, 1633-42, Jan. 27, 1942.

<sup>4</sup> This is the new synonym for nicotinic acid, officially endorsed by Federal Security Administrator McNutt on Jan. 19, 1942. On Dec. 2, 1941, McNutt ordered postponed to July 1, 1942 the effective date of the mandatory requirement for the addition of riboflavin to flour and other wheat products bearing the designation “enriched.”

<sup>5</sup> *Corn Trade News*, Dec. 17, 1941, p. 341.

The United States carryover in North America on July 1, 1942 will almost certainly be something like 600 million bushels, some 200 million larger than the previous record

CURRENT PROSPECTS FOR WHEAT STOCKS EX-RUSSIA  
EX-ASIA, ABOUT AUGUST 1, 1942, WITH  
COMPARISONS\*  
(Million bushels)

Position	1934-38 av.	1940	1941	1942
U.S. Wheat in N. Amer..	160	282	387	610
Can. Wheat in N. Amer..	121	300	480	400
North America.....	281	582	867	1,010
Australia.....	55	130	70	145
Argentina.....	76	75	175	215
Four exporters.....	412	787	1,112	1,370
Europe, Fr. N. Africa <sup>a</sup> .	343	545 <sup>b,c</sup>	390 <sup>b,c</sup>	360 <sup>b,c</sup>
Afloat, <sup>d</sup> Egypt.....	42	68 <sup>b</sup>	48 <sup>b</sup>	45 <sup>b</sup>
Total.....	797	1,400	1,550	1,775

\* For past years, official carryover estimates for the United States (July 1) and Canada (July 31). Other estimates are our own approximations.

<sup>a</sup> Europe ex-Russia, Morocco, Algeria, Tunis.

<sup>b</sup> Preliminary approximation.

<sup>c</sup> For areas included within 1939 boundaries.

<sup>d</sup> Afloat to Europe and to non-Europe.

carryover, that of 1932. Conceivably, this year's carryover could be reduced to something like 500 million bushels if the government should soon adopt sufficiently aggres-

sive programs to stimulate wheat-feeding and the industrial use of wheat; but the programs so far announced appear unlikely to bring about a reduction of this magnitude.

Year-end wheat stocks in the other three exporting countries are also expected to be strikingly large in comparison with earlier years, but less so than United States stocks. Canada's carryover, though huge, will presumably be something like 75 million bushels smaller than in 1941; Argentina's stocks will probably fall below the record established in 1939; and Australia will certainly hold less old-crop wheat than she did in 1918, and perhaps also than in 1917 or 1919.

In Europe ex-Russia wheat carryovers will be far below normal in most countries in 1942; and only the United Kingdom, Germany, Bulgaria, Hungary, and Rumania seem likely to hold sizable surplus reserves against war emergencies. The stocks figure here included for the United Kingdom is notably high—about as high as for 1941. Should the British government decide to draw down British wheat reserves during the last six months of the crop year, the European carryover would be smaller than here indicated and the Canadian carryover larger. We are inclined to guess that Germany's wheat (and also total bread-grain) stocks will be materially lower in 1942 than in any of the three preceding years, but that they will remain reasonably adequate.

*The writers are indebted to Holbrook Working, V. P. Timoshenko, and P. Egoroff for advice and criticism with regard to certain sections of the study. The Office of Foreign Agricultural Relations kindly supplied some of the foreign information utilized. Rosamond H. Peirce and Marion Theobald prepared the tables and statistical material, and P. Stanley King and Alice Rundle prepared the charts.*

# APPENDIX TABLES

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

(Million bushels)

Year	World ex-Russia <sup>a</sup>			Four chief exporters			British Isles	Continent ex-Russia				French North Africa <sup>d</sup>	India	Others ex-Russia <sup>e</sup>	USSR
	Total	North-ern Hemisphere	South-ern Hemisphere	United States, Canada	Argen-tina, Aus-tralia	Total		Total	Four neu-trals <sup>b</sup>	Others ex-Danube	Lower Dan-ube <sup>c</sup>				
1936.....	3,509	3,038	471	846	401	1,247	63	1,417	156	877	384	50	352	380	1,128
1937.....	3,810	3,343	467	1,056	395	1,451	63	1,473	156	955	362	72	364	387	1,722
1938.....	4,562	3,944	618	1,292	534	1,826	81	1,765	149	1,150	466	72	402	416	1,502
1939.....	4,197	3,792	405	1,272	330	1,602	72	1,624	162	1,011	451	100	372	427	.....
1940.....	3,920	3,467	453	1,353	382	1,735	82	1,218	111	812	295	62	402	421	.....
1941 <sup>c</sup> .....	3,950	3,510	440	1,264	365	1,629	95	1,370	...	...	...	80	374	402	.....
1941 <sup>f</sup> .....	3,930	3,466	464	1,245	390	1,635	90	1,360	143	877	340	87	374	384	.....

\* Data summarized from Table II (except for India and USSR). Figures in italics are in substantial part unofficial approximations. Dots (...) indicate no data available. For 1940 and 1941, figures are for 1939 boundaries; they are not in all cases aggregates of data in Table II.

<sup>a</sup> Excludes USSR, China, Iran, Iraq, Transjordan, and various small producers, but includes Brazil and Peru in addition to the countries shown in Table II.

<sup>b</sup> Hungary, Yugoslavia, Rumania, Bulgaria.

<sup>c</sup> French Morocco, Algeria, Tunis.

<sup>d</sup> As of about Sept. 15, 1941.

<sup>e</sup> Spain, Portugal, Switzerland, Sweden.

<sup>f</sup> As of about Feb. 1, 1942.

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

(Million bushels)

Year	U.S. total	U.S. winter	U.S. spring	Canada	Australia	Argentina	Uruguay	Chile	Hungary	Yugoslavia	Rumania	Bulgaria	Morocco	Algeria	Tunis
1936.....	626.8	519.9	106.9	219.2	151.4	249.9	9.2	28.6	87.8	107.4	128.7	60.4	12.2	29.8	8.1
1937.....	875.7	685.8	189.9	180.2	187.3	207.6	16.6	30.3	72.2	86.2	138.2	64.9	20.9	33.2	17.6
1938.....	931.7	688.1	243.6	360.0	155.4	379.1	15.5	35.5	98.8	111.3	177.2	79.0	23.2	34.9	14.0
1939.....	751.4	569.7	181.7	520.6	210.3	119.5	9.9	31.6	113.1 <sup>c</sup>	105.7	163.6	69.0	38.8	42.6	18.6
1940.....	812.4	588.8	223.6	540.2	82.6	299.5	7.1	28.9	76.0 <sup>a</sup>	69.3	89.3	61.8	23.9	27.6	10.7
1941 <sup>b</sup> .....	957.6	685.0	272.6	306.5	150.0	215.0	.....	.....	.....	.....	.....	.....	.....	32.0	14.7
1941 <sup>e</sup> .....	945.9	671.3	274.6	299.4	162.1	227.8	.....	.....	.....	.....	.....	.....	40.0	32.0	15.1

Year	United Kingdom	Eire	France	Italy	Germany	Austria	Czechoslovakia	Switzerland	Belgium <sup>d</sup>	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	15.6	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	25.3	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	29.5	96.0	15.8
1939.....	61.6	10.38	273.5	293.2	206.3 <sup>e</sup>	.....	40.0 <sup>f</sup>	5.89	13.8	15.3	15.4	2.86	31.6	105.4	19.0
1940.....	70.0 <sup>g</sup>	11.68	188.0	261.3	170.0 <sup>g</sup>	.....	32.0 <sup>f</sup>	6.06	9.0 <sup>g</sup>	10.0 <sup>g</sup>	7.0	2.53	15.5	79.4	9.9
1941 <sup>b</sup> .....	.....	.....	.....	268.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	110.0	.....
1941 <sup>e</sup> .....	.....	.....	.....	262.7	.....	.....	.....	.....	.....	.....	7.0	.....	12.5	109.0	14.9

Year	Poland	Lithuania	Latvia	Estonia	Finland	Greece	Turkey	Other Near East <sup>h</sup>	Egypt	Japan	China	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	8.1	35.2	13.6	16.0	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	10.6	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	11.9	17.1	5.56
1939.....	83.4	9.6	7.77	3.13	8.50	38.2	154.5	28.1	49.0	61.1	12.6	31.2	14.8	15.3	8.01
1940.....	60.0 <sup>g</sup>	.....	20.0 <sup>g</sup>	.....	6.91	32.9	150.8	32.2	50.0	66.1	10.2	27.6	13.3	15.6	8.31
1941 <sup>b</sup> .....	.....	.....	.....	.....	.....	.....	.....	.....	41.5	59.4	10.1	.....	.....	.....	.....
1941 <sup>e</sup> .....	.....	.....	.....	.....	6.22	23.9	128.6	.....	41.5	53.8	10.1	29.8	11.7	14.5	10.00

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

<sup>a</sup> Including gains from Czechoslovakia.

<sup>b</sup> As of about Sept. 15, 1941, for 1939 boundaries.

<sup>c</sup> As of about Feb. 1, 1942, for 1939 boundaries.

<sup>d</sup> Including Luxemburg.

<sup>e</sup> Including the Sudeten area.

<sup>f</sup> Bohemia-Moravia and Slovakia.

<sup>g</sup> Unofficial approximations from supp. to *Foreign Crops and Markets*, May 26, 1941.

<sup>h</sup> Syria and Lebanon, Palestine, Cyprus.

TABLE III.—WHEAT RECEIPTS IN NORTH AMERICA, MONTHLY, JULY–DECEMBER, 1936–41\*

(Million bushels)

Year	United States (12 primary markets)							Canada (country elevators and platform loadings)						
	July	Aug.	Sept.	Oct.	Nov.	Dec.	July-Dec.	July	Aug.	Sept.	Oct.	Nov.	Dec.	Aug.-Dec.
1936 <sup>a</sup> .....	84.2	29.5	10.6	15.2	10.7	10.4	160.6	4.0	42.9	53.4	21.9	8.5	8.1	134.8
1937.....	111.9	62.2	35.2	22.6	16.1	10.6	258.6	3.1	20.5	45.0	17.8	9.8	5.3	98.4
1938.....	101.2	61.1	38.5	27.3	19.1	14.9	262.1	3.1	39.6	122.2	62.0	21.2	9.5	254.5
1939.....	99.0	43.9	39.0	19.8	12.2	11.5	225.4	8.0	54.1	178.2	78.7	36.7	15.3	363.0
1940.....	103.9	46.2	39.9	18.5	10.0	9.0	227.5	20.0	33.0	105.3	69.2	35.9	39.2	282.6
1941.....	102.2	50.3	39.9	32.4	17.6	22.5	264.9	27.4	20.1	29.9	43.7	29.8	25.9	149.4

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

<sup>a</sup> For the United States thirteen markets, including Detroit, through 1936.

TABLE IV.—WHEAT VISIBLE SUPPLIES, AUGUST–JANUARY 1941–42, WITH COMPARISONS\*

(Million bushels)

Date	Total <sup>a</sup>	Total four ex- porters	Total North America	United States grain		Canadian grain		Afloat to Europe	U.K. ports	Total U.K. and afloat	Aus- tralia	Argen- tina
				United States <sup>b</sup>	Canada	Canada <sup>c</sup>	United States					
Aug. 1												
1938.....	231.2	180.6	114.8	96.4	.3	17.1	1.0	36.5	14.1	50.6	21.5	44.3
1939.....	533.2	472.8	241.3	149.3	.5	84.9	6.6	34.9	25.5	60.4	18.0	213.5
1940.....	.....	577.1	422.9	160.1	.1	235.6	27.1	.....	.....	.....	98.5	55.7
1941.....	.....	892.3	689.4	246.7	.2	411.2	31.3	.....	.....	.....	42.2	160.7
Jan. 1												
1939.....	563.0	519.9	294.2	128.8	.4	157.1	7.9	24.7	18.4	43.1	82.7	143.0 <sup>d</sup>
1940.....	.....	682.4	473.0	132.8	.8	301.0	38.4	.....	.....	.....	77.0	132.4
1941.....	.....	773.5	647.9	169.8	.3	424.0	53.8	.....	.....	.....	76.0 <sup>d</sup>	49.6
1941–42												
Sept. 1... ..	.....	913.1	724.0	274.6	.2	421.1	28.1	.....	.....	.....	37.0	152.1
Oct. 1... ..	.....	914.5	742.0	284.9	.8	431.5	24.8	.....	.....	.....	29.5	143.0
Nov. 1... ..	.....	925.0	766.9	280.6	.8	459.4	26.1	.....	.....	.....	24.5	133.6
Dec. 1... ..	.....	913.7	763.9	276.3	.8	458.4	28.4	.....	.....	.....	23.0	126.8
Jan. 1... ..	.....	.....	763.3	270.8	.7	460.8	31.0	.....	.....	.....	.....	168.7

\* 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. Dots (.....) indicate that data are not available.

<sup>a</sup> Not comparable with totals published earlier, which included Broomhall's series for Argentina.

<sup>b</sup> Data not strictly comparable, two markets added to the total in January 1941, two in June 1941, and a fifth in early November 1941.

<sup>c</sup> Excluding, for comparability, stocks in transit by rail which are now included in officially published totals.

<sup>d</sup> Approximate.

TABLE V.—UNITED STATES FLOUR PRODUCTION, EXPORTS, AND NET RETENTION, MONTHLY, JULY–DECEMBER 1941, WITH COMPARISONS\*

(Thousand barrels)

Month or period	Production						Net exports and shipments to possessions <sup>a</sup>			Estimated net retention		
	All reporting mills			Estimated total			1939	1940	1941	1939	1940	1941
	1939	1940	1941	1939	1940	1941						
July.....	8,432	8,504	8,918	8,942	9,018	9,457	947	439	571	7,995	8,579	8,886
Aug.....	9,522	8,881	8,592	10,098	9,418	9,111	698	499	564	9,400	8,919	8,547
Sept.....	11,191	9,288	9,495	11,867	9,850	10,069	741	452	487	11,126	9,398	9,582
Oct.....	9,428	9,960	9,693	9,997	10,562	10,279	663	711	550 <sup>b</sup>	9,334	9,851	9,729
Nov.....	8,298	8,737	8,216	8,800	9,265	8,713	610	786	550 <sup>b</sup>	8,190	8,479	8,163
Dec.....	8,119	8,166	9,283	8,610	8,659	9,844	464	459	550 <sup>b</sup>	8,146	8,200	9,294
July–Dec. ...	54,990	53,536	54,197	58,314	56,772	57,473	4,123	3,346	3,272 <sup>b</sup>	54,191	53,426	54,201
July–June <sup>c</sup> ..	104,448	105,330	.....	110,761	111,695	.....	7,163	7,036	.....	103,598	104,659	104,800 <sup>d</sup>

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

<sup>a</sup> From July 1940 derived by subtracting imports for consumption instead of general imports minus re-exports.

<sup>b</sup> Twelve months beginning in year stated.

<sup>c</sup> Preliminary estimate.

<sup>d</sup> Our approximation in the absence of official data.

TABLE VI.—INTERNATIONAL SHIPMENTS OF WHEAT AND FLOUR, WEEKLY FROM SEPTEMBER 1941\*  
(Million bushels)

Week ending	Total <sup>a</sup>	Shipments from							Shipments to Europe			To ex-Europe			
		North America	Argentina <sup>b</sup>	Australia	South Russia	Danube	India	Other countries	Total <sup>a</sup>	United Kingdom	Orders	Continent	Total <sup>a</sup>	Brazil	Others
Sept. 6.....	5.78	4.38	1.40	...	.00	.00	...	.00	4.64	...	...	...	1.14	...	...
13.....	4.65	3.50	1.15	...	.00	.00	...	.00	3.09	...	...	...	1.56	...	...
20.....	5.18	3.64	1.54	...	.00	.00	...	.00	3.85	...	...	...	1.33	...	...
27.....	4.90	3.96	.94	...	.00	.00	...	.00	3.86	...	...	...	1.04	...	...
Oct. 4.....	6.23	4.27	1.96	...	.00	.00	...	.00	3.98	...	...	...	2.25	...	...
11.....	4.34	3.22	1.12	...	.00	.00	...	.00	2.88	...	...	...	1.46	...	...
18.....	5.47	3.96	1.51	...	.00	.00	...	.00	4.20	...	...	...	1.27	...	...
25.....	5.51	4.26	1.25	...	.00	.00	...	.00	3.90	...	...	...	1.61	...	...
Nov. 1.....	4.62	3.83	.79	...	.00	.00	...	.00	3.54	...	...	...	1.08	...	...
8.....	4.32	2.82	1.50	...	.00	.00	...	.00	3.09	...	...	...	1.23	...	...
15.....	5.24	3.86	1.38	...	.00	.00	...	.00	3.37	...	...	...	1.87	...	...
22.....	5.43	4.46	.97	...	.00	.00	...	.00	3.98	...	...	...	1.45	...	...
29.....	5.31	3.74	1.57	...	.00	.00	...	.00	3.98	...	...	...	1.33	...	...
Dec. 6.....	6.57	5.14	1.43	...	.00	.00	...	.00	4.52	...	...	...	2.05	...	...
13.....	5.45	4.35	1.10	...	.00	.00	...	.00	3.65	...	...	...	1.80	...	...
20.....	6.02	4.97	1.05	...	.00	.00	...	.00	4.97	...	...	...	1.05	...	...
27.....	4.47	3.72	.75	...	.00	.00	...	.00	3.42	...	...	...	1.05	...	...
Jan. 3 <sup>c</sup> .....	5.43	4.16	1.27	...	.00	.00	...	.00	4.04	...	...	...	1.39	...	...
10 <sup>c</sup> .....	4.33	2.80	1.53	...	.00	.00	...	.00	3.27	...	...	...	1.06	...	...
17 <sup>c</sup> .....	5.93	4.28	1.65	...	.00	.00	...	.00	3.59	...	...	...	2.34	...	...
24 <sup>c</sup> .....	6.95	4.80	2.15	...	.00	.00	...	.00	5.62	...	...	...	1.33	...	...
31 <sup>c</sup> .....	5.37	4.39	.98	...	.00	.00	...	.00	3.69	...	...	...	1.68	...	...

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

<sup>a</sup> Excluding Australia.

<sup>b</sup> Including Uruguay.

<sup>c</sup> Preliminary.

TABLE VII.—NET EXPORTS AND NET IMPORTS OF WHEAT AND FLOUR, MONTHLY FROM JULY 1941, WITH SUMMATIONS AND COMPARISONS\*  
(Million bushels)

Month or period	Net exports (In parentheses, net imports)							Net imports				
	United States <sup>a</sup>	Canada <sup>b</sup>		Argentina	Rumania	Turkey	Iraq	Portugal	China	Brazil	Uruguay	New Zealand
		A	B									
July.....	1.36	27.99	23.07	9.46	.00	...	...	...	1.90 <sup>c</sup>	...	...	.03
Aug.....	1.62	21.19	20.41	8.24	.00	...	...	...	1.69 <sup>c</sup>	2.95	...	.13
Sept.....	4.06	14.31	15.68	6.27	.00	...	...	...	1.97 <sup>c</sup>	...	...	.12
Oct.....	...	13.81	13.92	5.49	...	...	...	...	...	...	...	...
Nov.....	...	24.73	16.67	6.18	...	...	...	...	...	...	...	...
Dec.....	...	22.46	19.63	...	...	...	...	...	...	...	...	...
Aug.-Dec. 1941.....	9.00	96.50	86.32	30.00	.01	(...)	...	...	5.50	13.60	2.00	.60
1940.....	14.32	72.58	54.56	37.38	.02	.10	.00	3.22	11.14	13.38	.55	1.05
1939.....	23.04	109.82	71.11	79.60	16.66	.09	.91	.40	7.04	13.60	2.39	.42

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

<sup>a</sup> Derived by subtracting imports of wheat and flour for consumption from total domestic exports of wheat and flour plus flour shipments to possessions (from January 1941 including our monthly distribution of U.S. Department of Agriculture estimate of shipments). 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.

<sup>b</sup> Series A shows total customs exports of wheat and flour minus customs imports of wheat and flour. Series B

is derived by subtracting customs imports 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.

<sup>c</sup> Gross imports.

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

(Million bushels)

Year	Domestic supplies			Domestic utilization				Surplus over domestic use <sup>o</sup>	Net exports			Year-end stocks
	Initial stocks	New crop	Total	Milled (net)	Seed use	Balancing item <sup>a</sup>	Total <sup>b</sup>		Total	To Dec. 31	From Jan. 1	
A. UNITED STATES (JULY-JUNE)												
1936-37..	142 <sup>d</sup>	627	769 <sup>e</sup>	471	97	+141	709	60	(23) <sup>f</sup>	(21) <sup>f</sup>	(2) <sup>f</sup>	83
1937-38..	83	876	959	468	94	+137	699	260	107	43	64	153
1938-39..	153	932	1,085	475	75	+174	724	361	109	47	62	252
1939-40..	252	751	1,003	472	73	+129	674	329	47	29	18	282
1940-41..	282	812	1,094	476	75	+123	674	420	33	18	15	387
1941-42 <sup>g</sup> .	387	958	1,345	475	68	+132	675	670	...	...	...	...
1941-42 <sup>h</sup> .	387	946	1,333	480	65	+158	703	630	20	10	10	610
B. CANADA (AUGUST-JULY)												
1936-37..	108	219	327	44	34	+21	99	228	195	132	63	33
1937-38..	33	180	213	43	33	+26	102	111	87	50	37	24
1938-39..	24	360	384	47	35	+42	124	260	165	89	76	95
1939-40..	95	521	616	49	36	+51	136	480	207	110	97	273
1940-41..	273	540	813	42	30	+69	141	672	224	73	151	448
1941-42 <sup>g</sup> .	448	306	754	44	31	+74	149	605	...	...	...	...
1941-42 <sup>h</sup> .	448	299	747	43	31	+68	142	605	230	96	134	375
C. AUSTRALIA (AUGUST-JULY)												
1936-37..	43	151	194	32	15	+ 4	51	143	102	31	71	41
1937-38..	41	187	228	30	15	+ 7	52	176	126	31	95	50
1938-39..	50	155	205	31	14	+14	59	146	96	31	65	50
1939-40..	50	210	260	33	13	- 2	44	216	86 <sup>i</sup>	23	63 <sup>i</sup>	130
1940-41..	130	83	213	32	14	+ 7	53	160	90 <sup>i</sup>	40 <sup>i</sup>	50 <sup>i</sup>	70
1941-42 <sup>g</sup> .	70	150	220	32	13	+10	55	165	...	...	...	...
1941-42 <sup>h</sup> .	70	162	232	32	13	+12	57	175	30	10 <sup>i</sup>	20	145
D. ARGENTINA (AUGUST-JULY)												
1936-37..	60	250	310	67	25	+11	103	207	162	33	129	45
1937-38..	45	208	253	71	26	+12	109	144	72	18	54	72
1938-39..	72	379	451	74	21	+ 4	99	352	122	22	100	230
1939-40..	230	119	349	73	21	+ 1	95	254	179	80	99	75
1940-41..	75	299	374	74	22	+ 7	103	271	96	37	59	175
1941-42 <sup>g</sup> .	175	215	390	74	21	+ 5	100	290	...	...	...	...
1941-42 <sup>h</sup> .	175	228	403	74	21	+ 8	103	300	85	30	55	215

\* Based on official data so far as possible; see WHEAT STUDIES, December 1941, Table XXVI.

<sup>a</sup> Total domestic utilization minus quantities milled for food and used for seed.<sup>b</sup> Total domestic supplies less surplus over domestic use.<sup>c</sup> Summation of net exports and year-end stocks.<sup>d</sup> Including new-crop wheat in some positions.<sup>e</sup> Not including net imports.<sup>f</sup> Net imports.<sup>g</sup> Estimates as of Sept. 15, 1941.<sup>h</sup> Estimates as of Feb. 1, 1942.<sup>i</sup> Our approximation.

TABLE IX.—EUROPEAN DOMESTIC WHEAT PRICES, DECEMBER 1941, WITH COMPARISONS\*  
(Indicated currency per quintal; except as noted for the U.K.)

December	United Kingdom (shillings per cwt.)		Germany <sup>a</sup> (R M)	France <sup>a</sup> (francs)	Italy <sup>a</sup> (lire)	Bulgaria <sup>a</sup> (leva)	Rumania (Bralla) (lei)	Hungary (Budapest) (pengő)	Yugoslavia (northern) (dinars)
	Standard	Gazette							
A. DOMESTIC CURRENCY									
1937 .....	10.0	8.58	20.6	184.0	125	320	522	20.8	178
1938 .....	10.0	4.29	20.5	208.5 <sup>b</sup>	135	340	418	20.5	160
1939 .....	11.0	7.10	20.4	202.0 <sup>b</sup>	135	350	452	20.4	193
1940 .....	14.5	14.58	20.4	220.0 <sup>b</sup>	155	430	850 <sup>a</sup>	23.7 <sup>a</sup>	313 <sup>a</sup>
1941 .....	14.8	14.75	20.6	294.5	155	520	1,100 <sup>a</sup>	27.0 <sup>a</sup>	350 <sup>a,c</sup>
B. DEFLATED									
1937 .....	10.5	9.0	26.8	182	124	492	661	23.7	225
1938 .....	11.6	5.0	26.6	191	124	507	516	24.1	208
1939 .....	10.3	6.6	26.2	... <sup>d</sup>	... <sup>d</sup>	500	435	23.0	214
1940 .....	11.2	11.2	25.2	... <sup>d</sup>	... <sup>d</sup>	489	531	21.7	219
1941 <sup>e</sup> .....	11.0	10.9	25.1	... <sup>d</sup>	... <sup>d</sup>	525	553	20.8	227

\* 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*.

<sup>a</sup> Fixed prices to producers; in Germany for the Berlin area.

<sup>b</sup> Less a tax of from 14 to 49 francs per quintal.

<sup>c</sup> In Serbia.

<sup>d</sup> Wholesale price index no longer available.

<sup>e</sup> Latest available index used: i.e., October for U.K., Sep-

tember for Germany, August for Bulgaria and Hungary, May for Rumania, and February for Yugoslavia. Since wholesale commodity prices have continued to rise, it is probable these figures are somewhat too high, especially those for Yugoslavia and Rumania.

TABLE X.—SELECTED WHEAT PRICES, WEEKLY FROM SEPTEMBER 1941\*  
(U.S. cents per bushel)

Week ending	United States							Canada (Winnipeg) <sup>a</sup>				Argentina (B.A.)		Australia f.o.b.
	Futures (Chicago)		Cash					Futures		Cash		Futures	Cash	
	Dec. (July)	May	Basic cash (Chl.)	No. 2 H.W. (K. C.)	No. 2 R.W. (St. L.)	No. 1 Dk.N.S. (Mnpls.)	Soft White (Port.)	Dec. (July)	May	Wtd. average	No. 3 Man.	Nov.	78-kilo	
<i>1941</i>														
Sept. 6...	120	124	115	112	113	110	96	68	72	64	61	55	55	69
13...	123	127	119	116	117	116	99	68	72	65	62	55	55	69
20...	121	125	117	114	116	116	98	68	71	64	61	55	55	69
27...	121	125	115	113	114	112	96	67	71	64	61	55	55	69
Oct. 4...	122	127	118	115	117	114	96	70	73	66	64	56	55	69
11...	119	124	114	113	113	112	94	69	73	66	64	56	55	69
18...	113	117	108	110	111	106	92	67	71	64	61	56	55	69
25...	115	120	111	113	106	109	94	67	70	63	61	56	55	69
Nov. 1...	114	119	111	112	114	111	94	66	70	62	61	56	55	69
8...	116	121	114	114	116	115	94	67	70	63	61	55	55	69
15...	115	120	114	113	118	116	94	67	70	63	62	55 <sup>b</sup>	55	69
22...	114	120	114	114	118	113	95	66	70	63	62	..	55	69
29...	113	119	114	114	118	112	94	68	71	65	63	..	55	69
Dec. 6...	117	122	118	117	122	119	94	68	71	65	63	..	55	69
13...	124	128	126	121	130	125	97	68	71	64	62	..	55	69
20...	124	126	126	122	126	124	96	67	71	64	62	..	55	69
27...	127 <sup>c</sup>	126	124	121	131	122	96	67	70	64	62	..	55	69
<i>1942</i>														
Jan. 3...	128 <sup>c</sup>	127	126	123	132	125	96	72 <sup>c</sup>	71	65	63	..	55	69
10...	130 <sup>c</sup>	129	127	124	133	127	98	73 <sup>c</sup>	72	65	64	..	55	69
17...	133 <sup>c</sup>	131	129	126	134	129	102	73 <sup>c</sup>	72	67	65	..	55	69
24...	133 <sup>c</sup>	131	129	126	134	129	103	74 <sup>c</sup>	73	68	66	..	55	69
31...	133 <sup>c</sup>	132	129	...	...	...	...	74 <sup>c</sup>	73	..	..	..	55	69

\* For methods of computation see WHEAT STUDIES, December 1941, XVIII, 189. 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. Dots (...) indicate no quotations.

<sup>a</sup> Converted at constant official exchange rate.

<sup>c</sup> July future.

<sup>b</sup> Five days; futures trading suspended November 15.



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