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WORLD WHEAT SURVEY AND OUTLOOK

JANUARY 1944

Helen C. Farnsworth and Meriam A. Clough

“World” wheat supplies for the current crop year were of record size. They were perhaps 800 million bushels larger than the huge supplies of 1938–39, which had added over 500 million bushels to the world carryover. This year, however, the utilization of wheat has so far exceeded earlier levels that year-end stocks are expected to be sharply reduced. In the United States alone, domestic disappearance of wheat in the first half of 1943–44 was about as much as is normally used during a full year. The amount of wheat recently diverted to feed and alcohol production in this country has substantially exceeded the quantity milled for flour.

Feed use of wheat has also been heavier than usual in Canada, Argentina, and Australia; and Argentina has allocated a large amount of wheat for fuel. Yet all three of these countries will have notably large stocks of wheat on August 1, 1944—enough to provide heavy shipments in 1944–45 for food in liberated areas and supplemental imports into the United States in the event of a poor harvest here. A major problem of food management in the United States is to prevent excessive, disorderly liquidation of livestock without unnecessary diversion of transport facilities to the importation of wheat and feed grains.

In Continental Europe ex-Russia, the 1943 wheat crop was the largest of the war, and wheat consumption has been less restricted this year than last. Bread rations have been raised and/or the quality of bread improved in many countries. Soviet Russia, on the other hand, apparently has smaller supplies of bread grain this year to meet increased deficits in areas liberated from German control. Russian wheat imports from North America, though sizable, will presumably not be sufficient to offset the enlarged deficit.

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Military developments continued to favor the United Nations during August–January. The westward movement of the Russian army was spectacular—from east of Smolensk, Orel, Kharkov, and Stalino at the end of July to Novgorod, Vitebsk, the Pripet Marshes, Sarny (Poland), Kirovograd, and the lower Dnieper in late January. Anglo-American occupation of Sicily and southern Italy, and Italy's surrender and declaration of war on Germany, counted at least temporarily as major gains for the Allied cause. But the northward progress of United Nations troops in Italy was slow, and through late January 1944 no other Continental country had seen fit to follow Italy's example by casting in its lot with the United Nations. Perhaps Britain and the

United States gained more military advantage during this period from selective heavy bombing of German cities and the western coast of France, since this will prove important in any cross-Channel invasion of the Continent. In the Pacific, Allied gains were significant but not spectacular. To the north, Kiska was taken in August after its quiet abandonment by the Japanese forces. In the South Pacific, United Nations troops occupied Munda, Salamaua, Lae, and the Gilbert Islands, and made successful landings on Bougainville and New Britain. The American Air Force continued to strike damaging blows at the Japanese air fleet, the American Navy at Japanese shipping.

In the Battle of the Atlantic, developments during August–December apparently confirmed the growing conviction of earlier months that the Allies had scored a decisive victory. Even Axis claims of sinkings of United Nations vessels during this period av-

eraged only 300 thousand tons (presumably gross) monthly, as compared with 800 thousand tons in the same months of the preceding year. Official Anglo-American reports stressed the following facts: (1) United States shipyards alone have turned out over 1,700,000 deadweight tons (roughly 1,075,000 gross tons) of merchant shipping monthly during the past six months; (2) this construction

amounted to several times the losses suffered by the United Nations during the same period; (3) by the end of November 1943 the merchant fleet of the United Nations had been restored to its prewar size; and (4) during August–November (and perhaps August–December) more German U-boats were sunk than Allied merchant ships. Reflecting these fa-

vorable developments, war-risk insurance rates declined: on most routes reductions were announced in August and again in September. Since September the rate on shipments to Ireland and West Coast ports of the United Kingdom has stood at 4 per cent, as compared with 6.2 per cent in August and 10 per cent in the preceding year. Similarly, the rate on shipments in non-neutral vessels to Portugal and Spain has been 5 per cent in recent months, as against 7.5 per cent in August and 15 per cent a year earlier.

The easier shipping position of recent months seems not to have been associated with material increase in the overseas movement of wheat and flour from the four major exporting countries. Only Canada seems likely to have exported considerably more wheat during August–December 1943 than in the same months of any of the three preceding years, and practically all of the increased flow of Canadian wheat went to the United

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States for use as feed. The United States itself presumably ranked as a net importer during this period for the first time since 1936. Australian wheat could have moved much more freely to India this year if shipping had been available, but we infer this was not the case. European *neutral* countries, faced with reduced crops, apparently drew a little more wheat from Canada and Argentina during August–December this year than last, but the increase must have been extremely small. Only moderately larger was the expansion of shipments to the USSR, though more marked expansion is in prospect for later months of the crop year.

The most striking feature of the world wheat situation during the past six months has been the increased disappearance of wheat for nonfood uses in the United States—uses that have absorbed more wheat than has been milled for domestic consumption and export. The greater portion has been used for feed—largely government grain sold at reduced prices—but a substantial quantity has also gone into the production of industrial alcohol. These two uses together probably accounted for the disappearance of at least 350 million bushels of wheat in the United States during July–December—a quantity larger than the combined total annual domestic consumption of Canada and Argentina.

The other three exporting countries have also been using more wheat than usual for nonfood purposes this year, but the increases have been moderate. Argentina, whose government allocated 92 million bushels last July for sale as fuel and feed, seems to have utilized only a small fraction of that amount during August–December. We anticipate that considerably more of this wheat will be consumed as fuel before July 31, yet Argentina seems likely to hold as large wheat stocks on that date as she did a year earlier. Australian stocks, also, will be about the same size as in 1943; but North American carryovers will be sharply reduced. The stocks of the four exporting countries combined seem likely to be 525–550 million bushels lower at the end of 1943–44 than at the beginning, but the total will nevertheless be higher than in any year prior to 1942.

In Continental Europe ex-Russia some rebuilding of wheat carryovers is to be expected in the current year. The 1943 crop of that area, though below average, was the largest harvested since the beginning of the war. In many countries, bread rations have been raised and the quality of bread improved as compared with last year's notably poor standards. In reflection of these adjustments, wheat utilization in Continental Europe ex-Russia may increase by some 100 million bushels as compared with the low figure for 1942–43, and a further substantial increase will be recorded for rye. Nevertheless, the need to stretch bread grains by means of high extraction rates and coarse-grain admixtures still persists, and such stretching measures are being generally maintained. Since other foods—particularly meat and animal products—are probably in shorter supply now than in any preceding war year, most countries will find it impossible to increase their carryovers of bread grain appreciably. But several of the Danubian countries, and perhaps Germany, may be expected to add to their year-end holdings unless war destruction or requisitions in connection with food relief in other countries make this impossible.

The world as a whole, exclusive of Russia and China, now appears to have had more wheat available from new crops and old stocks in 1943–44 than in any preceding year. The recent upward trend of wheat supplies has thus continued. But the earlier associated increase of world year-end stocks will be broken, mainly as a result of the heavy diversion of wheat to feed, alcohol production, and fuel in the four major exporting countries, particularly the United States. Probably an additional 50 million bushels of wheat will be removed from the world ex-Russia through shipments to the USSR. In the summer of 1944, therefore, the world's stocks of wheat will certainly be far lower than in 1943, and probably substantially below the 1,800 million bushels estimated for 1942. Yet the stocks of 1944 will still be abnormally large and concentrated in three of the four chief exporting countries—Canada, Argentina, and Australia. The United States carryover will be moderate relative to the heavy wartime demand.

UNITED STATES

Unprecedentedly heavy disappearance of wheat has been a primary feature of the food-feed situation in the United States during the past six months. In the first quarter of the crop year, July–September, wheat disappearance (including net trade) amounted to 360 million bushels, as compared with less than 225 million in the same period of the preceding year. The rate of disappearance in the second quarter was somewhat lower, though still extraordinarily high. If, as we now infer, the nation's wheat stocks on January 1, 1944 totaled 800–825 million bushels, disappearance during October–December must have approximated 315 million bushels, bringing the total for July–December to about 675 million. Such a figure would not only be the largest on record for July–December, but would be well above any recent *July–March* disappearance except in 1942–43.

Factors in utilization.—Although wheat utilization for flour for domestic use and export has appreciably increased in recent months (p. 101), this accounts for only a small part of the large expansion indicated in total disappearance. Much more important has been the increased diversion of wheat to nonfood uses, principally feed and alcohol production. This year, for the first time, wheat used for these two purposes represented a larger proportion of the total disappearance in July–December than did the quantity of wheat used for the production of flour.

Heavy feeding of wheat in the current season has reflected an unprecedentedly large livestock population, moderate supplies of concentrated feeds, favorable livestock–wheat price ratios, abnormally light marketings of corn, and offers of government-owned wheat for feed at prices far below existing market levels.

As of January 1, 1944, the number of “grain-consuming animal units” in the United States was probably about 10 per cent above the record established a year earlier. In contrast, supplies of feed concentrates were about 2 per cent *smaller* for the crop year, and per grain-consuming unit about 11 per cent smaller.¹ Moreover, in many feeding areas that had previously depended heavily upon

inward shipments of corn, feed deficiencies became more pronounced during the past six months, in reflection of reduced corn shipments. Most farmers in the corn belt were finding it less profitable to market their corn than to feed it;² and others were holding their surplus grain in anticipation of an upward revision in the price ceiling on corn. Despite special efforts of the War Food Administration (WFA) to stimulate corn marketings,³ shipments of corn to deficit areas were notably small both before and immediately after the harvesting of the new corn crop. The advance in the corn ceiling from \$1.07 to \$1.16, basis No. 2 Yellow at Chicago, effective December 6 was widely regarded as too small to bring a sharp, prompt increase in marketings in view of the disproportionately higher price ceiling on hogs (\$14.75 per 100 pounds, Chicago basis).

These developments, together with attractive prices for livestock and animal products, encouraged heavy feeding of wheat on farms and heavy additional purchases of wheat for feed in feed-deficit areas. Preference was naturally shown for the lower-priced government wheat that could be purchased for restricted feeding purposes from the Commodity Credit Corporation (CCC). But various factors, including shortage of cars, so interfered with CCC shipments in the Pacific Northwest and some other areas that many feed manufacturers and feeders turned to the open market for wheat to cover a large portion of their requirements.⁴

During July–December, the CCC sold for

¹ *Feed Situation* (U.S. Dept. Agr.), December 1943, p. 14.

² Prior to December 6, when the ceiling on corn was raised, corn marketed as grain at Chicago brought about \$1.07 per bushel but when converted to hogs as much as \$1.47 per bushel.

³ The WFA guaranteed that farmers who marketed their corn between July 1 and August 10 would be reimbursed if, and to the extent that, the price ceiling on corn should be revised upward prior to October 31. A similar guarantee was later made with respect to corn marketed between September 28 and October 31, with reimbursement promised to cover any advance in the corn ceiling prior to November 30. In both periods restrictions were placed on sales by merchants and elevators in order to divert a major portion of the marketed corn to wet processors.

⁴ See successive issues of the *Commercial Review* (Portland, Oregon) for the period under review.

feed 213 million bushels of wheat. Monthly sales averaged 44 million bushels in July–August, 36 million in September–October, and 27 million in November–December (Table VII). The downward trend reflected the declining stocks of the CCC, increased restrictions on feed use of such grain, harvesting of the new corn crop, and eventually higher prices charged for CCC wheat.

As stocks of government-owned wheat dwindled, the WFA took new steps to insure wise use of the remaining supplies. From October 4, the CCC required feed mixers to limit their use of government wheat to feeds for dairy cows and laying hens. At the same time the WFA announced that “an effort is also being made to discourage the feeding of market hogs to weights in excess of 200 pounds or beef cattle beyond fair to good finish.”¹ Finally, to discourage excessive feeding of wheat, the CCC raised its basic sale price for feed wheat from \$1.07 to \$1.27, effective December 6. This increase put the price of CCC wheat above corn parity and above the new ceiling price on corn, but in many areas CCC wheat was still priced lower per pound than barley and oats.²

¹ U.S. Dept. Agr. Release, Oct. 4, 1943.

² Temporary ceilings on these two cereals were set effective December 6 at the highest levels reached between November 29 and December 3. These ceilings will presumably be extended, if permanent ceilings are not fixed, as planned, before February 4.

³ These figures, secured direct from the CCC, differ from the data shown in Table VI.

⁴ Rounded figures based on data supplied directly by the CCC. In addition to sales of 213 million bushels for feed, the CCC reported domestic sales and transfers of 15 million bushels.

⁵ The quantity of wheat used for alcohol production in 1942–43 is officially estimated at 54 million bushels but we infer that over a million bushels of this had been sold by the CCC in the preceding crop year. See *Wheat Situation* (U.S. Dept. Agr.), November–December 1943, p. 6.

⁶ United States and Cuban representatives have been unable to agree on an export price for blackstrap molasses from the 1944 Cuban crop. So far the United States has not offered to pay a price competitive with the profit on blackstrap used in the local production of industrial and beverage alcohol. In early January, however, the Defense Supplies Corporation completed a contract with Cuban officials for 800,000 tons sugar equivalent in the form of invert molasses. This should yield almost a fifth of the 593 million gallons of alcohol planned for production in the United States in the calendar year 1944.

Over half of the 213 million bushels of wheat sold for feed by the CCC during July–December was drawn from the stocks held by the CCC at the beginning of the year. Between July 1 and December 31, the owned and pooled stocks of the CCC declined from 205 million bushels to 92 million.³ About 45 million bushels of wheat were imported by the CCC during this period, mostly from Canada (p. 102), CCC purchases on domestic markets amounted to about 50 million bushels (10 million of which were still undelivered), and some 30 million bushels were delivered to the CCC against outstanding loans.⁴

A second major factor in the notably heavy disappearance of wheat in the United States during July–December was the substantial use of wheat for industrial alcohol. During 1942–43 the CCC was empowered by Congress to sell an unlimited amount of government-owned wheat for the manufacture of alcohol without any legal restriction on the price to be charged. Under these conditions some 53 million bushels of wheat were reportedly utilized for alcohol production prior to July 1, 1943.⁵ After that date the CCC was permitted by Congress to sell wheat below parity prices only for feed use. But government agencies, anxious to obtain an adequate supply of alcohol, made new arrangements to subsidize alcohol production from wheat through purchases of alcohol by the Defense Supplies Corporation on a cost-plus-fixed-profit basis.

In the early months of the current crop year efforts were made to return to molasses as the principal basis of alcohol production, especially in Eastern coastal plants. Progress in this direction, however, was slow, chiefly because of financial and shipping obstacles to large imports of molasses, and grain continued to serve as the major source of production.⁶ During July–November wheat was the only grain used extensively for this purpose. In July, the War Production Board ordered distillers to cease using corn in their mashes, in order that the small market supplies might be reserved for starch manufacturers and other corn processors. This restriction remained in force until the beginning of December, when distillers with a high recovery of distillers' grains were authorized to use up

to 45 per cent corn and/or grain sorghums in their grain mashes until January 1, 1944.¹ This authorization was later extended to April 1.

We infer that about as much wheat was used for alcohol in the first six months of the present crop year as during the whole of 1942-43. Perhaps almost a third of the wheat converted to alcohol during July-December 1943 was used in the form of granular flour. The amount of wheat ground for granular flour reached a monthly peak of 5.6 million bushels last June and thereafter declined in successive months to 2.4 million in November. During July-November 14.9 million bushels were milled for this purpose at sharply rising rates of extraction.²

Flour production for human consumption was increased substantially in July-December 1943 over the high level recorded for the same period of the preceding year. Production data, available now only for July-November, are shown in Table V. These figures suggest that more flour was produced in July-November 1943 than in the same months of any year since 1931.

The maintenance of a notably high output of flour through October-November 1943 surprised many observers who noted the increasing price squeeze on millers (pp. 102-03) and the disturbing influence in November of the anticipated flour subsidy. In both months milling activity was stimulated by a large backlog of unfilled orders and by heavy new sales of flour to the army and to the Food Distribution Administration (FDA) for lend-lease shipment.

We infer that American civilian and military consumption of flour was appreciably, but not materially, increased in July-December 1943. Civilian rations of meat and other

foods were somewhat enlarged during the period and the flow of adequate supplies of rationed foods to populated centers was more regular than in many months of the preceding crop year. These factors operated against further expansion of flour consumption. On the other hand, increased allowance of sugar to bakers, including special "holiday bonuses" of sugar, presumably enlarged bakers' offerings of the sweeter baked goods for which a heavy wartime demand exists.

Trade position. — In 1942-43 the United States was a net exporter of something like 30 million bushels of wheat and flour. Almost two-thirds of the year's gross exports (exclusive of shipments to possessions) represented government-subsidized export sales, while most of the remaining third represented lend-lease shipments. The subsidy program for exports of wheat grain was discontinued on May 14, 1943, the subsidy program for flour on July 1. Thus far during the current crop year no new wheat or flour sales have been made to foreign countries under the stimulus of government export subsidies. On the other hand, the general flour production subsidy in force since December 1 (p. 105) applies to export flour as well as to flour for domestic use; and a special subsidy on shipments of about 1.6 million centals of flour to Cuba is now expected to become effective in early February.

Small exports have been made against sales negotiated prior to July 1 and against small "goodwill" sales made without benefit of subsidy since that date. We are inclined to guess, however, that such exports did not exceed 5-7 million bushels in July-December 1943. Moreover, lend-lease deliveries for export, which totaled 5.2 million bushels through November, were probably only a little larger. Consequently, we infer that July-December total gross exports of wheat from this country (including shipments to possessions) probably amounted to only about 15 million bushels. Additional shipments (mostly flour) were presumably made for army stockpiles for the relief of civilians in Italy and other foreign countries; but such shipments are not currently counted as "exports," nor are they likely to be in the future.

¹ *Northwestern Miller*, Dec. 1, 1943, p. 11; *Kansas City Grain Market Review*, Jan. 6, 1943. Total distilling consumption of corn in December was reported to be less than 1.5 million bushels.

² Under their original contracts with the CCC, mills were obliged to produce granular flour for alcohol at an extraction rate close to 60 per cent. After June 30, when CCC sales of wheat for alcohol production were discontinued, the reported average extraction rate for granular flour rose to 62.8 per cent in July, 67.5 per cent in August, 69.7 per cent in September, and 70.8 per cent (average) in October-November.

United States imports of wheat during July–December were apparently more than three times as large as the country's gross exports. The great bulk of the imports were arranged by the CCC (as agent of the WFA)¹ for later resale for feed purposes. Up to December 31, the CCC reported purchases of 63 million bushels of Canadian wheat, of which something like 45 million had been imported. With allowance for imports of one or two million bushels of Argentine wheat arranged by the CCC,² and for imports of a couple of million bushels of Canadian wheat by private dealers and feed manufacturers, we infer that the gross wheat imports of the United States during July–December reached about 50 million bushels. This suggests a *net import* figure for the period of about 35 million bushels.

Prices and the flour subsidy.—During July–December reported monthly farm prices of wheat in the United States averaged \$1.33 per bushel—the highest since 1925–26. Chart 1 shows the prices for recent months in comparison with those recorded during the five preceding years, corresponding annual loan rates, and monthly “parity” prices of wheat.

This year wheat prices apparently received less *direct* support from the current wheat loan program than had prices in other recent years. Even in July–September wheat prices in most areas were above the corresponding loan rates this year; and less new-crop wheat was put under government loans through December 1943 than had been pledged in the same months of any of the four preceding years (Chart 5, p. 104). Throughout the pe-

¹ Executive Order 9385, issued Oct. 6, 1943, consolidated all foreign food procurement in the Foreign Economic Administration, with the exception of purchases of food in Canada and sugar in the Caribbean area. This order became effective Jan. 1, 1944, with no interference with purchases of feed wheat in Canada by the CCC.

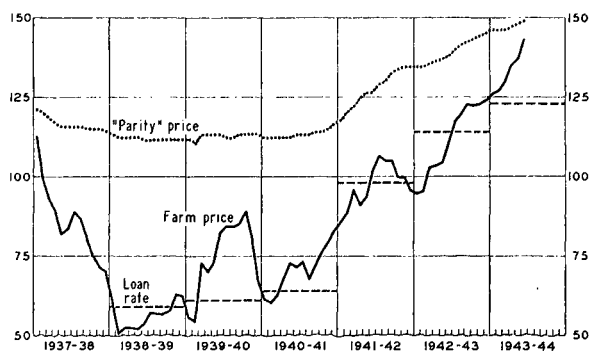
² The WFA announced on November 26 that since July 1 it had bought for importation into the United States 56,000 tons (2.1 million bushels) of Argentine wheat (U.S. Dept. Agr. Release 1135-44, Nov. 26, 1943). In January Broomhall reported that Argentina sold the United States 676,000 bushels of wheat in November and 500,000 in December in addition to the 2,200,000 bushels bought by the CCC in October (*Kansas City Grain Market Review*, Jan. 20, 1944).

³ *Southwestern Miller*, Nov. 30, 1943, p. 39.

riod under review the CCC stood ready to purchase wheat in domestic markets at or below loan levels, but only about 50 million bushels were actually bought—some of it, apparently, in late November at prices above loan rates.³

Two factors outside the loan program (but within the realm of government policy) were particularly important in determining the high level of wheat prices in recent months: (1) the extraordinarily heavy demand for wheat for feed and alcohol, and (2) the anticipation and later establishment of a flour subsidy.

CHART 1.—UNITED STATES AVERAGE FARM AND PARITY PRICES, MONTHLY, AND LOAN RATES FOR WHEAT, FROM JULY 1937* (Cents per bushel)



* Data of the Bureau of Agricultural Economics.

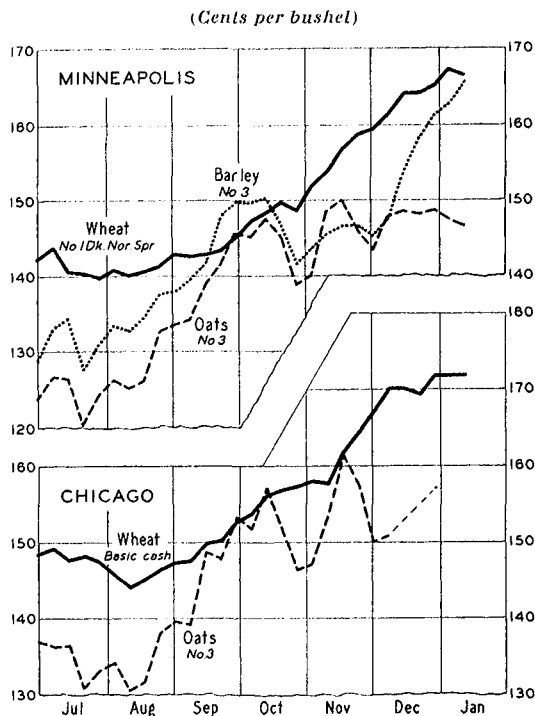
Not until September did the tight domestic feed position begin to exert a dominant influence on leading wheat markets. In earlier weeks attention had been directed to the threatened squeeze of current wheat prices against flour price ceilings and to the heavy marketings of new-crop wheat, which were handled with difficulty owing to shortage of labor and transportation. But by the second or third week of September, after sharp price advances had been scored for some days in coarse-grain markets (exclusive of corn, which was selling at ceiling prices), wheat prices also started upward (Chart 2). Feed-grain prices continued to advance through early October, when in a number of areas barley and oats were reported selling higher than wheat on a weight basis.

By mid-October wheat prices in the major

markets were 7-17 cents per bushel above the wheat-price equivalents of corresponding flour ceilings (Chart 3), and the milling industry was protesting that sales of flour could not be continued on the basis of current

tober and early November were too far out of line with the legal flour ceilings to permit a continued orderly flow of flour to bakers. The most reasonable solution to this difficulty, under the unfortunate tying of loan rates to

CHART 2.—WEIGHTED AVERAGE PRICES OF WHEAT, BARLEY, AND OATS AT MINNEAPOLIS AND CHICAGO, WEEKLY FROM JULY 1943*



* Data from the U.S. Department of Agriculture and the Chicago Journal of Commerce.

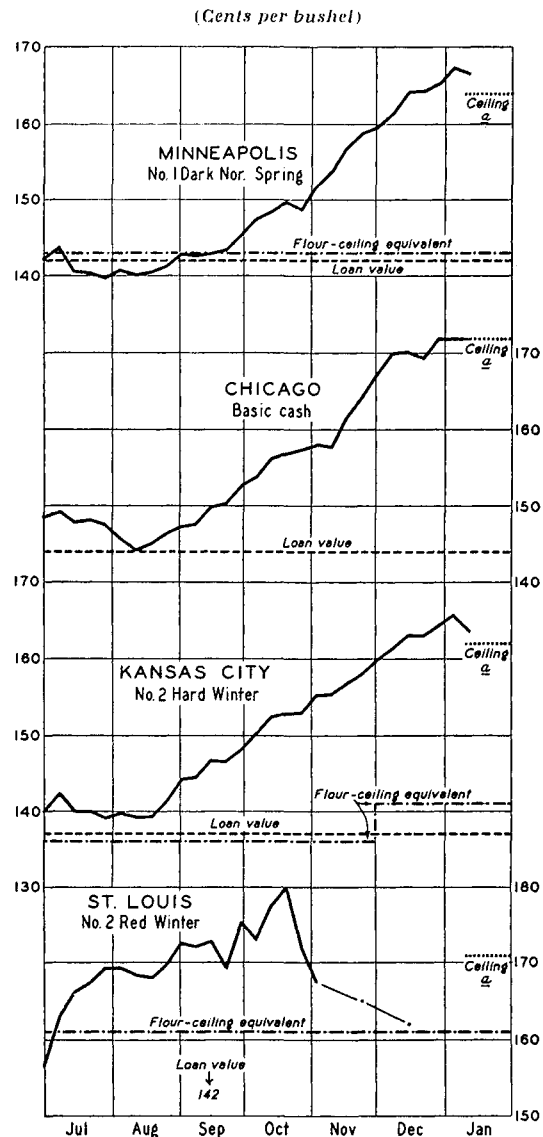
spreads between wheat and flour prices.¹ Actually, however, flour sales continued at a high level for several weeks thereafter, in the face of further advances in leading wheat markets. But not all wheat areas shared in the sales; many mills preferred to take temporary losses rather than sacrifice their competitive positions; family flour was not subject to price squeeze as early as bakery flour; and some concessions were made in quality on certain government orders.²

Responsible government agencies recognized that the wheat price levels of late Oc-

¹ A good presentation of the view of the milling industry may be found in *Bulletin* (mimeographed, Millers' National Federation, Chicago), Oct. 25, 1943.

² *Southwestern Miller*, Nov. 9, 1943, p. 27.

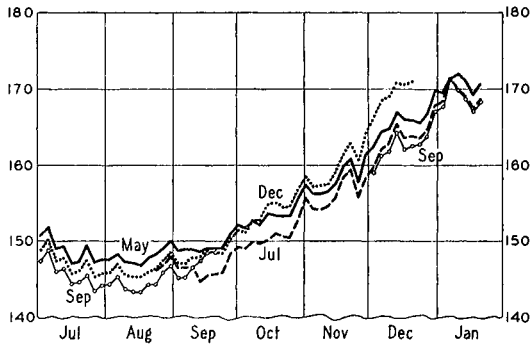
CHART 3.—WHEAT PRICES IN UNITED STATES MARKETS, AND CORRESPONDING PRICE CEILINGS AND LOAN VALUES, WEEKLY FROM JULY 1943*



* Weighted average prices from the U.S. Department of Agriculture. Wheat price ceilings as announced by the OPA; loan values by the CCC. Flour-ceiling equivalents furnished by Millers' National Federation. Sales of high-protein wheats in Minneapolis, Chicago, and Kansas City tend to raise the average prices in these markets above the corresponding ceiling levels.

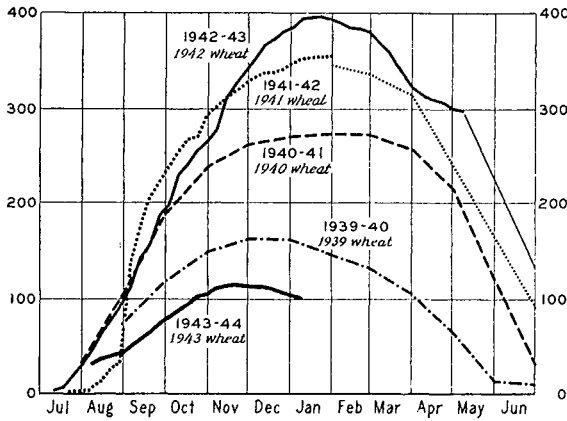
^a Wheat formula price plus 1½ cent commission, starting Jan. 4 instead of Jan. 10, as shown on chart.

CHART 4.—PRICES OF WHEAT FUTURES AT CHICAGO, TUESDAYS AND FRIDAYS FROM JULY 1943*
(Cents per bushel)



* Data from the *Chicago Journal of Commerce*.

CHART 5.—NEW-CROP UNITED STATES WHEAT UNDER CCC LOANS FROM AUGUST 1939*
(Million Bushels)

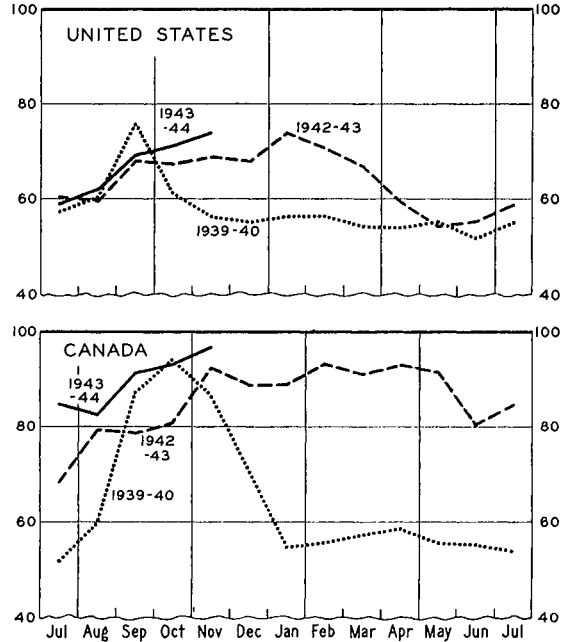


* Data from press releases of the U.S. Department of Agriculture and monthly statements of the CCC.

85 per cent of parity—that wheat price ceilings should be set at levels corresponding to the existing price ceilings on flour—had been ruled out by legislation in 1942, when Congress specified that ceilings on agricultural commodities should not be established below parity levels.¹ Only two alternative solutions seemed to remain: (1) flour ceilings could be raised to cover the increases in wheat prices that had occurred after the establishment of those ceilings (with adjustments for errors in

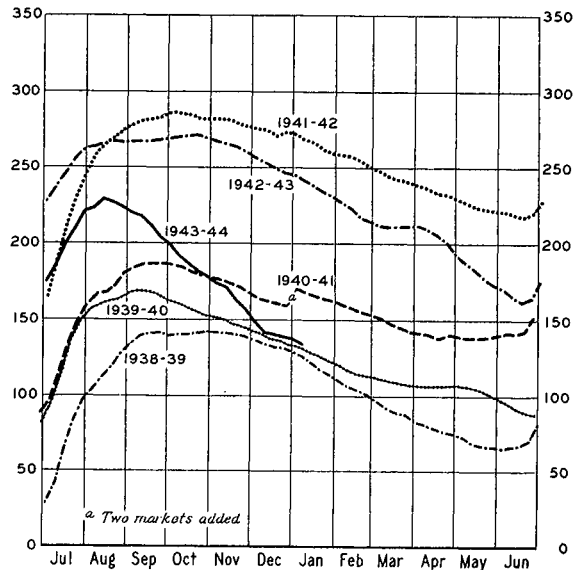
¹ Even the President's Executive Order 9250, requiring that consideration be given to appropriate deductions for conservation and parity payments in the establishment of ceiling prices on agricultural commodities, did not help in the establishment of suitable wheat price ceilings.

CHART 6.—MILLING ACTIVITY IN NORTH AMERICA, MONTHLY FROM JULY 1943, WITH COMPARISONS*
(Percentage of total capacity)



* Data of the U.S. Bureau of the Census, and the Dominion Bureau of Statistics, Canada.

CHART 7.—VISIBLE SUPPLIES OF UNITED STATES WHEAT, WEEKLY FROM JULY 1938*
(Million Bushels)



* Data of the U.S. Department of Agriculture.

the wheat-flour price spreads previously accepted); or (2) flour subsidies could be granted millers to cover the increased cost of

their basic raw material. The former solution was clearly opposed to the President's "hold-the-line" order of April 8, 1943, since it would necessarily result in some increase in the average price of bread. The latter was as clearly opposed to the expressed view of Congress against government subsidies to consumers, and there remained the possibility that Congress would outlaw all such subsidies.

Spokesmen for the Millers' National Federation expressed their opposition to the flour-subsidy solution, and declared themselves in favor of "establishing flour ceilings on the basis of parity for wheat prices, including all permissible premiums and allowable charges; providing, if such wheat is not available at milling points in the open market, it will be made available by Government agencies."¹ Although these spokesmen specifically refrained from making any declaration with regard to wheat price ceilings, it seems proper to point out that their solution would hardly be complete without the establishment of wheat price ceilings at parity levels.

The initial step in establishment of price ceilings on wheat was taken on November 1, when a long-delayed ceiling order for soft wheat was issued effective November 6 (MPR 487). Soon thereafter it became apparent that ceilings on wheat prices would be tied not to correspondingly higher flour ceilings but to flour ceilings close to the levels then prevailing. In an address to Congress on November 1, the President reported: "A program to prevent an increase in the price of bread is now being developed."² On November 18, the Office of Economic Stabilization (OES) announced that a flour subsidy program would soon be put into operation, along with ceiling prices at full parity on all types of wheat.

¹ The policy in force in World War I was similar. *Bulletin* (Millers' National Federation), Oct. 25, 1943; *Southwestern Miller*, Oct. 26, 1943, p. 23.

² *New York Times*, Nov. 2, 1943, p. 20.

³ The November 18 statement of the OES clearly suggested that freight costs would be considered in determining the differentials between ceiling prices in the different terminal markets. This had not been generally anticipated, since most traders had been expecting ceiling differentials to be similar to those for the government loan program.

⁴ Concern was also expressed over the prospect that protein premiums might result in price difficulties.

Although the general principles for establishment of the subsidy program and the wheat ceilings were outlined in the OES statement, many uncertainties as to the precise rates of subsidy and the market differentials for ceiling prices remained. The bare facts that a flour subsidy program would be inaugurated and that wheat ceilings would be established at full parity were bullish. But millers and purchasers of flour were both inclined to await publication of the subsidy rates before making new flour contracts, and wheat dealers and speculators were hesitant about bidding wheat prices up to parity levels in markets tributary to Chicago. Application of the parity principle to the Chicago market, with freight deductions for tributary areas,³ would mean below-parity ceilings for Kansas City and some other markets.⁴ The alternative ceiling basis—full parity at Kansas City plus transportation costs to Chicago—would suggest above-parity ceilings at Chicago. Many speculators seemed to expect that ceilings would be established on the latter basis, while others regarded the former as more probable.

On November 29 the OPA issued revised maximum prices for flour (Rev. MPR 296), and the Defense Supplies Corporation issued regulations governing the subsidy payments to be made on flour production. Both measures became effective the following day, with the subsidy rates applicable from December 1. The revised flour ceilings were designed to correct the special handicaps suffered under MPR 296 by mills in certain areas and the excessive earlier maximum prices for family flour in certain states. The most important changes included (1) upward revisions of 11 cents per 100 pounds in the ceilings for hard wheat bakery flour based upon Missouri River points and in the Pacific Coast and Rocky Mountain States; (2) advances of 17–18 cents per 100 pounds in the ceilings for hard wheat bakery flour based upon Enid, Oklahoma; and (3) an increase of 10 cents in high-gluten bakery flour ceilings in the spring wheat area. Aside from these changes and reductions in ceilings for family flour in a number of states, the revisions in flour ceilings effected by the new order were minor in character or confined to smaller geographical areas.

More important for the milling industry in general were the detailed provisions of the flour-subsidy program. Four different rates of subsidy were provided—one for the Pacific Coast milling region, and three for the broad region east of the Pacific Coast, where different rates were deemed necessary for hard, soft, and durum wheats. The specific rates have been determined monthly, on the basis of the differences between prevailing wheat prices and the prices used for the flour ceilings established under MPR 296. Since November 29, when the initial rates for December were announced, there have been two revisions in the basic subsidy rates. These are shown below in comparison with the initial values, in cents per bushel of wheat ground for flour for both domestic use and export:¹

Month effective	Pacific Coast	Other regions		
	All wheats	Hard wheat	Soft wheat	Durum
December	14	16	5½	6
January	18½	21	9½	11½
February	24½	22½	12	16

While the December rates were still under consideration, the cost of the flour subsidy was estimated at \$8,000,000 to \$10,000,000 a month. Presumably the higher January-February rates imply a much higher cost.

As soon as the flour subsidy became effective, flour sales sharply increased. But after early heavy business, millers showed considerable reluctance to accept further bookings for future delivery. Early in December the possibility that Congress would outlaw subsidies after the end of the month² tended to

¹ Subsidy payments to mills for December applied to wheat ground in that month less grindings to cover net unfilled orders as of November 30, 1943. Payments for January were at the December rates for wheat ordered in December and at the higher January rates for wheat ordered in January, using the "first in first out" principle.

² H.R. 3477 and S. 1458, 78th Cong.

³ Congress decided to postpone voting on the issue of consumer subsidies until after the Christmas recess. In line with this decision, the life of the CCC was extended by Congressional action from Dec. 31, 1943 to Feb. 17, 1944.

⁴ *Southwestern Miller*, Nov. 2, 1943, p. 35.

⁵ See Section 18 of MPR 487.

⁶ See WHEAT STUDIES, September 1943, XX, 7-8, for a discussion of the shortage of soft red wheat.

limit sales, since under such conditions millers would be able to collect subsidy payments only on the quantity of wheat sold and actually milled during the month of December. Later, when this legislative hazard was removed,³ many mills remained cautious sellers, because of the provisions of the subsidy program that (1) payments will be limited to the quantity of wheat ground during the subsidy period, and (2) payments will in no case be made on unfilled bookings ground more than 120 days after the program is terminated.

The expected price ceilings on hard wheat were not established until January 4 (Chart 3, p. 103). Meanwhile prices in the major hard wheat markets moved up toward parity levels, with cash wheat and December futures rising more sharply than distant futures in reflection of an immediate shortage of "free" commercial wheat (Chart 4, p. 104). When the ceiling prices on hard wheats were announced, they proved to be at full parity for Kansas City and Minneapolis, with freight additions to Chicago.

At the same time that hard wheat price ceilings were established, the ceilings for soft wheat were revised upward. Although the original ceiling on soft red wheat, effective November 6, had been declared to be at approximately full parity,⁴ traders had promptly noted that it was below the calculated parity at which the CCC had been offering soft wheat to millers. This situation had been countered by a special provision of the original order which permitted the CCC to sell wheat at prices above the *commercial* ceiling levels: on No. 1 Red at St. Louis, for example, the legal maximum for CCC sales was 10 per cent above parity, or at that time over \$1.83.⁵ Thus, the November ceilings on soft wheat had not interfered, except temporarily, with transactions by the CCC at full parity.

Even after the January increase in soft wheat ceilings, the maximum price for No. 1 Red at St. Louis was only 9 cents above the new ceiling price on No. 1 Dark Northern wheat at Minneapolis—a market-price relationship that seriously failed to reflect the relative abundance of hard spring wheat and the notable shortage of soft red in the current crop year.⁶ It is also noteworthy that the

revised ceiling on soft red wheat was still well below the market prices recorded for such wheat at St. Louis in late September and October, before the first ceiling order rolled back prices in that market (Chart 3, p. 103).

Establishment of wheat price ceilings on January 4 was promptly followed by adjustment of prices in all markets to the ceiling levels. Futures prices flattened out, with both near and distant months selling at the ceiling limits (Chart 4, p. 104).¹ In the hard wheat markets, protein premiums rose sharply to reflect the much larger premiums allowed under the ceiling order, and low-protein

wheats (which had previously commanded premiums over 13 per cent protein grades at Kansas City) became virtually unobtainable. Outright violations of the ceiling order and sharp practices that violated the spirit of the order became common, some interfering markedly with the purchase of wheat by mills.²

Many of the maladjustments that occurred in leading wheat markets during the days immediately following the establishment of wheat price ceilings were partially corrected within the next few weeks. Distant futures dropped away from the ceiling limits until they again sold at discounts under nearer futures and cash wheat, the artificially high protein premiums were somewhat reduced, and exchange officials and the OPA took steps to minimize violations and abuses.

Current problems and outlook.—On December 1 the Committee on Wheat Conservation of the Millers' National Federation presented to the War Food Administration a report which urged that immediate restrictions be put on the sale of wheat for feed and that wheat be used sparingly in the future to supplement other materials for alcohol production.³ These recommendations reflected the opinion of the committee that immediate action by the WFA was necessary to insure adequate supplies of wheat for human food and for the carryover on June 30, 1944.

With the general thesis that the WFA should have been attempting in December to insure an early, substantial reduction in the rate of use of wheat for feed and alcohol production we are in full agreement.⁴ The need for effective action in this direction is still pressing.

Some steps had already been taken to cut the use of wheat for alcohol (p. 100), and efforts were being continued to increase imports of blackstrap molasses for distilling purposes. Probably these efforts should have been strengthened, but we infer that the greatest improvement in this respect after December could not save more than 25–35 million bushels of wheat for food and other uses during January–July.

According to the Bureau of Agricultural Economics, the present prospect is that 100–110 million bushels of wheat will be used for

¹ The OPA ceiling order on wheat (Rev. MPR 487) did not establish specific ceilings on wheat futures. These were immediately determined, in line with the order, by the directors of the various exchanges. At Kansas City the futures ceiling was set at the formula price for No. 2 Hard (the basic deliverable grade) plus a merchandising charge of $\$.01\frac{1}{2}$, bringing the maximum limit to $\$1.63\frac{1}{2}$. The directors of the Chicago exchange at first established a maximum of $\$1.71\frac{3}{8}$ for Chicago wheat futures—the formula price with no merchandising allowance—but this was later raised to $\$1.73\frac{3}{8}$. The price ceiling on Minneapolis futures was established at 8 cents under the corresponding Chicago ceiling, to allow for the freight differential between those markets. The revised Minneapolis maximum is $\$1.65\frac{3}{8}$.

² Such practices included (1) circuitous merchandising of wheat, which unnecessarily raised the merchandising charges to the maximum permitted under MPR 487, (2) blending of lower protein wheats with higher protein grades to secure additional premiums—this, in effect, removed from the market the lower protein wheats needed for family flour and resulted in nonuniform mixtures of wheat difficult to mill, and (3) delivery of low-protein wheats without protein-inspection certificates at prices carrying premiums for high-protein content. See the *Hook-Up*, Jan. 18, 1944, pp. 1–2.

³ The specific recommendations were as follows:

"A. That CCC be directed to cease the sale of wheat for feed except from its presently owned stocks (less International Wheat Agreement commitments) and such imports as it may physically accomplish.

"B. That the sale of wheat for feed by commercial converters be restricted for use in distress areas and should not be permitted in excess of 50,000,000 bushels.

"C. That wheat in the alcohol program should be on a non-wastage basis and drawn on only as a supplement to maximum use of molasses, corn, sorghums, rye and other available materials.

"D. Immediate governmental action in each of the above is imperative if we are to avoid an unnecessary shortage of our cereal supply."—*Hook-Up*, Dec. 8, 1943.

⁴ Some of the detailed calculations and specific recommendations of the committee's report are not convincing.

alcohol during the crop year 1943-44.¹ We have no good basis for checking this forecast, and tentatively accept it in our calculations of the prospective annual domestic disposition of wheat (Table IV).

The really crucial problem in wheat utilization for the second half of the crop year is the quantity of wheat that will be poured into feed channels. Disposition data for the first six months suggest that 300-325 million bushels were probably fed during that period. Increased wheat prices, less favorable price ratios between livestock and wheat and also eggs and wheat, existing restrictions on sales of CCC wheat for feed (p. 100), prospective heavier corn marketings, and anticipated smaller livestock numbers all point to a reduced rate of wheat feeding during January-June 1944. But without further substantial restrictions on CCC sales of feed wheat (which averaged about 4 million bushels weekly during the first three weeks of January) these factors might well be associated with the feeding of as much as 175-200 million bushels of wheat during the second half of the current

crop year. This would bring the July-June total to 475-525 million bushels.

Recent news has been somewhat conflicting as to the outlook for tightening restrictions on wheat feeding. On the one hand, reports from Washington have indicated that a system of strict allocation of reduced quantities of government feed wheat may soon be introduced. On the other hand, strong efforts are being made to step up imports of feed wheat from Canada.² At the request of WFA, the Office of Defense Transportation has ordered the movement of 200 cars a day to Canada to bring in Canadian wheat purchased by the CCC. This movement, if continued through April as planned, would provide rail-imports of approximately 40 million bushels. Additional substantial imports of Canadian wheat, mostly arranged by the CCC, are currently coming by water from Vancouver to United States Pacific ports. The movement of wheat to this country on the Great Lakes after navigation opens in the spring will presumably be heavy. It seems more or less reasonable, therefore, to anticipate total wheat imports of at least 75 million bushels from Canada and Argentina during January-June 1944. Such imports would permit average weekly sales of over 3 million bushels of imported feed wheat by the CCC during the next five months. The crucial question, however, is whether these sales will be substantially supplemented by sales of domestic wheat for feed—wheat obtained through deliveries of loan wheat by farmers and through purchases by the CCC on domestic markets.³

We infer that the amount of domestic wheat diverted to feed during the next five months will depend on the general livestock policy adopted by the WFA and the speed with which that policy can be put into operation. The problem that faces the WFA is a difficult one. If excessive restrictions are put on sales of government feed wheat, the country's livestock population may be reduced too rapidly and in a disorderly fashion. This occurred to some extent with respect to hogs in December-January—a situation which the WFA met by raising the weight limit specified for the government's support price for hogs in order to induce a slower movement of hogs to market.⁴

¹ The higher estimate is from the *Wheat Situation*, November-December 1943, p. 6; the lower from the *Demand and Price Situation* (U.S. Dept. Agr.), December 1943, p. 6. In January the War Production Board estimated that 170 million bushels of grain will be required for alcohol production during the calendar year 1944. This implies the use of over 14 million bushels of grain monthly or somewhat more than was used on the average during July-December 1943. Unless corn is marketed more freely than it has been through January, more than half of the grain used for alcohol production in January-July will probably be wheat.

² Perhaps more stress will also be put on imports of wheat from Argentina.

³ Effective May 1, 1944 the distribution and procurement programs of the CCC will be taken over by the Office of Distribution (reorganized FDA), except that the CCC will continue to procure and import food from Canada and to distribute food acquired under the loan program. We infer from this recent announcement that the CCC will not purchase wheat directly in domestic markets after May 1, but that it may still obtain such wheat indirectly through the Office of Distribution.

⁴ The support price of \$13.75 per 100 pounds, which originally applied only to hogs weighing 200-270 pounds, was revised on December 23 to cover hogs of 200-300 pounds, and again on January 27 to cover animals weighing up to 330 pounds. Although these weight revisions favored increased consumption of corn and other feed grains, they tended to reduce the immediate flow of hogs to market.

On the other hand, if government sales of wheat for feed are not reduced from recent levels, a domestic wheat carryover of 250–300 million bushels can be assured only by increased imports of wheat from Canada and Argentina—imports that seem likely to take cars and ships badly needed for the movement of war materials and essential civilian goods.

The problem, therefore, is one for careful and enlightened government management, with constant attention to changing prospects for the North American grain crops of 1944. In our opinion, less emphasis should be placed on the size of the United States carryover of wheat next July, more on the size of the North American carryover. If the United States continues to appear likely to harvest a wheat crop of over 700 million bushels in 1944, the domestic carryover might safely be permitted to sink to 200 million bushels, so long as large wheat supplies remain available in Canada. But unless future crop developments should be so favorable as to promise a record grain harvest in this country in 1944 governmental policy should continuously be directed toward orderly, differential reduction of the existing huge livestock population, so that far less wheat will be needed for feed in 1944–45. To steer the right course between the Scylla of an extreme and disorderly reduction of livestock count and the Charybdis of wheat shortage has now very clearly become a major problem of wartime food management. It remains to be seen how well the management will function.

The pressures operating to maintain the level of sales of government feed wheat close to 4 million bushels per week during January–June now seem likely to be too strong to prevent reduction to a materially lower average level for that period. It seems reasonable, therefore, to anticipate that wheat feeding in the crop year 1943–44 will approach the 500 million bushels forecast in late December by the Bureau of Agricultural Economics.¹

The remaining item of importance in domestic disposition is the wheat milled for food for American civilian and military consumption (including stocks destined for consumption by these two groups). We infer that such

net mill grindings in 1943–44 may approximate 530 million bushels as compared with 520 million in 1942–43 (Table IV). Thus far in the present crop year American consumers have had little new incentive to expand consumption of wheat products (p. 101). But the present prospect is that meat and fat rations will be tightened later in the year, perhaps enough to encourage some increase in the consumption of wheat products as “meat stretchers” and suppliers of needed calories. And in any case, bakers will continue for some weeks to be better supplied with sugar and baking fats than they were during the latter part of 1942–43—a fact that suggests increased consumption of various sweet bakery products in the current crop year.

American mills will benefit this year not only from the increased demand for flour for consumption by American civilians and military forces but also from enlarged demands for flour for (1) lend-lease and organized relief shipment and (2) army shipment for the first stages of relief in newly liberated areas. In contrast, private exports of flour will presumably be reduced as a result of the withdrawal on July 1, 1943, of the former subsidy on flour exports to American ports.

We have already observed that private and lend-lease exports of wheat and flour during the first half of the crop year were small—perhaps about 15 million bushels in total (p. 101). Since November, however, FDA purchases of flour for lend-lease have increased and the present outlook is for considerably larger lend-lease shipments (mainly to Russia) during January–June. Army orders for foreign relief flour have also expanded in recent months; but since the resulting shipments will presumably never be reported as “exports,” we include our allowance for these in the “residual” in Table IV. Only the relief shipments made by the Red Cross and by the United Nations Relief and Rehabilitation Administration (UNRRA) seem likely to be treated as exports in United States foreign trade statistics. Such organized relief exports will depend heavily on the course of the war, but it seems probable that they will increase moderately during January–June. Together with expanded lend-lease shipments, they may

¹ *The Feed Situation*, December 1943, p. 8.

well bring United States gross exports of wheat and flour to the 75 million bushels forecast by the Bureau of Agricultural Economics in mid-December.¹

Against such possible exports, it seems reasonable to place anticipated imports of about 125 million bushels of Canadian and Argentine wheat. This implies a net import balance for the United States of some 50 million bushels in 1943-44. Recent action of Congress to permit duty-free imports of feed wheat into this country for 90 days beginning December 23² seems unlikely to have any appreciable effect upon the volume of imports, which appears to be limited by transport facilities rather than by prices.

Table IV, section A, shows the items in United States disposition already mentioned, the official seed-use estimate of 80 million bushels, and the carryover figure mathematically derived from the other items. The indicated carryover is 265 million bushels—some 350 million below the stocks of the preceding year.

At present, many wheat processors seem to fear the development of a market shortage of wheat entirely out of line with the size of the wheat carryover. Their fears rest partly on analogies based on the tightness in the corn market last summer and partly on evidence that increased farm holding must be counted on in wartime, especially with an active farm bloc in Congress. The latter point appears to us to be worthy of close consideration; the former to be the basis for much needless concern.

The *differences* between the corn market situation last summer and the wheat position today are greater than the indicated similarities. On the Chicago market, No. 2 Yellow corn could bring no more last summer than the ceiling price of \$1.07 per bushel, whereas the same corn was worth something like \$1.47 if kept on the farm and fed to hogs. At present farmers can secure up to the formula price of \$1.70 for No. 1 Dark Northern wheat at Chi-

cago (the cheapest grade now available for delivery on futures), and there appears to be no alternative legal farm use of wheat that will yield a higher return. Thus, there is no valid close analogy between the present wheat situation and last year's corn difficulties, which may be repeated on a smaller scale in the present season. But a market shortage of wheat may nevertheless develop if farmers are encouraged by the Congressional farm bloc and other Washington groups to anticipate considerably higher prices for wheat after the beginning of the new crop year. Recent talk of raising the loan basis on 1944 wheat to 90 or 95 per cent of parity from the current 85 per cent level is an unfortunate move in this direction.

CANADA

The major developments in Canada during September-January were an increase of guaranteed wheat prices from 90 cents (Canadian) to \$1.25 per bushel; tightening of governmental control over stocks and movement of wheat, together with closing of futures markets; emergence of prospects for larger exports and a lower year-end carryover; and appearance of an official decision not to expand wheat-acreage goals for 1944 above those for 1943.

Supplies and marketing.—On August 1, 1943 the carryover of Canadian wheat in North America amounted to 601 million bushels. This record figure compares with a carryover of 424 million bushels a year earlier and the previous record of 480 million on August 1, 1941. Total supplies, in spite of the smallest crop since 1937, amount to 895 million bushels for 1943-44, a supply exceeded only in 1942-43.

The 1943 crop is officially estimated at only 294 million bushels. Under the quota system, Western farmers may deliver 280 million bushels of wheat—about all their new wheat if they so desire. However, this year wheat from previous crops may be delivered within the 14-bushel quota per authorized acre. The 1943 farm carryover of 194 million bushels in the Prairie Provinces can thus be considerably reduced.

Marketings through September were larger

¹ *Demand and Price Situation*, December 1943, p. 6. A forecast of 50 million bushels was published earlier in the month in the *Wheat Situation*, November-December 1943, p. 5.

² Public No. 211, 78th Cong.

than a year earlier mainly because of the extended quota period for the 1942 wheat crop.¹ Beginning in October marketings fell behind and congestion in the country soon eased. By mid-November, only about 25 per cent of the total quota was delivered, while about 40 per cent was delivered by the same date a year earlier. The visible supply of wheat in Canada (not including supplies in transit or afloat) amounted to only 302 million bushels on January 27 as compared with 434 million at the same date in 1943. Total grain visibles, including oats, barley, rye, and flaxseed, amounted to 383 million bushels or about 115 million less than a year earlier, and unused storage space was available in Canada for about 220 million bushels of grain.² Empty space became an especially serious problem at Fort William-Port Arthur.

The wheat shortage at the lakehead resulted from diversion of transportation equipment to carrying feed east (see below).³ In

¹ The initial quota of 3 bushels per authorized acre went into effect August 16 this year at a number of points where last year's delivery period was extended to allow full delivery in 1942-43. At points where the extension was unnecessary, the initial quota was effective on August 1, as usual. No increase in the general delivery quota has been announced as yet, but quotas at a number of points reached the maximum of 14 bushels in November. Deliveries of amber durum wheat were limited to an initial quota of 5 bushels per authorized acre, beginning September 1.

² Total storage capacity, including temporary and special annexes, amounted to about 603 million bushels on Dec. 1, 1943. *Monthly Review of the Wheat Situation* (Canada, Dominion Bureau of Statistics), January 1944, p. 17.

³ A reversed position existed earlier in the crop year (see p. 112).

⁴ *Monthly Review of the Wheat Situation*, November 1943, p. 14.

⁵ Numbers of livestock on farms on June 1, 1943 are not all record figures, but are considerably the largest since the war began. Statistics given in million head (*Canadian Coarse Grains*, Canada, Dominion Bureau of Statistics, November 1943, p. 5) are as follows:

June 1	Cattle	Hogs	Sheep and lambs	Hens and chickens
1939	8.3	4.3	2.9	56.8
1940	8.4	6.0	2.9	58.7
1941	8.5	6.1	2.9	58.9
1942	8.9	7.1	3.2	68.1
1943	9.7	8.1	3.5	75.0

⁶ All figures given for oats are in Canadian bushels of 34 pounds each.

⁷ *Foreign Crops and Markets* (U.S. Dept. Agr., Office of Foreign Agricultural Relations), October 1943, pp. 237-38; *Canadian Coarse Grains*, November 1943, p. 5.

late October the Canadian Wheat Board (CWB) instructed railways to load wheat immediately for Fort William and Port Arthur from areas which would provide the quickest turn-around of cars. The wheat stocks in store of 45 million bushels were to be supplemented by 60 million bushels in order to use available tonnage and meet commitments to the United Kingdom, the United States, and Eastern mills.⁴ From October 21 to the close of navigation on December 16 (four days later than usual), 59 million bushels reached Fort William-Port Arthur and 92 million were shipped out by water. Stocks in store were reduced to a low level of 11 million bushels on December 16, as compared with 89 million in store a year earlier.

Domestic utilization.— Mill grindings for home consumption and the feed use of wheat in 1943-44 may account together for some 148 million bushels, of which about 48 million will be milled. As to feed use, the total livestock population as of June 1 in Canada has increased each year since the war began.⁵ However, in view of the price position (see below), about the same amount of wheat will probably be fed in the West as last year—79 million bushels. For the East the problem has been and still is one of moving eastward part of the record supplies of wheat and other grains. The various feed programs, as well as a favorable price position in both the East and the West, will encourage this movement.

The Freight Assistance Policy, initiated in October 1941, has been continued, and over 20 million bushels of feed wheat may be shipped during 1943-44. During August-December 1943, over 10 million bushels were shipped as compared with about 7 million during the same five months of 1942.

Three other programs, known as Plans "A," "B," and "C," are now in effect in addition to freight assistance. The purpose of Plan "A" is to establish emergency stocks of feed grains, including wheat, in the Eastern provinces. According to the plan, the government is to ship about 9.4 million bushels of wheat, 4.4 million of oats,⁶ and 7.8 million of barley, to store them in the East at government expense, and to release them to feeders only in an emergency.⁷ Plan "B"—to encour-

age early buying of feedstuffs—involved a federal subsidy on a sliding scale for Eastern feeders who bought during July–December 1943. The subsidy, 3 cents a bushel for wheat, oats, and barley bought in July, declined ½ cent each month until it reached ½ cent per bushel in December.¹ Plan “C,” announced in August, allows direct shipment of feed grains and feed wheat from Winnipeg east without passing through the lakehead, provided dockage is down to 3 per cent according to inspection at Winnipeg.² Congestion at Fort William–Port Arthur was promptly eased by Plan “C,” and by additional labor to load and unload cars following a plea to the National Selective Service.

Comparative costs of Western feed grains in Canadian currency per 100 pounds for Eastern farmers during various periods since August 1942 have been as follows:³

Period	Feed wheat ^a	Oats	Barley
Aug. 1 to June 30, 1942–43	\$1.28	\$1.44	\$1.34
July 1943	1.39	1.43	1.29
Aug. 1 to Sept. 27, 1943	1.51	1.45	1.30
Sept. 28 to Nov. 14, 1943	1.76	1.47	1.32
Nov. 15 to Dec. 31, 1943	1.49	1.49	1.33
January 1944	1.50	1.51	1.35

^a No. 4 Northern.

After the CWB's new minimum price became effective on September 28, but before the new feed drawback of 25 cents per bushel⁴ took effect on November 15, the cost of feed wheat was far above that of oats or barley. At the present time barley is cheapest to feed and wheat and oats cost about the same. Wheat will still be an important feed grain in Eastern states, but in relation to the total grain fed will probably be less than in 1942–43, when one-third of the grain shipped under freight assistance was wheat.

For Western farmers it is now more economical to sell wheat and to feed oats and barley; wheat brings \$1.92 per 100 pounds, basis in store Fort William–Port Arthur, oats \$1.81, and barley \$1.66, including equalization fees on oats and barley.⁵ Last year they brought about \$1.43, \$1.45, and \$1.34, respectively. Restrictions on wheat deliveries are operating again this year (though less forcefully than in 1942–43) to encourage more

feeding of wheat in the Prairie Provinces than price relationships alone would warrant.

Use of wheat for the production of alcohol will be relatively small. It may amount to about 5 million bushels as compared with 4.4 million in 1942–43, but such a total will mean less per month than last year, as use of wheat for alcohol production was not well under way until late in 1942. The Canadian policy of making synthetic rubber from petroleum rather than from grain alcohol is an important factor in limiting the use of wheat for this purpose.⁶

Exports.—During 1943–44 exports of wheat and flour may reach or exceed 300 million bushels, about half again as much as in 1942–43.⁷ The major factor responsible for the anticipated increase is the heavy demand from the United States (p. 102). Exports to Russia may be somewhat larger in the current year, and moderate shipments may be made for prompt relief in liberated areas. On the other hand, British takings for domestic consumption seem likely to be reduced.

It has been stated in Canada that the United States would like to buy as much as 150 million bushels during the crop year.⁸ Around 45 million bushels were imported by the CCC during July–December 1943, and imports dur-

¹ *Canadian Coarse Grains*, August 1943, p. 5.

² *Ibid.*, November 1943, p. 9.

³ Costs are calculated with Fort William–Port Arthur prices and allowances for the feed wheat drawback and the federal subsidy. Freight from the lake head is paid by the government. The Ontario subsidy, not included, lowers cost for Ontario farmers by a few cents more. For details on subsidies, see *Canadian Coarse Grains*, August 1943, pp. 3, 5.

⁴ The new drawback, unlike the old, is paid only on No. 4 or lower-grade wheat.

⁵ This year an advance of 10 cents per bushel is paid on the equalization fee for Western oats delivered and 15 cents for Western barley. Last year, with fees paid after the end of the crop year on deliveries made between April 1 and July 31, 1943, oats and barley brought somewhat more than \$1.45 and \$1.34, depending on the size of the fee. *Canadian Coarse Grains*, November 1943, p. 14.

⁶ *Grain Market Features* (Searle Grain Company, Ltd.), July 21, 1943, p. 2.

⁷ Incomplete statistics now indicate that exports in the first five months of the current crop year exceeded 100 million bushels.

⁸ Statement by James G. Gardiner, Dominion Minister of Agriculture, *Southwestern Miller*, Nov. 30, 1943, p. 30-C.

ing the remainder of the year may bring the total to 100 million or more, depending on the policy of the United States and the transportation situation. An unusual feature of exports to the United States has been shipment by vessel and rail from Vancouver and New Westminster. It is the first time in many years that sizable amounts of Canadian wheat have moved from Canada's West Coast to the United States. From August 1 to January 27 some 8.5 million bushels were shipped from Pacific Coast terminals.

In addition to large wheat shipments to the United States, barley and oats exports during August–December were by far the largest in the past decade. This was true in spite of a labor shortage at the lakehead early in the crop year and the priority of iron ore in lake movements. Exports of oats and barley to the United States during August–December amounted to about 23 and 16 million bushels, respectively, compared with five-year prewar averages (1934–39) of 1.4 million bushels for oats and 4.6 million for barley.

Exports of wheat and flour to Russia and Greece combined may reach as much as 20 or 25 million bushels during 1943–44. Russian imports of Canadian wheat seem likely to be materially larger than in 1942–43, when they probably totaled 7–9 million bushels. Acquisitions may be made under the Mutual Aid Plan, the Canadian counterpart of American lend-lease.¹ Shipments of wheat to Greece at the prearranged rate of 500,000 bushels monthly² are continuing, and presumably amounted to 2.5 million bushels during the first five months of the crop year.

A Canadian offer announced in November 1943 of 3.7 million bushels of wheat as a gift

¹ For information on Mutual Aid, see *Financial Post* (Toronto), Sept. 25, 1943, p. B1.

² WHEAT STUDIES, January 1943, XIX, 133.

³ *London Grain, Seed and Oil Reporter*, Dec. 8, 1943, p. 590.

⁴ *Winnipeg Free Press*, Sept. 28, 1943, pp. 1, 10.

⁵ The advance, previously 90 cents (about 82 U.S. cents), was at first to apply only to deliveries made on or after September 28, but was made retroactive by the Order-in-Council referred to on p. 114, n. 1. For CWB prices on lower grades, see *Monthly Review of the Wheat Situation*, October 1943, p. 4.

⁶ For further details, see observations of S. A. Searle, in *Southwestern Miller*, Jan. 25, 1944, p. 23.

to India subject to the availability of shipping was gratefully accepted. Shipping arrangements were recently reported to have been completed for part of this wheat.

The sale of a million tons of flour to the United Kingdom—involving some 53 million bushels of wheat—was announced in September. This order, together with earlier ones, promises to keep Canadian mills working at capacity for some time. Sales were also reported at Winnipeg of about 2 million bushels to Eire, 2.6 million to Portugal, 1 million to Switzerland, and 6 million to Mexico during August–December. In addition, a contract has been announced with the Netherlands for future delivery of 7 million bushels, and negotiations have been under way with Norway for eventual shipment of 4 million bushels.³ These contracts, like that with Belgium for 7 million bushels announced last April, call for delivery after liberation of the nations concerned.

Prices.—On September 28 wheat trading on the Winnipeg Grain Exchange was suspended, and prices for completing futures contracts were fixed at closing prices as of September 27. Futures contracts were to be settled by October 16, while cash sales at the closing prices of September 27 could continue freely only until the CWB took over all unsold stocks of Western wheat at the same prices. Export sales were temporarily banned.⁴ All Western wheat delivered by farmers on or after August 1 was to be purchased by the board with an advance of \$1.25 (about \$1.14, U.S. currency) for No. 1 Northern, basis in store Fort William–Port Arthur.⁵ Farmers were guaranteed at least the \$1.25, the government standing any loss in case wheat should sell for less. The CWB thus took over the buying and selling of all Western wheat and thereafter controlled all stocks of such wheat except what was left on farms. The grain trade continued to operate as direct buyers and shippers of wheat, but as agents of the CWB.⁶

The remaining stocks of 1940, 1941, and 1942 wheat already held by the CWB were considered sold to the government at September 27 closing prices and participation payments were calculated on this basis. Farmers thus have no further participating

interest in this wheat. The government can consequently sell the wheat to subsidized domestic users and countries receiving Mutual Aid without acting as both the farmer's agent and the ultimate buyer.

Although the Order-in-Council¹ of October 12, which authorized the above measures, allowed for control of Eastern wheat by the CWB, such control has not been ordered. Ontario wheat had been selling for some time at the ceiling price of \$1.26 per bushel, and remains at that level. Since little winter wheat had been marketed, there was no urgent need to include Eastern wheat.

Under existing regulations, millers buy wheat from the government at \$1.25 per bushel, but on all wheat milled for domestic consumption they receive a drawback of 47 $\frac{5}{8}$ cents per bushel. This arrangement has made it possible to maintain the price ceilings on bread and flour that have been in force since December 1941.

Export prices for countries not receiving Mutual Aid, including the United States, Mexico, Spain, Portugal, Switzerland, Sweden, the West Indies, and others, are on a competitive basis. For countries receiving Mutual Aid, prices are or have been determined by negotiation. The negotiated basic price for the United Kingdom is \$1.25 at Fort William—the same as the price paid to Canadian farmers.

Outlook.—If estimated domestic use approximates 175 million bushels and exports about 300 million in 1943-44, the carryover on August 1, 1944 may be around 420 million bushels. Such a carryover would be about the same as on August 1, 1942—small only in comparison with the record year-end stocks of 1943. With a crop of 200-300 million bushels in 1944, Canada would presumably have enough wheat next year to cover her own do-

mestic needs and exports of 400-500 million bushels.

In view of these considerations, no expansion in wheat acreage will be encouraged in 1944. The Dominion-Provincial Agricultural Conference, meeting in December, recommended a goal of 17.5 million acres for 1944, the same as was sown in 1943.² On this acreage, the long-time average yield of 16 bushels per acre would produce a crop of 280 million bushels.

ARGENTINA

Last July the Argentine government authorized the sale at sharply reduced prices of 73.5 million bushels of wheat for fuel (up to December 31) and 18.4 million bushels for feed.³ This measure implied the prospect of heavy nonfood use of wheat in Argentina during the Northern Hemisphere crop year 1943-44—a development, on a smaller scale, similar to that witnessed in the United States. Since six months of the crop year have now passed, we may profitably consider to what extent wheat was actually distributed for fuel and feed purposes through December.

No official reports on sales for fuel and feed have been released. Nor is it possible to infer the sales figures from the semimonthly official estimates of exportable wheat supplies, since these have been calculated since last August on the assumption of full domestic use of the 92 million bushels authorized for sale. On the other hand, the reasonably complete estimates of commercial wheat stocks in Argentina furnish a fair basis for determining the total volume of old-crop stocks⁴ and derived estimates of total wheat disappearance during August-December. These pertinent calculations are shown below, in million bushels:

	1941-42	1942-43	1943-44
Reported commercial stocks			
Aug. 1	161	215	262
Dec. 1	127	167	195 ^b
Jan. 1 ^a	118	155	...
Estimated total stocks			
Aug. 1	180	220	270
Jan. 1	120	160	185
Aug.-Dec. disappearance			
Total	60	60	85
Exports	32	32	39
Domestic	28	28	46

^a Old-crop. ^b Our approximation, based on Nov. 1 data.

¹ Order-in-Council P.C. 7942 (*Canadian War Orders and Regulations*, Ottawa, Oct. 13, 1943, Vol. IV, No. 2, pp. 1, 4).

² *Monthly Review of the Wheat Situation*, December 1943, p. 3.

³ Decree 3,056 of July 22. *Boletín Informativo* (Comisión Nacional de Granos y Elevadores, Buenos Aires), Aug. 15, 1943, p. 346.

⁴ These estimates are based partly on indications as to (1) the volume of wheat remaining on farms and (2) the utilization of new-crop wheat during December.

Taken at face value, the above figures would indicate that about 18 million bushels more wheat disappeared in domestic channels in Argentina during August–December this year than in the same months of either of the two preceding years. No such precise conclusion is possible. But one may properly infer that only a small portion of the 92 million bushels authorized for fuel and feed was actually diverted to these purposes during August–December. We incline to the view that the quantity so utilized was actually less than 18 million bushels, because of the rounding bias in the figures employed and because some of the increased disappearance probably reflected loss and waste attributable to long storage.¹ Feeding of wheat was discouraged during August–December by marked improvement in pastures and perhaps by the availability of more corn for feed than had been counted on. The use of wheat for fuel was restricted mainly by its price as compared with other fuels still obtainable in fair quantities.²

We infer that more wheat was sold for fuel during August–December than actually disappeared through use. On the other hand, a substantial portion of the quantity allocated for fuel by the government presumably remained unsold on January 1, and according

¹ In October Argentine officials wrote off an additional 4 million bushels of wheat as lost, thus bringing the total waste and loss figure to 16.2 million bushels for December–November 1942–43. *Monthly Review of the Wheat Situation* (Canada), Nov. 26, 1943, p. 8.

² In August the governing committee of the Unión Industrial recommended to the Ministry of Agriculture that the price of wheat for fuel should be reduced from 45 pesos to 30–32. The committee stated that 2.8 to 3.0 tons of wheat were required as a substitute for a ton of fuel oil, bringing the cost for wheat-fuel (including handling costs) to 155–170 pesos for the equivalent for a ton of fuel-oil priced at 140.4 pesos. *Times of Argentina* (Buenos Aires), Aug. 16, 1943, p. 18.

³ The Argentine government took steps last August to control the quality of all grain exports with a view to establishing a better international reputation for Argentine grain. Future shipments must pass inspection and be accompanied by an "Argentine Certificate of Quality," issued by the National Grain Elevator Board. New shipping regulations prevent the mixing of grain from different zones and specify other requirements for maintaining quality. *Times of Argentina*, Aug. 23, 1943, p. 18, and Nov. 8, 1943, p. 18.

⁴ The Ministry of Marine was given the power to determine routes, cargoes, and freight rates. *Times of Argentina*, Aug. 23, 1943, p. 5.

to the original decree, this could not subsequently be sold without formal extension of the period of sale. Although we have not yet heard that such an extension was authorized, we believe the Argentine government will probably continue to make wheat available for fuel until the total quantity allocated has been sold or until the European phase of the war has ended.

Argentine exports of wheat during August–December probably did not reach 40 million bushels.³ They continued to be restricted by the European blockade and shortage of shipping. Indeed, Argentina's shipping difficulties became so acute last summer that emergency arrangements were made for the Argentine merchant navy to transport several cargoes of wheat to Brazil. A few weeks later (in August) all Argentine steamship companies were put under direct government control.⁴

The bulk of Argentina's recent exports of wheat has gone to Brazil and Spain, 53 and 27 per cent respectively during August–November. Again this year Britain has taken very little Argentine wheat—only two million bushels through November, or somewhat less than has gone to the various South American countries other than Brazil. About a million bushels were shipped to Argentina's new North American customer, the United States (p. 102). Britain is reported to have made substantial purchases of Argentine wheat and flour for March–April shipment and fair-sized forward sales have also been made to Portugal, Switzerland, and Sweden. If Argentine shipments in the spring and early summer are also swelled by small demands from countries yet to be liberated, total exports for the crop year may approximate 90 million bushels—some 20 million more than in 1942–43.

Several increases were announced during August–December in the prices the Argentine Grain Regulating Board (GRB) asked for export wheat. The first change was made at the beginning of September, when the export price to Europe-Brazil was raised from 9.20 pesos to 9.60, the level previously in force for exports to other destinations. Thereafter, the GRB maintained a uniform basic export price for all destinations, subsequently announcing the following changes in the price for 1942

wheat, ex-dock Buenos Aires, in pesos per quintal:¹

Approximate date	Bulk wheat ^a	Bagged wheat
Sept. 2	9.6	10.6
Oct. 14	9.7	10.7
Nov. 18	9.9	10.9
Dec. 2	10.0	11.0

^a Prices include a deposit of about .50 peso for the use of bags for delivery.

Until August 15, the GRB purchased 1942 wheat from producers at the basic price of 6.75 pesos per quintal (55 cents, U.S., per bushel); but on that date purchases were discontinued as provided by decree in the preceding month.² At the end of September a basic price of 8.00 pesos per quintal (65 cents, U.S., per bushel) was announced to become effective December 1 for purchases of 1943 wheat, No. 2 grade, 78-kilo on rail at Buenos Aires.³ The selling price of the GRB to domestic millers remained at 9.00 pesos throughout December with no fixed percentage utilization requirement for 1941 wheat after July 29.⁴ Since December 1, millers have had to buy from the GRB old-crop wheat in an amount at least equal to 70 per cent of their registered milling average, but they have been permitted to cover the remainder of their requirements with 1943 wheat, purchased in the open market.

New crop and total supplies.—The wheat acreage sown for 1943 was about the same size as that for the preceding crop. It ranked as the smallest since 1935. Throughout the growing period weather conditions were generally favorable, and in mid-November the

¹ Data from *London Grain, Seed and Oil Reporter*, Friday issues. The occasional quotations for 1941 wheat were on a lower level.

² Decree 3,056, *Boletín Informativo*, Aug. 15, 1943, p. 346.

³ Decree 9,967, *ibid.*, Oct. 15, 1943, p. 428.

⁴ Decree 3,859, July 29, 1943 (*ibid.*, Aug. 15, 1943, p. 348) made sales of 1941 and 1942 wheat to individual millers subject to determination by the GRB, which was supposed to take account of transport costs, etc.

⁵ This is the first year that the Argentine government has issued a November indication of the size of the new crop.

⁶ *Boletín Informativo*, Sept. 15, 1943, p. 401, and Oct. 15, 1943, p. 431; *Times of Argentina*, Nov. 1, 1943, p. 17.

Times of Argentina suggested that the crop might well reach 257 million bushels. Since other trade estimates seem to have been close to this figure and even lower, the preliminary official indication⁵ of the crop at 312 million bushels on November 22 occasioned much surprise. The official estimate issued December 10 was materially lower at 291 million bushels, and even this was reduced to 261 million bushels in late January. The most recent estimate indicates a yield per acre of 15.4 bushels, considerably above average but below the yields recorded for 1938 and 1940.

The supply of Argentine wheat available about January 1, 1944 from the new crop and old-crop carryover was as follows, as compared with corresponding figures for the five preceding years, in million bushels:

Year	New crop	Jan. 1 carryover	Total
1939	379	19	398
1940	131	120	251
1941	299	9	308
1942	224	120	344
1943	235	160	395
1944	261	185	446

These estimates indicate that Argentina's current supply of wheat is of record size. Storage difficulties, therefore, seem likely to be acute, particularly in view of the recent large harvests of barley and oats and the anticipated heavy outturn of corn next spring. To avoid extreme storage congestion, the Argentine government issued a decree last October which authorized the GRB to invest 6,475,000 pesos in construction of new underground silos that will provide additional storage space for a million tons of grain.⁶

It is difficult to forecast the size of Argentina's wheat stocks on August 1, 1944, since these will be influenced by the extent to which wheat is used for fuel in Argentina, the course of the European war, and the degree of tightness of ocean transport. All of these factors are uncertain. But if about 70 million bushels of Argentine wheat should be used for fuel and feed or wasted during 1943-44, and if demands for Argentine wheat for feed in the United States and for food for liberated areas should not exceed 10 million bushels during January-July, about as much wheat would re-

main in Argentina next August 1 as a year earlier, when stocks were of record size for that date (Table IV, D).

AUSTRALIA

The wheat supplies of Australia for 1943-44, based on estimated wheat stocks of 205 million bushels on August 1 and the official crop figure of 102 million bushels, amount to 307 million bushels. This is about the same as the supply figure for 1942-43, but otherwise the largest on record. The August 1 stocks were of record size; only during World War I were such stocks even approached. The 1943 crop, second lowest in more than two decades, reflected not only a decreased acreage,¹ but also general lack of rains during June, July, and August. In Victoria, where yields per acre were especially low, the drought was finally broken in September, but the average yield was only 11 bushels per acre as compared with 19 last year and a ten-year average (1933-42) of 14. In other states the rainfall was more satisfactory and yields were nearer normal.

Early deliveries of new-crop wheat were slow this year. Storage space has been available at ports, but country storage has been crowded. Wheat from the last crop is still stacked at country sidings, and regularly inspected for mice and weevil infestation by farmers living nearby. In New South Wales the storage problem has been met by rationing silo space and moving out 1942 wheat as rapidly as possible. Stacking sites and shed space have been unrestricted.²

Total domestic use of wheat in 1943-44 may be about the same as in 1942-43 (Table IV,

¹ Acreage was even less than official restrictions required, and the lowest since 1919.

² *The Land* (Sydney), Oct. 22, 1943, p. 2; Nov. 12, 1943, p. 1.

³ Livestock numbers, in million head (*Commercial Intelligence Journal*, Canada, Department of Trade and Commerce, Jan. 15, 1944, p. 48), have increased as follows:

Date	Cattle	Hogs	Sheep and Lambs
Jan. 1, 1939.....	12.9	1.2	111.1
Jan. 1, 1940.....	13.1	1.5	119.3
Jan. 1, 1941.....	13.3	1.8	122.7
Jan. 1, 1942.....	13.6	1.5	125.2
Mar. 31, 1943.....	14.0	1.6	124.6

⁴ For comparison with payments on earlier crops, see WHEAT STUDIES, November 1943, XX, 55.

C). The milling industry will be active filling local flour needs (including requirements of American troops in the South Pacific) and in fulfilling the United Kingdom contract for 500,000 tons of flour. As milling has been on the decline for the past two years, the supply of bran and pollard has naturally been short. This year the position will be better. Use of wheat for feed continues to increase,³ but no figures are available to indicate how much has been or will be fed.

Plans for alcohol production call for the use of 5 million bushels of wheat a year. However, construction of plants has been delayed and probably very little wheat will be required during 1943-44.

The export market for Australian wheat has improved somewhat, but is still limited. Announcement was made in September of the sale to Great Britain of over 9 million bushels of wheat and 27 million bushels in the form of flour. This sale was later increased by over 9 million bushels of wheat. Of the total 46 million bushels of wheat and flour bought, probably very little will ever reach the United Kingdom. Most of it will go to India, Ceylon, the Middle East, and other less distant destinations, but probably not all will be shipped during 1943-44. Total exports during August-December, estimated on the basis of Australian Wheat Board (AWB) stocks, may have amounted to 15-20 million bushels, of which a significant portion was shipped to India.

On January 4 the Australian Prime Minister announced an increase of 1½*d.* in the price of wheat to be paid growers for the 1943 crop. Farmers are to receive 4*s.* 1½*d.* per bushel, bagged basis, on the first 3,000 bushels, and an advance of 2*s.* 1½*d.* for wheat grown in excess of the quota on licensed acreage. Earlier plans had called for a price of 4*s.* on quota wheat and a 2*s.* advance on excess wheat—the same as in the preceding year.⁴ The new prices are apparently the result of an inquiry into the cost of growing wheat undertaken last November by a government-appointed committee.

In September 1943 the chairman of the AWB announced that feed wheat would be supplied at a maximum price of 3*s.* 6¾*d.* per bushel for bagged wheat on trucks at the

buyer's station. Previously the maximum price was the same but on a port basis. For buyers located far from wheat-producing centers the price may now be lower, and for those near such centers the price may be higher.¹

On the basis of information available, it now appears that Australian stocks on August 1, 1944 will exceed 200 million bushels. The Australian government, perhaps with some such figure in mind, feels it can maintain adequate supplies for domestic use as well as large reserves while the war lasts.² An acreage goal of 8.5 million acres has been set for the 1944 crop³—not much more than the 8.3 million sown for grain in 1943.

Acreage restrictions will be eased in 1944 for New South Wales, Victoria, and Queensland, but not elsewhere. Easing restrictions in eastern states to allow planting of 500,000 more acres was decided upon because of the difficulties of transporting wheat from Western and South Australia east.⁴ Agitation for removal of restrictions elsewhere has been to no avail.

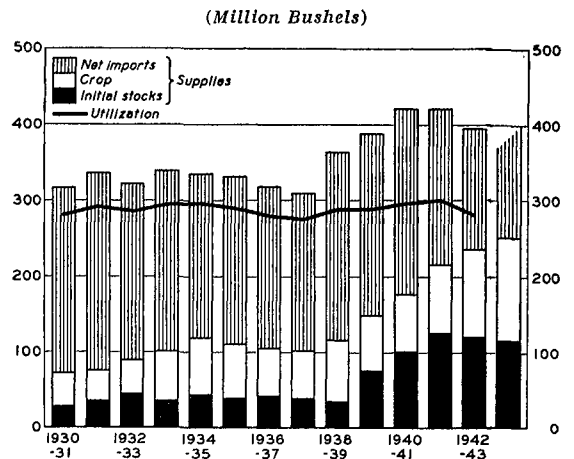
BRITISH ISLES

Both the United Kingdom and Eire harvested notably large wheat crops in 1943. But whereas Britain's crop (from an area 25 per cent above that of the preceding year) was appreciably larger than in 1942, Eire's output was apparently smaller. For neither country is an official estimate of this year's wheat production yet available, but we infer that the total harvest of the British Isles may have approximated 135 million bushels in 1943, as compared with 70 million on the average in 1934-38 (Chart 8). Not since 1864 had a wheat crop as large as 130 million bushels been reported.

Other grain crops of the United Kingdom were also unusually large this year. In late October, Minister of Agriculture Hudson indicated that the United Kingdom had secured a

million tons more *bread grain* than in the preceding year.⁵ Later he reported that the *total grain harvest* was smaller in 1943.⁶ Supplementary information is afforded by data on British farmers' marketings in August-December 1943 as compared with 1942: *wheat deliveries* were up 65 per cent, *barley deliveries* up 12 per cent, and *oats deliveries* down 2 per cent.

CHART 8.—WHEAT SUPPLIES AND UTILIZATION IN THE BRITISH ISLES, FROM 1930-31*



* Data as shown for recent years in Table III.

The enlarged wheat marketings, in particular, were reflected in significant changes in British milling regulations. Effective September 13 the percentage of native wheat required in millers' grists was raised to 40 per cent in most areas; subsequent orders increased the proportion to 50 per cent from September 27, 52.5 per cent from November 22, 55 per cent from December 6, and 57.5 per cent from December 20. Until November 22 the percentage of diluents in millers' grists was maintained at 10 per cent (normally consisting of less than 1 per cent rye, less than 3 per cent oats and the remainder barley). But after the supplies of British wheat became so plentiful that they could be absorbed only by raising the required milling proportion of such wheat to 52.5 per cent and later 55 and 57.5 per cent, the diluent-grain admixture requirement was correspondingly lowered to 7½, 5, and finally 2½ per cent, respectively. In November the Ministry of Food arranged for the production of an all-British flour (finally

¹ *Pastoral Review and Grazier's Record* (Melbourne), Oct. 16, 1943, p. 698.

² *The Land*, Nov. 19, 1943, p. 1.

³ *Grain Market Features*, Dec. 15, 1943, p. 5.

⁴ *Primary Producer* (Perth), Dec. 2, 1943, p. 1.

⁵ *London Grain, Seed and Oil Reporter*, Oct. 22, 1943, p. 415.

⁶ *Ibid.*, Dec. 10, 1943, p. 601.

mixed, however, with the allowed percentage of imported white flour) which all bakers were urged to use for cakes and flour confectionery and to blend with National Flour for any other bakery products for which it was suitable.

Through December, foreign white flour continued to be allocated to millers for addition to their domestic grindings. Until the new British wheat crop became freely available for milling, a 10 per cent admixture of imported flour was authorized. On September 6, however, the rate was dropped to 7½ per cent, at which level it was maintained until December 12, when it was again raised to 10 per cent. The recent increase was probably motivated partly by the desire to use up aged flour stocks, and partly to improve the quality of British flour.

The various restrictions imposed on the use of imported wheat and flour by British millers and bakers were considerably greater during August–December 1943 than they had been in the same period of the preceding year. We therefore infer that British imports may have been somewhat smaller this year. On the other hand, they have certainly been less strikingly smaller than the increased restrictions alone would suggest, since shipping was being diverted to North Africa in the fall and early winter of 1942, whereas this year European invasion preparations have apparently included the building up of flour stocks in Britain. During 1943–44 as a whole, however, we expect British net imports of wheat to be 25–45 million bushels smaller than last year (Chart 8 and Table III).

Little information is available with regard to the food situation in Eire. It seems reasonably clear, however, that the cereal crops of that country were smaller in 1943 than in the preceding year and that Eire will need to import more wheat in the current season. Faced with reduced supplies of wheat, the government of Eire abandoned its former milling policy (which included a required wheat extraction rate of 100 per cent but no coarse-grain admixture) and adopted a system apparently patterned on the British model. In November, the required wheat extraction rate was reduced to 85 per cent and some per-

centage admixture of barley was ordered.¹ Whether the new requirements will help stretch Eire's reduced wheat supplies or merely change the quality of the flour and bread produced is not yet clear.

Increasing attention is being given this year to the problem of wheat-acreage expansion in Eire. The government's plans for sowings for the 1943 wheat crop were apparently not fulfilled despite specific requirements for tilled acreage and an attractive official wheat price. For 1944 each farmer is required to till 37½ per cent of his arable land² and, for the first time, to plant a specified portion to wheat. The wheat-planting requirement for each farm varies from 4 per cent in certain counties to 10 per cent in others. It is being reinforced by an increase of 10 per cent in the official wheat price for the 1944 crop.

Eire's intensified efforts to expand wheat acreage in 1944 contrasts with Britain's aim to maintain her total tillage and bread-grain area at 1943 levels. No specific wheat-acreage goal for 1944 has been or will be announced.³ To encourage maintenance of this year's wheat area, however, the government has provided for an increase in the acreage payment for wheat and rye planted for 1944—from £3 per acre last year to £4. Market prices of these grains will be about correspondingly reduced from present levels.

CONTINENTAL EUROPE EX-RUSSIA

The short Continental bread-grain crop of 1942 was followed by the largest harvest of wheat and rye during the war period. Yet the general food position of Continental Europe was not correspondingly improved. Aside from bread grains, only the vegetable-oil crops were markedly increased in most areas as compared with other war years. In Central Europe and Sweden the production of potatoes was much smaller than in 1942, and the major feed-grain and fodder crops were considerably reduced. Moreover, drought and

¹ We have not yet been informed as to the rate of this admixture.

² As against 25 per cent for 1943, 20 per cent for 1942, 15 per cent for 1941, and 12½ per cent for 1940.

³ Statement of Joint Parliamentary Secretary to the Ministry of Agriculture reported in *London Grain, Seed and Oil Reporter*, Nov. 19, 1943, p. 523.

heat again cut the outturns of corn and hay in the Danube basin and lowered yields of corn, potatoes, and other crops in the Iberian peninsula and Italy. Throughout the Continent, livestock numbers were sharply below prewar levels in the summer of 1943 and, except in a few countries, lower than in the corresponding period of any other war year.

Even the improved bread-grain crop of 1943 was appreciably below any recent prewar average. Moreover, the geographical distribution of the new crop was less favorable than it might have been, since production was relatively heaviest in the wheat-surplus areas of the Danube basin. Under current transport conditions, very little of the Danubian surplus seems likely to be available to the more distant deficit countries—Belgium, Holland, Norway, and Finland. These countries must accordingly rely primarily on their own increased crops and on imports from near-by areas. The Danubian surplus will go largely to expand consumption of bread grains (releasing other grains for feed) in the Balkan area and Central Europe. Secondly, it will be used directly for feeding purposes and for building up stocks in these regions.

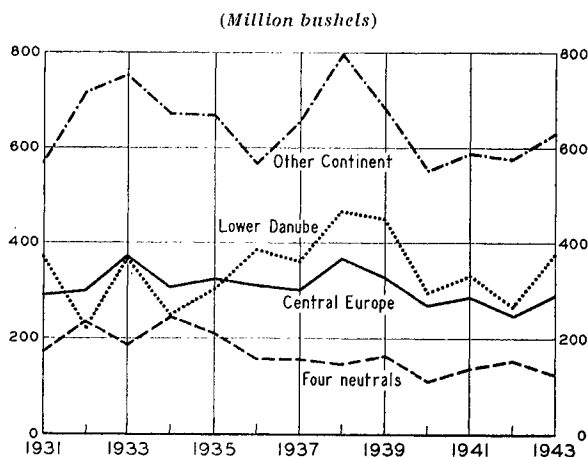
Wheat crops of 1943.—Very few trustworthy estimates of the wheat crops of the various Continental countries are available for 1943 or other war years. From such fragmentary information as we have been able to secure from foreign and domestic publications, however, we infer that the Continent ex-Russia harvested about 1,425 million bushels of wheat in 1943—over 175 million more than in the preceding year, yet still about 100 million less than on the average in 1934–38 (Table I). Our present approximation to the 1943 crop is a little higher than the preliminary figure of 1,400 million bushels we published last September.¹

Chart 9 shows our approximations to the wheat crops of the chief political and economic divisions of Continental Europe. The Danube area appears to have been most favored in 1943, in the face of persistent drought in the wheat-planting period of the

¹ The Office of Foreign Agricultural Relations estimates the total crop of Europe ex-Russia (including the British Isles) at 1,540 million bushels, as compared with our estimate of 1,560 million.

preceding fall and dryness in the early spring. Timely, adequate rains in the late spring not only saved the winter crops of this area, but resulted in above-average yields of wheat in Rumania and perhaps Bulgaria. We infer that Hungary and Yugoslavia secured relatively less favorable yields. In all four of the Danube countries the acreage sown to wheat was presumably below the corresponding level of 1936–40, reflecting expansion of oilseed and industrial crops at the expense of wheat, and the difficulties associated with planting a full acreage under conditions of general mobilization and (in Yugoslavia) guerrilla warfare.

CHART 9.—WHEAT PRODUCTION IN CONTINENTAL EUROPE EX-RUSSIA, FROM 1931*



* Data as shown for recent years in Table I.

In contrast to the good-sized crop in the Danube area, the combined wheat production of the four neutral countries was apparently lower in 1943 than in any of the twenty preceding years except 1940. Since this crop series is dominated by the relatively large Spanish production figures, which for recent years have been on a lower level than the official estimates issued prior to 1937, the current crop of the neutrals may not be quite so low as the chart suggests. Nevertheless, Spain, Portugal, and Sweden are all known to have secured relatively small outturns of wheat in 1943. The Spanish and Portuguese crops suffered heavy damage from spring drought and excessive heat, whereas the small Swedish crop reflected a below-average yield on a notably small planted acreage. The jour-

nal *Ceres* estimated the Spanish wheat crop of 1943 at 96 million bushels, while Portugal's harvest was privately reported to be the smallest in more than a decade.

The remaining countries outside of Central Europe (designated "Other Continent" on Chart 9) apparently secured their largest aggregate wheat crop of the war in 1943—a crop still considerably below recent peacetime levels. Of these countries, Italy alone obtained an exceptionally large outturn, privately estimated at 280 million bushels as compared with a 1934–38 average of 268 million. Although France reportedly harvested an appreciably larger wheat crop than in any other war year, her output fell somewhat short of normal levels in peacetime.¹ Weather conditions were reasonably favorable for the French crop, but shortages of labor, power, and equipment kept a full acreage from being sown. Moreover, reduced soil preparation and shortage of fertilizers kept yields per acre from being as high as they otherwise would have been. Norway and the Low countries apparently obtained about average crops or larger from expanded wheat areas, while Denmark's harvest, on a reduced acreage, was only about half as large as normal, though well above the insignificant wheat outturn of the preceding year.

The 1943 crop approximation shown in Chart 9 for Central Europe rests heavily on production figures for the Old Reich released last October by Herbert Backe, Germany's Food Secretary. Very little supplementary information seems to be available for Poland or Czechoslovakia, though those countries reportedly harvested fairly good crops in both 1942 and 1943. In general, we infer that the average yield per acre of wheat in Central Europe in 1943 was almost up to the prewar average level, that the area harvested was appreciably below average, and that the resulting production was moderately below usual prewar outturns.

¹ There is reason to believe that French wheat harvests prior to 1936 were substantially overestimated in the official figures.

² *Völkischer Beobachter*, Oct. 4, 1943.

³ *Ibid.*

⁴ *Berliner Börsen Zeitung*, Oct. 3, 1943.

Since Backe gave 1943 production figures and indications for other basic food crops besides wheat, it seems well to present here the entire series in order to give as complete a picture as possible of German food-feed potentialities for the current year. Backe's 1943 figures for the present boundaries of the Old Reich are shown below in comparison with the adjusted figures he gave for 1918 for the same boundaries and with official estimates for the Old Reich for 1934–38, in million tons:²

Year	Bread grain			Barley	Oats	Potatoes	Sugar beets
	Wheat	Rye	Total				
1918.....	2.3	6.1	8.4	1.9	4.3	28.0 ^a	7.5
1934.....	4.5	7.6	12.1	3.2	4.8	44.3	10.4
1935.....	4.7	7.5	12.2	3.4	5.4	41.0	10.6
1936.....	4.4	7.4	11.8	3.4	5.6	46.3	12.1
1937.....	4.5	6.9	11.4	3.6	5.9	55.3	15.7
1938.....	5.6	8.6	14.2	4.2	6.4	50.9	15.5
1939 ^b	5.3	7.9	13.2	3.7	6.0	50.5	15.5
1943.....	4.2	7.4	11.6	2.6	5.3	40.0 ^c	15.5 ^c

^a Our approximation to Backe's figure. Backe did not give a specific production figure for potatoes for either 1918 or 1943. He stated, however, that the 1943 crop was 10 million tons larger than in 1918 and 15 million larger than in 1915, and that this meant about an "average" crop for the current year. We infer that the 1943 crop could not have exceeded 40 million tons and was perhaps smaller.

^b Our approximations, based on official figures for enlarged German boundaries.

^c Our approximation, based on Backe's statement that the crop would amount to about 16 million tons.

These figures do not seem to furnish grounds for Backe's statement that the German people could "look with joy on the grain harvest, especially the bread-grain harvest," or for his conclusion that the 1943 grain harvest was not only the best harvest of the war period but also "above the average for peace years."³ The bread-grain crop was clearly smaller than all but perhaps two of the last five prewar harvests, the barley crop was definitely poor, and the oats crop only fair. German officials have admitted that the area under bread grains in the past few years has been below the acreage of 1938–39 (the "planned" wartime level) and that the combined grain area for 1943 was only 90 per cent of that for 1939.⁴ In view of the reduced acreage, Backe's grain production figures for 1943 appear somewhat better, but not notably good.

The really difficult food problem Germany

faces this year lies not in her grain production but in her reduced output of potatoes. During 1942-43, when the grain crop was smaller but the potato harvest at least 12 million tons larger than for 1943-44, the number of sows in Germany had increased from the lowest wartime point touched in 1942. By the spring or summer of 1943, therefore, Germany was prepared to begin again to expand her hog population, which Backe admitted had been cut to 62 per cent of the 1939 figure. But the poor potato crop of 1943, together with the mediocre grain crop, upset all plans for a significant expansion. This meant the continuation for another year at least of the recent trend in Germany to contract consumption of animal products in favor of increased consumption of plant foods.

Trade arrangements and outlook.—The existence of a substantial wheat surplus in the Danube basin this year foreshadows an increased international flow of wheat within Continental Europe ex-Russia. Since there is also a clear prospect that shipments to the Continent from areas outside will be increased, importing countries will almost certainly record considerably higher gross imports of wheat in 1943-44 than in either of the two preceding war years. Should an early Allied invasion of the Continent result in large territorial gains by mid-spring, Allied shipments for the liberated areas would presumably add substantially to the total volume of wheat imports.

The Danubian surplus lies mainly within the present boundaries of two countries—Rumania and Hungary. Both have negotiated trade agreements over the past six months, which involve commitments to deliver wheat to various Continental countries. Germany's import quotas presumably rank as the largest arranged by either Rumania or Hungary, though the quantities involved appear not to have been made public. Only commitments to the smaller nations have been announced, and these presumably not in full. Such scattered information as is available to us indicates that Hungary has agreed to deliver 2.02 million bushels of wheat to Switzerland,¹ small amounts of flour to Slovakia and Finland,² and probably an appreciable amount of

wheat to German-occupied Italy. Reported Rumanian agreements to deliver wheat include .73 million bushels or more to Finland,³ .55 million bushels to Switzerland,⁴ and up to 3.67 million to Belgium.⁵ We infer that Rumania will export additional quantities of wheat to Greece, and, if transport conditions permit, to Switzerland, the Low countries, and Scandinavia. After the Allies invade the Continent, transport difficulties will increase, tending to restrict the Continental flow of bread grain until after the defeat of Germany's armed forces.

Yugoslavia and Bulgaria seem unlikely to contribute materially to the intra-Continental movement of wheat this year. Parts of Yugoslavia—Croatia and the Dalmatian area—may import almost enough wheat to offset Serbia's export balance. Or Germany, faced with increased offers of wheat, may not press her claims against Serbia this year, thus leaving increased supplies of wheat for Serbian domestic consumption or for reserves for the German army. Bulgaria is committed to deliver 1.3 million bushels of wheat to Germany in return for the corresponding amount of rye that she borrowed in 1942-43 to meet a year-end deficit of bread grain.⁶ No other Bulgarian exports are to be expected, since the trade minister announced last July that no grain would be exported in the current year.⁷

German policy with regard to wheat imports (based mainly on transport conditions) will largely determine the volume of Danubian exports this year. In addition, the various Danubian countries are making efforts to build up government stocks of wheat for later emergency use. We infer that the factors operating against large exports will be decisive and that Danubian net exports of wheat will not exceed 20-30 million bushels in 1943-44.

Poland and Czechoslovakia (former bound-

¹ *Neue Tag*, Nov. 18, 1943.

² *Pester Lloyd*, Oct. 17, 1943.

³ *Ibid.*, Aug. 29, 1943.

⁴ *Corn Trade News*, Sept. 29, 1943, p. 372.

⁵ The maximum quantity stated here refers to bread grain, not wheat. *Kölnische Zeitung*, Nov. 28, 1943.

⁶ *Pester Lloyd*, Apr. 13, 1943.

⁷ *Kölnische Zeitung*, Aug. 1, 1943.

aries) are the only other Continental countries that seem likely to be important net exporters of wheat this year. Since the true surplus of these two countries is presumably small, the size of their exports will mainly depend, as in the past two years, on German pressure. We infer from scattered news reports that these countries are expected by Germany to deliver somewhat larger quotas of bread grain this year, perhaps in reflection of increased supplies. Some portion of the grain earmarked for Germany will probably be diverted to Finland and Norway to fulfill Germany's agreements to supply the bread-grain deficits of these countries.¹

Overseas shipments of wheat and flour to Continental Europe during July–November 1943 included Argentine exports of 9.0 million bushels to Spain and .5 million to Switzerland. Canada continued to ship half a million bushels of wheat monthly to Greece, bringing such exports in July–December to some 3 million bushels.² In addition, Canada made shipments against reported July–December sales of 2.6 million bushels to Portugal and 1.1 million bushels to Switzerland.³ Allied occupation of Sicily and southern Italy was followed by shipments of unreported quantities of wheat and flour for civilian consumption in the occupied areas. We infer that these army shipments were relatively small, though they may have amounted to as much as 2–4 million bushels in grain equivalent. Presumably a substantial portion originated in French North Africa, most of the remainder in the United States.

¹ Germany is reported to have promised 100,000 tons of bread grain to Finland (*Pester Lloyd*, Aug. 29, 1943) and "adequate quantities" to Norway (*Fritt Folk*, Sept. 15, 1943).

² These may have been supplemented by small imports from Turkey. The Turkish Prime Minister is reported to have announced that Turkey would ship some wheat to Greece this year.

³ Reports of individual sales taken from *Winnipeg Free Press*.

⁴ The percentage ranges here presented show the increases in rations for normal consumers first and for heavy workers second.

⁵ *Berliner Börsen Zeitung*, Aug. 19, 1943.

⁶ *Corn Trade News*, Oct. 13, 1943, p. 392, and Oct. 27, 1943, p. 414.

⁷ *London Grain, Seed and Oil Reporter*, Nov. 29, 1943, p. 556.

Changes in utilization.—Reports of increased bread rations and of relaxation of milling regulations have come from all parts of Europe during the past six months. Only the four neutrals, Greece, and the Netherlands seem not to have shared in the general increase in utilization of the two major bread grains.

The most striking expansion of wheat consumption has occurred in the Danube basin, where the wheat crops of 1943 showed the greatest increase. Producers of wheat in Rumania, Hungary, Bulgaria, and probably parts of Yugoslavia were permitted to retain this year considerably larger reserves of wheat for consumption by members of their own households. Moreover, urban rations of bread and flour were substantially raised. Between the spring of 1943 and November–December, ration increases of 84–31 per cent were reported for Bulgaria and 61–24 per cent for Hungary (see the table on p. 124), while in Rumania the rationing of bread and wheat flour was apparently discontinued.⁴

Removal of restrictions on sales of bread and flour in Bucharest and other cities of Rumania took place gradually during July–December 1943, as the Rumanian government became increasingly convinced that the available wheat surplus was large and that opportunities for export were limited. In July–August, the government (1) lowered the required extraction rate for wheat for standard bread from 100 per cent to 80 per cent, (2) reduced the minimum coarse-grain–potato admixture requirement for standard flour from 50 per cent to 20 (the latter percentage also including rye), (3) authorized the additional production of white wheat bread for sale at three times the price of standard bread, and (4) derationed wheat grits and small baked goods made entirely of fine wheat flour.⁵ Later (apparently in late September or early October), wheat bread was derationed;⁶ on November 23 restrictions on sales of standard bread were reported removed;⁷ and for the period from December 1 to January 27 unrestricted sales of wheat flour were authorized.

Bulgaria and Hungary also revised their milling regulations to permit heavier use of wheat in bread flour in 1943–44. Bulgaria

apparently lowered the minimum extraction rate for wheat and reduced former requirements of 40-55 per cent potato-coarse-grain admixtures in bread flour. Hungary reduced her required extraction rates for bread grains from 90 to 85 per cent for wheat and from 85 to 80 per cent for rye.

Most other Continental countries were in

BREAD AND FLOUR RATIONS FOR URBAN ADULTS IN
CONTINENTAL EUROPE AT SPECIFIED PERIODS*

(Ounces per capita per week in terms of bread)

Country	Dec. 1941	Dec. 1942	Apr. 1943	July 1943	Nov. 1943 ^a
AXIS AND OCCUPIED AREAS					
Germany ^b	79-164	79-164	79-164	82-167	86-171
Italy: Bread	49-123	37-123	37-111	37-111	37-111 ^c
Pastes ^d	16- 22	16- 25	16- 25	16- 25	16- 25 ^e
France	70- 88	68- 86	68- 86	68- 86	74- 86
Belgium	56-103	56-103	56-103	56-103	62-109
Netherlands	67-131	67-131	67-131	67-131	67-131
Norway ^e	64-112	64-120	64-120	64-120	64-120
Denmark ^f	86-130	82-131	82-131	82-131	82-131
Finland	65-138	81-162	81-162	65-146	81-162
Bohemia-Moravia ^b	79-164	79-164	79-164	82-167	86-171
Slovakia	76-111	54- 93	54- 93	54- 93	54- 93
Hungary	84-170	57-143	57-143	71-157	92-178
Croatia	Free	41- 78	41- 78	41- 78	41- 78
Rumania					
(Bucharest)	Free	62-123 ^g	53-106 ^g	53-106 ^g	Free
Bulgaria	105-204	79-153	67-141	67-141	123-185
NEUTRALS					
Portugal	Free	Free	Free	Free	Free
Spain (Madrid)	25- 37	37- 62	37- 62	37- 62	37- 62
Switzerland:					
Bread	Free	56-105	56-105	56-105	56-105
Flour ^d	6	5	7	7	7
Sweden ^h	57- 78	53- 84	53- 84	53- 84	53- 84

* Except as otherwise noted, these figures represent approximate *total* rations for bread, baked goods, flour, groats, and pastes (assuming one ounce of flour is equivalent to 1.3 ounces of bread). Irregular, supplementary distributions of flour or pastes are disregarded. Ranges indicate the different rations allowed to "normal" consumers (low) and "very heavy workers" (high) except: (1) for Madrid, the lower limit represents the ration allowed the highest-income group, the upper limit the ration allowed the lowest-income group; (2) for Italy, the ration for pastes, etc., is different for different parts of the country.

^a Latest information available, in a few cases for December 1943.

^b In addition, about one ounce per week of alimentary paste allowed.

^c See text, p. 125.

^d Flour, pastes, and maize flour, without conversion to bread equivalents; for Switzerland sometimes includes millet.

^e Includes legumes, rice, potato flour, etc.

^f Mostly nonwheat; see WHEAT STUDIES, November 1943, XX, 73.

^g Additional amounts of maize products allowed.

^h Includes varying amounts of barley, oats, maize, and potato products; varying percentages of wheat products permitted.

a less favorable position to expand their consumption of wheat this year than were the major Danubian countries. Nevertheless, in Central Europe, Germany and Bohemia-Moravia raised bread rations by 9-4 per cent effective September 20 (see accompanying table), and discontinued requirements for a single type of bread flour made from wheat and rye with 20 per cent barley flour and 4 per cent potato flour. The production of wheat flour without any barley admixture was again authorized for small bakery goods, and the wheat-products portion of the German bread ration was raised by 100 grams (3.5 ounces) per week. In September new German regulations for standard rye bread provided for the addition of 2 per cent potato flour to a mixed flour made of 85 per cent rye and 15 per cent barley. Effective November 1, the barley requirement was reduced to 10 per cent, probably mainly because millers continued to have difficulty obtaining enough barley to fill earlier prescribed quotas. These various changes resulted in both increase in the quantity and improvement in the quality of the cereal portion of the German diet. But in certain other respects German food rations were less satisfactory in November-December 1943 than they had been in the same months of the preceding year. The potato ration amounted to only 3,000 or 3,500 grams (6.6 or 7.7 pounds) per week, as compared with 4,000 grams (8.8 pounds) in the fall of 1942, and the meat ration was down to 250-850 grams (.6-1.9 pounds) from the 350-950 grams (.8-2.1 pounds) allowed the year before.¹

Among the western occupied countries, France and Belgium raised their bread rations last fall for the first time since rationing was introduced. Current bread allowances are the highest since 1940 in Belgium, since 1941 in France. French authorities also saw fit to reduce the legal extraction rate for wheat flour from 98 per cent to 90, and to restore to wheat producers and agricultural workers the higher bread rations they had enjoyed before the

¹ Only the bread and fat rations were higher, with the latter up from 200 grams (7.1 ounces) in November-December 1942 to 218 grams (7.7 ounces) per week.

cuts effected in the spring of 1943. Norway and Denmark both appear to have maintained the bread rations that had been in force in the preceding year, though they both reduced the coarse-grain admixtures required for bread flour.¹ Since the common war bread of these two countries is made primarily of rye, relaxation in flour restrictions implies increased utilization of rye rather than of wheat.

Little information is available with regard to recent food developments in Italy—in either the German-occupied zone or the Allied zone. We infer that neither area has faced reduction of the *legal* bread ration, though temporary shortages associated with the war may have meant that the full legal ration could not always be obtained. There is some indication that the normal bread ration was raised from 150 to 200 grams per day in the German-occupied area—at least for civilians co-operating with the German regime. Since southern Italy has been more affected by the war than most of the German-occupied zone, the greatest food problems in recent months have probably been encountered in the south. There, Germany's scorched-earth policy, delayed flour shipments, and civilian hoarding have apparently made the food-supply task of the military government difficult.

Deterioration, rather than improvement, has characterized the bread and general food positions of the four neutral countries, and probably Greece and the Netherlands. All of the neutral countries harvested relatively poor bread- and feed-grain crops this year, and all face the prospect of inadequate, though possibly enlarged, imports. Portugal's output of olive oil in the current crop year is

¹ Last year 25–35 per cent barley was apparently required for Danish bread flour, and 25 per cent barley and oats for Norwegian flour. For the current crop year Denmark requires no barley admixture, Norway an admixture of only 15 per cent.

² More will also be available for the domestic market since an embargo was placed on exports of olives and oil last September.

³ According to a report to the *London Times*, bread ration cards were to be distributed in Lisbon in late October 1943 (*Corn Trade News*, Oct. 27, 1943, p. 413), but we have seen no report of further developments.

⁴ The bread-grain position of Switzerland has worsened not only as a result of reduced crops but also through gradual exhaustion of the emergency reserves built up prior to the war.

expected to be considerably larger than her poor yield in 1942–43.² As a result of expanded shipments of wheat from Canada, Portugal was able to avoid urban bread rationing through late January 1944, despite earlier plans to introduce rationing last fall.³ The other neutral countries have apparently continued to maintain their bread rations at the levels in force last year. On the other hand, Swiss wheat producers were authorized to retain out of their 1943 wheat crops no more than 175 kilograms for each member of their households, as compared with a per capita allowance of 200 kilograms in 1942.⁴ Sweden and perhaps some of the other neutral countries are attempting to stretch their reduced bread-grain supplies this year through deterioration of the quality of their bread flour. Details as to these developments, however, are not available.

Information with regard to food conditions in Greece is extremely meager. While there is some reason to suppose that Greek food crops—particularly cereals—were larger this year than last, and that the regular monthly Red Cross shipments have been supplemented by relief shipments from Turkey, the only qualitative reports that have come from Greece have been very pessimistic. These suggest that food conditions in Athens-Piraeus (where the Red Cross operates) are much less unsatisfactory than in the surrounding rural areas where guerrilla warfare and German efforts to combat it have reduced the available food supplies. We are not in a position to judge the reliability of these reports.

Outlook for year-end stocks.—With Allied invasion plans for Europe still publicly unknown and with developments in the coming conflict so uncertain, it seems pointless to hazard a guess as to the level of the Continent's wheat stocks on August 1, 1944. However, unless war destruction of wheat is heavy or the Danubian surplus is drawn upon in substantial degree for relief feeding in other countries, there is little basis for doubt that the wheat carryover of the Continent ex-Russia will be somewhat larger at the end of 1943–44 than it was at the beginning. On the other hand, there is no reason at present to anticipate that the increase in stocks will be

large, since the major portion of the increased wheat supplies of the current year will probably flow into consumption.

USSR

Reports on the 1943 bread-grain crops of Soviet Russia have been meager and in some degree conflicting. Yet it is reasonably clear that the Soviet Union faces a very substantial deficit of bread and feed grains in the current year.

In the territory held by the Russians in the fall of 1942, the total area cultivated (probably mostly sown to bread grain) was reportedly increased by 6.4 million acres over the preceding year.¹ But the major bread-grain-producing areas of the North Caucasus and the Don River valley were then under German control. Disorganization of agriculture must have sharply reduced the acreage sown to bread grain in these important regions in the fall of 1942, more than offsetting the substantial increase reported for the territory held by the Russians. Nor is there reason to suppose that expanded sowings in the North Caucasus and Don areas in the spring of 1943 could have gone far to offset the reductions of the preceding fall, despite great efforts to increase spring plantings after these lands were restored to Soviet control. Shortages of farm machinery and equipment, disorganization of rural settlements, and reduced numbers of farm laborers and work animals presumably operated against substantial expansion of sowings in the spring. Moreover, the adverse effect of these factors was made worse by prolonged drought. We infer, therefore, that the bread-grain area harvested in Russian-held territory in the summer of 1943² was mate-

rially smaller than that of the same territory in the preceding year. And since weather conditions were apparently less favorable for the 1943 crop (which suffered from widespread drought in the south in the autumn and early spring), the Russian bread-grain harvest must have been considerably smaller in 1943 than in the preceding year or than on the average in the last five prewar years.

Since July 1943 the Russian-German battle line has moved westward from east of Smolensk, Orel, Kharkov, and the upper Donets River to Novgorod, Vitebsk, the Pripet Marshes, Sarny (Poland), and the lower Dnieper River. The recently regained territory is certainly deficient this year with regard to bread grains and other foods. This is due partly to the fact that agriculture was not restored to its prewar efficiency under German control in the two preceding years, and partly to presumably successful efforts of the retreating German army to ship food westward and to destroy other substantial supplies. The people living on farms in the regained territory presumably have enough food to cover their own needs and the needs of their rural neighbors at a low level of consumption until the 1944 harvest. But the city inhabitants probably have to rely mainly, if not wholly, on food supplied directly by the Soviet Government. Enough bread grain to avert famine could not be drawn from the crops of 1943, if these were as deficient as we infer in the territory held by Soviet forces in the summer of 1943. The deficit, therefore, would have to be met through (1) importation and (2) drafts on old-crop Russian stocks. We infer that both of these sources will yield moderate, but not large, supplies of food for urban consumption during 1943-44.

Shipments of flour and grain to the Soviet Union from North America apparently did not exceed 7-12 million bushels during July-December and, even though sharply increased in January-June, Russian imports seem unlikely to come to more than 50-60 million bushels in the crop year.³ Australian exports of wheat and flour to Russia could become substantial if transport conditions—both inside and outside of the Soviet Union—should permit, but so far there has been no evidence

¹ *Sotsialisticheskoe Selskoe Khozyaistvo* [Socialist Agricultural Economy], March-April 1943, p. 3.

² For the approximate boundaries referred to see the battle line in July 1943 on the map in *WHEAT STUDIES*, November 1943, XX, 64.

³ Roy F. Hendrickson, former director of the Food Distribution Administration, stated in November that Russo-American plans called for shipment of 1,098,000 long tons of grain products to the USSR during the year beginning October 1, 1943 (U.S. Dept. Agr. Release 1043-44, Nov. 18, 1943). We infer that most of the grain products shipped from the United States to Russia will be in the form of wheat flour. An additional quantity—perhaps 10-20 million bushels as wheat—is expected to be shipped from Canada.

of a significant movement of this sort. Lend-lease imports of pork, other meat, fats, poultry and dairy products, and Cuban sugar will perhaps again bulk larger in total than Russia's aggregate imports of wheat and flour. Only the latter, however, seem likely to be distributed mainly to Russian civilians.¹

We have no way of knowing how much bread grain can be drawn from old-crop stocks in Russia to supplement supplies from the current crop, but we infer that such drafts, together with imports of about 55 million bushels of wheat, will not be sufficient to meet the existing large deficit of 1943-crop supplies. Consequently, it seems reasonable to believe that bread consumption has been, or will be, further reduced in Soviet-held territories this year, perhaps both through increased bread-grain collections from farmers and through reductions of bread rations in the principal cities.

INDIA

The food crisis in India became increasingly serious during August–October, then gradually waned as the Central Government moved more food to the famine districts and as rice from the new harvest began to flow into consumption channels.

It has long been clear that the Indian food difficulties of 1943 were due to a complicated combination of factors of which the several responsibilities are difficult, perhaps impossible, to assess. Under normal peacetime conditions, the amount of food produced in India in 1942–43 would have sufficed to prevent serious famine conditions even in the absence of the 2 million tons of rice that would presumably have been imported under such cir-

¹ We infer that some, but not a major portion, of the imports of fat will go to civilians.

² For a brief summary of these factors, see our review for 1942–43, *WHEAT STUDIES*, November 1943, XX, 79–80.

³ *Indian Information*, Sept. 1, 1943, pp. 113–14. In contrast, officials of Bombay, Travancore, and Cochin, where food deficits were equally or more serious, independently and in co-operation with the Central Government took steps to control the distribution of foods in order to prevent famine conditions. Rationing of grain was introduced in the city of Bombay in May, and soon thereafter in Travancore and Cochin. Bengalese officials consistently opposed rationing until after the famine had become widespread.

cumstances from Burma and Indo-China. But under the actual wartime conditions of 1942–43 critical shortages of food soon became apparent in the major rice-consuming areas that had previously depended partly on imports. The basic conditions primarily responsible for these shortages included (1) increased purchasing power of the masses, which was reflected in increased demands for grain for direct consumption, (2) price inflation and war uncertainties which encouraged producers, merchants, speculators, and consumers to hold larger stocks of grain than before, and (3) the tight war-transport condition, which at times prevented the free flow of food from surplus to deficit areas.

Timid steps were taken by the Central Government in 1942 and the early months of 1943 to prevent these factors from resulting in a food crisis in any of the major provinces or states of India.² But it soon became clear that the food problem could not be solved without more effective control over food distribution by the Central Government—a control that British authorities hesitated to assume because it seemed to run counter to accepted ideas about the rights and responsibilities of the provinces and states under the Indian constitution of 1935. Probably the Central Government would have been less hesitant if it had accurately foreseen the extent of the famine that would later develop in Bengal. An end-season shortage of rice there was clearly anticipated by the Central Food Department, and perhaps a few officials in that department feared an acute food crisis; but we doubt if the records of deliberations within the Food Department would reveal general anticipation as late as June–July 1943 of the extent of famine later witnessed. Certainly the provincial officials of Bengal either failed to foresee the course of developments, or took surprisingly little action to counteract it.³ Not until famine conditions had clearly appeared did the Bengalese authorities co-operate in substantial measure with Central Government officials to mitigate the serious conditions.

By mid-August, the shortage of food in Calcutta and outlying districts had become extremely critical, and on August 24 the Mayor of Calcutta cabled an appeal to Prime Min-

ister Churchill and President Roosevelt to send food shipments to relieve "the acute distress" in that city.¹ During late September and October reported weekly deaths in Calcutta mounted as follows, as compared with average weekly deaths of about 600 in the same months of the five preceding years:²

Week ending	Number of deaths
September 26	1,492
October 2	1,636
October 9	1,967
October 16	2,154
October 23	2,155

The excess over the "normal" death rate of the city was not wholly due to the current disastrous shortage of food; for cholera, malaria, and other diseases not intimately associated with famine also took increased tolls. Yet Leopold S. Amery, Secretary of State for India, told the British Parliament that during the two months from August 15 to October 16 about 8,000 persons died in Calcutta alone from causes directly or indirectly due to starvation.³

¹ *New York Times*, Aug. 25, 1943, p. 4. A similar appeal was sent by the Mayor of Calcutta to the Mayors of New York and London on Oct. 7. *Ibid.*, Oct. 8, 1943, p. 7.

² *Ibid.*, Oct. 14, 1943, p. 4; Oct. 25, 1943, p. 5; Oct. 28, 1943, p. 10; Oct. 29, 1943, p. 6.

³ Statement made on Oct. 28, 1943. Great Britain, *Parliamentary Debates, Commons, 1942-43*, Vol. 393, col. 351.

⁴ The lower estimate was published by the British-owned newspaper *Statesman* (*New York Times*, Oct. 18, 1943, p. 4), while the higher was apparently made by K. Santhanam, a well-known Indian journalist, who published it in the *Hindustani Times* (*New York Times*, Oct. 28, 1943, p. 10).

⁵ This figure was given by Sir Jwala Prasad Srivastava in an address to the Central Indian Assembly (*New York Times*, Nov. 22, 1943, p. 4).

⁶ Among the strongest critics of the food policy of the Central Government of India were many members of the British Parliament and leading English newspapers and journals. On this subject, we find ourselves in virtually full agreement with the analysis and conclusions presented in different issues of the *Economist* (London).

⁷ Statement made on Nov. 4. Great Britain, *Parliamentary Debates, Commons, 1942-43*, Vol. 393, cols. 898-911.

⁸ Oct. 30, 1943, p. 577.

⁹ *London Grain, Seed and Oil Reporter*, Nov. 10, 1943, p. 486. Some other sources suggest that the correct figure was 150,000 tons.

In the outlying districts of Bengal famine conditions were even worse. October estimates of the total weekly death rate from starvation and disease in Bengal province (including Calcutta) ranged from 10,000 to 100,000,⁴ reflecting the difficulty of estimating deaths in the rural areas. Probably the truth is closer to the 58,000 reported to be the result of an official survey of the Bengal government made in October.⁵

Regardless of the precise magnitude of the Bengal famine as measured in number of deaths, it was much more extensive and serious than British authorities should have allowed to develop. Aside from humanitarian considerations, it gave anti-British politicians in India the sharpest political weapon they have had in years; it acted as a blow to British prestige throughout the world; it promoted the spread of disease in an area that is needed as a base for United Nations military operations in the Orient.⁶ The government's position was presented by Mr. Amery, who stressed (1) the lack of power of the Central Government to enforce better distribution of food between and within the various provinces, and (2) the inadequacy of shipping to supply essential emergency imports of food.⁷ On these two issues, the *Economist* pointedly remarked:

A government that can imprison and punish as this one has done, necessarily, to preserve order cannot in honesty refuse firm action to prevent famine . . . there is no evidence that demands for tonnage, commensurate with the famine that was already spreading a year ago, have ever been made to the Allied shipping authorities in London or Washington.⁸

So far as concerns the requests for shipping space, the full evidence is not available to us. In any case, it is clear that the volume of food shipments to India from outside sources was pitifully small throughout the calendar year 1943—even during the critical summer and fall months. British officials disclosed that only 160,000 tons of Australian wheat arrived in India between November 1942 and April 1943.⁹ Although we have seen no import figures for later months, press statements on the flow of food grains to Bengal province during the famine period suggest that arrivals by sea during August–November were probably no larger. And at the beginning of No-

vember Broomhall reported that during the next three months 80,000 tons of imported cereals were expected to arrive in Bengal—a statement presumably applying to the period November–January.¹ Consequently, it seems improbable that as much as 375,000 tons of grain were imported into India from outside sources during the calendar year 1943. This is far short of the recommended quantity of imports suggested by the Committee on Food Grains Policy last September—1,500,000 tons in the first year and 1,000,000 tons in each year thereafter while India faces food difficulties.

More important in relieving the Bengal famine was the belated activity of the Central Government (1) in procuring and sending grain from the surplus-producing provinces to Bengal, (2) in improving the distribution of grain within that province, and (3) in taking new measures to discourage hoarding.

The Third Food Conference of July 5–7, 1943 had recommended reversion to the original “Basic Plan” for procurement by the Central Government of food surpluses from the various provinces through purchasing organizations responsible only to the provincial governments. Although the serious defects of this system of divided authority were widely recognized, the Central Government attempted again to operate within the framework of the accepted plan. Some improvement was made in the way of procurement, and as the famine spread in Bengal, food shipments to that area from the rest of India increased from 1,000 tons a day in July–August to 3,700 tons in September–October.² But the increased shipments were still critically inadequate. And though the number of people fed by free rice

kitchens in Bengal province rose to 1.7 million or more in late October,³ the number of deaths from starvation and associated diseases also rose.

From October 13, the Central Government began to show new courage and force, and to work more effectively to counteract the food crisis. On October 13 the Central Government announced that it had decided to take over the control of the food situation and that the provincial governments would be overridden if necessary.⁴ Several days later Sir J. P. Srivastava, head of the Food Department, announced that the Central Government would have an emergency food distribution plan in operation by November 1.⁵ On October 20 Field Marshal Wavell was inaugurated as the new Viceroy of India and almost immediately he went to Bengal to inspect the famine districts. His plan for improving food distribution in that province, announced October 28, included the following provisions: (1) that the Bengal government should immediately arrange to send the huge numbers of starving, destitute people in Calcutta to suburban rest camps where they would receive adequate food and medical treatment and later would be returned to their own villages, (2) that the Indian army under General Auchinleck should assist in providing needed shelters, in moving food, in establishing relief stores, and in distributing food and medical relief, and (3) that an officer of the Indian army, trained to supervise supply movements, should be given the task of improving the distribution of food from Calcutta to the surrounding rural areas.⁶

Vigorous action in line with Viceroy Wavell’s plan doubled the volume of food moved to outlying districts within a week or two, and the new rest camps promptly cut the death rate in Calcutta.⁷ Moreover, the rural districts were aided by the ripening of the new winter rice crop. Harvesting got under way in November and was in full swing by December, with the crop promising to reach 8 million tons as compared with the poor winter crop of only 5 million in 1942.⁸ By December 18, therefore, it was possible for the Secretary of the India Food Department to announce that the famine in Bengal had ended and that the province had passed out of the stage of acute

¹ *Corn Trade News*, Nov. 3, 1943, p. 422.

² Mr. Amery on Nov. 4 in the House of Commons.

³ *New York Times*, Oct. 11, 1943, p. 6; Oct. 23, 1943, p. 2.

⁴ *Ibid.*, Oct. 14, 1943, p. 4.

⁵ *Ibid.*, Oct. 18, 1943, p. 4.

⁶ *Ibid.*, Oct. 29, 1943, p. 6.

⁷ *Ibid.*, Nov. 8, 1943, p. 8; Nov. 22, 1943, p. 4; Nov. 29, 1943, p. 7.

⁸ *London Grain, Seed and Oil Reporter*, Nov. 24, 1943, p. 538. The total crop is expected to reach 11 million tons compared with slightly less than 7 million in 1942.

food shortage.¹ At the end of the year progress was continuing on plans to introduce grain and flour rationing in Indian cities with populations of 100,000 and over.²

OTHER COUNTRIES

The grain supply position in French North Africa has improved considerably since the Allies invaded the region in November 1942. While it was necessary before the 1943 harvest to import about 4 million bushels of wheat and flour in wheat equivalent, since then imports have been unnecessary and some surplus has been available. The 1943 wheat crop, estimated as 68 million bushels, was a little larger than the 1942 crop, though below the 1934-38 average. French authorities in North Africa had supplied United States forces with about a million bushels of wheat by November 1943,³ and had sent some additional wheat to civilians in Sicily while the invasion was still in progress. Exports in 1943-44 will depend on outlets that may develop in Europe, but they probably will not exceed 5-10 million bushels.

Other grains, as well as wheat, are less scarce in French North Africa than before the 1943 harvest. The barley crop was apparently considerably larger than in 1942 and up to prewar levels. Production of oats was apparently the largest since the war began. Although food problems in that area have lessened, they have not been entirely solved. Bread is apparently still rationed in Algeria at 300 grams (11 ounces) per day and in Tunisia at 500 grams (18 ounces). Transportation difficulties and limited farm equipment seem to be the chief problems which beset local administrators. Farm machinery shipped in by the Allies is strictly rationed in Algeria, with wheat growers receiving first priority.

The 1943 wheat crop of Turkey, Egypt,

¹ *New York Times*, Dec. 19, 1943, p. 33.

² Even the grain-surplus province of Punjab had agreed on Dec. 13, after long opposition, to introduce rationing in 11 large cities, "as soon as satisfactory arrangements can be made." This action was taken in response to the personal advice and pleas of Viceroy Wavell (*ibid.*, Dec. 15, 1943, p. 5).

³ *New York Times*, Nov. 19, 1943, p. 6.

⁴ *Boletín Informativo* (Argentina Comisión Nacional de Granos y Elevadores), Aug. 15, 1943, pp. 359-60.

⁵ Sales reported in the *Winnipeg Free Press*.

Iraq, Iran, Palestine, and Syria and Lebanon combined totaled about 290 million bushels as compared with 225 million in 1942. While last year's crops were far below normal in both Turkey and Iran, this year practically all countries of the Middle East secured good harvests of wheat and other grains. Turkey's wheat crop of 147 million bushels was particularly outstanding as compared with the poor preceding crop of 101 million bushels.

Net imports of wheat in the Middle East may amount to less than 5 million bushels in 1943-44, scarcely half as much as in 1942-43. Turkey, the only country likely to export, plans to send some wheat to Greece. Exports from Iran and Egypt were prohibited at least through December; Syria and Lebanon and Palestine will probably import wheat as in most past years, and the rest of the Middle East will probably manage with the domestic output.

Turkey and Iraq presumably have the best grain supplies of the various Middle Eastern countries. Turkey's supplies of wheat, rye, barley, and oats are all greater than in 1942. Nevertheless, the anticipated increase in the Turkish bread ration from 300 grams (11 ounces) per day had apparently not been ordered through early December. Continuation of rationing in the large cities may be partly for the purpose of building up reserve stocks. On the other hand, it may largely reflect the tendency of producers, merchants, and consumers to hoard the increased grain supplies. In Istanbul wheat flour was made available to consumers after the large 1943 wheat harvest, but at higher prices than for standard flour.

In Latin America shipping difficulties temporarily restricted exports of Argentine wheat to Brazil and encouraged rationing of bread in Rio de Janeiro and San Pablo.⁴ Paraguay and Uruguay both increased their imports of Argentine wheat during the first few months of 1943-44, and Chile also ranked as a net importer. Mexico, with a 1943 wheat crop some 10 per cent below her 1942 production, and a corn crop 25 per cent below, was reported to have purchased at least 6 million bushels of Canadian wheat during August-December.⁵

China's 1943 wheat crop was apparently 15 per cent larger than last year's and her rice and other staple crops not unsatisfactory. Transportation difficulties, however, remained serious, with food-deficit areas virtually isolated and dependent solely on their own supplies. In Honan province the famine has again become critical, following heavy destruction of millet and bean crops by locusts. Fortunately the wheat crop, harvested earlier, was saved and food shortages this year may be less severe than during the spring of 1943. The Chinese government is apparently meeting with some success in its battle against inflation. But though prices of rice and wheat were reported falling during the autumn, they were still far out of line with the purchasing power of a substantial portion of the population.

The Japanese wheat crop of 1943, according to an unofficial estimate, was 69 million bushels or the highest on record. The rice crop, perhaps about average, is apparently not being fully supplemented by shipments

from southeastern Asia because of transport difficulties. Rice, sugar, salt, and other staple foods continue under ration, in quantities presumably below prewar levels. Moreover, the supply of fish has apparently been reduced. On the other hand the picture of food shortage is certainly overdrawn if one compares the alleged ration of 12 pounds of rice per month¹ with the average prewar per capita level of rice consumption of more than 25 pounds per month. Among the occupied countries, both Java and the Philippines appear to be seriously short of rice.

The 1943 grain crops of the Union of South Africa apparently recovered from a drought which lasted through June. It now appears that the wheat, rye, oats, and barley crops are all somewhat larger than in 1942. The new wheat crop of 22 million bushels, compared with 20 million a year earlier, is the largest crop since 1935.

¹ *China at War* (Chinese News Service, New York), December 1943, XI, 37. The inaccurate sheng-pound conversion factor given in this source would imply an even lower ration of 8 pounds.

The tables for this survey were prepared by Rosamond H. Peirce and the charts by P. Stanley King. Helpful criticism was contributed by M. K. Bennett and V. P. Timoshenko. Certain foreign information was kindly supplied by the Office of Foreign Agricultural Relations of the United States Department of Agriculture.

APPENDIX TABLES

TABLE I.—WHEAT PRODUCTION IN PRINCIPAL PRODUCING AREAS EX-RUSSIA, 1938-43*

(Million bushels)

Year	World ex-Russia ^a	Four chief exporters					British Isles	Continental Europe ex-Russia				French North Africa ^d	India	Others ex-Russia ^e
		Total	United States	Canada	Australia	Argentina		Total	Four neutrals ^b	Others ex-Danube	Lower Danube ^c			
1938.....	4,563	1,814	920	360	155	379	81	1,778	149	1,163	466	72	402	416
1939.....	4,197	1,603	741	521	210	131	72	1,621	162	1,008	451	102	372	427
1940.....	3,914	1,734	813	540	82	299	75	1,225	111	819	295	60	402	418
1941.....	3,904	1,649	943	315	167	224	90	1,345	139	876	330	76	374	370
1942.....	4,075	1,921	974	556	156	235	115	1,240	152	823	265	64	375	360
1943.....	3,946	1,493	836	294	102	261	135	1,425	130	920	375	68	410	415
Average 1934-38.....	3,787	1,377	716	263	154	244	71	1,529	183	993	353	72	366	371

* Largely official data, for boundaries as in 1939; figures in italics represent or include in substantial part our approximations as of Jan. 20, 1944.

^a Excludes USSR, China, Iran, Iraq, Transjordan, and various small producers, but includes Brazil and Peru.

^c Hungary, Yugoslavia, Rumania, Bulgaria.

^d French Morocco, Algeria, Tunis.

^b Spain, Portugal, Switzerland, Sweden.

TABLE II.—WHEAT RECEIPTS IN NORTH AMERICA, MONTHLY, JULY-DECEMBER, 1938-43*

(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.
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	9.6	254.6
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	35.6	102.5	69.2	37.7	39.2	284.0
1941.....	102.2	50.3	39.9	32.4	17.6	22.5	264.9	27.9	20.1	29.9	43.7	29.8	25.9	149.4
1942.....	62.2	39.7	53.4	46.3	31.2	31.5	264.3	24.7	2.8	23.4	61.5	30.0	24.1	141.8
1943.....	117.0	77.3	50.2	48.3	45.1	53.6	391.5	21.8	13.6	22.9	16.7	39.1	26.1	118.4

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

TABLE III.—APPROXIMATE WORLD WHEAT SUPPLIES AND DISAPPEARANCE, ANNUALLY FROM 1938-39*

(Million bushels)

Year August-July	World ex-Russia					British Isles					Continental ex-Russia				
	Initial stocks ^a	Crops	USSR ex-ports	Total supplies	Disappearance	Initial stocks	Crops	Net im-ports	Total supplies	Utili-zation	Initial stocks	Crops	Net im-ports	Total supplies	Utili-zation
1938-39.....	594	4,563	34	5,191	4,041	35	81	247	363	288	195	1,778	96	2,069	1,694
1939-40.....	1,150	4,197	.. ^b	5,347	3,947	75	72	240	387	287	375	1,621	118	2,114	1,694
1940-41.....	1,400	3,914	8	5,322	3,772	100	75	245	420	295	420	1,225	60	1,705	1,455
1941-42.....	1,550	3,904	.. ^b	5,454	3,654	125	90	205	420	305	250	1,345	40	1,635	1,420
1942-43.....	1,800	4,075	.. ^b	5,875	3,850	115	115	170	400	280	215	1,240	45	1,500	1,335
1943-44.....	2,025	3,946	.. ^b	5,971	4,370	120	135	...	...	265	165	1,425	...	.....	1,435
Average 1934-39.....	796	3,784	23	4,603	3,816	40	70	221	331	285	291	1,529	117	1,937	1,652

* Data as in WHEAT STUDIES, December 1943, XX, 95, Table XXII, with recent revisions and preliminary approximations for 1942-43 and 1943-44.

^a Excluding India and Japan, and otherwise less comprehensive than crop data.

^b Net imports.

TABLE IV.—WHEAT SUPPLIES AND DISPOSITION IN FOUR CHIEF EXPORTING COUNTRIES, ANNUALLY FROM 1938-39*

(Million bushels)

Year	Supplies			Domestic utilization					Surplus over domestic use ^f	Net ex-ports	Year-end stocks	
	Initial stocks	Crop	Total	Milled (net) ^a	Seed use ^b	Feed ^c	Residual ^d	Total ^e			A	B ^g
A. UNITED STATES (July-June)												
1938-39.....	154	920	1,074	475	76	153	+ 10	714	360	109	251	...
1939-40.....	251	741	992	472	73	108	+ 12	665	327	47	280	...
1940-41.....	280	813	1,093	476	74	114	+ 10	674	419	34	385	...
1941-42.....	385	943	1,328	480	62	116	+ 11 ^h	669	659	27 ⁱ	632	...
1942-43.....	632	974	1,606	520	64	318	+ 56 ^h	958	648	30 ⁱ	618	...
1943-44 ^j	618	836	1,454	530	80	500	+129 ^h	1,239	215	(50) ^k	265	...
B. CANADA (August-July)												
1938-39.....	25	360	385	49	35	34	+ 6	124	261	158	103	...
1939-40.....	103	521	624	50	36	37	+ 9	132	492	192	300	...
1940-41.....	300	540	840	42	28	48	+11	129	711	231	480	...
1941-42.....	480	315	795	42	27	56	+24 ⁱ	149	646	222	424	...
1942-43.....	424	556	980	48	22	79	+18 ⁱ	167	813	212	601	...
1943-44 ^j	601	294	895	48	22	79	+26 ⁱ	175	720	300	420	...
C. AUSTRALIA (August-July)												
1938-39.....	50	155	205	31	14	..	+14	59	146	96	50	21
1939-40.....	50	210	260	33	13	..	- 2	44	216	86	130	85
1940-41.....	130	82	212	31	14	..	+ 4	49	163	93	70	45
1941-42.....	70	167	237	34	10	..	+ 7	51	186	41	145	115
1942-43.....	145	156	301	32	9	..	+19	60	241	36 ⁱ	205	170
1943-44 ^j	205	102	307	33	9	..	+20	62	245	40	205	...
D. ARGENTINA (August-July)												
1938-39.....	72	379	451	74	21	..	+ 4	99	352	122	230	120
1939-40.....	230	131	361	74	21	..	+12	107	254	179	75	9
1940-41.....	75	299	374	73	22	..	+ 3	98	276	96	180	120
1941-42.....	180	224	404	74	20	..	+ 7	101	303	83	220	160
1942-43.....	220	235	455	74	20	..	+22	116	339	69	270	185
1943-44 ^j	270	261	531	75	24	..	+72 ^m	171	360	90	270	...
E. FOUR CHIEF EXPORTERS												
1938-39.....	301	1,814	2,115	629	146	187	+ 34	996	1,119	485	634	...
1939-40.....	634	1,603	2,237	629	143	145	+ 31	948	1,289	504	785	...
1940-41.....	785	1,734	2,519	622	138	162	+ 28	950	1,569	454	1,115	...
1941-42.....	1,115	1,649	2,764	630	119	172	+ 49	970	1,794	373	1,421	...
1942-43.....	1,421	1,921	3,342	674	115	397	+115	1,301	2,041	347	1,694	...
1943-44 ^j	1,694	1,493	3,187	686	135	579	+247	1,647	1,540	380	1,160	...

* Based chiefly on latest official data or estimates, with some provisional approximations.

^a Wheat equivalent of flour production less net exports of flour, not adjusted for changes in flour stocks. Australia, July-June years; Argentina, our estimates based on calendar-year flour milled less flour exports.

^b Argentina, based on acreage sown and average seed requirements per acre.

^c United States, official estimates of total feed use. Canada official estimates of wheat fed on farms where grown. Australia and Argentina, no data; feed use included with residual.

^d Difference between derived total domestic utilization and the sum of specified utilization items.

^e Total supplies less sum of net exports and year-end stocks.

^f Sum of the two following items.

^g Our approximations to old-crop stocks November 30 for Australia and December 31 for Argentina; official estimate for Australia in 1939.

^h Includes wheat used for alcohol; 2 million bushels in 1941-42, 54 in 1942-43, and 100 in 1943-44. Also includes army shipments for relief. See p. 109.

ⁱ Our rough approximation.

^j Approximations as of Jan. 20, 1944.

^k Net import.

^l Includes freight-assisted sales for feed.

^m Including fuel use; see p. 114.

TABLE V.—UNITED STATES FLOUR PRODUCTION, FROM JULY 1938*
(Million units of 100 pounds)

Year	Production: reporting mills										Estimated production ^a	
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.-Mar.	April-June	July-June	July-Nov.	July-Nov.	July-June
1938-39.....	16.7	18.0	19.0	18.9	17.3	16.5	49.4	49.4	205.1	89.9	95.3	217.5
1939-40.....	16.5	18.7	21.9	18.5	16.3	15.9	49.0	48.0	204.7	91.9	97.4	217.1
1940-41.....	16.7	17.4	18.2	19.5	17.1	16.0	50.3	51.2	206.4	88.9	94.3	218.9
1941-42.....	17.5	16.8	18.6	19.0	16.1	18.2	51.7	47.5	205.5	88.0	93.4	217.9
1942-43.....	17.8	17.6	19.2	20.6	18.7	19.9	61.5 ^b	49.4 ^b	224.6 ^b	93.9	99.5 ^b	238.2 ^b
1943-44 ^b	17.3	18.4	19.7	21.0	21.0	....	....	....	....	97.4	103.4	....
	Granular Flour											
1942-43.....	.0	.0	.0	.0	.0	.0	2.9	6.6	9.5	.0	....	....
1943-44.....	1.3	1.3	1.2	1.2	1.0	...	...	...	...	6.0	....	....

* Reported production from U.S. Department of Commerce.

^a Estimates of Holbrook Working.

^b Excluding granular flour for alcohol.

TABLE VI.—UNITED STATES WHEAT STOCKS QUARTERLY FROM JULY 1939*
(Million bushels)

Year	Total stocks				CCC owned or pooled				CCC under loan			
	July 1	Oct. 1	Jan. 1	Apr. 1	July 1	Oct. 1	Jan. 1	Apr. 1	July 1	Oct. 1	Jan. 1	Apr. 1
1939-40.....	250.0	787.3	606.0	433.6	6.0	8.4	.3	.0	21.8	123.2	161.0	106.1
1940-41.....	279.7	877.2	724.1	544.9	1.6	1.5	.7	9.5	10.3	198.6	280.5	266.3
1941-42.....	384.9	1163.9	1001.1	810.5	169.2	173.9	166.9	141.7	38.4	237.1	351.7	318.0
1942-43.....	631.7	1383.9	1162.5	900.6	319.7	309.2	308.5	245.4	104.0	262.9	430.2	341.7
1943-44.....	618.0	1109.1	.....	.....	259.8	161.9	103.2	.....	137.5	165.4	150.9	.....

* Data from Bureau of Agricultural Economics and Commodity Credit Corporation.

TABLE VII.—COMMODITY CREDIT CORPORATION SALES OF WHEAT FOR FEED, MONTHLY FROM JANUARY 1942*
(Million bushels)

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
	Monthly sales											
1941-42.....	...	...	...	...	...	...	4.2	9.9	8.0	4.4	3.8	5.2
1942-43.....	5.8	8.2	10.1	8.6	9.3	18.3	24.5	37.4	3.0	29.4	57.8	49.2
1943-44.....	43.9	44.7	37.0	34.5	28.2	25.0 ^a	....	....	...	...	...	...
	Sales from July 1											
1941-42.....	...	....	....	....	....	....	4.2	14.1	22.1	26.5	30.3	35.5
1942-43.....	5.8	14.0	24.1	32.7	42.0	60.3	84.8	122.2	125.2	154.6	212.4	261.6
1943-44.....	43.9	88.6	125.6	160.1	188.3	213.3	...	....	...	...	...	...

* Data from successive issues of the *Feed Situation*.

^a Preliminary.

TABLE VIII.—CANADIAN AND ARGENTINE WHEAT AND FLOUR EXPORTS FROM AUGUST 1939*
(Million bushels)

Year	Canada						Argentina					
	Aug.	Sept.	Oct.	Nov.	Aug.- Nov.	Aug.- July	Aug.	Sept.	Oct.	Nov.	Aug.- Nov.	Aug.- July
1939-40.....	13.20	14.69	9.22	18.83	55.94	192.67	16.06	14.10	14.76	17.00	61.92	179.29
1940-41.....	11.56	9.62	10.81	13.71	45.70	231.21	10.66	7.56	6.58	7.40	32.20	95.94
1941-42.....	20.41	15.68	13.94	17.23	67.26	222.01	8.33	6.27	5.54	6.18	26.32	83.26
1942-43.....	15.44	9.54	14.02	15.23	54.23	211.52	5.64	6.29	8.34	5.18	25.45	68.57
1943-44.....	27.71	22.58	24.48	....	....	....	6.06	6.82	8.58	....	....	....

* Data from official sources.

TABLE IX.—SELECTED WHEAT PRICES MONTHLY AUGUST-DECEMBER 1942 AND 1943*
(U.S. cents per bushel)

Month	United States						Canada		Australia		Argentina	
	Basic cash (Chicago)		No. 1 Dk. N.S. (Minneapolis)		Soft White (Portland)		Offers to U.K.		Offers to U.K.		Exports	
	1942	1943	1942	1943	1942	1943	1942	1943	1942	1943	1942	1943
Aug.....	117.9	145.3	112.6	140.7	106.3	138.8	94.6	117.4	70.4	73.0	65.6	74.6
Sept.....	126.7	149.5	119.4	143.3	115.1	136.5	95.9	120.1	70.4	77.8	65.6	77.8
Oct.....	125.9	156.0	119.0	149.1	113.1	138.2	96.5	....^a	70.4	78.2	65.6	78.6
Nov.....	126.2	160.3	119.7	155.4	114.2	141.5	97.1	128.0	70.4	78.2	65.6	79.4
Dec.....	135.8	169.7	131.7	163.0	118.5	145.1	98.5	128.1	70.4	81.4	65.6	81.0

* For United States sources and methods of computation see WHEAT STUDIES, December 1943, XX, 95. Other series from *London Grain, Seed and Oil Reporter* converted to United States cents at official exchange rates. Offers to U.K. are f.o.b. port of shipment. The Argentine series is for bulk wheat to Europe and Brazil in 1942, all destinations in 1943.

^a Not quoted for some weeks following suspension of wheat trading on the Winnipeg Grain Exchange.

TABLE X.—PRICES OF DOMESTIC WHEAT IN EUROPE, IN AUGUST AND DECEMBER 1937-43*
(Indicated currency per quintal; except as noted for the U.K.)

Year	United Kingdom (shillings per cwt.)		Sweden (kronor)	Germany (RM) ^a	France (francs) ^a	Italy (lire) ^a	Netherlands (florins) ^a	Belgium (francs)	Denmark (kroner)	Bulgaria (leva) ^a	Rumania (lei)	Hungary (pengő)	Yugoslavia (dinar)
	Standard	Gazette											
August													
1937.....	10.0	9.4	18.8	19.9	180	125	10.22	141	17.3	320	474	20.5	173
1938.....	10.0	6.8	17.9	19.7	199	135	10.73	122	13.8	340	400	20.2	158
1939.....	11.0	4.3	16.7	19.6	198 ^b	135	10.90	125	14.8	350	420	19.7 ^a	148
1940.....	14.5	13.1	24.2	19.6	214 ^b	155	11.86	170	28.0 ^a	430	687 ^a	25.5 ^a	313
1941.....	14.5	14.7	27.0 ^a	20.4	300	175	13.25 ^c	220 ^d	28.0 ^a	620	1,100 ^a	30.0 ^a	350 ^a
1942.....	16.0	15.8	27.0 ^a	21.4	404	205	13.25 ^c	220 ^d	28.0 ^a	620	2,200 ^a	30.0 ^a	500 ^a
1943.....	14.5	15.5	....	21.4	...	...	....	220	....	820	2,600 ^a	40.0 ^a	600 ^a
December													
1937.....	10.0	8.6	19.6	20.6	184	125	9.70	134	18.5	320	522	20.8	178
1938.....	10.0	4.3	16.8	20.5	208 ^b	135	9.70	118	14.1	340	418	20.5	160
1939.....	11.0	7.1	20.0	20.4	202 ^b	135	10.81	144	19.1	350	452	20.8 ^a	193
1940.....	14.5	14.6	27.0 ^a	20.4	220 ^b	155	11.93	170 ^d	28.0 ^a	430	857 ^a	26.2 ^a	313
1941.....	14.8	14.8	27.0 ^a	20.6	300	175	13.47	205 ^d	28.0 ^a	620	1,170 ^a	27.0 ^a	350 ^a
1942.....	16.3	16.3	26.0 ^a	20.6	375	175	13.62	205 ^d	28.0 ^a	620	2,200 ^a	27.0 ^a	400 ^a
1943.....	14.8	14.8	....	21.4	410	...	....	210	....	620	2,600 ^a	37.0 ^a	400 ^a

* Data from official sources, the International Institute of Agriculture, and foreign news sources. An attempt has been made to include applicable premiums for early delivery in August prices. Acreage payments available in some countries are not included, except for Italy which is estimated at 10 lire per quintal in 1942. Dots (...) indicate no information available to us.

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

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

^c September.

^d Maximum price to producers.

^e Fixed price to producers for Serbia.

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