



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
<http://ageconsearch.umn.edu>
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

WORLD WHEAT SURVEY AND OUTLOOK

JANUARY 1935

The outstanding development in the world wheat situation during August–December 1934 was a severe and almost uninterrupted decline in Liverpool futures prices. This decline was equivalent to 31 cents (United States currency) at Liverpool, 26 cents at Buenos Aires, 19 cents at Winnipeg, and only 15 cents at Chicago. At Liverpool it was a decline relatively large both absolutely and in percentage terms as compared with similar price movements in preceding years. It was the more striking because by January 1935 it brought duty-free wheat prices on import markets to a level not much higher than the level of the year before, despite a strikingly large decrease in the world ex-Russian wheat crop between 1933 and 1934, and prospects for a heavy reduction during 1934–35 of the surplus wheat stocks that have so long tended to depress world wheat prices.

Apparently the fall in Liverpool prices, severe either in sterling or in gold, represented mainly reaction from a speculative flurry last summer (a rare occurrence at Liverpool), based upon reports of crop damage in both North America and Europe and upon expectations of consequent reduction—perhaps elimination—of surplus world wheat stocks. Developments in the world wheat situation during August–December appear to have been only moderately bearish, but they sufficed to induce a marked change in speculative sentiment which in turn resulted in severe price recession. The more palpably bearish developments included unexpectedly heavy pressure of old-crop Argentine and Australian wheats and of French wheat upon import markets; appearance of indications that European import demand was tending to fall considerably below earlier expectations; moderately favorable progress of the growing Southern Hemisphere

crops; upward revisions of earlier forecasts of Northern Hemisphere—particularly European—wheat crops; and unexpectedly small successive weekly reductions in the level of world visible supplies. Regarded separately, none of these developments was particularly striking; and in the aggregate they seem considerably

less impressive than the bearish influences that have induced price declines of similar magnitude in earlier years.

Upward revisions of forecasts of Northern Hemisphere crops and the appearance of forecasts of the Argentine and Australian crops bring the world ex-Russian total to about 3,280 million bushels, as contrasted with a range of 3,117–3,217 suggested

last September. Prospective world ex-Russian supplies for 1934–35 show a corresponding change, but appear to be about 320 million bushels smaller than in 1933–34. World wheat disappearance, swelled especially by enlargement of mill grindings and feed use in the United States and of shipments to areas outside the world ex-Russia, was probably about as heavy in August–December this year as last, despite reduction of wheat consumption in the Danube basin and Italy. World total stocks on January 1 therefore probably reflected about all of the reduction in crop-year total supplies; but this development has not yet appeared prominently in statistics of world visible supplies.

The changes in crop forecasts and the records of trade in August–December involve some changes in earlier forecasts of the volume and distribution of international trade. France and Poland, prospective net importers last September, now seem likely to be net exporters; and the United States is likely to occupy the unaccustomed position of a net-importing country. The total volume of inter-

CONTENTS

	PAGE
<i>Wheat Supplies</i>	198
<i>Visibles and Other Stocks</i> ...	202
<i>Imports and Exports</i>	204
<i>Course of Prices</i>	209
<i>Significant Price Relation-</i> <i>ships</i>	212
<i>Outlook for Trade</i>	215
<i>Outlook for Stocks and Con-</i> <i>sumption</i>	217
<i>Outlook for Prices</i>	220
<i>Appendix Tables</i>	224

national trade (net exports) now seems likely to approximate 575 million bushels, some 25 million less than our September forecast and less than in any post-war year except 1933-34. Presumably less wheat will be imported by Europe, somewhat more by ex-Europe, than earlier seemed probable. Canada, Australia, and Argentina still seem likely to export an exceptionally large fraction of the total.

"World" wheat stocks may now be expected to decline about 315 million bushels in the course of the crop year. The prospective reduction is approximately the same in magnitude as the reduction in world wheat supplies between 1933-34 and 1934-35, and implies disappearance of about 3,600 million bushels in both years. This year, however, more wheat is likely to disappear in the United States and to areas outside the world ex-Russia, while less will be consumed in the Danube basin. The level of "world" carryover stocks about next August 1, prospectively some 825 million bushels, will probably be the lowest since 1928, but more than 35 per cent above the pre-depression (1923-27) average; and stocks will probably remain especially high in relation to the pre-depression average, though below peak levels, in Canada and some countries of importing Europe, conspicuously France and Spain. The United States carryover on July 1 now seems likely to approximate 155 million bushels, a larger figure than was earlier in prospect but one only 30 million bushels above the 1923-27 average. A carryover of 155 million bushels would be 225 million below the peak carryover of 1933.

The fairly clear prospect for heavy reduction of "world" total wheat stocks seems not to foreshadow a decisive and substantial advance in Liverpool wheat prices within the next two or three months. The prospective reduction in total stocks is likely soon to give rise to more notable reduction of visible supplies than has occurred recently. Declining world visibles may tend to strengthen prices; but this influence and such others as prospective improvement in European demand and firm holding of Canadian wheat seem likely to be opposed by influence of export pressure from the Southern Hemisphere. Yet since liquidation originating in the speculative

flurry of last summer has probably about spent its force, there seems to be little reason to anticipate further sustained price decline of appreciable magnitude, unless international exchange relationships alter significantly. The next two or three months seldom witness large price movements in either direction. After mid-April, the progress of the 1935 wheat crop may be expected to dominate price movements. Crop developments cannot be foreseen; but, because of the reduction in surplus stocks now in progress, unfavorable development of new crops in the spring and early summer—if such is the course of events—could be expected to result in a rise in wheat prices both substantial and well sustained.

WHEAT SUPPLIES

Broadly, the world wheat supply position for 1934-35 appears in mid-January 1935 slightly easier than it did four months earlier.¹ Present estimates suggest that the world crop, appraised in mid-September at 3,117-3,217 million bushels, more closely approximates 3,280 millions (Table I). The Southern Hemisphere crop of 1934 turned out closer to the upper than to the lower limit of the range we suggested in mid-September; and crop estimates for Northern Hemisphere countries have been revised upward in the aggregate by about 75 million bushels. This net upward revision, though sizable, is only a little over half as large as that made for the 1933 crop during September-January 1933-34. This year, as last, changes in the crop estimates of European importing countries constitute the major part of the total change recorded for the Northern Hemisphere.

Size and distribution of the world crop.—At 3,280 million bushels the world wheat crop of 1934 ranks as the smallest since 1924, and 335 million bushels below last year's outturn. In only two years of the preceding decade was the average world yield of wheat per acre so low—1924 and 1929; and in the latter year the low yield was partly offset by a larger acreage. The acreage harvested for the 1934 crop was the smallest since 1926, partly because of heavy abandonment which was

¹ "World Wheat Survey and Outlook, September 1934," *WHEAT STUDIES*, September 1934, XI, 26, 33.

largely the result of drouth, partly because of reduced sowings in the four major exporting countries.

In 1934, as in 1933, European importing countries as a group harvested a large wheat crop, while the world's exporting countries secured but a small total outturn. As compared with 1933, both importing and exporting countries had smaller aggregate crops in 1934. The distribution of the 1934 crop among principal countries and regions is shown in Chart 1, with past-year comparisons.

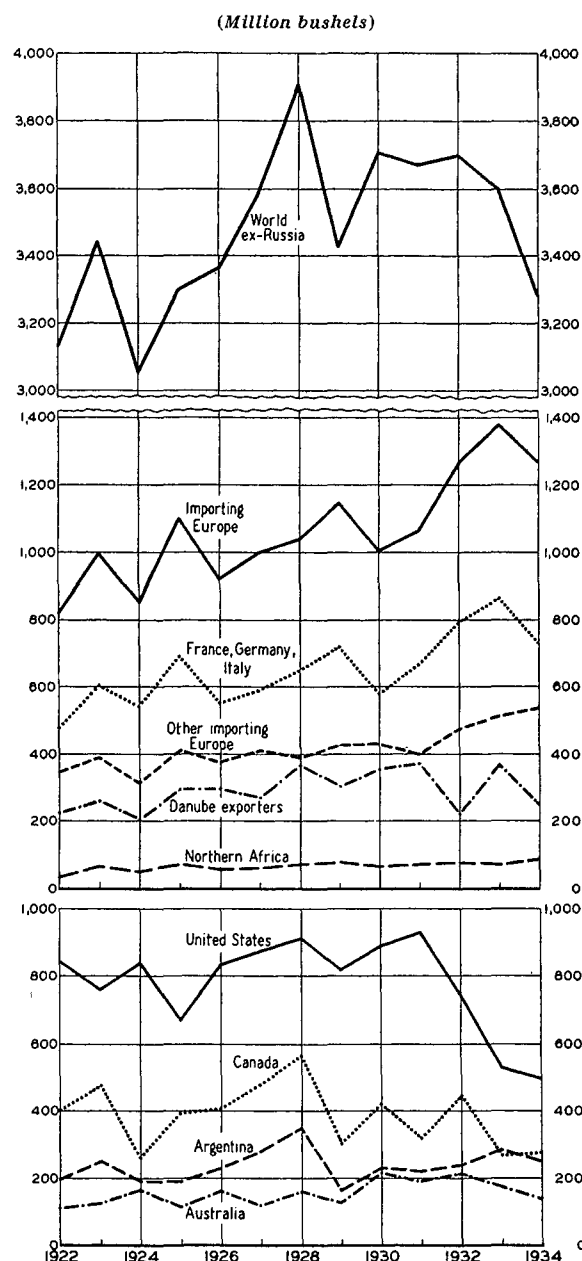
Although over 100 million bushels smaller than last year's record crop, the 1934 harvest in importing Europe is now estimated to have been one of the three largest on record, and about 100 million bushels above the 1929-33 average. In general, the European crop of 1934 is reported to be of exceptionally good quality. Reduction in output from 1933 occurred mainly in France, Italy, Germany, Czechoslovakia, and Poland. Even these countries harvested crops of about average (1929-33) size or only a little lower, and yields per acre were substantially below the ten-year average only in Czechoslovakia and Poland.

In other European importing countries wheat production was generally higher in 1934 than in 1933. The largest increase—42 million bushels, or 30 per cent—occurred in Spain; but increases of 10 per cent or over were recorded for the British Isles, Netherlands, Norway, all of the Baltic states, Portugal, and Greece. All of these countries except the British Isles, Spain, and Portugal harvested crops of record size (since 1885); and Sweden also had a record outturn. Both large areas and high acre-yields¹ contributed to these results. Not one of the countries here mentioned secured a yield per acre below average (1924-33) in size; not one reported an acreage smaller than the 1929-33 average.²

In contrast to the crop situation in importing Europe, the Danube exporting countries harvested an aggregate crop which ranks as the second smallest in a decade. It is less

than 30 million bushels larger than the small 1932 crop which resulted in sharp curtailment of wheat consumption in the Danube basin.

CHART 1.—WHEAT PRODUCTION IN PRINCIPAL PRODUCING AREAS, 1922-34*



* See Table I. Plotted figures for world ex-Russia and for Canada for 1933 are too low by 12-14 million bushels.

¹ Possibly due in part to new varieties and/or more intensive cultivation.

² Official acreage data are not yet available, however, for Sweden, Switzerland, or Latvia.

This year only Hungary appears to have a true exportable surplus (inward stocks considered), but it is possible that one or more

of the other Danubian countries may export wheat net in 1934-35 at the expense of domestic consumption.

Among the four overseas exporting countries, the United States stands out as the one wherein wheat production in 1934 was the farthest below average (Chart 1, bottom section). Indeed, the United States crop of 1934 now appears to be the smallest on record at least since 1890.¹ Mainly as a result of the government's acreage-reduction program and of drought at planting time in the spring-wheat states, wheat sowings for the United States crop of 1934 were 6.6 million acres smaller than sowings for the 1933 crop. The wheat acreage harvested was somewhat less strikingly reduced from 1933 (by 5.7 million acres), primarily because abandonment of winter-wheat acreage, though above average in 1934, was considerably less heavy than in 1933. Yields per acre for both winter and spring wheat were low, largely on account of severe drought. For the United States as a whole, the wheat acreage harvested in 1934 was the smallest since at least 1896; and the yield per acre, only slightly higher than in 1933, was otherwise the lowest since 1885.

The Canadian crop, now estimated at 275 million bushels, appears slightly smaller than the notably short crop of 1933, and is grading considerably lower than the 1933 crop. In both years, the yield per acre was far below average (though higher in 1934 than in 1933); and in 1934 the acreage, too, was substantially smaller than in most recent years.

Preliminary estimates of the two chief Southern Hemisphere crops indicate that the Argentine crop is somewhat larger than average (1929-33), while the Australian crop is considerably the smallest in five years. In both countries the area sown to wheat was smaller than in most other recent years, but, in Argentina, abandonment of acreage as a

result of winterkilling, drought, etc., was unusually light, and the acreage harvested was about equal to the 1929-33 average. Reduced wheat sowings in these countries reflected unfavorable planting conditions (mainly the result of drought) and also improved prices of competitive crops. The yield per acre of Australian wheat was fairly low because of drought, which prevailed until fairly late in the growing period, and subsequent damage from locusts. Although the standing official Argentine estimate indicates a yield per acre substantially above average, private estimates are less optimistic. Frost, rust, and late heavy rains are reported to have lowered the quality of substantial portions of the Argentine crop; but the quality of the Australian crop is said to be exceptionally high.

Among the various exporting regions of the world, only that in northern Africa was favored with a strikingly large wheat crop in 1934. Morocco, Algeria, and Tunis all secured high yields per acre and harvested record or near-record crops which reflected both high yields per acre and (except in Tunis) large harvested areas. No estimate of the Russian crop of 1934 has yet appeared; but weather reports and the small volume of wheat exports from Russia since August 1934 suggest that this crop was relatively small.

Of the non-European importing countries, Japan and Chosen harvested record crops from large areas; the Union of South Africa secured an outturn about as large as the record one in 1931; but Egypt and Mexico, whose crops suffered the effect of adverse weather conditions, secured outturns considerably below average (1929-33) in size. Although China harvested a large wheat crop in 1934—estimated about 5 per cent larger than the good-sized one of 1933—her rice crop turned out poorly, apparently about 20 per cent below that of 1933. In Manchuria, wheat production in 1934 is estimated to have been about 25 per cent smaller than in 1933; and there has been some indication of an improved demand for imports of low-grade foreign flours.

"Total" wheat supplies.—Because of record high stocks of old-crop wheat on hand August 1, 1934 (and despite prospective small exports from Russia), total wheat supplies in the world

¹ According to recently revised estimates of the U.S. Department of Agriculture, the crop of 1890 was somewhat smaller than the standing official estimate of the 1934 crop. Disposition estimates suggest, however, that the revised crop figures, like the estimates they superseded, are on the average too low for years prior to about 1910 (see Holbrook Working, "Wheat Acreage and Production in the United States since 1866," *WHEAT STUDIES*, June 1926, II, 239-41).

ex-Russia in 1934-35 are not quite so small in contrast with those of 1933-34 as crop figures alone would indicate. The reduction in total supplies is now appraised as 320 million bushels, the reduction in crop as 335 million. The following tabulation, in million bushels, shows the distribution of total wheat supplies (including estimated inward carryovers) among the important producing regions in 1934-35 as compared with past years.

	Crops and stocks					Russian ex-ports	Total supplies world ex-Russia
	Importing Europe	Danube basin	Canada, United States	Argentina, Australia	World ex-Russia		
1927-28.....	1,204	318	1,527	504	4,227	2	4,229
1928-29.....	1,255	392	1,695	640	4,607	.. ^a	4,607
1929-30.....	1,387	378	1,499	461	4,395	9	4,404
1930-31.....	1,223	397	1,747	560	4,627	114	4,741
1931-32.....	1,248	427	1,733	551	4,676	65	4,741
1932-33.....	1,452	271	1,727	570	4,698	17	4,715
1933-34.....	1,612	398	1,424	590	4,711	34	4,745
1934-35:							
Sept. est.	1,494	309	1,263	578 ^b	4,327 ^b	15 ^c	4,342 ^b
Jan. est.	1,568	303	1,265	592	4,420	5	4,425

^a Net imports.

^b The middle of a range published last September.

^c At a maximum.

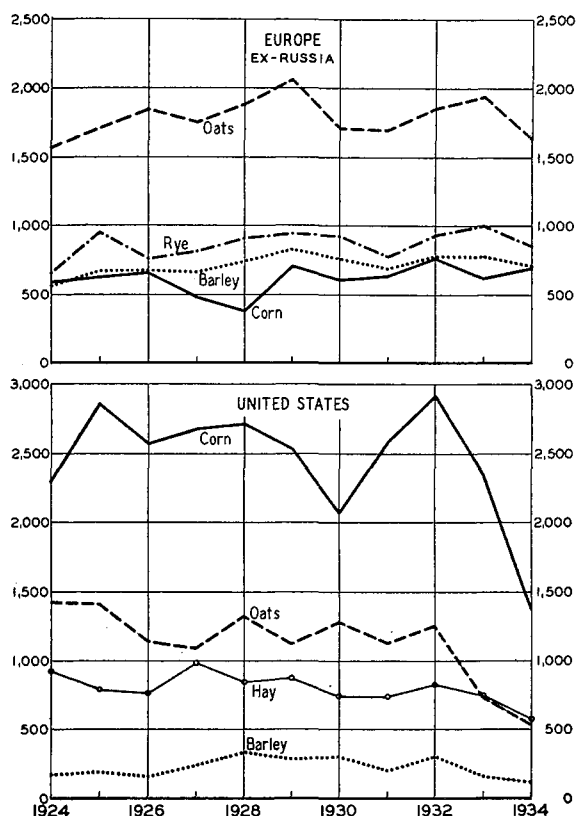
According to estimates now standing, total world supplies, ex-Russia, are slightly larger for 1934-35 than they were in 1929-30, but about 300 million bushels smaller than in any of the four intervening years. In regional distribution of supplies, however, the crop year 1934-35 most closely resembles 1933-34. Importing Europe has a notably large quantity of domestic wheat available; supplies in Argentina, Australia, and Canada are quite large. Only in the United States and the Danube basin are supplies considerably reduced as compared with other depression years.

Rye and feed grain supplies.—This year there is reason to believe that the world wheat situation will be influenced somewhat more than usual by the demand-supply positions of other grains. In Europe ex-Russia, the 1934 rye crop was appreciably below normal, but nevertheless was substantially larger than the small crop of 1931 and, in addition, was supplemented by unusually large stocks of rye carried over from 1933-34. European crops of barley and oats were notably small in 1934,

and the reduction in these crops was only fractionally offset by a good-sized corn crop (Chart 2, top section). With small supplies of old-crop corn remaining in Argentina at

CHART 2.—RYE AND FEED GRAIN CROPS IN EUROPE EX-RUSSIA AND PRINCIPAL FEED CROPS IN THE UNITED STATES, 1924-34*

(Million bushels of rye and feed grains; million 200-pound units of hay)



* Data of the U.S. Department of Agriculture, mainly from *Foreign Crops and Markets*.

the beginning of August 1934, and with no prospect of sizable exports of corn from the United States in 1934-35, the feed grain position in Europe consequently appears to be fairly tight this year. Despite this situation, however, we are as yet unable to find evidence that use of wheat for feed has been more than moderately stimulated in importing Europe.

In the United States the feed position for 1934-35 is even worse (Chart 2, bottom section). Not since 1881 has the United States harvested a corn or oats crop as small as the

ones harvested this year; and the 1934 barley crop is the smallest since 1900. Moreover, the various grain sorghums yielded poorly in 1934, particularly in the Southwest, and the hay crop was considerably the smallest in a number of years. As a result of the domestic feed situation, wheat has been and will continue to be fed on a relatively large scale in the United States this year.

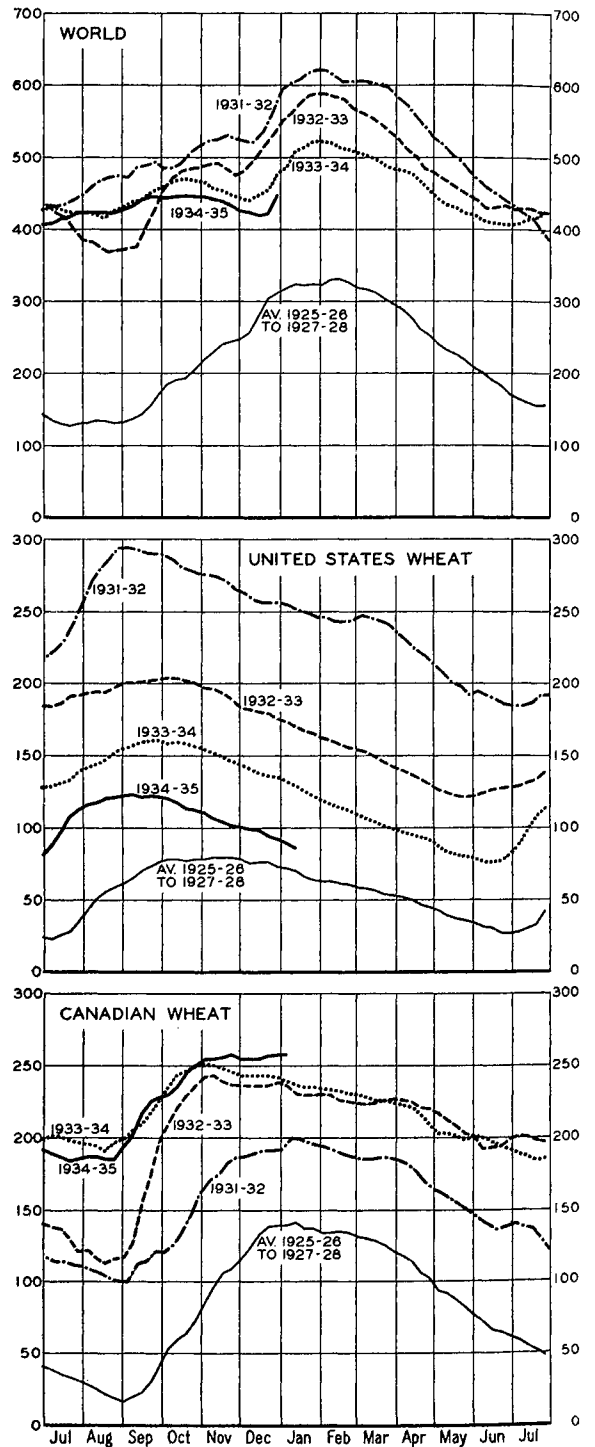
VISIBLES AND OTHER STOCKS

Visible supplies.—The reduced supplies available from crop and inward carryover in the world ex-Russia for 1934-35 have begun to be reflected, though not as yet very strongly, in statistics of "world" visible supplies. Since early October (Chart 3), world visibles have ruled at a lower level than in any of the three preceding years, tending to approach more closely the approximately "normal" level shown in the chart, though remaining far above it. By January 1, 1935, the world visible was lower than on the corresponding date of any of the preceding six years, and some 145 million bushels below the January 1 peak of 1932. It was, however, only about 30 million bushels lower than last year; and it was about 150 million bushels above the 1926-28 average.

The seasonal increase between August 1 and January 1 was exceptionally small, only about 25 million bushels, in contrast with an average increase of 180 million bushels in the period 1925-28, of 175 million in the period 1928-34, and of 53 million bushels between August 1, 1933, and January 1, 1934. The small increase this year mainly reflected developments in the United States and Australia (Table III). United States visibles, which in preceding years had either risen substantially or fallen slightly between August 1 and January 1, this year were reduced substantially, largely because the short crop yielded only small marketings (Table II). The level of Australian visibles on August 1 was the highest for that date in post-war years, but with heavy exports in August-November was brought to a level not far above normal in mid-December; and, since the new crop was not large enough to cause an exceptionally large seasonal increase in December, the net change during August-December was excep-

CHART 3.—WORLD AND NORTH AMERICAN VISIBLE SUPPLIES, WEEKLY FROM JULY 1934, WITH COMPARISONS*

(Million bushels)



* See Table III.

tionally small. Taken together, the United States and Australian visibles showed a net decrease of about 30 million bushels during August–December, a development without precedent in the past decade and in contrast with a net increase of 15 million bushels last year. Canadian visibles, on the other hand, increased about 70 million bushels this year as compared with only 45 million in 1933. August–December marketings were larger this year, despite the smaller crop; and overseas exports were smaller. The Canadian visible on January 1 included much more wheat in export positions (Canadian seaboard ports, United States Atlantic ports, and United States lake ports) this year than last. The relatively heavier visible in United States lake ports represented in some part wheat moved there in anticipation of demand from the United States for duty-paid imports of durum, Marquis, and feed wheats.

As of January 1, 1935, the only components of the world visible to stand distinctly low in relation to the data for the preceding five years were the commercial stocks of United States grain in the United States and in Canada (Table III). Visibles afloat to Europe were low, but had been even lower a year before. Australian visibles were rather low; visibles in British ports were moderately high; Argentine visibles, never very significant as an index of total stocks in Argentina, were high; and the total Canadian visible stood at a record new high level.

At a level on January 1 only about 30 million bushels lower this year than last and about 150 million above the 1926–28 average, the statistics of “world” visible supplies provide little evidence that significant absorption of the persistent world wheat surplus has occurred during the first five months of 1934–35. But statistics of visible wheat supplies cover so small a fraction of the total stocks existing in the world ex-Russia on January 1 that actual changes in this total may not be reflected in the world visible. It is certain from other evidence that total stocks were much smaller this year than last, even though the world visible was only a trifle smaller.

Other stocks.—As now appraised, total supplies of wheat (from initial stocks, new

crops, and Russian exports) in the world ex-Russia for 1934–35 (see p. 201) approximate 4,425 million bushels, some 320 million bushels less than in 1933–34. If these appraisals of total supplies are accurate, and if as much wheat has disappeared in August–December this year as last (as seed for winter wheat, grist for milling, feed, and shipments to outside areas), it follows that total stocks on January 1, like total supplies for the crop year, must have been about 320 million bushels smaller this year than last. Beyond question the probable reduction of roughly 320 million bushels in world total stocks constituted a percentage reduction larger than that recorded in visible supplies, where the reduction was 28 million bushels, or 6 per cent; and visible supplies therefore must have constituted a moderately larger fraction of total stocks on January 1 this year than last.

A presumption exists that disappearance of wheat in the world ex-Russia has been about as large up to January 1 this year as last. In the United States, official statistics of January 1 stocks,¹ practically complete for the first time, point toward July–December domestic disappearance roughly 15 million bushels larger in 1934 than in 1933. Relatively larger domestic disappearance is suggested, however, by data bearing on net mill grindings, seed use for winter wheat, and feed use.² In Canada,

¹ The data are as follows, in million bushels, for the past two years:

Jan. 1	On farms	Country elevators	City mills ^a	Visible	Total
1934	196	124 ^b	130	133	583
1935	136	93	119	91	439

^a In and in transit to mills, here raised to 100 per cent.

^b In the absence of an official estimate, we have calculated a figure which exceeds the 1935 figure by the same percentage as does the sum of the stocks in the other three positions.

On the basis of these figures and data on supplies and net exports, domestic disappearance in July–December may be calculated as 328 million bushels in 1933 and 345 million in 1934.

² Retention of flour, according to our calculations (Table IV) which result in figures 2 to 3 per cent too low, were 47.3 million barrels in July–December 1933 and nearly 51 million in July–December 1934. In terms of wheat grain, this represents increased grindings of about 15 million bushels. Seed use for winter wheat was probably about 3 million bushels larger this year than last, on account of increase of 6 per cent in the area sown. There is some direct statistical evidence of increase in feed use of wheat (Murray's estimates); and the relationship of corn prices to wheat prices

net mill grindings were officially reported about the same size in August–December 1934 and 1933, and the lower grading of this year's wheat crop points toward some enlargement of feed use. In Germany, official data on stocks, trade, and crops point toward August–November domestic disappearance as large in 1934 as in 1933, perhaps a little larger. In Spain and Portugal, countries wherein domestic use ex-seed tends to respond to changes in the domestic crops, the heavier crops of 1934 have presumably tended to make August–December disappearance larger in 1934 than in 1933. In other countries of Europe ex-Russia, especially the Danube basin, enlargement of areas sown to winter wheat has presumably given rise to relatively larger use of wheat for seed. Finally, disappearance of wheat from the world ex-Russia to outside areas—China and tropical countries generally—has been larger this year than last, by an amount ranging between 5 and 10 million bushels.

On the other hand, August–December disappearance has presumably been smaller this year than last in some areas, notably the Danube basin (where short crops such as those of 1934 tend to cause adjustment of consumption to small domestic supplies) and Italy. It seems possible that reduction of August–December disappearance in these areas may have been about as large as increases in other areas specified above. Hence it seems probable that total stocks of wheat in the world ex-Russia on January 1 were somewhere in the neighborhood of 320 million bushels smaller this year than last. While there was not much reduction in world visible supplies, the reduction in invisible supplies must have been very large. Regionally, the reduction in total stocks must have been larger in the United States than elsewhere (144 million bushels, as shown by the direct official estimates of January 1 stocks); important in the Danube basin; but only moderate or small in importing Europe, Canada, Argentina, and Australia. The general level of stocks in the world ex-Russia on January 1, 1935, was probably lower than it

definitely points toward increase, though the data on January 1 stocks (related to net mill grindings and seed use) do not.

was in any of the preceding six years with the possible exception of 1930, but well above the average of years immediately preceding 1929.

The probable reduction of world wheat stocks between January 1, 1934 and 1935, and other considerations mentioned below (pp. 217–20) suggest that total year-end stocks next August 1 may be around 315 million bushels smaller than they were the year before.

IMPORTS AND EXPORTS

Volume of trade.—Overseas shipments of wheat and flour during August–December 1934 (21 weeks) were only 214 million bushels. With the single exception of 1933, this was the smallest quantity shipped in these months of any year since 1916. Comparisons for six years are given in the following tabulation, in million bushels:

Aug.–Dec. (21 weeks)	Total	To Europe		To ex-Europe
		Reported	Adjusted ^a	
1929	263	203	212	60
1930	322	265	277	57
1931	322	245	253	77
1932	236	182	177	54
1933	210	166	178	44
1934	214	164	173	50

^a By subtracting from the reported figures the amount by which stocks afloat were increased during these weeks or adding the amount of reduction.

In view of the abundance of wheat supplies from inward carryovers and new crops in both European and some ex-European importing countries, the barriers to wheat imports practically throughout the world, and the continued low purchasing power in many wheat-importing countries, a relatively low volume of wheat imports was in prospect for 1934–35 when the crop year opened. It was then clear that import demand, not surpluses available for export, would determine the volume of international trade in 1934–35 as in 1933–34. Developments during the first five months of 1934–35 have not only confirmed earlier indications that international trade during the present crop year would be relatively small, but have tended to suggest that it would be even smaller than was earlier anticipated.

Thus Broomhall's first forecast of shipments in 1934–35, published in August 1934,

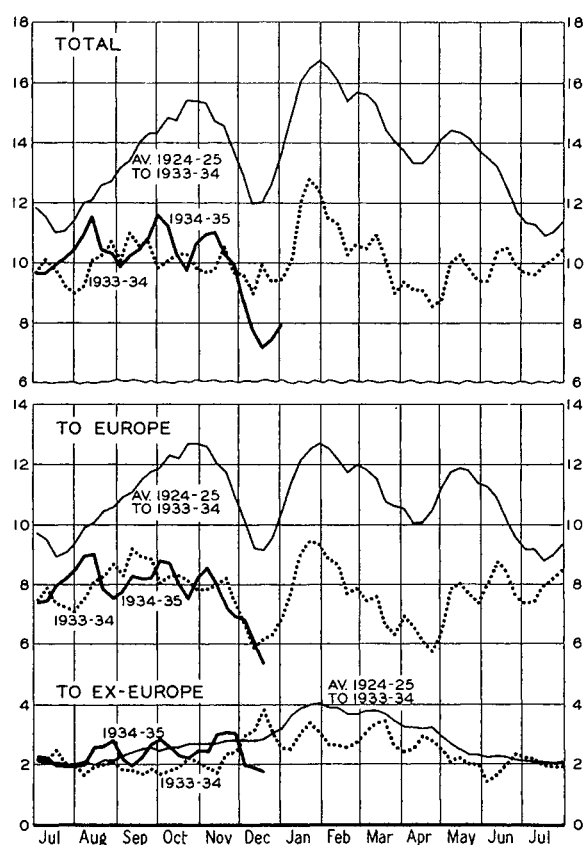
was 576 million bushels, some 52 million, or 10 per cent, larger than reported shipments of 1933-34; the Wheat Advisory Committee's forecast of net exports (also issued in August) was 600 million bushels, some 45 million bushels larger than reported net exports in 1933-34; our own forecast of net exports, issued in September, was also 600 million bushels; and the International Institute of Agriculture's forecast of net exports, issued in October, was 610 million bushels. These forecasts were in close agreement, with appropriate allowance for differences that always appear between data on shipments and data on net exports.¹ All of the forecasts included the expectation that trade in 1934-35 would prove to be roughly 50 million bushels larger than in 1933-34. But reported trade (shipments) during the first five months of 1934-35 was only 4 million bushels larger than in the first five months of 1933-34; and unless August-December shipments eventually prove to constitute a smaller fraction of the year's total than has been true in any year of the past decade except 1926-27 (when unprecedented fluctuations in ocean freight rates disturbed the seasonal flow of wheat to export), the volume of trade in 1934-35 now seems likely to fall below the early-season forecasts (see below, p. 215).

Distribution of imports.—The tabulation above suggests that European rather than ex-European demand has thus far proved unexpectedly small. Early-season forecasts in general assumed that the total volume of trade in 1934-35 would be larger than in 1933-34 principally because of prospective increase in European demand. August-December shipments to Europe, however, were about 2 million bushels smaller in 1934 than in 1933, showing no evidence that the increase anticipated in August-July shipments will occur; while on the other hand August-December shipments to ex-Europe were 6 million bushels larger this year than last, suggesting the possibility that ex-European trade for the crop year may exceed expectations. Data on weekly shipments are summarized in Chart 4. Euro-

pean shipments were not only below those of last year, but far below the 1924-33 average and indeed unprecedentedly low for post-war years. Shipments to ex-Europe ranged on the whole not only above those of 1933, but near the 1924-33 average. Despite the generally low level thus far in 1934-35 and the absence of the usual seasonal increase during August-October, both total shipments and shipments to Europe showed the usual seasonal decline in November-December.

CHART 4.—WORLD SHIPMENTS OF WHEAT BY DESTINATION, WEEKLY FROM JULY 1934, WITH COMPARISONS*

(Million bushels; 3-week moving average)



* See Table VII.

Available data on shipments to, arrivals in, or net imports into European countries during August-December are as usual too fragmentary to provide an adequate insight into the takings of particular countries. Several points, however, are clear. The British Isles

¹ Net exports always exceed shipments, by amounts averaging 25 million bushels and varying from 13 to 47 million bushels in the past five crop years.

took substantially less wheat during August–December this year than last (Table VIII), while continental countries in the aggregate took a little more. Within continental Europe, Germany and Belgium took more wheat this year than last; Holland and France substantially less; most other countries somewhat less.

The reduction in British takings was in line with earlier expectations based upon the relatively large inward carryover and the good domestic crop of 1934. As yet there is no evidence that the decline in imports reflects a decline in total wheat consumption; indeed, a small increase (presumably in feed use) seems more probable. Increase in the takings of continental European countries was also in line with earlier expectations; but undoubtedly a substantially larger increase was generally anticipated. In this connection, not much significance attaches to developments in countries other than France, Italy, Czechoslovakia, and Poland.¹

Four months ago it seemed to us permissible to suppose that France would import net nearly as much wheat and flour in 1934–35 as in 1933–34, some 17 million bushels, with subsidized exports of wheat failing to offset enlarged duty-free imports from northern Africa and with flour exports offsetting imports of foreign wheat. In intervening months the policy of relieving the domestic surplus through subsidization of exports has gained ground and plays an important part in the new government's plan to eliminate the surplus by exportation, denaturing, purchasing stocks, and holding the weight of flour extracted from wheat below the customary percentage relationship. August–December gross exports have been perhaps twice as large this year as last; and it is certain either that net imports have been much smaller this year or that on

balance France has already achieved a net-export position.

When the crop year opened, Italy and Czechoslovakia appeared to have such small crops in 1934 that despite heavy inward carryovers both countries would take much more wheat in 1934–35 than in 1933–34. Thus far in the year, however, no evidence of enlarged imports has appeared. The 1934 crop estimates of both countries have been raised substantially since September, though probably not enough to bring available domestic supplies to the 1933–34 level. With five months of the current crop year already past, it seems unlikely that net imports in 1934–35 will reach the level earlier anticipated, though enlargement of takings in the closing seven months still seems in prospect. In both countries the tendency has apparently been to maintain import barriers and enforce full utilization of domestic supplies; but unless these supplies were larger than available information suggests or unless wheat consumption is rather drastically curtailed, enlargement of imports will be necessary in later months. Because of abundant domestic crops of cereals substitutable for wheat, some reduction of wheat consumption has probably occurred in Italy; and with the precarious internal relationships of gold reserves to currency outstanding that have recently developed, the prospect is for continued pressure against wheat (among other) imports and toward reduction of wheat consumption.

The Polish crop estimate for 1934 was markedly increased after mid-September; net exports were made in the early months of 1934–35; and it now seems probable that Poland will be a net exporter rather than a net importer during the crop year as a whole.

The failure of these four countries to import more heavily in August–December 1934 goes far to explain the failure of international trade in wheat to achieve the volume earlier anticipated. Unexpectedly heavy import demand from ex-Europe did not suffice to offset the weakness of demand from these countries.

The distribution of Broomhall's shipments to ex-Europe (the only available comprehensive indication of developments in ex-European trade) was as follows in August–Decem-

¹ The shift of Germany from a net-exporting position in August–December 1933 to a net-importing position in 1934 was to be expected, though takings thus far this year look rather large in relation to available domestic supplies and the level of consumption in 1933–34; and the reduced takings of Holland this year appear to reflect either normal holdings of import wheat stocks in contrast with the exceptionally heavy accumulations a year ago or heavier utilization of domestic wheat this year.

ber 1934, in million bushels, with comparisons:

Aug.-Dec. (21 weeks)	Total	China and Japan	Central America ^a	Brazil	Egypt	India	Others ^b
1929.....	59.6	16.3	23.2	12.6	3.1	2.5	2.0
1930.....	57.6	21.7	19.1	9.3	3.9	2.0	1.5
1931.....	76.4	31.8	25.3	14.1	3.3	...	1.9
1932.....	54.2	25.7	14.1	10.7	1.3	...	2.4
1933.....	44.2	13.4	14.6	12.2	1.3	.2	2.5
1934.....	49.8	22.1	10.9	12.9	1.1	...	2.9

^a Includes Venezuela, West Indies, Dutch East Indies, etc.

^b North and South Africa, Chile, Peru, Uruguay, Bolivia, Syria, Palestine, New Zealand.

The increase in the total between 1933 and 1934 appears to have been due mainly to increase in the takings of China and Japan; and since Japanese net-import statistics (August–November, Table VIII) show little change between the two years, the increase in ex-European trade seems attributable practically in its entirety to enlargement of Chinese (including Manchurian) takings. In some part this increase may represent nothing more significant than return to a more normal seasonal movement of imports; for in August–December 1933 Chinese takings were restricted because of impending introduction of tariff duties and by operations of the Chinese government in purchasing subsidized wheat from the United States with funds loaned by the RFC. It is too early to determine whether or not reduction in the Manchurian wheat crop or in the rice crop of China is tending definitely to expand Chinese and Manchurian imports in 1934–35 as compared with 1933–34, though in our opinion the tendency is in this direction. In any event ex-European takings thus far in the crop year seem somewhat to have exceeded earlier expectations, though not to an extent earlier expectations, though not enough (in their effect on total trade) to offset the disappointingly low level of European imports.

A significant development in ex-European trade not apparent from Broomhall's data on shipments was the shift of the United States from a definite net-exporting position in 1933–34 to a prospective net-importing position in 1934–35. During the six months July–December 1934 the United States was a net exporter of wheat and flour (including shipments to possessions) of only about 2 million

bushels, the smallest amount since Civil War days and some 7 million bushels less than in 1933. Net exports in the five months August–December¹ (including shipments to possessions) were only about half a million bushels. In each of the four months September–December, the United States was a net importer. The imports, practically all from Canada, consisted partly of duty-free wheat for milling in bond, partly of durum and Marquis wheats which paid the full duty of 42 cents per bushel, and partly—an unusual development reflecting the very short feed crops of the United States in 1934—of low-grade wheat unfit for milling and dutiable at 10 per cent ad valorem. These imports were nearly large enough in August–December (and large enough in September–December) to offset exports of flour ground from Canadian wheat, flour ground from domestic wheat that received preferential treatment in possessions and in Cuba, and a little flour and wheat for which foreign markets could be partially held in spite of the position of the Chicago future. Not as yet quantitatively important enough to place the United States in a net-importing position for the crop year, the imports from Canada will presumably continue and will probably definitively establish this most unusual position. It no longer seems reasonable to count upon even small net exports from the United States in 1934–35; and, with reduction of Canadian freight rates already in effect and a prospect that Canadian wheat grading Nos. 4–6 or 5–6 will be admitted at the 10 per cent duty either through ruling of United States authorities or through denaturing in Canada, we expect that the United States may import net roughly 10 million bushels in 1934–35. At present there seems to be little prospect for subsidization of exports from the Pacific Northwest. The effects of this prospective shift in the position of the United States upon the outlook for trade and carryovers are considered below.

Sources of exports.—The distribution of August–December shipments by sources of origin is shown in million bushels, with comparisons, in the tabulation on the following page.

¹ Without complete official data, we assume net imports of half a million bushels in December.

Aug.-Dec. (21 weeks)	Total	North America	Argen- tina	Aus- tralia	Russia	Danube	Others
1929.....	263	126	84	19	0	26	8
1930.....	322	167	18	30	74	20	12
1931.....	322	142	30	36	65	40	9
1932.....	236	151	18	35	15	4	12
1933.....	210	97	37	32	18	16	9 ^a
1934.....	214	77	73	41	2 ^b	8	13 ^c

^a Largely from Germany.

^b Not including about 1.6 million bushels shipped from Black Sea ports to Vladivostok.

^c Largely from France.

The outstanding feature of this distribution was the extraordinarily heavy proportion of the total originating in Argentina and Australia; these countries for the first time in history shipped more than North America. Australian shipments in August-December were the largest in at least a decade, though (Chart 5) not so far above average as the Argentine, which had been exceeded only in 1929, following the bumper Argentine crop of 1928. These large shipments consisted of old-crop wheat heavily accumulated (held by farmers in Australia, retained in Argentina because of restricted import demand and of limitations to movement of the heavy supplies available) when the crop year opened, and reflected the usual tendency for these countries to ship out available export surpluses before new crops are harvested. Australia, however, appears to have retained considerably more old-crop wheat than usual on December 1, 1934.

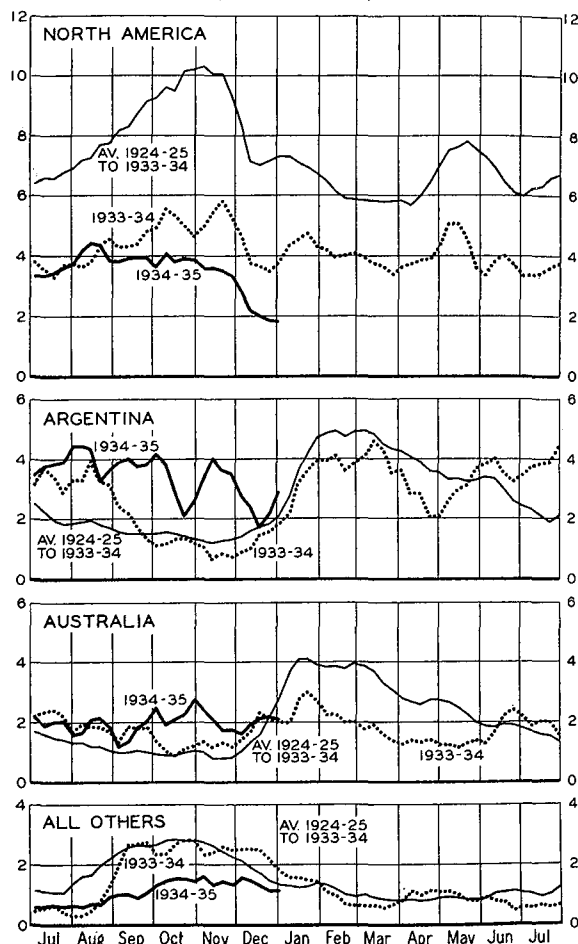
With United States gross exports unprecedentedly low,¹ North American shipments consisted predominantly of Canadian wheat and flour. Canadian overseas shipments were undoubtedly the smallest in more than a decade and far below average (Chart 5). August-December net exports (which, unlike shipments, include wheat moved to the United States for winter storage) were nevertheless about the same as in 1933, reflecting both enlargement of American import demand and larger movement of wheat to export positions.

¹ The low level of United States wheat and flour exports throughout 1934 was striking in view of the increase in exports in non-agricultural goods, due presumably to undervaluation of the dollar abroad.

² Cf. "British Preference for Empire Wheat," *WHEAT STUDIES*, October 1933, X, 1-34.

As in 1933, Canadian overseas exports were held low in relation to the export surplus by the greater willingness of Southern Hemisphere holders to compete on the restricted import market;² and government-sponsored

CHART 5.—WORLD SHIPMENTS OF WHEAT BY SOURCES, WEEKLY FROM JULY 1934, WITH COMPARISONS*
(Million bushels)



* See Table VII.

dealing in Winnipeg wheat futures was an important factor in holding Canadian prices relatively high and exports low.

Although the low level of Canadian overseas exports was not a development commonly expected, a heavy movement from the Southern Hemisphere and very small exports from the United States could reasonably be anticipated four months ago. So also could reduction of Danubian shipments, because of the short crop

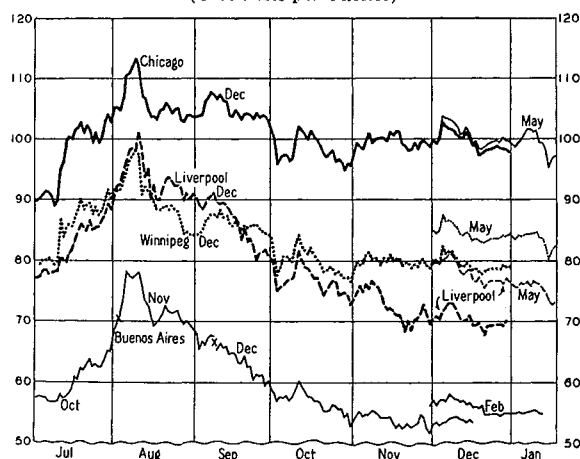
in that area. Hungary and Yugoslavia (Table IX) have exported moderate amounts, mostly in execution of arrangements with neighboring countries and not on a competitive basis. Bulgarian and Rumanian exports have been negligible. Russian exports fell below earlier expectations, while exports from other countries were unexpectedly large on account of developments in France. As in 1933, Broomhall's data on shipments appear to understate the movement of wheat from northern Africa, but to an extent not now measurable.

COURSE OF PRICES

From the peak of wheat prices early in August to the end of December, the Liverpool December future (Chart 6) declined 31 cents

CHART 6.—WHEAT FUTURES PRICES IN LEADING MARKETS, DAILY FROM JULY 1934*

(U.S. cents per bushel)



* Daily closing prices mainly from *Daily Trade Bulletin*, Chicago; *Grain Trade News*, Winnipeg; *London Grain, Seed and Oil Reporter*; and *Revista Oficial*, Buenos Aires. Conversions at noon cable transfer rates at New York.

(United States currency);¹ successive futures at Buenos Aires declined about 26 cents; and the Winnipeg December future fell 19 cents. Meanwhile, the Chicago December future, which continued to rule far above export parity, declined only 15 cents.

After mid-November, Liverpool futures prices stood substantially lower than they had in June (before the crop-scare advance of July to early August) and barely higher than in the preceding April, when there was still no clear indication that the world crop of 1934

would fall far below average. Moreover, in spite of the enormous decrease in world wheat production in 1934, and of the prospect for heavy reduction of the world wheat surplus during 1934-35, wheat prices on free import markets stood only slightly higher in early January 1935 than they had the year before.

Something of a decline of world wheat prices after early August was reasonably to have been expected, if only because prices had moved sharply upward during the preceding four weeks and the world wheat position appeared to become a little easier rather than tighter after the first ten days of August. But that Liverpool futures, in the face of an improved wheat statistical position in 1934-35, should fall as much as 31 cents per bushel between August 10 and December 31 to levels as low as those prevailing late in April 1934 was not, so far as we know, anticipated by any student in August or early September.²

¹ Measured in pre-devaluation gold dollars, the decline was 18 cents.

² The U.S. Department of Agriculture published the following statement in *World Wheat Prospects*, August 29, 1934: "With the indicated reduction in total supplies, world wheat prices now seem likely to fluctuate at about the level reached during the latter part of July throughout most of the 1934-35 marketing season." Although estimated world supplies have been revised upward by less than 100 million bushels since publication of the above statement, and although world wheat production in 1934 is even now calculated to be about 320 million bushels smaller than in 1933, the Liverpool December future sold after mid-November about 18 cents lower than during the latter part of July, and late in November British wheat parcels stood approximately 15 cents lower than four months earlier. An increase in British wheat parcels prices during late December (Table V), when Liverpool futures were declining, was not a reflection of rising spot prices, but of proportionally larger sales of relatively high-priced Canadian and Australian wheats.

In early September, when our last survey of the wheat situation was written, we considered it improbable that the Liverpool December future would sell as low as 75 cents per bushel for more than a week or two, even with bearish crop developments in the Southern Hemisphere and some upward revision of Northern Hemisphere crop estimates. That this view was too optimistic is evidenced by the fact that after mid-November the Liverpool December future continuously sold below 75 cents, and after mid-December even below 70 cents.

At the beginning of October, when the Liverpool December future first dropped below 80 cents per bushel, John I. McFarland (general sales manager, Canadian Co-operative Wheat Producers, Ltd.) was reported to have commented: "Certainly the supply and

In retrospect, the magnitude of the price decline at Liverpool during August 11–December 31 appears to be attributable to a combination of several moderately bearish factors which produced an extraordinarily depressing effect upon the Liverpool wheat market, mainly because of the unusual character of the trading there during July 11–August 10.

Normally, the Liverpool wheat futures market is not a highly important speculative market. Hedging is ordinarily more prominent than speculation; and the volume of futures trading at Liverpool remains fairly stable from month to month with prices there less responsive to reports and rumors bearing on the more remote wheat position than futures prices at Chicago and Winnipeg. In the summer of 1934, however, wheat trading at Liverpool seems to have assumed a decidedly more speculative aspect than usual. From early in July the attention of Liverpool traders was centered on the sensational reports of crop damage emanating from both North America and Europe; and futures prices were bid up rapidly under the stimulus of heavy trading, which was apparently primarily speculative in character. Indeed, between July 11 and August 11 trading in Liverpool wheat futures was the heaviest in many years. Not even the sharp price rise in July 1929 or the more moderate rise in November 1929 was associated with such heavy trading at Liverpool.¹

demand situation does not justify any such absurd prices as are being quoted at the present time in Buenos Aires and Liverpool" (*Northwestern Miller*, October 3, 1934, p. 39). And although many market commentators were inclined to scoff at the explanation of the preceding price decline offered by Mr. McFarland (see p. 213), probably none would have considered it probable, in view of the improved wheat statistical position, that the Liverpool December future would decline another 10 cents before the end of December, even with moderately satisfactory development of the Southern Hemisphere crops.

¹ Reports of daily sales of wheat futures at Liverpool are to be found in the *London Grain, Seed and Oil Reporter*. Annual data from 1889 and monthly data from January 1929 are available in Broomhall's *Corn Trade News*, January 2, 1935, p. 3. Whereas a "normal" monthly volume of trading probably does not exceed 32,000,000 bushels, the volume of sales in July 1929 was 85,520,000 bushels, in November 1929 was 97,800,000 bushels, in July 1934 was 77,600,000 bushels, in August 1934 was 114,800,000 bushels.

The traders who bought Liverpool wheat futures at rising prices during July 11–August 10, 1934, probably based their buying upon somewhat different concepts of the general wheat situation. Many traders (both professional and nonprofessional) were apparently influenced by the sensational crop reports of July and early August to believe that the world wheat surplus, which had been the primary depressing factor in wheat markets for over five years, would be completely eliminated during the course of 1934–35. Other traders, more conscious of the magnitude of existing surplus stocks, were probably willing to speculate on the chance of poor crops in the Southern Hemisphere in 1934. Had Northern Hemisphere crops actually been as small as was generally supposed in early August, really small crops in Argentina and Australia might well have resulted in a scaling down of year-end world wheat stocks to about a normal level at the end of 1934–35. Finally, some traders probably bought wheat futures in the belief that any big reduction in the world wheat surplus (and a big reduction during 1934–35 seemed assured) warranted a higher level of wheat prices than was then prevailing. Considerations of monetary policy may also have had some influence upon these various groups of traders.

Whatever were the beliefs that influenced wheat traders during July 11–August 10, there is little question that speculative buying of Liverpool wheat futures was stronger and more general during these weeks than in most previous periods of rising prices. And it seems safe to infer that liquidation of the holdings accumulated at this time of over-bullish price rise played an important part in the subsequent decline of prices, at least through November.

Developments in the world wheat situation during August 11–December 31 are to be characterized as *moderately* rather than *strikingly* bearish; but they furnished the basis for a marked change in sentiment on the part of speculative holders of Liverpool futures and resulted in a steep price decline. The first notable weakening of Liverpool wheat prices came as a result of liquidation induced mainly by the official United States and Canadian

crop reports of August 10. These reports indicated that somewhat less damage had been suffered by the spring-wheat crops of North America than earlier private reports had suggested. At the same time, and also subsequently, pressure of old-crop Argentine and Australian wheats on European import markets was heavier than many traders had probably anticipated; French exports of wheat and flour proved unexpectedly large;¹ and world visible supplies continued to stand higher in relation to the level in 1933-34 than might have been expected from early analysis of the general supply position. Although in terms of million bushels the difference between actual and anticipated Southern Hemisphere and French shipments was not great (probably not more than 35 million bushels), it was important in its effect upon market sentiment and prices, particularly since the European import demand for wheat was running below expectations (see p. 205).

These developments meant that European importers were less dependent upon the higher-priced Canadian wheats, and that Liverpool wheat prices were less influenced by price developments in Canadian markets, than there had seemed to be reason to expect at the beginning of the crop year. Had supply and demand conditions been such that European importers would have had to buy 25-50 million bushels more of Canadian wheat in August-December, Liverpool wheat prices would almost certainly have declined less than they did over that period, despite the reasonably satisfactory development of the major Southern Hemisphere crops. Under such conditions, the course of Winnipeg wheat prices would have had more influence, and the course of Buenos Aires prices (and Southern Hemisphere developments generally) less influence at Liverpool than was in fact the case during August-December.

Owners of old-crop Argentine and Australian wheats showed practically no inclina-

tion to hold rather than sell their wheat as export prices declined after August 11. Although this behavior was true to form, it probably was a surprise to some observers who had been impressed with the holding movement in Australia in the spring and early summer of 1934 and with the strength of Argentine prices during July 10-August 10. In fact, since the Argentine crop of 1933 was officially underestimated by around 30 million bushels until early September, since early estimates of the 1934 crops of European importing countries were also too low, and since there was little in the way of precedent to serve as a basis for early judgment of the size and effect of Southern Hemisphere exports from what appeared to be near-record August 1 stocks, it is not surprising that at the beginning of 1934-35 too little weight was apparently ascribed to the bearishness of the immediate wheat position of the Southern Hemisphere countries. In retrospect, however, there seems to be reason to accept the view that (1) Argentina and Australia can both be counted on to export during August-December the bulk of whatever old wheat supplies are still available for export in these countries at the beginning of August, and (2) when Southern Hemisphere shipments in August-December are unusually large both in absolute quantity and in proportion to total shipments, there is likely to be some weakening of Liverpool wheat prices directly attributable to pressure of Southern Hemisphere supplies on the international market. Such pressure was felt at Liverpool during the early months of the present crop year. Statistically, it was reflected in proportionally large shipments of wheat "to orders": with the exception of 1930 and 1931, "orders" shipments were larger in relation to total shipments to Europe in August-December 1934 than in the same period of any other year in at least a decade.

It is still possible to question whether Southern Hemisphere countries would not have shown more tendency to withhold their wheat from export and so to resist price declines in August-December 1934, if the new Argentine and Australian wheat crops had progressed less satisfactorily than they did. While there

¹ At the beginning of the crop year Broomhall and others had expressed the belief that French exports would be considerably smaller in 1934-35 than in 1933-34; but in August-December 1934 they totaled 10-15 million bushels, compared with about 7 million bushels in the same period of 1933.

can be little doubt that the course of development of these crops was a bearish factor in world wheat markets in the period under review, we are of the opinion that it operated through reducing immediate import demand and through influencing traders' concepts of wheat values rather than through effect upon the volume of Southern Hemisphere shipments in August–December.

Had the Southern Hemisphere crops suffered heavy setbacks in August–November, European importers would probably have absorbed the large Southern Hemisphere shipments more willingly and at higher prices, and the net decline in Liverpool wheat futures prices would probably have been less than was actually recorded. In the fall of 1929, for example, under conditions in many respects similar to those of August–December 1934, a downward course of Liverpool wheat futures prices was interrupted in mid-November by reports of severe rust infection in Argentina. After the first sensational reports had been discounted, Liverpool prices again drifted downward; but the net price decline for August–December 1929 was substantially less than the decline registered in the first three and a half months of that five-month period.

Finally, one may perhaps infer that the change in speculative sentiment after August 11 was in some part related to the behavior of visible supplies. It seems reasonable to suppose that last August many traders who counted upon heavy reduction of world wheat stocks in the course of 1934–35 counted also upon gradual and heavy reduction of world visibles, but lost confidence as from week to week the visible supply failed to show a reduction proportional with what was expected. In our opinion this development partly reflected reduction of invisible rather than of visible stocks, though partly also the fact that total wheat supplies were actually larger than they were thought to be in late July and early August 1934.

During the first two weeks of January, wheat futures prices in the various markets were relatively stable; but on January 14–15 prices broke 3–5 cents in terms of United States currency. At this time the markets

were disturbed by anticipations that the United States Supreme Court might uphold the validity of "gold clauses" in contracts. Commodity (including wheat) and stock prices declined generally on domestic markets, while the dollar advanced in terms both of sterling and of foreign gold currencies. Subsequently, through January 26, wheat futures prices recovered much of the ground lost in the mid-January break. The extent to which anticipated rulings on the "gold clauses" affected the break and partial recovery in wheat prices is not clear. Moreover, because the situation is entirely unprecedented, opinions in the best-informed circles differ concerning what ought to happen to prices of wheat among other things should the Supreme Court hand down a decision upholding the validity of gold clauses in contracts.

SIGNIFICANT PRICE RELATIONSHIPS

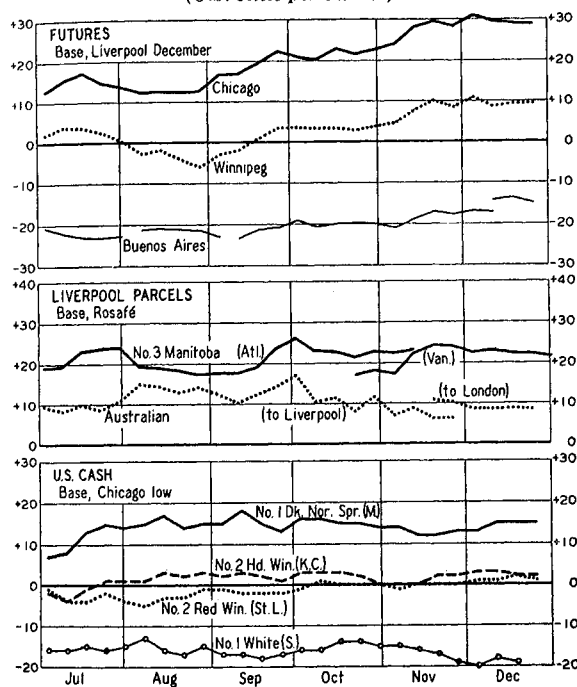
Spreads between futures markets.—North American wheat futures markets were generally less weak than Liverpool and Buenos Aires during the period under review (Chart 7, top section). In August, however, Winnipeg prices declined more than prices in other major futures markets, under the influence of seasonally heavy Canadian marketings and only a moderate export demand for Canadian wheat. The relative weakness of Winnipeg prices at this time brought Canadian wheat closer to export parity with Southern Hemisphere wheat (Chart 7, middle section), and was reflected in larger sales of Canadian wheat for export.

But when Liverpool prices continued to move sharply downward during September, wheat prices at Winnipeg and Chicago remained fairly firm. After the middle of the month, Winnipeg as well as Chicago futures commanded premiums over corresponding futures at Liverpool—a price relationship not to be expected in the early months of a crop year when Canada has a large exportable surplus of wheat. Market sentiment at Liverpool was adversely affected at this time by continued pressure of Argentine and French wheats at declining prices, by a disappointing European import demand, and by extraordinarily heavy British wheat marketings. These

influences were undoubtedly felt at Winnipeg also; but prices there did not decline as sharply, because hedging and liquidating sales were absorbed in large degree by the government agency, and because after mid-September the pressure of hedging sales lessened as a result of reduction of wheat marketings by

CHART 7.—SIGNIFICANT WHEAT PRICE SPREADS,
WEEKLY, JULY–DECEMBER 1934*

(U.S. cents per bushel)



* See note to Chart 6 and Table V.

bad weather in the prairie provinces. The increased premium on Chicago futures was primarily a reflection of the inherent strength of the domestic wheat situation in the United States, and secondarily of market strength at Winnipeg. Not dependent upon exports to maintain wheat prices in 1934–35, actual and prospective owners of United States wheat presumably saw no good reason to follow the downward course of Liverpool prices so long as United States markets were not seriously threatened with imports of foreign wheat.

October witnessed little change in futures price relationships. During the first few days of the month, prices in all markets broke sharply, apparently under the influence of heavy liquidation induced not so much by

bearish news as by further discouragement over the pressure of wheat supplies and by bearish constructions placed upon statements credited in the public press to Mr. McFarland. According to press accounts, Mr. McFarland maintained that sales of futures at Winnipeg during the preceding few weeks had been in the nature of a bear raid, heavier than marketing pressure warranted, and that the sharp price declines recorded at Liverpool and Buenos Aires during those weeks had not been justified by the general supply and demand situation. Mr. McFarland therefore saw fit to suggest that an investigation be made into wheat futures operations at Winnipeg, with a view to ascertaining the source of the recent heavy selling. This suggestion was interpreted by some observers to indicate a weakness in Mr. McFarland's position with respect to his large wheat holdings, while by others it was taken to be a first step toward complete government control of wheat marketing in Canada. Whether either or both of these interpretations played an important part in the general break in wheat prices during October 1–3 is not clear; but there can be little doubt that the press reports (October 1) of Mr. McFarland's statements added to the general uneasiness in wheat futures markets at that time.

After temporary recovery of wheat prices during October 4–11 (as a result of an improved European demand for foreign wheats, including Manitobas, and of general talk of the possibility of war in Europe) wheat prices again drifted downward in all markets under the influence of renewed liquidation by discouraged longs.

In November, Liverpool was the weakest of all the leading futures markets—weaker even than Buenos Aires. This was primarily attributable to increased pressure of old-crop Australian wheat on international markets as time for the Australian harvest approached without the new crop having suffered any major disaster. North American markets, however, were stimulated by strength in the feed grain situation in the United States and by American demand for imports of Canadian feed wheat. The Chicago active future approached a premium of 30 cents over Liver-

pool and more than 45 cents over Buenos Aires; but even these extraordinarily large spreads were not large enough to permit imports over the tariff wall except of special grades of Canadian wheat, some of which (feed wheats) were not subject to the full 42-cent duty.

After December 1, through mid-January, price spreads between May futures in the leading markets (Chart 6, p. 209) remained fairly stable, not much disturbed by the break and partial recovery of prices in mid-January.

Spreads on the British import market.—Despite the duty on non-Empire wheats, Argentine wheat sold on the British import market at fairly heavy discounts under Canadian and Australian wheats during most of August–December (Chart 7, middle section), and the price relationships were reflected in relatively large imports of Argentine wheat into the United Kingdom. In general, the spread between prices of No. 3 Manitoba and Rosafé paralleled in its course the spread between Winnipeg and Liverpool futures prices, with the premium on No. 3 Manitoba increasing rather sharply after early September. Australian f.a.q. wheat, on the other hand, commanded higher premiums over Rosafé in August and September than in the following three months, when prospects for the new Australian crop became more certain.

Price spreads in United States markets.—At Chicago, basic cash wheat continuously commanded a premium over the near future throughout August to mid-January. Similar cash premiums over near futures have been encountered several times before in the past few years; but not since 1925 has Chicago basic cash wheat sold in October to mid-January at prices higher than both May and July futures.¹ This situation, which included narrow positive or even negative spreads between near and distant old-crop futures at Chicago, with July wheat at a substantial discount under old-crop futures, primarily reflected the general market belief that domestic wheat supplies for 1934–35 were too small to allow the United States carryover of wheat on July 1,

1935, to be significantly above “normal” in size.

Price relationships between leading wheats in other United States markets and basic cash wheat at Chicago are shown in Chart 7, bottom section. These relationships remained unusually stable during the period under review. White wheat at Seattle continued, as in 1933–34, to sell at large discounts under wheats in eastern markets, but not low enough relative to world wheat prices to make possible commercial sales of Pacific white wheat for export. Even more striking than the heavy discounts on western white wheat were the relative price positions of No. 2 Red and No. 2 Hard wheats in July–December 1934. For the first time in post-war years, No. 2 Red at St. Louis sold almost continuously for over five months at prices below those recorded for No. 2 Hard at Kansas City. Similarly noteworthy were the extraordinarily high premiums paid for durum wheat at Minneapolis during the period under review (Table V). These various unusual price relationships had their origin in the peculiar class distribution of the United States crop of 1934: outturns of western white and soft red winter wheats were less drastically reduced as compared with corresponding 1929–33 averages than were outturns of durum, hard red spring, and hard red winter wheats.

European wheat prices.—In the four Danube exporting countries wheat prices quoted on the leading domestic markets stood appreciably higher in August–December this year than last; and in Hungary they stood at the highest level since 1930–31. Throughout most, if not all, of this period, prices in Hungary, Rumania, and Bulgaria were clearly above export parity. No net exports of wheat were reported during August–November for either Rumania or Bulgaria; and Hungarian exports during these months mainly represented wheat shipped to countries which had committed themselves under barter trade agreements to take specified quantities of wheat at non-competitive prices.

Not only the level, but also the course of Danubian wheat prices during August–December is noteworthy. No sharp price decline like that recorded at Liverpool was witnessed in

¹ See Holbrook Working, “Prices of Cash Wheat and Futures at Chicago since 1883,” *WHEAT STUDIES*, November 1934, XI, 75–124.

any of the Danubian markets. Rather, Danubian prices were strikingly stable, probably mainly as a result of government measures. In Bulgaria, the government grain monopoly continued to buy wheat from producers and to sell wheat to millers at the fixed prices established in January 1934 (approximately 90 cents and \$1.26, respectively, in terms of United States currency). Hungary, having abandoned the grain-ticket system in force during 1933-34, substituted for the crop year 1934-35 a system of fixed minimum wheat prices which vary from about \$1.09 to \$1.17 per bushel for basic wheat delivered at different provincial stations.¹ During the period under review, market prices in Hungary generally stood somewhat above the legal minimum levels. In Rumania, wheat prices were supported during August-November by substantial purchases by the government wheat commissioner at prices which usually ranged between \$1.14 and \$1.36 per bushel, according to quality. The wheat so purchased is being stored for sale later in the season at anticipated higher prices. Yugoslavian wheat prices have been relatively lower thus far in 1934-35 than prices in any of the other Danubian countries. This is at least partly due to the fact that in Yugoslavia governmental support of prices has been confined this year to open-market purchases of wheat for export, largely under barter trade agreements, by the Yugoslavian Privileged Export Company.

In most European importing countries, domestic wheat continued to sell in August-December at artificially high prices. Definitely fixed basic prices of \$2.10-\$2.20 per bushel were in force in Germany (Berlin area); minimum basic prices of \$2.38 per bushel for old-crop wheat and \$1.95-\$1.99 for new-crop wheat were *nominally* in force in France through December 26, with many sales admittedly made below these figures; and in Italy, market prices of domestic wheat, supported by stringent governmental milling and import restrictions and also a reduced crop, rose quite steadily during August-December from a level (at Rome) of about \$2.00 per bushel in August to \$2.26 in mid-December. In France, after December 27, fixed prices no longer prevailed for wheat of the 1934 crop; but wheat of

the 1933 crop remained under the fixed-price régime.

OUTLOOK FOR TRADE

Total volume.—Writing last September, we expressed the opinion that the total volume of trade in 1934-35 would be determined by import requirements and could reasonably be expected to approximate 576 million bushels as measured by shipments (Broomhall's forecast) and 600 million as measured by net exports (the forecast of the Wheat Advisory Committee). These forecasts then appeared possibly to be too low.

The outlook is now less optimistic, mainly because France and Poland, which in September appeared likely to rank as net importers, and to take 20-25 million bushels of wheat, now seem likely to rank as net exporters (see p. 206); because Italy and Czechoslovakia, which in September seemed likely to import net some 40-60 million bushels, now seem likely to take much less (p. 206); and because the reduction of prospective takings by these countries is not offset by increase in the prospective takings of Germany and China and by probable shift of the United States from a net-exporting to a net-importing position (p. 207).

There is of course no secure basis for appraising the quantitative effects of these changes in outlook upon the prospective total volume of trade; roughly, however, it may be said that shipments now seem more likely to approximate 550 than 576 million bushels, while net exports are more likely to approximate 575 than 600 million.² European import

¹ According to *World Wheat Prospects*, August 29, 1934, p. 17. *Foreign Crops and Markets*, January 14, 1935, p. 29, states that the range of minimum prices is from \$1.08 to \$1.24. These prices can be maintained through purchases of wheat, for export under barter trade agreements, by Futura (the grain trade company) and the Hungarian Cereal Exporters Association. Under the Rome trade agreement, Austria agreed to take 8 million bushels of Hungarian wheat (including flour) at 16 pengö per quintal (\$1.29 per bushel) f.o.b. the Austrian frontier, and Italy agreed to take at least 3.7 million bushels at 17 pengö (\$1.37 per bushel) f.o.b. the Italian frontier.

² Although the relationship of shipments to net exports cannot be foreseen as early as January, available evidence seems to point toward an excess of net exports over shipments for 1934-35 about the same as in 1933-34 or the average for the five years 1929-30 to

demand for 1934-35 now seems likely to prove only a little larger than in 1933-34; and the total volume of trade seems likely to exceed last year's volume mainly because of somewhat heavier ex-European demand. In September, the outlook was for substantial increase in European takings but only a small increase in ex-European.

Forecasts even as low as these look high in relation to the historical record of seasonal movements in international trade. On the average over the preceding 11 crop years, shipments in the first 22 weeks of the season have constituted 41.2 per cent of crop-year shipments (52 weeks). Reported shipments in the first 22 weeks of 1934-35 were 221 million bushels; hence, if the average seasonal relationship should hold this year, the 52-week total for 1934-35 would be 536 million bushels, or 14 million less than our present forecast. But because of the probability that Italy, Czechoslovakia, Holland, and some other countries of Europe have been utilizing domestic wheats more extensively than usual in August-December, it is reasonable to suppose that shipments in the first 22 weeks of 1934-35 will constitute a smaller-than-average percentage of the year's total. Our forecast presupposes that shipments in the first 22 weeks of 1934-35 will constitute 40.2 per cent of the total rather than the average of 41.2 per cent. Only in 1923-24 and 1926-27 was appreciably less than 40 per cent shipped out in the first 22 weeks (37.8 and 37.6 per cent, respectively); and these years can undoubtedly be regarded as representing circumstances far different from what can be anticipated for 1934-35. There appears to be no reason to suppose that provisions of the International Wheat Agreement will this year significantly affect either the total volume of international trade or its distribution between exporting countries.

Distribution of net exports.—Our present forecast of the probable distribution of net exports by sources of origin is as follows, in million bushels, in comparison with the less

1933-34 (respectively, 30 and 25 million bushels). Our forecast of shipments refers to a 52-week total; it is possible that Broomhall will report a 53-week total in 1934-35 as in 1923-24 and 1928-29.

definite forecast prepared and published last September:

Country	September forecast	January forecast
Major exporters (3)	540	520
Minor exporters	60	55
All exporters	600	575
Canada	210-280	210
Argentina	150-195	190
Australia	110-135	120
United States	Under 10	.. ^a
Russia	Under 15	5
Danube ^b	15-20	17
Northern Africa ^c	20-25	25
Others	1-2 ^d	8 ^e

^a Prospective net imports of about 10 million bushels.

^b Hungary, Yugoslavia, Rumania, Bulgaria.

^c Algeria, Morocco, Tunis.

^d India, Spain.

^e France, Poland, India, Spain.

As in September, and in accord with the records of August-December, it seems probable that the prominence of Canada, Argentina, and Australia and the relative insignificance of all other countries as sources of exports will be a striking aspect of international trade for the crop year 1934-35. With the prospective shift of the United States from a net-exporting to a net-importing position and the very small export movement from Russia thus far in the year, net exports from the minor exporting countries (a group which now includes the United States) seem unlikely to exceed 55 million bushels in spite of a shift of France and Poland from prospective net-import to prospective net-export positions. If, however, our allowance for probable French net exports (5 million bushels) should prove too low, net exports from the minor exporting countries might exceed the forecast of 55 million bushels, though not greatly.

If the minor exporters can be expected to export about 55 million bushels net, Canada, Argentina, and Australia together may export about 520 million bushels. Last September, when the probable total volume of net exports could be forecast as 600 million bushels and the exports of minor contributing countries as 60 million, these three countries could be expected to find export outlets for 540 million.

The probable distribution of the 520 million bushels likely to be exported by the three ma-

for exporters can now be appraised within narrower limits than was possible last September, though any method must rest upon the assumption that standing official crop estimates, subject as usual to revision, will not be substantially altered.

The records of earlier years show that Argentina tends to export during January–July some 55–65 per cent of her new-crop surplus (defined as the crop minus seed requirements minus domestic food requirements for twelve months) when the surplus is distinctly large; 70–75 per cent when it is of intermediate size; and 80–85 per cent when it is small. This year's new-crop surplus lies in the intermediate range, about 160 million bushels according to our calculations. We take it that some 70 per cent, or 115 million bushels, will probably be exported in January–July; with what was exported in August–December, the year's total may approximate 190 million bushels. Such a forecast implies heavier exports in January–July this year than last, partly because world import demand seems likely to prove larger; and it involves the assumption that nothing in the nature of a holding movement is likely to develop, whether or not world prices decline and cause the Grain Board to purchase at the fixed domestic price and resell to exporters a large fraction of the 1934 crop, as was done last year.

Except in 1929–30 and 1933–34, Australia in every year of the past decade has exported 77–90 per cent of her new-crop surplus during December–July. This year's surplus (crop minus seed minus food use for twelve months) approximates 90 million bushels, but in our opinion is enlarged by an exceptional carryover of old-crop wheat very roughly equivalent to 15 million bushels. There appear to be better prospects for Australian wheat to find export outlets in the Orient this year than in 1929–30 or 1933–34, and no reason to suppose that a domestic holding movement such as occurred last year will be repeated. Accordingly, we take it that some 80 per cent of the total surplus, about 85 million bushels, is likely to be exported in December–July. With what had already been exported in August–November, Australian

net exports for the crop year may approximate 120 million bushels.

If Argentina and Australia together export some 310 million bushels in 1934–35, only about 210 million will probably originate in Canada. This allowance for probable Canadian net exports, though derived merely as a residual calculated from probable world exports and exports of all contributing countries other than Canada, is moderately well in accord with the historical record of the Canadian seasonal export movement. On the average in the past five years during which Canada has been tending to hold prices relatively high, Canadian August–December net exports have constituted 53.0 per cent of the August–July totals, ranging from 47.8 to 56.8 per cent. Since nearly 100 million bushels were exported net from Canada in August–December, application of the above percentages suggests probable net exports in August–July 1934–35 ranging from 176 to 209 million bushels, with an average expectation of 189 million. Because of the unusual demand for Canadian wheat likely to develop in the United States and because importing countries seem likely to take an unusually large fraction of their requirements in the closing seven months of 1934–35, we feel justified in assuming that Canada may export a considerably larger fraction of the year's total in January–July than is suggested merely by analysis of the historical record. Nevertheless, if August–July Canadian net exports deviate appreciably from our forecast of 210 million bushels, the forecast seems more likely to prove too high than too low. If total exports develop as we anticipate, other countries—probably Argentina and Australia (unless their crops are overestimated), perhaps minor exporters—may export correspondingly more. Something depends upon the future course of the Liverpool–Winnipeg price spread.

OUTLOOK FOR STOCKS AND CONSUMPTION

Year-end stocks.—The general outlook concerning the probable size of "world" year-end stocks has not changed greatly since last September. At that time, when world ex-Russian supplies for 1934–35 seemed likely to fall some 325–425 million bushels below those of 1933–

34, we expressed the opinion that world stocks could be expected to be reduced 310–410 million bushels in the course of 1934–35, and probably by a figure nearer to 310 than to 410 million. Appraised on the basis of data given on page 201, which indicate a reduction of about 320 million bushels in world ex-Russian supplies, and with reference to accumulated information on disappearance and international trade (pp. 202–09), the prospective reduction in world year-end stocks now seems likely to approximate 315 million bushels. In short, we expect that this year's reduction of stocks will approximate rather closely the indicated reduction in the year's total supply—a development quite different from what occurred in 1929–30, when reduction of world supply of about 200 million bushels was accompanied by a reduction of stocks only about a fourth as large.

The following tabulation, in million bushels, gives our present forecast of stocks about on August 1, 1935, in total and in various positions, in contrast with averages for the pre-depression period 1923–27 and with revised estimates for 1934:

Position	Average 1923–27	Estimated 1934	Forecast 1935
United States ^a	125	290	155
U.S. in Canada ^a	1	0	0
Canada	38	193	150
Canadian in U.S.	3	10	10
Australia	31	85	50
Argentina	65	118	85
Afloat to Europe	40	35	35
Total above	303	731	485
Importing Europe	187	301	260
Danube basin	37	54	20
India	46	29	29
Northern Africa	19	10	15
Japan	7	5	5
Afloat to ex-Europe	7	11	11
Total above	303	410	340
Grand, total	606	1,141	825

^a July 1.

Last September, the prospect was that stocks in the United States, Canada, Argentina, and Australia might be reduced 250–350 mil-

lion bushels. With the subsequent appearance of official crop forecasts for Argentina and Australia, a reduction in the prospective net exports of all four countries, and accumulated information concerning probable disappearance of wheat in prospect in these countries, the probable reduction of stocks lies somewhat below the range earlier suggested, and may approximate 245 million bushels. This, however, would represent much the largest reduction that has occurred in the course of a post-war crop year. It would suffice to bring year-end stocks to a level substantially lower than in any of the preceding six years, though not to the level characteristic of years preceding 1929.

The suggested distribution of stocks between Canada, Argentina, and Australia rests upon (a) standing official crop forecasts; (b) our appraisals of domestic use given in detail in Table X and requiring no comment because at present there appears to be little reason to anticipate unusual developments; and (c) our forecasts of crop-year net exports. If standing crop forecasts are maintained, the forecast of total stocks in the three countries may reasonably be expected to prove moderately accurate. It seems possible, however, that more wheat may remain in Canada on August 1 and less in Argentina and/or Australia than our forecasts suggest. Despite a substantial prospective reduction in Canadian stocks, Canada seems likely to hold a larger fraction of the world total than ever before.

Changes in crop forecasts since September in other countries do not seem to involve important changes in the outlook for year-end stocks. In India, the Danube basin, and Japan, stocks still seem likely to fall to about minimum levels; there is no present basis for anticipating levels much different from last year's in stocks afloat to Europe and to ex-Europe or in stocks of Canadian wheat stored in the United States and of United States wheat stored in Canada; and stocks in northern Africa still seem likely to increase moderately. Aggregate stocks in these positions will probably fall not only below last year's level but below the 1923–27 average. The substantial upward revision of the crop forecast for importing Europe (about 75 million bush-

els) does not correspondingly alter the outlook for year-end stocks; rather, net imports will be lower than was earlier anticipated, and in some countries consumption will be heavier. Aggregate year-end stocks in importing Europe will be heavy in spite of an important prospective reduction; but conspicuously large surplus stocks will probably exist only in Spain, Portugal, and France, possibly also Germany, the British Isles, and the Baltic countries.

The outlook for the United States carryover on July 1, 1935, which now appears more likely to approximate 155 million bushels than the 135 million anticipated last September, requires further comment. The following tabulation, in million bushels, summarizes our present appraisal of the elements of supply and disposition in contrast with our September forecast:

Item	September	January
Inward carryover	290	290
New crop	493	496
Net exports	10	...
Net imports .....	...	10
Domestic supply	773	796
Net mill grindings	480	460
Seed	80	78
Feed and waste	80	103
Disappearance	640	641
Balance for carryover	133	155

The present prospect for net imports rather than net exports in 1934-35 is mainly responsible for enlargement of domestic supplies. Total disappearance may prove to be about as earlier anticipated, reduction in the allowance for net mill grindings being about offset by enlargement of the allowance for feed and waste.

The present forecast of net mill grindings now rests upon data for domestic flour retention (Table IV) in the first six months of the crop year, about 51 million barrels. In normal years flour retention is about 5-7 million barrels smaller in January-June than in July-December because stocks are built up in the first half of the crop year and reduced in the

second half. But since flour stocks last July 1 seem to have been 1 or 2 million barrels above normal, since there is little reason to suppose that abnormal accumulation of flour stocks occurred in July-December, and since there is little reason to anticipate that the level of flour stocks will be above normal next July 1, we count upon January-June flour retention only about 3 million barrels smaller than in July-December 1934. This implies a somewhat lower level of flour production in January-June 1934-35 than for July-June 1933-34. It also suggests that the decline in total flour consumption in progress since 1929-30 may prove to have run its course, and that total consumption in 1934-35 may be as large as or slightly larger than consumption in 1933-34.

The present forecast of "feed and waste" rests, as any such forecast must, upon very inconclusive evidence. Since last September, however, wheat prices have lost a considerable fraction of their premium over corn prices, with resultant additional incentive to use wheat for feed. In December 1934, in fact, wheat stood at a smaller premium over corn (December futures at Chicago) than in any of the preceding six years except 1930. If the relationship of wheat and corn prices alone determined the quantities of wheat fed to livestock, it would not be unreasonable to hazard the guess that the amount of wheat fed during 1934-35 might fall somewhere between the very high figures for 1930-31 and 1931-32 (each about 180 million bushels if we take the residual items in disposition of Table X as representing mainly feed use) and the moderately high figure for 1932-33 (about 130 million bushels). Partly because wheat is less abundant on farms this year, partly because it is absolutely much higher in price, and partly because official statistics of stocks do not definitely suggest heavier disappearance of wheat for feed in July-December 1934 than in the same months of 1933, we take it that feed use in 1934-35 is likely to prove smaller than in any of the three years 1930-31 to 1932-33, though larger than in 1933-34. A forecast of roughly 100 million bushels as probable "feed and waste" in 1934-35 now seems better in keeping with known facts than our September

forecast of 80 million.¹ The forecast of year-end carryover of about 155 million bushels represents merely the difference between estimated supplies and estimated disappearance. A carryover of this size would be smaller than any since 1929, but 30 million bushels larger than the average carryover of 1923-27.

The forecasts of July 1 carryover advanced by most private students have run lower, ranging from 100 to 135 million bushels. But an official forecast as of January 15 (*The Price Situation*, January 15, 1935, p. 5) was 145 million. This forecast was based in part upon the assumption that January 1 stocks were 420 million bushels. Since the official appraisal of January 1 stocks is now 439 million, the official method of forecasting July 1 stocks would presumably now result in a forecast of carryover on July 1 of as much as 165 million bushels.

Reduction of the "world" carryover from about 1,140 to 825 million bushels unquestionably would improve the general statistical position of wheat. In our opinion, however, the immediate significance of such a reduction for world wheat prices is not great, even though unusually heavy successive weekly reductions of "world" visible supplies are in prospect during February-July because more than the usual fraction of world total stocks is now lying in visible positions. The outstanding facts are that Canada, Argentina, and Australia now hold so much wheat that importers need fear no immediate shortage even if Canadian wheat continues to be strongly held; and that these three countries cannot expect to reduce their year-end stocks to low or even to average pre-surplus levels with import demand as weak as it promises to be. In the more remote future, the reduction of year-end stocks now in prospect for 1934-35 may conceivably contribute heavily toward maintenance and increase of world wheat prices; what transpires, however, will depend

upon the development of 1935 wheat crops. It can be said with assurance that repetition in 1935 of the short world crop of 1934 would bring a large and well-sustained advance in world prices; for much less old-crop wheat will be available to swell total supplies in 1935-36 than in 1934-35.

World disappearance.—If "world" stocks about next August 1 are brought to a level of roughly 825 million bushels, and if crop estimates for 1934 are not appreciably revised, disappearance of wheat in the world ex-Russia in 1934-35 is likely to approximate 3,600 million bushels. This would be practically the same amount as in 1933-34 and 1932-33 but more than 100 million bushels less than in 1930-31 and 1931-32, when much more wheat was used for feed in the United States than appears to be in prospect for 1934-35. Only a little more wheat will disappear in the world ex-Russia in 1934-35 than was disappearing in the years just preceding the depression, though over the interval the population may have increased roughly 5 per cent.

As compared with 1933-34, disappearance in 1934-35 now seems likely to be enlarged especially in the United States (principally feed use) and by increase in the quantity shipped out of the world ex-Russia mainly to China. On the other hand, disappearance is likely to be reduced especially in the Danube basin, where the short crop of 1934 will cause the customary adjustment of consumption to domestic supplies to be in evidence. Little change is probable in disappearance in importing Europe, which again may prove to be fairly high. Here disappearance will be maintained mainly because the large crops in Spain and Portugal will probably give rise to enlargement of consumption and because France, in 1934-35 as in 1933-34, is pursuing policies which tend to reduce the domestic surplus partly by enlarging consumption.

OUTLOOK FOR PRICES

What course may wheat prices be expected to take in February-April if trade and stocks developments in the next few months appear substantially to bear out our general analysis of the crop-year wheat position? Historically, January-March is a period when large wheat

¹ Nat. C. Murray (Clement, Curtis and Co., *Monthly Grain and Cotton Report*, January 5, 1935) estimated wheat fed to livestock on farms during July-December about 29 per cent larger in 1934 than in 1933. This percentage applied to the residual item in disposition for 1933-34 (Table X), which very roughly represents feed use, would suggest a residual item of 99 million bushels for 1934-35.

price movements have seldom been witnessed. On this basis alone it would seem reasonable to expect that the Liverpool May future, which was selling late in January at approximately 75 cents in United States money, would not stand more than 10 cents higher or 10 cents lower at the end of March, provided international exchange relationships remain practically unchanged. On the historical basis, and also in consideration of factors peculiar to the wheat situation this year, there also seems to be reason to anticipate that leadership in wheat price movements during February–March 1935 will rest with Liverpool and/or Southern Hemisphere markets, not with either of the principal markets of North America.

Liverpool traders seem likely to be faced on the one hand with an improved European import demand, firm holding of Canadian wheat, moderately heavy wheat feeding in some countries, and rather sharply declining visible supplies, and on the other hand with free shipments of wheat from the Southern Hemisphere and France. Which of these two sets of influences will have more weight in world wheat markets during February–March is impossible to foresee. However, it is reasonable to infer that the heavy liquidating movement in leading markets in August–December has left wheat futures, especially at Liverpool, less vulnerable than they were five months ago. Moreover, should Liverpool wheat prices start to drift downward again during February–March, at least two forces may be expected to come into operation which will tend to check the decline: (1) the minimum-price rules of the Winnipeg Grain Exchange, and (2) increased buying of wheat by ex-European countries.

At the request of the Canadian government, the Winnipeg Grain Exchange has pegged futures prices.¹ Transactions in the December future were not permitted below 75 cents; and May and July futures cannot be dealt in below

80 and 81¼ cents, respectively. In late January, Winnipeg May wheat was selling only a few cents above the minimum level and about 7–8 cents above the Liverpool May future. A price decline at Liverpool of only a few cents per bushel would necessarily be associated with further increase in the premium on Winnipeg May wheat, a development which would tend further to restrict Canadian wheat exports and presumably operate in the direction of checking the immediate price decline abroad.

The tendency of ex-European buying to be stimulated by low and declining prices has often been noted in the past, and can perhaps reasonably be expected this year, when Chinese and Manchurian grain supplies are short and Chinese importers are not faced, as they were last year, with the uncertainties of governmental competition. Moreover, if the duty on wheat imports into China has in past months been as effective in curtailing wheat imports as many observers suppose, any decline of world wheat prices would presumably tend somewhat to offset the effect of the duty and to increase Chinese import demand. It has been officially announced that there will be no increase in Chinese import duties in the near future. Should improvement in the ex-European demand for wheat be of sizable proportions, it would doubtless act as a check to further price decline.

Possibly the "basic price" system of Argentina may be listed as a minor firming influence in the event of any substantial decline of world prices. So long as normal conditions of commercial trade and exportation prevail, Buenos Aires wheat futures may be expected in February–March 1935 to sell at approximately 15–20 cents (United States currency) under corresponding Liverpool futures. Should Liverpool prices tend downward, Buenos Aires futures would presumably follow until they reached the "basic" level of 5.75 pesos per quintal—approximately 52 cents per bushel, or only a few cents below the figure now quoted for the Buenos Aires March future. Below this price Buenos Aires futures cannot decline, because of the basic minimum-price system. But the Argentine Grain Board, which stands ready to buy at the "basic" price

¹ Pegging of the December and May futures began on November 1, 1934. Also at the request of the Canadian government, the Winnipeg Grain Exchange agreed late in December not to provide trading facilities for the new-crop October future as early as was contemplated (January). Apparently no date has been specified for trading in this future to open.

whatever quantity of wheat is offered to it, is authorized to resell this wheat to exporters at "world" prices, which may be substantially below the "basic" level. Under such circumstances, the Liverpool-Buenos Aires spread might be reduced (as in February-April 1934) to considerably less than 15 cents per bushel. Should the quantity of wheat handled by the Argentine Grain Board be large, as was the case last year, the selling policy of the Board might be expected to play an important part in determining the future course of "world" prices. On the basis of last year's record, it is probably reasonable to expect that the Board would freely sell its accumulated supplies of wheat, but that it would so regulate sales that Argentine wheat would not at any time be pressed so heavily upon European import markets as to result in general demoralization of prices. In this restricted sense, operations of the Argentine Grain Board under the basic price system may be regarded as a potential firming influence at lower price levels.

In the face of wheat supplies as large as now appear to exist, and unless world wheat consumption should be substantially larger this year than we now anticipate, we see little reason to expect that Liverpool traders will bid wheat prices upward by as much as 10 cents (net) from January 26 to the end of March. The few definitely bullish developments which now seem likely to be prominent in the world wheat situation during that period—improvement in the European import demand, rapidly declining visible supplies, moderately heavy feeding of wheat (at least in the United States), and firm holding of Canadian wheat—should lend significant support to any price advance based on some more fundamental, unanticipated factor (such as a significant downward revision of standing estimates of the two major Southern Hemisphere crops); but, alone, they seem likely to be too weak to promote a substantial and well-sustained rise of prices in the face of probable free shipments of wheat from the Southern Hemisphere.

Unless Liverpool wheat futures prices should advance substantially during February-March, it seems probable that existing premiums on Winnipeg futures will be ap-

proximately maintained. Whether or not these premiums would be maintained in case of a price advance at Liverpool would presumably depend mainly upon what course of action Mr. McFarland chose to take. If Mr. McFarland's holdings of Winnipeg May wheat actually exceed 225 million bushels, as is suggested by trade rumor, his market decisions will, of necessity, be extremely important in determining the course of Winnipeg prices.

The Chicago-Liverpool price spread (May futures), dependent this year entirely upon private trading, now seems likely to be maintained throughout February-March at about its present magnitude. The strong domestic supply position of the United States will operate to keep Chicago prices from declining significantly relative to Liverpool prices, while the threat of importation will prevent much further increase in Chicago prices relative to Liverpool prices.

After the beginning of April, and more particularly after mid-April, news and rumors bearing on the condition and development of the wheat crops of 1935 are likely to dominate world wheat price movements. What these will be no one can now foresee. It is important to note, however, that market response to early adverse crop reports may this year be expected to be stronger than has been the case in the past few years when surplus wheat stocks have been much heavier. Because of the prospective large reduction in world wheat carryover during the present season, crop reports in April-May 1935 as sensationally bad as those circulated in the same months last year might well furnish the basis for spectacular crop-scare advances in all leading futures markets.

What has been said above with reference to the outlook for wheat prices during the next few months takes no account of any influence which may be exerted by the decision of the United States Supreme Court relative to the "gold clause" in contracts. Partly because of lack of precedent, there appears to be no adequate basis for economic analysis of the probable effects of this decision. Partly because of the attitude of uncertainty now palpably prevailing in the business world, the probable

immediate and more distant repercussions of such a decision upon the foreign exchanges, upon prices generally, and upon wheat prices and international wheat price spreads in particular seem to us to lie altogether in the realm of conjecture.

This issue was written by M. K. Bennett and Helen C. Farnsworth, with the advice of Alonzo E. Taylor

APPENDIX

TABLE I.—WHEAT PRODUCTION IN PRINCIPAL PRODUCING AREAS AND COUNTRIES, 1929-34*
(Million bushels)

Year	World ex-Russia ^a	Northern Hemisphere ex-Russia ^a	Four chief exporters	United States			Canada	Australia	Argentina	USSR	Lower Danube ^b	Other Europe	North-ern Africa ^c	India
				Total	Winter	Spring								
1929.....	3,424	3,070	1,417	822	586	236	305	127	163	694	303	1,146	77	321
1930.....	3,705	3,214	1,757	890	631	258	421	214	232	989	353	1,006	64	391
1931.....	3,669	3,206	1,664	932	818	114	321	191	220	786	370	1,064	69	347
1932.....	3,700	3,192	1,644	746	478	267	443	214	241	744	222	1,268	75	337
1933.....	3,614	3,084	1,271	529	351	178	282	174	286	1,019	371	1,378	70	353
1934 ^d.....	.....	2,752	.....	493	400	93	277	...	...	.....	255	1,190	86	349
1934 ^e	3,279	2,827	1,161	496	405	91	276	137	252	.....	249	1,267	87	349

Year	Hun-gary	Yugo-slavia	Ru-man-ia	Bul-garia	Morocco	Algeria	Tunis	Egypt	British Isles	France	Ger-many	Italy	Bel-gium ^f	Nether-lands
1929.....	75.0	95.0	99.8	33.2	31.8	33.3	12.3	45.2	50.9	337.3	123.1	260.1	13.5	5.5
1930.....	84.3	80.3	130.8	57.3	21.3	32.4	10.4	39.8	43.4	228.1	139.2	210.1	13.7	6.1
1931.....	72.6	98.8	135.3	63.8	29.8	25.6	14.0	46.1	38.6	264.1	155.5	244.4	14.2	6.8
1932.....	64.5	53.4	55.5	48.1	28.0	29.2	17.5	52.6	44.4	333.5	183.8	276.9	16.1	12.8
1933.....	96.4	96.6	119.1	58.9	28.9	32.0	9.2	40.0	64.4	362.3	205.9	298.0	16.1	15.3
1934 ^d	61.7	73.5	73.5	46.3	30.8	39.7	15.8	38.6	65.0	305.0	165.7	224.1	14.2	15.6
1934 ^e	61.4	68.3	77.3	41.6	31.2	39.7	15.8	37.3	73.1	332.0	166.5	232.7	15.2	17.2

Year	Scandi-navia ^g	Baltic states ^h	Spain	Portu-gal	Switzer-land	Aus-tria	Czecho-slovakia	Poland	Greece	Mexico	Japan, Ocho-sen	South Africa	Chile, Uru-guay ⁱ	New Zealand
1929.....	31.5	13.7	154.2	10.6	4.21	11.6	52.9	65.9	11.4	11.3	38.8	10.6	46.7	7.24
1930.....	31.8	15.6	146.7	13.5	3.60	12.0	50.6	82.3	9.7	11.4	38.5	9.3	28.6	7.58
1931.....	27.7	14.6	134.4	13.0	4.04	11.0	41.2	83.2	11.2	16.2	39.2	13.7	32.4	6.58
1932.....	38.2	18.3	184.2	23.4	4.00	12.2	53.7	49.5	17.1	9.7	39.9	10.6	31.5	11.06
1933.....	41.7	19.8	138.2	16.0	4.80	14.6	72.9	79.9	28.4	12.1	48.9	10.2	50.0	9.04
1934 ^d	40.4	22.5	173.7	20.5	5.00	12.8	47.4	49.9	27.6	10.3	52.6	....	....	....
1934 ^e	43.2	23.7	180.0	20.5	5.07	13.2	50.0	63.5	31.4	10.1	54.9	13.5	40.0	10.00

* Data of U.S. Department of Agriculture and International Institute. Figures printed in italics are unofficial estimates, mainly by the Foreign Service of the U.S. Department of Agriculture. Dots (....) indicate no data available.

^a Excluding also China and southwestern Asia.

^c As of about January 20, 1935.

^b Hungary, Yugoslavia, Rumania, Bulgaria.

^f Including Luxemburg.

^d Morocco, Algeria, Tunis.

ⁱ Denmark, Norway, Sweden.

^e As of about September 12, 1934.

^h Finland, Latvia, Estonia, Lithuania.

TABLE II.—WHEAT RECEIPTS IN NORTH AMERICA, MONTHLY, JULY-DECEMBER, 1929-34*
(Million bushels)

Year	United States (13 primary markets)							Canada (country elevators and platform loadings)						
	July	Aug.	Sept.	Oct.	Nov.	Dec.	July-Dec.	July	Aug.	Sept.	Oct.	Nov.	Dec.	Aug.-Dec.
1929.....	94.2	101.7	47.0	36.3	20.6	22.9	322.7	4.1	14.2	109.6	52.9	19.5	10.9	207.1
1930.....	99.0	85.5	62.6	28.9	24.6	21.5	322.1	3.0	21.2	105.1	53.8	52.4	17.3	249.8
1931.....	104.0	61.5	38.9	32.7	26.4	13.8	277.3	5.4	11.9	47.4	74.1	43.1	19.7	196.2
1932.....	41.0	40.7	38.4	27.2	17.6	13.9	178.8	3.8	17.6	120.5	82.7	36.5	18.5	275.8
1933.....	37.2	26.7	22.6	17.6	11.6	11.2	126.9	10.5	25.6	55.6	46.4	23.0	10.3	160.9
1934.....	49.7	23.0	19.1	12.9	9.2	7.8 ^a	121.7 ^a	10.9	30.8	55.6	50.8	23.6	12.5	173.3

* United States data unofficial, compiled from *Survey of Current Business*; Canadian data computed from official figures given in *Canadian Grain Statistics*; *Monthly Review of the Wheat Situation*; and press releases of the Board of Grain Commissioners.

^a Preliminary.

TABLE III.—WHEAT VISIBLE SUPPLIES, SEPTEMBER–JANUARY 1934–35, WITH COMPARISONS*
(Million bushels)

Date	Total	United States grain		Canadian grain		Total North America	Afloat to Europe	U.K. ports	Total U.K. and afloat	Australia	Argentina
		United States	Canada	Canada	United States						
Aug. 1 1929.....	325.4	136.4	2.3	83.8	22.9	245.4	37.6	6.2	43.8	20.0	16.2
1930.....	357.7	161.9	4.0	89.5	16.1	271.5	39.2	6.5	45.7	33.5	7.0
1931.....	447.8	233.6	22.9	105.8	5.5	367.8	37.9	10.6	48.5	24.5	7.0
1932.....	385.5	175.9	15.4	116.8	4.7	312.8	31.4	9.1	40.5	26.0	6.2
1933.....	423.2	135.0	3.7	190.4	6.7	335.8	31.6	11.4	43.0	31.5	12.9
1934.....	423.2	115.9	...	177.6	9.8	303.3	34.8	13.6	48.4	52.0	19.5
Jan. 1 1930.....	514.3	182.2	8.2	190.8	38.3	419.5	28.2	15.2	43.4	44.0	7.4
1931.....	535.4	199.6	4.8	185.4	31.7	421.5	27.3	20.0	47.3	60.0	6.6
1932.....	594.0	226.9	29.1	172.6	19.7	448.3	29.8	23.9	53.7	85.0	7.0
1933.....	549.7	168.5	6.9	224.2	13.6	413.2	36.4	7.5	43.9	83.0	9.6
1934.....	476.5	132.5	2.3	227.6	14.0	376.4	20.7	19.1	39.8	50.0	10.3
1935.....	448.4	91.0	1.0	230.2	27.6	349.8	25.4	16.7	42.1	45.5	11.0
1934											
Sept. 1.....	427.4	122.4	...	183.7	10.0	316.1	37.9	13.0	50.9	40.5	19.9
8.....	431.3	122.7	...	191.5	10.3	324.5	36.9	12.3	49.2	38.5	19.1
15.....	441.4	120.4	.6	205.3	11.6	337.9	35.2	13.4	48.6	36.5	18.4
22.....	446.4	121.2	.8	213.1	11.9	347.0	33.2	14.5	47.7	34.0	17.7
29.....	445.2	120.1	.8	214.2	14.2	349.3	32.5	14.0	46.5	32.5	16.9
Oct. 6.....	444.5	118.8	.8	215.2	15.0	349.8	33.7	14.4	48.1	30.0	16.6
13.....	445.5	116.5	.8	218.7	16.0	352.0	34.8	15.0	49.8	27.5	16.2
20.....	446.9	112.6	.8	227.7	17.8	358.9	32.8	14.8	47.6	25.0	15.4
27.....	445.0	110.8	1.0	232.4	17.2	361.4	32.5	14.4	46.9	22.0	14.7
Nov. 3.....	444.8	108.5	1.0	237.0	17.6	364.1	33.6	13.9	47.5	18.5	14.7
10.....	441.3	105.2	1.0	235.9	19.2	361.3	35.2	13.9	49.1	16.5	14.4
17.....	438.9	102.6	1.0	236.6	19.6	359.8	36.5	13.8	50.3	15.2	13.6
24.....	433.2	100.0	1.0	236.1	21.6	358.7	35.5	13.6	49.1	12.2	13.2
Dec. 1.....	426.3	99.2	1.0	231.1	23.6	354.9	34.1	15.1	49.2	10.0	12.2
8.....	422.7	98.0	1.0	228.2	26.4	353.6	32.1	17.0	49.1	8.2	11.8
15.....	419.0	96.0	1.0	229.1	27.5	353.6	28.3	18.1	46.4	7.5	11.5
22.....	421.5	92.9	1.0	229.5	28.1	351.5	26.0	18.2	44.2	14.8	11.0
29.....	448.4	91.0	1.0	230.2	27.6	349.8	25.4	16.7	42.1	45.5	11.0
1935											
Jan. 5.....	455.4	87.8	1.0	230.6	27.1	346.5	23.5	15.0	38.5	59.0	11.4
12.....	.....	84.5	1.0	230.1	26.8	342.4	....	....	....	83.2	11.4

* Commercial Stocks of Grain in Store in Principal United States Markets; Canadian Grain Statistics; Corn Trade News.

TABLE IV.—UNITED STATES FLOUR PRODUCTION, EXPORTS, AND NET RETENTION, MONTHLY, JULY–DECEMBER 1934, WITH COMPARISONS*
(Thousand barrels)

Month or period	Production						Exports and shipments to possessions			Estimated net retention		
	All reporting mills			Estimated total								
	1932	1933	1934	1932	1933	1934	1932	1933	1934	1932	1933	1934
July	7,828	8,275	7,325	8,401	8,875	7,868	400	337	322	8,001	8,538	7,546
Aug.	9,005	6,719	8,654	9,649	7,225	9,278	460	416	486	9,189	6,809	8,792
Sept.	9,395	7,540	8,822	10,062	8,096	9,455	420	362	489	9,642	7,734	8,966
Oct.	9,382	8,181	9,181	10,049	8,776	9,836	416	352	434	9,633	8,424	9,402
Nov.	8,719	8,116	8,211	9,346	8,706	8,807	537	338	432	8,809	8,368	8,375
Dec.	8,323	7,332	7,611 ^a	8,926	7,875	8,171 ^a	447	428	430 ^a	8,479	7,447	7,741 ^a
July-Dec.	52,652	46,163	49,804 ^a	56,433	49,553	53,415 ^a	2,680	2,233	2,593 ^a	53,753	47,320	50,822 ^a
July-June ^b ...	103,466	94,176	.....	110,906	101,068	.....	4,908	4,453	...	105,998	96,615	.....

* Reported production and trade data from U.S. Bureau of the Census press releases, *Monthly Summary of Foreign Commerce*, and U.S. Department of Commerce, *Statement No. 3009*. The estimates of total production represent the monthly census reports raised by the estimated output of unreporting merchant mills and by a constant allowance of 100,000 barrels monthly for custom mills, and are probably 2-3 per cent too low in all years; the preliminary estimates for December 1934 are based on production reported to the *Northwestern Miller*.^a Preliminary.^b Twelve months beginning in year stated.

TABLE V.—PRICES OF REPRESENTATIVE WHEATS, WEEKLY FROM AUGUST 1934*
(Cents per bushel)

Week ending	British parcels	Liverpool (Tuesday prices)				United States						Winnipeg		Buenos Aires 80-kilo
		No. 1 Mani- toba	No. 3 Mani- toba	Argen- tine Rosafé	Aus- tralian f.a.q.	Basic cash: Chicago	No. 2 Hard Winter Kansas City	No. 2 Red Winter St. Louis	No. 1 Dk. Nor. Spring Minne- apolis	No. 2 Hd. Amber Durum Minne- apolis	No. 1 White Seattle	Wtd. aver- age	No. 3 Mani- toba	
1934														
Aug. 4.....	87 52	102	98	75	86	103	104	99	117	140	88	87	84	66
11.....	100 59	109	106	86	101	108	109	103	123	145	95	92	89	73
18.....	96 56	106	102	83	97	103	106	100	120	132	87	86	83	69
25.....	93 54	104	99	81	94	105	107	102	119	145	88	86	82	69
Sept. 1.....	86 51	101	96	79	93	103	106	102	118	148	88	82	78	67
8.....	83 47	99	94	77	89	106	108	105	121	152	89	84	80	64
15.....	94 55	101	95	78	88	106	109	104	124	153	89	84	81	63
22.....	82 48	98	94	75	88	105	107	103	120	150	87	82	79	61
29.....	76 45	97	93	70	84	105	106	103	118	148	88	82	78	57
Oct. 6.....	73 43	96	92	66	83	99	102	98	115	145	83	77	74	55
13.....	80 48	92	89	66	76	100	103	101	116	149	84	78	76	56
20.....	78 46	95	90	68	79	101	104	101	116	147	87	74	74	55
27.....	76 45	92	87	66	74	99	101	99	114	142	85	71	72	54
Nov. 3.....	72 43	91	86	63	75	99	99	99	113	140	84	70	72	53
10.....	80 47	95	89	66	73	101	101	100	115	141	86	73	75	54
17.....	72 43	95	87 ^a	64	73	102	102	102	114	144	86	74	76	52
24.....	74 44	97	86 ^a	62	68	101	103	101	113	143	84	74	75	52
Dec. 1.....	77 46	96 ^a	87 ^a	63	69	101	103	101	114	139	82	74	75	53
8.....	76 45	98	87 ^a	65	74 ^b	104	107	105	117	138	84	75	75	53
15.....	80 47	99	90 ^a	67	75 ^b	103	106	104	118	136	85	74	74	53
22.....	85 50	96	85 ^a	63	72 ^b	101	103	103	116	141	82	73	72	..
29.....	82 49	96	85 ^a	63	72 ^b	101	103	102	116	145	84	73	72	..
1935														
Jan. 5.....	74 44	96	86 ^a	64	70	101	103	102	116	143	84	74	72	..
12.....	.....	96	86 ^a	64	64	103	103	105	120	147	..	75	73	..

* For sources and methods of computation, see WHEAT STUDIES, December 1934, XI, 194-95. Dots (...) indicate no quotations. Figures in Italics are expressed in pre-devaluation gold cents, based on London prices of gold.

^a Parcels from Vancouver, which in this period sold appreciably below parcels from Atlantic ports: the discount on No. 3 Manitoba approximated 4-5 cents. ^b Parcels to London, which at this time sold approximately 5 cents above parcels to Liverpool.

TABLE VI.—MONTHLY AVERAGE PRICES OF DOMESTIC WHEAT IN EUROPE, JULY–NOVEMBER, 1930–34*

(U.S. cents per bushel)

Year	July	Aug.	Sept.	Oct.	Nov.	July	Aug.	Sept.	Oct.	Nov.	July	Aug.	Sept.	Oct.	Nov.
	GREAT BRITAIN					FRANCE					GERMANY				
1930	108	109	95	91	87	171	180	175	173	176	187	163	155	147	160
1931	82	83	58	59	67	186	172	163	165	162	155	134	136	136	146
1932	61	59	53	51	48	179	135	123	120	119	154	136	135	129	128
1933	83	67	60	60	63	175	174	189	192	208	170	155	172	176	190
1933	60	49	41	41	40	125	127	127	129	130	122	114	116	118	119
1934	72	69	68	66	66	216	199	200	198	199	204	210	215	218	219
1934	43	41	40	39	39	129	117	117	117	118	122	123	126	129	130
	ITALY					HUNGARY					RUMANIA				
1930	177	180	177	170	163	93	85	74	72	68	79	75	60	51	51
1931	131	126	133	133	140	65	48	45	47	57	46	45	44	45	49
1932	137	137	145	146	152	63	67	67	67	62	48	65	75	79	102
1933	169	166	175	170	180	83	60	58	56	60	100	85	92	89	100 ^a
1933	123	120	118	116	113	60	44	39	38	37	72	62	62	60	63 ^a
1934	191	199	202	204	208	129 ^b	134	135	134	133	114 ^b	127 ^a	128 ^b	125	126
1934	114	117	119	121	124	77 ^b	79	79	79	79	68 ^b	75 ^a	75 ^b	74	75

* For sources and methods of computation, see WHEAT STUDIES, December 1934, XI, 195, except Hungary and Rumania, for which prices are furnished by the U.S. Department of Agriculture. Figures in Italics represent approximate gold cents per bushel, based on prices of gold in London.

^a Four-week average in month containing five weeks.

^b Three-week average.

TABLE VII.—INTERNATIONAL SHIPMENTS OF WHEAT AND FLOUR, WEEKLY FROM AUGUST 1934*
(Million bushels)

Week ending	Total	Shipments from							Shipments to Europe				To ex-Europe		
		North America	Argentina ^a	Australia	South Russia ^b	Danube	India	Other countries ^c	Total	United Kingdom	Orders	Continent	Total	China, Japan	Others
1934															
Aug. 4.....	10.44	4.17	3.76	2.02	...	.20	...	.29	8.54	3.39	2.36	2.79	1.90	.71	1.19
11.....	11.72	3.96	6.14	.82	...	.54	...	.26	9.14	3.03	3.58	2.53	2.58	1.10	1.48
18.....	10.67	4.49	3.50	2.19	...	.37	...	.12	9.21	2.31	3.71	3.19	1.46	.65	.81
25.....	12.25	4.86	3.43	3.11	.19	.30	.22	.14	8.67	2.99	2.96	2.72	3.58	1.71	1.87
Sept. 1.....	8.46	3.66	2.88	1.14	.26	.41	...	.11	5.72	.94	2.10	2.68	2.74	1.06	1.68
8.....	10.21	3.06	4.55	1.34	.45	.50	...	.31	8.15	1.78	3.48	2.89	2.06	.59	1.47
15.....	11.03	4.67	4.23	1.19	...	.45	.02	.47	9.39	2.30	3.45	3.64	1.64	.49	1.15
22.....	9.44	3.93	3.22	1.47	.17	.27	.02	.36	7.24	1.71	2.45	3.08	2.20	.77	1.43
29.....	10.86	3.25	3.77	2.87	...	.50	.02	.45	7.98	2.33	2.39	3.26	2.88	1.37	1.51
Oct. 6.....	12.21	4.62	4.46	1.72	.46	.46	.03	.46	9.34	3.36	3.31	2.67	2.87	.94	1.93
13.....	11.81	3.13	4.27	2.81	.26	.70	...	.64	8.99	2.42	3.06	3.51	2.82	1.22	1.60
20.....	9.66	4.35	2.80	1.23	.11	.26	...	.91	7.73	3.03	1.17	3.53	1.93	.70	1.23
27.....	9.42	3.92	1.57	2.26	.32	.17	...	1.18	7.24	2.91	1.96	2.37	2.18	.84	1.34
Nov. 3.....	10.16	3.40	1.96	3.23	.58	.20	...	.79	7.60	3.53	2.02	2.05	2.56	1.02	1.54
10.....	12.37	4.23	4.20	2.81	...	.26	...	.87	9.75	3.35	3.02	3.38	2.62	1.46	1.16
17.....	10.38	3.18	3.97	1.20	.28	.45	...	1.30	8.26	2.16	1.83	4.27	2.12	1.03	1.09
24.....	10.31	3.36	3.83	2.26	...	.36	...	.50	6.05	1.99	1.61	2.45	4.26	2.42	1.84
Dec. 1.....	10.22	4.01	3.06	1.73	.13	.19	...	1.10	7.29	2.78	1.77	2.74	2.93	1.55	1.38
8.....	9.34	2.69	3.59	1.24	.10	.54	...	1.18	7.34	1.63	2.71	3.00	2.00	.90	1.10
15.....	6.68	1.77	1.55	1.90	...	.41	.01	1.04	5.70	1.46	2.17	2.07	.98	.43	.55
22.....	7.73	1.97	2.07	2.54	...	.29	...	.86	5.03	1.92	1.26	1.85	2.70	1.16	1.54
29.....	7.00	2.21	1.52	1.94	...	.46	...	.87	5.34	1.61	2.02	1.71	1.66	.72	.94
1935															
Jan. 5.....	7.92	1.39	2.94	2.20	...	.41	...	.98	5.18	.68	2.30	2.20	2.74	1.26	1.48
12 ^d	9.36	1.77	4.23	2.19	...	.01	...	1.16	...	...	...	...	...	...	...

* Here converted from data in Broomhall's *Corn Trade News*. Dots (...) indicate no shipments reported.^a Including Uruguay.^c Mainly northern Africa, Germany, and France.^b Includes shipments of a total of about 1.6 million bushels from Black Sea ports to Vladivostok not included in Broomhall's cumulative totals.^d Preliminary.

TABLE VIII.—NET IMPORTS OF WHEAT AND FLOUR, MONTHLY FROM JULY 1934*

(Million bushels)

Month	British Isles			Three variable importers				Belgium ^b	Netherlands	Scandinavia				Switzerland
	U.K.	I.F.S.	Total	Total	France ^a	Germany	Italy			Denmark	Norway	Sweden	Total	
July	19.17	1.73	20.90	2.76	1.04	1.19	.53	3.25	1.47	1.59	.68	(.50)	1.77	1.52
Aug.	16.39	1.84	18.23	2.56	.89	1.43	.24	4.72	1.20	1.17	.62	(.02)	1.77	1.28
Sept.	18.59	1.26	19.85	3.85	2.54	.97	.34	5.18	1.66	.98	.89	.04	1.91	1.36
Oct.	16.49	1.85	18.34	.77	(.64)	1.47	(.06)	4.17	2.09	1.72	.63	.15	2.50	1.81
Nov. ^c	16.01	....	....	.36	(1.40) ^d	1.08	.68	2.98	2.09	1.80	.68	.16	2.64	1.44

Month	Austria	Czechoslovakia	Greece	Spain	Portugal	Finland	Latvia	Estonia	Lithuania	Four Baltic states	Egypt	Japan	New Zealand	South Africa
July .....	.91	.01	.33	.00	.10	.45	.00	.00	.00	.45	.02	.13	.07	(.00)
Aug. ....	.65	.00	1.12	.00	.08	.39	.00	.00	(.00)	.39	.04	.06	.06	.02
Sept. ....	.67	.01	.97	.00	.06	.30	.00	.00	.00	.30	.04	(.29)	.04	.23
Oct. ....	.72	.01	.67	.00	.05	.34	...	.00	.04	...	.15	.02	...	...
Nov. ^c .....	...	.00	...	.00	...	.38	...	.00	(.02)	...	...	(.02)	...	...

* Data from official sources and International Institute of Agriculture. Dots (...) indicate data are not available. Figures in parentheses represent net exports.

^a Net imports in "commerce général," compiled from *Statistique mensuelle du commerce extérieur de la France*.^c Figures for November are preliminary for many countries.^b Including Luxembourg.^d Net exports in "commerce spécial."

TABLE IX.—NET EXPORTS OF WHEAT AND FLOUR, MONTHLY FROM JULY 1934*

(Million bushels)

Month	United States ^a	Canada	Argentina	Australia	Four exporters	USSR	Hungary	Yugoslavia	Rumania	Bulgaria	Poland	Algeria	Tunis	India
July	1.60	14.70	17.00	7.73	41.03	.50	.18	.21	.00	.00	1.17	1.02	.58	(.07)
Aug.	2.60	16.44	18.99	8.52	46.55	(.54)	.88	.21	.00	.00	.39	1.39	.54	.37
Sept.	(1.35)	19.16	15.79	7.30	40.73	.47	.90	.73	.00	.00	.12	2.04	.35	.10
Oct.	(.25)	23.93	14.05	10.38	48.11	...	.92	.93	.00	.00	.12	1.56	.40	.11
Nov. ^b	(.30)	20.85	14.43	7.85	42.83	...	1.45	.69	...	.00	.07	...	...	.09

* See general footnote to Table VIII. Here figures in parentheses represent net imports.

^a Includes shipments to possessions.^b Figures preliminary for many countries.

TABLE X.—WHEAT DISPOSITION ESTIMATES, ANNUALLY FROM 1929-30*

(Million bushels)

Year	Domestic supplies			Domestic disappearance				Surplus over domestic use ^c	Net exports wheat and flour			Year-end stocks
	Initial stocks	New crop	Total	Milled (net)	Seed use	Balancing item ^a	Total ^b		Total	To Nov. 30	From Dec. 1	
	A. UNITED STATES (JULY-JUNE)											
1929-30.....	241	822	1,063	509	84	+ 23	616	447	143	78	65	304
1930-31.....	304	890	1,194	493	81	+180	754	440	115 ^d	72	43	325
1931-32.....	325	932	1,257	486	80	+179	745	512	127 ^d	64	63	385
1932-33.....	385	746	1,131	493	83	+128	704	427	36	23	13	391
1933-34.....	391	529	920	449	76	+ 77	602	318	28	4	24	290
1934-35.....	290	496	786 ^e	460	78	+103	641	145	(10) ^f	2	(12)	155
	B. CANADA (AUGUST-JULY)											
1929-30.....	104	305	409	43	44	+26	113	296	185	70	115	111
1930-31.....	111	421	532	42	39	+59	140	392	258	120	138	134
1931-32.....	134	321	455	42	37	+37	116	339	207	82	125	132
1932-33.....	132	443	575	42	36	+21	99	476	264	121	143	212
1933-34.....	212	282	494	44	33	+30	107	387	194	84	110	193
1934-35.....	193	276	469	44	34	+31	109	360	210	80	130	150
	C. AUSTRALIA (AUGUST-JULY)											
1929-30.....	41	127	168	32	18	+ 6	56	112	63	14	49	49
1930-31.....	49	214	263	34	14	+ 3	51	212	152	24	128	60
1931-32.....	60	191	251	32	15	- 2	45	206	156	33	123	50
1932-33.....	50	214	264	33	15	+11	59	205	150	15	135	55
1933-34.....	55	174	229	33	13	+12	58	171	86	26	60	85
1934-35.....	85	137	222	33	13	+ 6	52	170	120	35	85	50
	D. ARGENTINA (AUGUST-JULY)											
1929-30.....	130	163	293	60	26	- 9	77	216	151	71	80	65
1930-31.....	65	232	297	63	21	+ 8	92	205	125	15	110	80
1931-32.....	80	220	300	65	24	+ 6	95	205	140	25	115	65
1932-33.....	65	241	306	65	24	+10	99	207	132	27	105	75
1933-34.....	75	286	361	67	22	+ 7	96	265	147	33	114	118
1934-35.....	118	252	370	67	23	+ 5	95	275	190	64	126	85

* Based on official data so far as possible; see WHEAT STUDIES, December 1934, Table XXIX. Data for 1934-35, except initial stocks and new crops, are mainly our preliminary estimates.

^a Total domestic disappearance minus quantities milled for food and used for seed.^b Total domestic supplies less surplus over domestic use.^c Summation of net exports and end-year stocks.^d Too low; does not include some wheat shipped to Canada and eventually exported from there.^e Not including estimated net imports.^f Net import.