

WHEAT Situation



Table 1.--Wheat: Supply, distribution and prices, total and by class
July-June average 1965-69 and annual 1971-74 1/

Item and Year	Average 1965-69	1971/72	1972/73 preliminary	1973/74 projected	1974/75 Projected
----- Million bushels -----					
Beginning carryover	626	731	863	3/430	253
Production	1,426	1,618	1,545	1,727	1,894
Imports 2/	2	1	1	1	1
Total supply	2,054	2,350	2,409	2,158	2,148
Food 4/	515	526	526	528	530
Seed	66	63	66	77	76
Feed (residual) 5/	128	266	203	150	150
On farm where grown	(46)	(72)	(47)		
Domestic disappearance	709	855	795	755	756
Exports 2/	705	632	1,184	1,150	950
Total disappearance	1,414	1,487	1,979	1,905	1,706
Ending carryover	640	863	430	253	442
Privately owned--"Free"	(193)	(162)	(135)	(128)	
----- Dollars per bushel -----					
Price Support					
National average loan rate	1.25	1.25	1.25	1.25	1.37
Average certificate payment	.54	.54	.47	.47	
Season Average Price Received					
By non-participants	1.37	1.34	1.80		
By program participants	1.91	1.88	2.27		
----- Million bushels -----					
	Hard winter	Red winter	Hard spring 6/	Durum	White
----- Million bushels -----					
Average 1965-69					
Beginning carryover	358	19	180	43	26
Production	728	214	207	82	195
Total supply	1,086	233	387	125	221
Domestic disappearance	329	149	123	41	67
Exports 2/	391	63	89	38	124
Total disappearance	720	212	212	79	191
1971/72					
Beginning carryover	492	15	146	58	20
Production	747	212	366	92	201
Total supply	1,239	227	513	150	221
Domestic disappearance	431	166	134	37	87
Exports 2/	337	43	104	44	104
Total disappearance	768	209	238	81	191
1972/73					
Beginning carryover	471	18	275	69	30
Production	764	227	274	73	207
Total supply	1,235	245	550	142	237
Domestic disappearance	332	168	185	41	69
Exports 2/	700	68	200	65	151
Total disappearance	1,032	236	385	106	220
1973/74					
Beginning carryover	203	9	165	36	17
Production	970	163	330	85	179
Total supply	1,173	172	496	121	196
Domestic disappearance	330	144	176	42	63
Exports 2/	735	23	202	70	120
Total disappearance	1,065	167	378	112	183
Carryover	108	5	118	9	13

1/ Data by class, except production, are approximations. Projected disappearance figures should be regarded as midpoint of estimated ranges. 2/ Imports and exports include flour and other products in terms of wheat. 3/ Excludes grain in transit, the volume of which was abnormally large as of the survey date. 4/ Used for food in the United States, U.S. territories, and by the military at home and abroad. 5/ Residual; approximates feed use and includes negligible quantities used for distilled spirits and beer. 6/ Total supply of Hard Spring includes imports.

THE WHEAT SITUATION

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Wheat use in 1973/74 is expected to again exceed U.S. production, resulting in a further sharp stock reduction next summer.

The 1973 crop is estimated at a record 1,727 million bushels, 7% above the old record set in 1971 and 12% above 1972. However, because of reduced old-crop stocks, total supply is down a tenth from last season. Also there are prospects for another year of near-record demand. Exports continue strong and current indications point to a 1973/74 total near last year's record 1,184 million bushels. Shipments to the Soviet Union have tailed off, but the People's Republic of China, India, North Africa, and West Asia are taking up the slack. Although domestic use will be down a little this season, total disappearance will again exceed the harvest, dropping stocks by the summer of 1974 to around 250 million bushels, the least since 1948.

Recent wheat prices reached record highs, reacting to heavy early season exports, vigorous mill demand, and continued transportation bottlenecks which have reduced the availability of market supplies. Farm prices eased to \$4.22 per bushel in October after reaching \$4.62 in September. For the remainder of the marketing year, prices are likely to ease further if a record world harvest of grains is forthcoming and prospects are favorable for the 1974 crop.

The record 1973 world wheat harvest reflects larger acreages and generally favorable growing conditions, with most of the gain coming in the major exporting countries and the USSR. USSR imports are expected to be down sharply from the 15 million metric tons in 1972/73 but that decline will be nearly offset by increasing requirements elsewhere. World import demand in 1973/74 may be down only modestly from last year's record 73.5 million metric tons. The increased supply without increased trade points to some easing in world wheat prices.

Hard Red Winter (HRW): Despite a record crop, smaller stocks reduced 1973/74 supplies. Total use is expected to soar to over a billion bushels, with record exports again leading the way. As a consequence, stocks by the summer of 1974 will plummet to around 100 million bushels, smallest in 22 years.

Soft Red Winter (SRW): A sharply smaller crop resulted in a 30% reduction in supplies. The smaller

supply has prompted a sharp cutback in exports and increased use of other wheat classes in pastry and cake flours.

Hard Red Spring (HRS): The harvest of a large, high-quality 1973 crop puts HRS in the best supply position of any wheat. This abundance has encouraged substitution of HRS for HRW in some flour blends and led some importing countries to switch to HRS from scarcer wheats.

Durum Wheat: Smaller supplies this year are being buffeted by a strong world import demand and increasing consumption of durum-based foods at home. The apparent early season tightness of supplies skyrocketed durum prices. During July to August, prices at the major markets tripled then receded to \$5-6 per bushel in recent weeks.

White Wheat: A weather-plagued crop and sharply reduced stocks dropped total supplies to the lowest level since the early 1960's. Disappearance is also expected to contract, but stocks by the summer of 1974 could shrink further.

The outlook for 1974/75 points to some buildup in stocks for the first time since 1971/72. Wheat acreage for the 1974 crop could possibly increase 10% to 15% from this year's level, yielding a record crop of around 1.9 billion bushels. Demand, spearheaded by exports, is expected to continue strong in 1974/75, but will likely tail off from current levels, falling below the projected crop. The first official estimate of winter wheat seedings will be released December 21. Planting intentions for spring wheat will be released in January.

THE SITUATION AND OUTLOOK FOR 1973/74

Supply Down 10% for the Season

Wheat supplies for 1973/74 are estimated at 2,158 million bushels, down 10% from last season (table 1). Though the 1973 wheat crop was a record, a sharp reduction of 433 million bushels in beginning stocks was more than offsetting. Stock reductions occurred in all major wheat classes.

This year's wheat crop, at 1,727 million bushels is up 12% from last year. Harvested acreage rose 14% to 53.7 million acres. Very favorable growing conditions in the Southern Plains and increased acreage were largely responsible for the production spurt. This shows up in larger crops of Hard Red Winter, Hard Red Spring, and Durum. On the other hand, soft wheat production was down sharply, largely because of winterkill and drought in the Northwest and excessive moisture in the Eastern soft wheat region. In spite of relatively poor growing conditions in 3 major wheat areas—the Northern Plains, the Pacific Northwest, and the Eastern Corn Belt—the national average yield per harvested acre of 32.1 bushels was still the third highest. Contributing to this relatively high level were increased fertilization, increased use of high-yielding varieties, and, of course, favorable growing conditions in the Central and Southern Plains.

Exports Pushed July-September Use to Record

Wheat stocks in all positions on October 1 totaled 1,475 million bushels, off a fifth from a year earlier. Farm stocks were down 12% while off-farm holdings dropped 26%. The fact that farm stocks were down only 12% reflects in part the shortage of rail cars at country points, particularly in the Central and Northern Plains. Disappearance during July-September totaled a record 682 million bushels with

exports of nearly 400 million accounting for nearly all of the bulge.

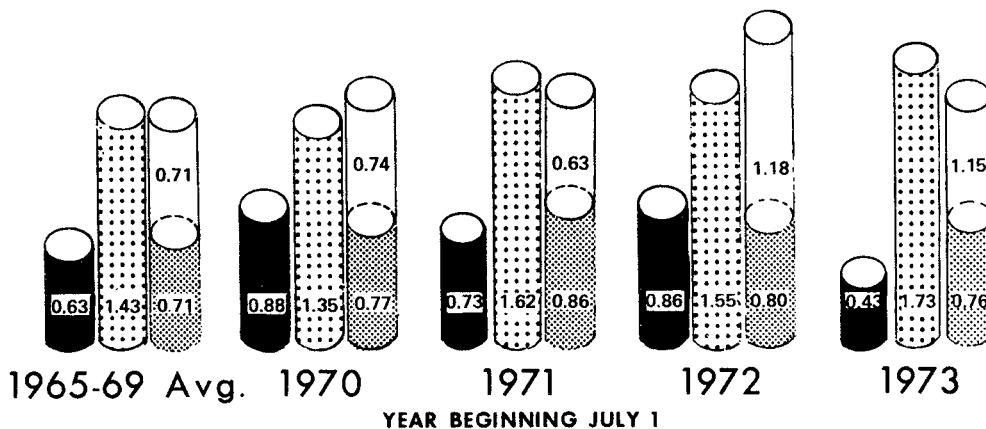
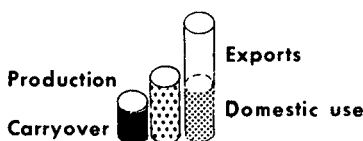
Item	July-September	
	1972	1973
	<i>Million bushels</i>	<i>Million bushels</i>
July 1 stocks	863.1	429.6
Production	1,544.8	1,726.8
Imports2	.3
Total supply	2,408.1	2,156.7
Exports	213.4	395.7
Food	132.4	134.5
Seed	24.2	28.0
Feed	172.5	123.3
Total disappearance	542.5	681.5
October 1 stocks	1,865.6	1,475.2

Food use at 135 million bushels was up slightly from July-September 1972, in part because of high prices of other foods. Record first quarter exports and heavy early season commitments substantiate the continuation of near record world import requirements for 1973/74. This pattern of heavy first quarter shipments was far different from a year ago when the bulk of the large Soviet purchases began moving only after the maritime agreement was completed in November 1972.

The residual estimate of wheat feeding for July-September totaled 123 million bushels, off about 30% from a year ago but still surprisingly large in view of soaring wheat prices during the quarter. However, the price runup did not begin until mid-July, and even though new crop prices in June and early July were strong relative to recent years, wheat as a feed in the

WHEAT SUPPLY AND DISAPPEARANCE

BIL. BU.



1972 - PRELIMINARY. 1973 - PROJECTED.

U.S. DEPARTMENT OF AGRICULTURE

NEG. ERS 8997-73 (11) ECONOMIC RESEARCH SERVICE

Southwest and Southeast was still competitive with the major feed grains.

Bread Prices Jump During July-September¹

In September the retail price of a 1-pound loaf of bread jumped 2.3 cents to 29.5 cents (table 9). This was by far the largest monthly increase on record. From the inception of the Economic Stabilization Program in August 1971 through August 1973, the retail price of bread rose 2.3 cents but the farm value of farm ingredients alone increased 3.1 cents.

In August, wheat prices rose rapidly. This is reflected in August calculations showing wheat and flour costs up 2.2 and 2.3 cents a loaf, respectively. But with Phase 3 still partly effective, bakers could not pass on all of these costs and their spreads shrank. However, in September with Phase 4 fully effective, prices moved up and the baker-wholesale spread increased a record 2.6 cents a loaf.

The farm-retail spread, which reflects marketing charges, increased from 20.6 cents in August to a record 22.5 cents in September. The farm-retail

spreads may increase further as costs other than ingredients climb and are passed through.

The price spread of millers who have operated under the volatile price ruling widened to a high in

White pan bread: Estimated prices, spreads, and values for selected months

Item	Aug. 1971 ¹	July 1973 ²	Aug. 1973 ²	Sept. 1973 ²
<i>Cents per 1-pound loaf</i>				
Retail price	24.9	26.5	27.2	29.5
Retail spread	5.5	5.6	5.2	5.1
Baker-wholesaler spread	13.6	13.9	12.2	³ 14.8
Miller spread	0.7	0.9	1.2	1.0
Other ⁴	1.6	2.0	2.0	1.7
Farm value	3.5	4.1	6.6	7.0
Wheat	2.6	2.8	5.0	5.6
Other items	0.9	1.3	1.6	1.4

¹ Includes the value of the processor marketing certificate.
² Reflects the suspension of the processor marketing certificate.
³ Due to rounding does not equal difference between wholesale price and cost of ingredients. ⁴ Charges for transportation, handling, storing all ingredients, for processing ingredients other than flour and cost of nonfarm produced ingredients such as yeast, salt, and malt extract. This spread is a residual figure computed from data as rounded.

¹Contributed by J.C. Eiland, Grains Program Area, Commodity Economics Division, Economic Research Service.

August of 1.2 cents a loaf of bread, then narrowed 0.2 cent in September.

With passage of the Agriculture and Consumer Protection Act of 1973, the wheat marketing certificate which was paid by processors and passed on in product prices, was suspended retroactive to July 1.² This was noticeable in the July estimates of bread costs which showed a 1.1 cent per loaf reduction from June in both the farm value of wheat and the cost of flour to bakers. This was also reflected in an equivalent increase in the farm-retail spread. Since it was generally reported that bakers' contracts with millers stipulated that any retroactive application of the certificate suspension would be rebated to bakers, flour prices were adjusted down to reflect the certificate savings. Thus, the computed July baker-wholesaler price spread was 1.0 cent larger than if the certificate program had remained in effect.

Domestic Use Lower for the Season

Less wheat feeding will be responsible for a modest reduction in domestic use in 1973/74. Wheat feeding is estimated at 150 million bushels. With 123 million already accounted for during July-September, only 27 million bushels would be fed during the remainder of the season. The August increase in wheat prices relative to corn, sorghum, and barley suggests that little wheat will be purchased for feeding.

Food usage is expected to increase modestly as consumers substitute wheat products, particularly the pastas, for higher priced foods. Seed use will be up substantially reflecting the anticipated increase in planting for the 1974 crop.

Another Boom Year for Exports

U.S. exports for the 1973/74 marketing year are estimated at 1,150 million bushels, nearly up to last season's record. World import requirements remain strong this season even in the face of a record grain harvest in the Soviet Union. Import demand continues to grow in Asia, Latin America and parts of Africa.

This demand has led to phenomenal early season sales and shipments. Exports, averaging 30 million bushels on a weekly basis, already totaled over 500 million bushels through one-third of the marketing year. Although wheat shipments to the Soviet Union will be down sharply from last year, there will be increased shipments to the People's Republic of China, India, North Africa, and West Asia.

²Under the Agricultural Act of 1964 as amended by the Acts of 1965 and 1970 all processors of wheat for food were required to acquire and surrender a domestic marketing certificate equivalent to the number of bushels contained in each of their products. The certificate cost was 70 cents per bushel in 1964 and 75 cents thereafter.

The pace of 1973/74 wheat shipments will slacken as the navigation season for the Great Lakes closes and exporters begin to ship new crop corn, sorghum, and soybeans. As of October 28, reported undelivered export sales to known destinations totaled 600 million bushels and 237 million bushels were reported to unidentified destinations (table 6).

Although the total impact of devaluation of the U.S. dollar is still not clear, it appears that devaluation has contributed to some increase in import demand.

Prices Climb to Record Levels; May Ease

Heavy early season export sales, processor demand, and transportation bottlenecks which still restrict potential marketable supplies were responsible for a rapid price runup in July and August that set new records daily. Mid-month national farm prices averaged \$4.45 per bushel in August and \$4.62 in September. With prospective carryouts for 1973/74 at very low levels, market prices have been extremely sensitive to developments. For example, strong domestic and export demand and uncertainty about the size of the U.S. crop sent durum prices scurrying from about \$3.50 per bushel in mid-July to \$9.40 in mid-August. After new crop supplies became available, durum prices declined sharply to levels similar to other wheat classes (table 7).

U.S. average wheat prices moved lower in October with mid-month farm prices averaging at \$4.22 per bushel. This downtrend was largely caused by export uncertainties emanating from the Middle East conflict, the announcement by the Soviet Union of a record grain crop, and reports of generally larger than anticipated world grain supplies.

Prices for the remainder of the marketing year may fluctuate down if a record world harvest of grains is forthcoming and prospects are favorable for the 1974 crop.

Carryover to Drop Sharply

Disappearance for the season may total near last year's record of 1,979 million bushels. This, matched against the production estimate of 1,727 million, results in another sharp reduction in carryover next summer to around 250 million bushels, the least since 1948. This level would indicate an extremely tight supply situation until new crop harvest becomes available. In our wheat accounts, July 1 carryover includes *only old crop* wheat. Normally by July 1 a substantial portion of the new winter wheat crop in the Southern Plains and the Southeast is available for marketing. However, new crop supplies of spring wheats and white wheat in the Northwest are usually not available for another month.

CCC Activity Light

Loan placements of the 1973 crop have been half those of a year ago (table 16). By October 31 participating growers had placed only 55 million bushels under loan. Over a third of this has already been redeemed. This reflects grower response to the high cash prices. With prices at record levels, the quantity placed under loan this season can probably be tied to marketing strategies in deferring income, or

transportation bottlenecks which have in effect acted as a moratorium for sales where grain was not able to move.

While CCC wheat stocks have been nearly all committed for several months, commitments held in CCC inventories remain large. This is largely due to transportation bottlenecks which have not permitted the supplies to move into marketing channels. In early November, CCC held only about 5 million bushels of uncommitted wheat with 184 million bushels committed for delivery.

THE SITUATION AND OUTLOOK BY CLASSES

The demand outlook this year for the major classes of wheat produced in the United States is more uncertain than usual. Reports on anticipated exports implied a demand so heavy for some classes that supplies appeared to have been oversold. High prices and the inability to procure supplies when needed have apparently increased the amount of substitution between classes and in some cases between grains. The prospective short supplies at year-end will magnify interest in development of the 1974 crop, principally because wheat users are apt to be more dependent on new crop supplies.

A number of forces are affecting mill grind of HRW this year. The lower average protein of the HRW crop and lower prices for HRS relative to HRW will encourage continued substitution of HRS for HRW. In turn, scarce supplies of SRW are encouraging increased use of fractions from low protein HRW in cake and pastry flours. Although there appears to be some constraints on how much hard wheat can be substituted for soft, some substitution takes place each year, particularly in the border States where both HRW and SRW are readily available. On balance, total domestic use of HRW may differ little from last year's 332 million bushels.

Record HRW Disappearance

HRW wheat supplies at the beginning of the 1973/74 crop year were the smallest since 1968. This occurred in spite of a record 1973 harvest of 970 million bushels.

Test weight of the crop was about normal but overall protein content was somewhat below average. Kansas, Oklahoma, and Texas were especially short of the higher proteins. Availability of 13.5% or higher protein HRW is expected to be very limited this year, but bread baking quality of the flour is better than expected, considering the lower protein found in most of the crop.

In the face of this year's smaller supply, demand continues strong. Exports of HRW in 1972/73 totaled a record 700 million bushels. Reports to date indicate that exports could increase further this season. The USSR and PRC have each contracted for amounts in excess of 100 million bushels. This is on top of the sales to our traditionally large customers such as Japan and the European Community. Shipments during July-September to all destinations already totaled over a quarter billion bushels. Feeders in some sections of the Great Plains and the Southwest apparently found prices of early new crop wheat competitive with those of sorghum and corn. Thus, they included wheat in the ration. But the sharp jump in wheat prices in August compared to smaller moves for corn and sorghum likely curtailed wheat feeding.

With total use continuing in excess of a billion bushels compared with a crop just short of a billion, stocks will fall again by the summer of 1974 to around 100 million bushels. This would be the smallest in 22 years. New crop wheat will be available in May and June to supplement these low stocks next summer. Typically the HRW harvest has progressed through Texas, Oklahoma, and into Kansas by July 1.

Prices of HRW at Kansas City have reacted to prospects that supplies during 1973/74 may have been over committed. From a harvesttime low of \$2.60 per bushel, prices began to rise, hesitating only briefly when passing through the \$3 and \$4 hurdles on their way to topping out in mid-September at over \$5. Prices have eased some in recent weeks, but any subsequent moves will depend largely on the development of 1974 crops.

SRW Supplies Off Sharply

Beginning supplies of SRW at 172 million bushels were the smallest since 1957. Adverse weather plagued the 1973 SRW crop from start to finish. First, wet weather restricted seedings last fall. Then wet weather this spring resulted in a reduction of around 30 to 40 million bushels in the production estimate as the growing season progressed. However, quality of the 1973 crop is satisfactory for most baking needs.

Domestic users of SRW face a troublesome supply-demand situation in 1973/74. Total supplies appear

to be only slightly larger than their needs, and this is in the face of what appears to be insatiable world demand for U.S. wheat. However, rapidly rising SRW prices during the first quarter served to ration supplies among the alternative users, including feeders. Export demand has weakened and may total only a third of last year's 68 million. Also with lower protein HRW at times trading 20-30 cents per bushel under SRW, substitution has taken place.

Disappearance will likely again exceed the harvest, resulting in an additional drawdown in stocks to bare pipeline levels by the summer of 1974. These stocks can be supplemented by early new crop supplies which should become available in late May and early June. The most critical situation will likely be in the heavy producing and milling areas of the North Central States where new crop supplies are not usually available until late June.

Harvesttime prices of SRW were holding slightly below \$3 per bushel. As the season progressed and concern about the adequacy of supplies arose, prices surged. By late September and early October, SRW in the interior was more highly valued than hard springs and winters.

HRS Demand Continues Strong But Supplies Relatively Large

Those in the market for HRS in 1973/74 appeared to be in for a more normal supply situation. September saw the wrap-up of a large, high-quality harvest, a situation normally leading to prices not far above the loan. But heavy world import demand in 1972/73 led to large HRS exports of 200 million bushels and a sharply reduced carryover. Early 1973/74 indications point to another year of large HRS exports and a vigorous demand for blending domestically. Thus, supplies will likely continue to tighten and carryover stocks will fall again. In contrast to the winter wheats, HRS carryover supplies on July 1 must stretch into August before new crop supplies become readily available.

The principal factors contributing to the heavy mill grind of HRS this year are abundant supplies of high protein HRS and short HRW protein supplies. Dry growing conditions led to increased protein, perhaps around a half-percentage point. Average test weights slipped in Western Montana and North Dakota. Excellent baking strength is indicated, while loaf volume and overall baking quality appear to be very good.

Prices of HRS at Minneapolis have generally followed the same route as those of other classes. From their harvesttime lows of around \$3 per bushel, prices peaked at around \$5 in late September. Heavy early season demand for wheat, regardless of protein content, along with abundant supplies of higher protein hard springs, resulted in virtually no premiums for protein. Recent weeks have seen some

premiums applied to higher proteins as domestic millers moved to satisfy their requirements.

Durum Food Use Surges; Prices Orbit But Return

The 1973/74 crop year for durum thus far has been highlighted by a scare that apparent export demand was so strong that supplies for domestic milling could be deficit. The result was price movements unparalleled in the U.S. wheat industry.

Strong demand in 1972/73 resulted in a sharp drawdown in durum stocks, but as a partial offset, farmers reaped a large 1973 harvest. Thus, 1973/74 supplies are only about 20 million bushels below the previous year's large total. As harvest began, reports on anticipated export sales indicated that the 1973 harvest had already been contracted for export. Thus, millers were faced with the prospects of meeting a swelling demand for durum products from supplies which appeared to be barely adequate to cover a year's grind with little left to seed the 1974 crop or to cover needs until new crop supplies become available next August. This set the stage for a most dramatic market performance. No. 1 Hard Amber Durum at Minneapolis skyrocketed from around \$3 per bushel in early July to over \$9 in mid-August. Prices fell back to \$5-\$6 per bushel in October, but concern persists about the adequacy of supplies. Overall quality of the 1973 durum crop has been good.

The general increase in prices of competing foods has proven a bonanza for manufacturers of pasta products. During the July-September quarter, durum grind was running about 10% above a year ago. In addition, high prices and the inability to obtain semolina encouraged use of farina in some lines of pasta products. Thus the higher durum grind does not portray all of the increase in pasta consumption.

White Wheat Supplies Slip

A weather-plagued crop and sharply reduced stocks plunged white wheat supplies for 1973/74 to their lowest level since the early 1960's. The 1973 wheat harvest in the Pacific Northwest, the major white wheat producing area, may have been one of the fastest on record. The overall quality averaged good despite poor yields from winterkill and drought. Protein readings averaged 10.9% for soft white and 10.7% for white club wheat.

Smaller supplies and higher prices will likely cut into domestic use again this year. Food use should continue near recent levels. But with wheat prices almost double those of other grains, feed use will slump.

White wheat exports will likely contract from last year's record level of 151 million bushels. Through mid-October export inspections plus anticipated

exports totaled around 115 million bushels. Japan has been the leading importer followed by South Korea and the PRC.

Concern about new crop supplies held white wheat

prices at Portland over \$3 per bushel even during harvest. In August, prices climbed to over \$5 and during September and October white wheat was the only class to consistently average over \$5 per bushel.

WORLD WHEAT SITUATION AND OUTLOOK¹

Harvest of Record 1973 Crop in Final Stage

Expanded area and generally favorable growing conditions have produced a 1973 world wheat crop of 355 million metric tons, 24 million tons above last year and 4% above 1971, the previous record (table 21). Most of the increase in the 1973 crop occurred in the USSR, the United States, Australia, Canada and the People's Republic of China. However, recent reports indicate some deterioration in crop prospects in Australia. Argentine production, which has been hampered by excessive rainfall, is estimated to be down about 1.5 million tons. West European production is down slightly from last year. North African and West Asian wheat crops dropped by 0.6 and 2.2 million tons, respectively.

Highlighting the improved world prospects was the recent announcement that the Soviet Union harvested a record 215 million tons of total grain (gross basis) this year. A harvest this size would exceed the previous record 1970 crop of 186 million tons by 15%. However, because of heavy harvesttime precipitation over large areas of both European and Asiatic USSR the quality of the 1973 grain crop is probably below average. Preliminary estimates of the breakdown of the 215 million ton crop suggest a wheat crop of roughly 105 million tons. If so, the wheat harvest would be a new record, about 5% larger than the 1966 record and about a fifth above last year's crop.

Consumption Rising Faster than Population

World wheat consumption for at least the last decade has generally increased at a rate just faster than population growth. In the developed regions declining per capita use of wheat for food has generally been offset by increased feed use. In some regions, such as East Asia and Latin America, as incomes rise wheat products replace traditional diet staples such as rice, coarse grains, pulses, and cassava.

Wheat disappearance in the 1972/73 marketing season rose 6% to a new record level (table 21). Since the world wheat crop was down 9.5 million tons, the

increased consumption came from stocks of the major supplying countries. Disappearance was up in the Soviet Union, the United States, Canada, and other West Europe but was down in Japan, Brazil, and India. Last year's apparent increase in wheat use was particularly large for the European Community (EC), the USSR, India, Bangladesh, and Pakistan.

Consumption is expected to rise again in 1973/74 but at a slower pace. Increases are expected for Japan, South Korea, and Brazil in keeping with normal trends. The large increase in wheat use last year in the EC probably was partly due to larger feed usage and increased consumption of pasta products to offset high meat prices. But with larger coarse grain and protein supplies, wheat consumption in the EC may decline slightly this year because of less feeding.

Last year's increase in wheat use in the USSR, the People's Republic of China, India, and Bangladesh came as wheat was used to meet production shortfalls of forages and other grains particularly rice. Similar increases in wheat consumption are unlikely this year because better weather has improved grain and forage crops.

1973/74 Wheat Trade a Little Lower

Despite a record wheat crop, world import demand for 1973/74 is expected to be down only modestly from last year's record 73.5 million tons (table 20). The Soviet Union is the only major importer expected to show a sharp decline in imports (9.4 million tons). Since a good portion of this year's production spurt was in traditional exporting countries, the strength in import requirements is due to crop shortfalls or demand growth in the importing countries. These include: (1) lower grain production in North and Central Africa and West Asia, requiring larger imports to fill needs; (2) growing import demand in Asia, where higher incomes have spurred demand for wheat; (3) immediate food needs of India, Bangladesh, and other East Asian countries to fill deficits caused by last season's poor rice and coarse grain crops; (4) the EC need to import more to offset a slight decline in its 1973 wheat crop; and (5) large imports by the People's Republic of China.

Present exportable supplies of wheat are concentrated in the United States, and Canada where the 1973 harvests have been completed. Additional exportable supplies will be available with the start of

¹Based on "World Grain Supplies Improve", FG-12-73, Foreign Agriculture Service, U.S. Dept. Agr., October 26, 1973, and reports from the Foreign Demand and Competition Division, Economic Research Service.

the Australian and Argentine harvests in December.

Given the above conditions and the uncertainty of crops in many countries, early season U.S. export sales have been unusually large (table 4). Some of these purchases may have been to ensure adequate supplies in event of crop failures and to increase stock levels to provide a larger safety margin.

For the 1973/74 season, U.S. and West European shipments are expected to approach 1972/73's records. Canadian and Argentine exports are each forecast down 2 million tons, while shipments from Australia and the USSR may each be up about 1.5 million tons.

World Prices Level Off After Rapid Climb

The rapid ascent of U.S. wheat prices in July and August was quickly and fully reflected in similar movements in world markets. End of the month quotes at Rotterdam showed August prices \$2 per bushel or more over June.

Late September and October price quotations for U.S. wheats were down from the end of August while prices of Canadian CWRS 14 continued to climb. Hence the price differential between CWRS and DNS has widened from 20-30 cents per bushel in early 1973 to around 70 cents. The Canadian pricing policy may be an attempt to take advantage of the suspension of the rail incremental payment program for U.S. HRS wheat shipped to Gulf and Atlantic ports when River and Great Lakes navigation are closed.¹

During the period when world wheat prices moved above EC internal price levels, the EC import levies

were reduced to zero for the first time since the levy system was implemented in the early 1960's. EC import levies have been as high as 110% of CIF wheat values.

PRC Announces Large Wheat Purchases

Canada and Australia recently announced new, long-term wheat export agreements with the People's Republic of China covering calendar years 1974, 1975, and 1976. These came on the heels of expiring agreements which included 1.7 million tons between April and September 1973 from Canada and a million tons during calendar year 1973 from Australia.

The Canadian agreement calls for the sale of 179 to 224 million bushels (4.9 to 6.1 million tons) over the 3 calendar years. Contracts will be negotiated for the sale of specific amounts. The first contract is for a million metric tons for shipment from January to June 1974. A contract for a similar amount for shipment July-December 1974 is to be concluded at a later date. As in previous agreements, the terms call for payment of 25% cash when each vessel is loaded with the balance in 18 months with interest, the rate of which was not announced.

The Australian agreement, which follows a 3-year Umbrella Trade Agreement granting each country most favored nation trade treatment, calls for shipment of 4.7 million tons, also over a 3-year period.

These new agreements appear consistent with previous 1973/74 estimates of PRC wheat imports of 6.5 million tons. In addition there are now indications that the PRC has already contracted for 1.5 million tons from Canada and Australia for 1974/75.

PRC wheat purchases from the United States are estimated at 4 million tons for 1973/74 and sales for 1974/75 are currently listed at 350,000 tons.

¹For a discussion of the rail incremental payment program see August *Wheat Situation*, 1973.

Daily wheat prices at Rotterdam, the Netherlands, CIF

Classes and year	May 29	June 26	July 31	August 28	September 25	October 23
	<i>Dollars per bushel</i>	<i>Dollars per bushel</i>	<i>Dollars per bushel</i>	<i>Dollars per bushel</i>	<i>Dollars per bushel</i>	<i>Dollars per bushel</i>
United States						
HRW 13.5%						
1972	1.82	1.77	1.82	1.99	¹ 2.50	¹ 2.54
1973	3.42	3.57	4.27	5.74	¹ 5.73	¹ 5.62
DNS 14%						
1972	1.88	1.86	1.90	2.04	2.59	2.54
1973	3.50	3.59	4.31	5.85	5.77	5.46
Canada						
CWRS 14% No. 1						
1972	1.98	NQ	2.04	2.26	2.82	2.74
1973	3.84	NQ	NQ	5.76	6.29	6.18

¹ 12% protein.

Basis: 30 to 60 days delivery.

USSR Winter Grains Off to

Good Start

Winter grain plantings in the Soviet Union progressed normally this fall and it was announced on October 31 that 35 million hectares, up 1.8 million from October 15, or 101% of the planned area had been sown. Soil moisture has been better than normal and winter grain is reported in good condition.

USSR: Fall seeding progress as of October 15

Year	Planned area	Sown area
	Million hectares	Million hectares
1968	39.0	34.1
1969	38.0	33.1
1970	36.0	33.0
1971	35.0	31.4
1972	34.0	24.8

OUTLOOK FOR 1974/75

With the enactment of the Agricultural and Consumer Protection Act of 1973 in August and subsequent announcements of the 1974 wheat, feed grain, and cotton programs, winter wheat growers have for the first time in several years a full set of program details upon which to plan their operations. The following are major program provisions affecting wheat planting decisions:

- 1) No set-aside requirements and no planting restrictions on conserving base.
Loan rates, available to participants on total production (per bushel). a) Wheat—\$1.37
b) Corn—\$1.10
c) Sorghum—\$1.05
d) Barley—\$.90
e) Oats—\$.54
f) Rye—\$.89
- 3) Allotment or pay bases.
a) Wheat—55 million acres
b) Feed grains—89 million acres
- 4) Target or guarantee prices applicable to projected production from allotment acres (per bushel).
a) Wheat—\$2.05
b) Corn—\$1.38
c) Sorghum—\$1.31
d) Barley—\$1.13
e) Oats and rye—none

Larger Plantings Anticipated; Wet Weather Delays Seedings

Current high wheat prices and prospects for another strong demand year, as reflected in wheat futures contract prices, along with no planting restrictions are expected to encourage wheat producers to expand wheat plantings 10 to 15%. However, very wet weather in the Plains for several weeks hampered field work, preventing seeding or requiring large areas of winter wheat to be reseeded. The delayed seeding and the inability to use sufficient fertilizer may tend to lower yields. Better weather during the latter part of October allowed growers to return to fields and complete seedings by

mid-November. The early condition of the winter wheat crop is good. The wet weather now appears to be more production positive than negative since moisture is the main factor determining year-to-year changes in yields. Winter wheat seedings will be reported by the Statistical Reporting Service on December 21 while farmers' intentions to seed the 1974 spring wheat crop will be released in mid-January.

Strong Disappearance Again Next Season

Assuming world grain supplies return to more normal levels, total U.S. wheat disappearance could be down substantially in 1974/75, but still large in relation to recent averages. Projected exports at 950 million bushels are down around a fifth from this year but still would be the third largest. Such a reduction would largely reflect smaller shipments to the USSR, the People's Republic of China, and India.

Stocks Likely to Increase

If yields are on trend, the 1974 U.S. wheat crop could reach a record 1.9 billion bushels, substantially above estimated disappearance. Thus, carryout in the summer of 1975 would increase around 200 million bushels to 440 million. Should this occur, prices are likely to soften considerably but still remain quite high in relation to the levels of the late sixties and early seventies.

Fertilizer Tight for Wheat Growers¹

An unusually strong fertilizer demand this fall has been apparent in winter wheat areas. This demand is closely related to the prospects for a strong demand and a substantial expansion in seedings for the 1974 crop. In some areas there has been a tendency to increase the rate of fertilizer application for wheat and for more growers in the Great Plains to use fertilizer on wheat.

¹Based on a report by Pat Weisgerber, Grains Program Area, Commodity Economics Division, Economic Research Service.

Percentage of wheat fields receiving fertilizer, and rate, per acre in selected States¹

Year	Acres receiving				Rate per acre receiving		
	Any fertilizer	N	P ₂ O ₅	K ₂ O	N	P ₂ O ₅	K ₂ O
	Percent	Percent	Percent	Percent	Pounds	Pounds	Pounds
1964	50	47	36	16	27	27	19
1965	52	48	38	15	31	20	35
1966	54	49	38	15	32	32	37
1967	58	53	43	17	35	32	39
1968	60	56	43	17	36	32	36
1969	59	56	44	17	38	34	39
1970	63	61	44	20	39	30	36
1971	58	57	41	14	40	34	36
1972	63	62	44	15	46	37	38
1973 ²	64	63	45	17	47	38	36

¹ States included are Colorado, Idaho, Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, Montana, Nebraska, North Dakota, Ohio, Oklahoma, Oregon, South Dakota, Texas, and Washington. ² Preliminary.

Source: 1973 Fertilizer Situation, Economic Research Service, U.S. Department of Agriculture.

Supplies of fertilizer have fallen short of meeting this increased demand. Reports of spot shortages in a number of winter wheat regions particularly the Central and Southern Great Plains have become persistent. Most dealers are receiving fertilizer supplies on an allocation basis but allocations have not satisfied the growing demand. One problem has been logistics—a lack of boxcars to move the fertilizer.

Another problem rose because of increasing exports of fertilizer. Export demand for fertilizer is up substantially; both nitrogen (N) and phosphate (P₂O₅) exports increased 30% in 1972/73. Higher world prices for farm products, more purchasing power among foreign buyers, and U.S. dollar devaluations have all contributed to the increased export demand for U.S. fertilizer.

The current level of U.S. exports is also related to the two-tier price system which developed out of the Economic Stabilization Program. Domestic prices of fertilizer had been controlled, while export prices were permitted to rise with higher world market price. When wage and price controls on the fertilizer industry were removed on October 25, export prices were running \$30 to \$40 per ton higher than domestic prices. This price disparity will probably narrow as U.S. prices rise to world levels.

Reports indicate that less fertilizer than usual was applied on a good portion of the winter wheat seeded in the Central and Southern Plains. This was mainly due to the wet weather in Kansas, Nebraska, and Oklahoma which delayed wheat seeding to the extent that growers elected to forego the use of anhydrous ammonia rather than wait several more days for additional drying to permit sub-surface application. By foregoing anhydrous ammonia, wheat could be planted as soon as the ground surface was sufficiently dry for machinery operations. Ammonium nitrate or other mixed fertilizers could have been applied as substitutes at seeding but these were the fertilizers in short supply.

The extent to which 1974 wheat yields will be affected is uncertain. Fields can be top-dressed with dry or liquid fertilizer in late winter or early spring. But anhydrous ammonia cannot be applied then, and phosphate fertilizer is ineffective as top-dressing. Of course, there is an uncertainty whether sufficient dry or liquid nitrogen will be available. And if supplies are tight, there is uncertainty whether fertilizer will be used on wheat or feed crops. In the more humid (continuous wheat) part of the Eastern Great Plains there may be a tendency to give feed crops a priority on scarce fertilizer supplies to assure farmers of feed for livestock operations.

THE AGRICULTURE CONSUMER AND PROTECTION ACT AND THE 1974 WHEAT PROGRAM¹

The Agriculture and Consumer Protection Act of 1973, enacted on August 10, amends the Agricultural

Act of 1970 and is effective for the 1974-77 crops. On the basis of this legislation, the 1974 wheat program was announced on August 19. The following are the salient features of these Programs as applied to wheat.

... There will be no acreage set-aside requirements

¹For additional details on the 1974 wheat program and a comparison with last year's program, see table 0).

for 1974 and no conserving base requirements for the 4 year life of the legislation.

... The national average loan rate for 1974 crop wheat is set at \$1.37 per bushel, 12 cents over the 1973 loan.

... The target or guarantee price is set at \$2.05 per bushel. If the average market price during the first five months of the marketing year (July-November) for all wheat is \$2.05 or more, there will be no payment. If the average market price falls below \$2.05 per bushel, participating producers will receive a payment representing the difference between \$2.05 per bushel and the higher of the national average loan rate (\$1.37 per bushel) or the average market price. Payments will be made on the number of bushels equal to the farm allotment times established farm yield. There will be no preliminary payment. Any payment due will be paid after December 1, 1974.

... Target prices will be adjusted during the last 2 years of the program (1976 and 1977) to reflect

changes in prices paid by farmers for production items, interest, taxes, and wages. Target prices will also be adjusted to reflect changes in yields.

... The domestic allotment concept which was in effect under the 1970 Agriculture Act has been eliminated. The national allotment will be 55 million acres. This represents the number of harvested acres, based on the projected average yield, needed to produce a quantity (less imports) equal to estimated domestic and export disappearance in the 1974/75 marketing year. This allotment is not a constraint on the amount of wheat that can be planted, but provides the basis for making payments to farmers.

... The total amount of payments a person may receive under one or more of the annual programs may not exceed \$20,000.

... The new Act suspends the requirements that processors purchase certificates valued at 75 cents per bushel for all wheat processed for human domestic consumption.

HIGHLIGHTS OF THE RYE SITUATION

Rye supplies for 1973/74 total 59.3 million bushels, down a fifth from a year ago and the smallest since 1970/71. Stocks this summer at 33.3 million bushels were off about a fourth from the preceeding year's very high level. Less than a million bushels were privately held. The 1973 crop is currently estimated at 25.5 million bushels, 14% below a year ago and only about half the large 1971 crop. Both acreages and yields fell from the 1972 level.

October 1 rye stocks plummeted to 36.2 million bushels, down 42% from a year earlier and the smallest October 1 stocks since 1968. Off-farm stocks showed the sharpest drop. Indicated July-September disappearance of 22.6 million bushels was almost double that of a year earlier. Exports continued to surge with large sales to the USSR accounting for most of the bulge. As of late October the USSR still had around 5 million bushels to take for the year. Total exports for the entire year could run a record 23 million bushels.

Industrial use of rye during July-September rose slightly but for the year may differ little from last year's 3.2 million bushels. Rye mill grind picked up some for the quarter reflecting the general increase in consumption of cereal products. For the year, grind

could possibly exceed last year's 5.2 million bushels. Seed use may change little from a year ago's 4.5 million bushels. Feed use continues heavy, though off from the year-ago pace.

Total demand for 1973/74 is expected to be more than double the 1973 crop, resulting in a sharp drawdown in stocks by the summer of 1974. At slightly below 6 million bushels, stocks would be the smallest since 1964. High prices have encouraged farmers to market their crop and forego the use of the loan program.

Daily cash prices of rye at Minneapolis were running between \$1.30 and \$1.40 per bushel during harvest last summer. As the magnitude of this year's demand became apparent, market prices topped out in September at over \$3 per bushel. Prices have since backed off and will likely follow about the same trend as wheat prices for the rest of the year.

The 1973 world rye crop is estimated at 26 million metric tons, off 9% from a year ago and a continuation of the long-term decline. Most of the decline was in the USSR, the world's major rye producer. Production also slipped in the major producing and rye consuming areas of Eastern and Western Europe.

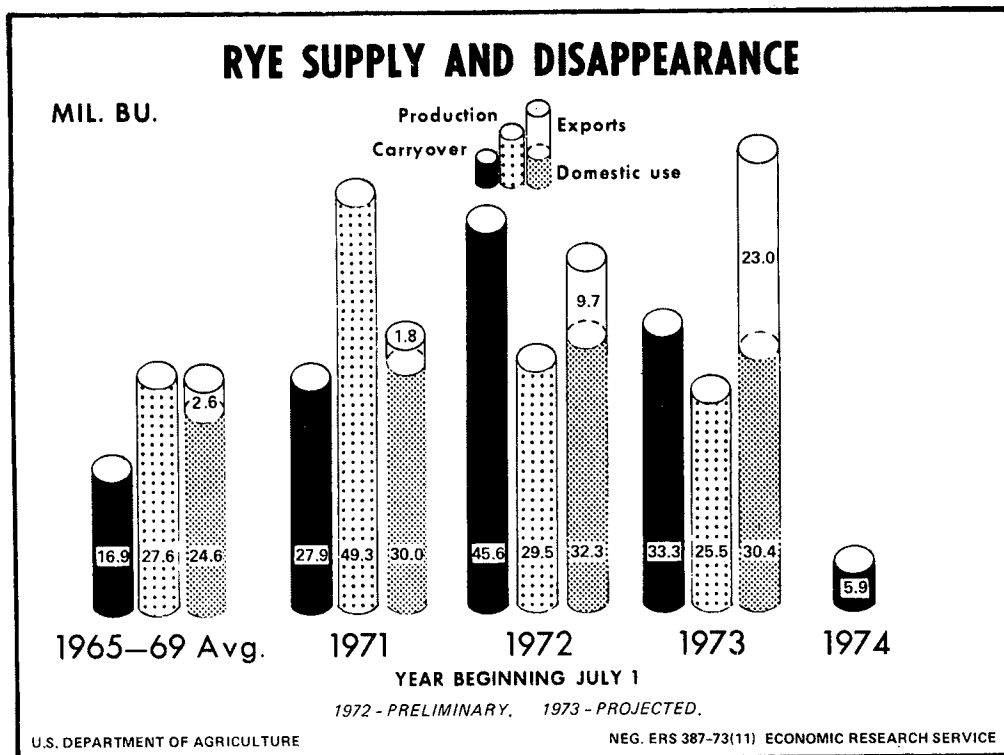


Table 2 ---Rye: Supply, distribution and prices, average 1965-69, annual 1971-73

Item	Year beginning July			
	Average 1965-69	1971	1972 ^{1/}	1973 ^{2/}
- - - - Million bushels - - - -				
<u>Supply</u>				
Carryover on July 1	16.9	27.9	45.6	33.3
Production	27.6	49.3	29.5	25.5
Imports	1.2	.2	.2	.5
Total	45.7	77.4	75.3	59.3
<u>Domestic disappearance</u>				
Food	5.4	5.2	5.2	5.1
Seed	5.6	5.5	4.5	5.3
Industry	4.6	3.1	3.2	3.0
Feed (Residual) ^{3/}	9.0	16.2	19.4	17.0
Total	24.6	30.0	32.3	30.4
<u>Exports</u>	2.6	1.8	9.7	23.0
Total disappearance	27.2	31.8	42.0	53.4
<u>Ending carryover June 30</u>	18.5	45.6	33.3	5.9
Privately owned--"Free"	(7.4)	(3.9)	(4/)	
- - - - Dollars per bushel - - - -				
National average loan rate	1.02	.89	.89	.89
Price received by farmers	1.03	.90	.94	

^{1/} Preliminary. ^{2/} Projected. Imports and distribution items are partly estimated.
^{3/} Residual item; roughly approximates total feed use. ^{4/} Insignificant.

DEMAND AND PRICE RELATIONSHIPS FOR THE U.S. WHEAT ECONOMY

by

Terry N. Barr *

ABSTRACT: A wheat demand model represents Part II of a two-part wheat econometric framework developed to measure the factors affecting wheat production and demand levels.¹ The major characteristic of the demand sector is the nonlinear price relationship between price and ending stocks developed to reflect current as well as past market developments. Additional wheat demand relationships are developed for the domestic usage for food, feed, and seed based on domestic variables such as relative prices, population, etc. Foreign demand (total U.S. wheat exports) is based on the production and stock positions of major U.S. competitors and traditional foreign markets. Three scenarios for 1973/74 under alternative export assumptions are provided in addition to an evaluation of the model over recent years.

KEY WORDS: Wheat, demand function, agricultural policies, prices.

The following analysis of major wheat demand relationships is developed around a season average price relation which is designed to reflect current market developments and relationships. The demand sector links into a wheat supply model which generates crop year estimates of planted wheat acres and total wheat production.

The wheat demand analysis is based on cropyear relationships and is concentrated upon the post-1960 experience with particular emphasis on the 1964-71 period. A sharp adjustment in the domestic wheat price level occurred in 1964 under a restructured wheat program, dramatically altering the degree of insulation afforded the domestic market from world market conditions. This shift in program was designed to maintain wheat farm income while

lowering farm prices and reducing government costs and surpluses. A secondary objective was to use U.S. farm productivity as a tool in international relations.² During the 1960's these policies and reductions in surpluses increased the interdependence between the commercial domestic wheat market and world market conditions. A consequence of this increasing interdependency is a greater volatility in prices during periods of low or anticipated low ending stocks.

A major contribution of this analysis of wheat demand is a domestic price estimating equation in which domestic food requirements relative to total ending stocks play a key role. Historically little movement in wheat prices occurs until ending stocks begin to fall below a "normal" level of domestic food requirement (about 520 million bushels currently). Since the food demand for wheat is relatively stable and highly price inelastic, prices can be bid up sharply when supplies are in a tight situation. The price equation presented here demonstrates that this rate of "bidding up" accelerates rapidly as stocks are drawn down.

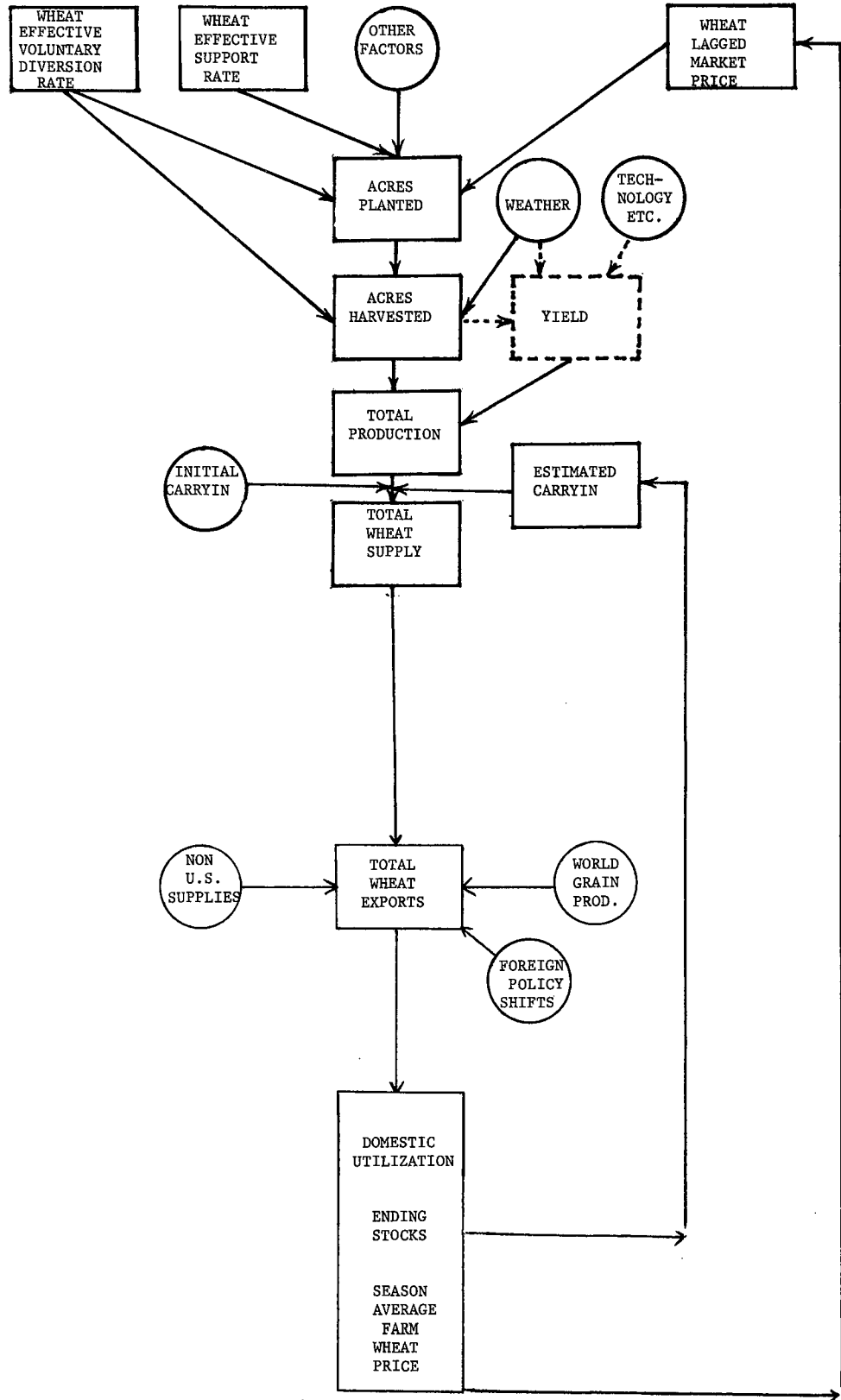
The discussion of the annual wheat demand relationships contained in the system precedes a

*The author is indebted to several members of the Economic Research Service, especially Jim L. Matthews, James J. Naive, and Frank R. Gomme for helpful suggestions in developing this paper. The responsibility for the analysis and its interpretation rests with the author. The author is an economist, National Economic Analysis Division, Economic Research Service, U.S. Department of Agriculture, Washington, D. C.

¹This article represents Part II of a two part economic analysis of the U.S. wheat economy. Part I, developed by Robert G. Hoffman, presented a regional supply analysis and appeared in the August 1973 *Wheat Situation*.

²See *Federal Wheat Commodity Programs*, Don F. Hadwiger, Iowa State University Press, 1970.

FIGURE 1
SCHEMATIC DIAGRAM OF WHEAT
SUPPLY-DEMAND SIMULATION MODEL



description of the price equation. The system is then appraised over the historical period, and alternative solutions for 1973/74 are generated. The full system of equations and historical data are summarized in Appendix A.

Domestic Demand

Food Use

The domestic demand for wheat for food use (QF) in the United States has been relatively stable over the sample period 1960-71 and is related to the season average wheat price (PWSA) plus domestic marketing certificates (MC), prices of other goods as represented by the Consumer Price Index for food at home (CPIFAH), and population growth (POP).³

$$QF = 329.7 - 16.149 (PWSA + MC) + 1.002 POP$$

(2.46) [-.004] (5.92)

$$+ .180 CPIFAH$$

(0.91)

$$R^2 = .947 \quad S.E. = 3.56 \quad D.W. = 2.47$$

Feed Use

Wheat used for feeding purposes (QFE) is mostly confined to the Southern Plains and Western States where it competes primarily with grain sorghum. Most of the wheat feed use occurs in the last quarter of the grain sorghum marketing year (July-September) when grain sorghum supplies are usually at a seasonal low and the wheat marketing year is beginning with seasonally large supplies. Thus the feed demand relation is based on the price differential (PDIF) between wheat and grain sorghum in the July-September quarter, as well as the number of cattle on feed on July 1 in 10 Western States (COFWS). While the price differential can reflect relative price movements in the respective quarter it cannot reflect commitments made by feeders based on previous quarters. A dummy variable (DPEXP) is to be implemented when unusual strength in wheat prices and demand in the April-June quarter may suggest a very wide price differential for the July-September quarter. An example was 1967 when feeders reacted more to the outlook potential for wheat prices relative to grain sorghum prices and made early commitments to grain sorghum. The equation is based on observations for the 1964-71 period to reflect the more competitive wheat price after the downward adjustments in the national

³In each of the following relationships: (1) "t" values are shown in parenthesis under the regression coefficient, (2) price elasticities, computed at mean historical values, are shown in brackets under the variable name, (3) R² = coefficient of determination, (4) S.E. = standard error of estimate for the equation, and (5) D.W. = Durbin-Watson statistic. A summary of all variables appears in Appendix A.

wheat loan rate to \$1.25 per bushel. The season average price may serve as a proxy for the July-September price. This is demonstrated by the close relationship between the season average wheat price and the July-September quarterly price (PWJ-S) in the equation below.

$$QFE = 28.94 + .0434 COFWS - 66.867 PDIFQ$$

(3.04) (1.59) [-0.16]

$$-88.417 DPEXP$$

(2.93)

$$R^2 = .921 \quad S.E. = 27.3 \quad D.W. = 2.36$$

$$PWJ-S = .021 + .998 PWSA$$

(21.16)

$$R^2 = .978 \quad S.E. = .043 \quad D.W. = 1.58$$

Seed Use

Domestic seed use (QSE) in the current year (t) is directly related to wheat acres planted (AWP) for the next crop year (t + 1) and as such is related to adjustments in the wheat program as well as economic variables as developed in the supply sector. The following relationship estimates the seed usage from the current crop for next year's plantings.

$$QSE = 3.199 + 1.083 AWP_{t+1}$$

(51.21)

$$R^2 = .99 \quad S.E. = .87 \quad D.W. = 1.45$$

Foreign Demand

The export market for U.S. wheat is affected by economic conditions as well as the policy considerations of trading countries, such as trade barriers, internal allocation policies, and bilateral agreements. Although world wheat and other food grain trade is directly influenced by the level of world production, it appears to be highly inelastic with respect to U.S. domestic prices. Importing countries have historically filled domestic shortfalls in food grain production through either direct cash or concessional purchases. Therefore U.S. cash prices are more influenced by export demand related to shortfalls, rather than demand necessarily related to price. In other words, importing countries feel that domestic food requirements must be met almost in spite of prevailing food grain price levels. The wheat export relation (QEXP) is based on the total wheat supplies (TWSMC) of the major U.S. exporting competitors (Canada, Australia, Argentina), total production of all grains in the rest of the world (TGPRW), and a time trend variable (TM).

$$QEXP = 203224.48 - .211 TWSMC + 105.53 TM$$

(1.84) (3.15)

$$-4.60 TGSRW$$

(3.54)

$$R^2 = .70 \quad S.E. = 65.44 \quad D.W. = 1.93$$

Ideally the foreign sector of this model would be greatly expanded to give clear recognition to regional trade flows and relative production within the regions. However, even with such a detailed specification, it is unlikely that near term policy shifts, such as changing trade barriers, internal allocation policies or bilateral agreements, would be wholly within the confines of statistical specification without using an autonomous shift variable (EXSHIF). As a result the total level of U.S. wheat exports (TQEXP) is defined as the sum of both commercial and concessional exports (QEXP) plus adjustments in the level of exports (EXSHIF) for those few years in which near term policy shifts may be major factors.

$$TQEXP = QEXP + EXSHIF$$

Ending Carryover Stocks

The total ending carryover stocks (TESK) in the system, including both government and commercial stocks, are defined as the residual of total wheat supplies and the total disappearance generated by the above system of equations. The total wheat supplies are the sum of wheat production (TWP) generated by the supply side of the model and total beginning carryover stocks (TBSK) which are the previous year's ending stocks.

$$TWS = TWP + TBSK$$

$$TBSK = TESK_{t-1}$$

$$TESK = TWS - QF - QFE - QSE - TQEXP$$

A Season Average Price Relationship

Historical evidence relating stock levels and price levels clearly indicate a nonlinear relationship between the season average wheat price (PWSA) and total ending carryover (TESK) (figure 2). This relationship has become particularly important since 1964 and was dramatized recently in the 1972/73 crop year. The price relationship developed below was specified to reflect this basic relationship and to relate stock levels to current domestic needs as reflected by a 3-year moving average of domestic food use (AQF).

Several alternative mathematical specifications of this relationship were tested. The form that was selected appeared to best fit the observations of recent years considering an annual minimum or "pipeline" stock level of about 200 million bushels and recent market price movements. The specification of this price relationship should be considered somewhat arbitrary in extremely low stock positions where the lack of historical evidence is particularly acute. Although stocks were very low in the early 1950's the structure of the market under much higher loan rates and market prices was dramatically different. The mathematical form selected uses a ratio of "normal"

food use (AQF) to total ending stocks (TESK). The resulting ratio is raised to the fifth power generating a curvilinear relationship between the season average price and total ending stocks.

$$PWSA = 1.277 + .16452 (AQF/TESK)^5$$

(8.45)

$$R^2 = .91 \quad S.E. = .06 \quad D.W. = 1.06$$

The sensitivity of this equation to low stock levels is demonstrated in table 1 for various levels of ending carryovers relative to an assumed 3-year moving average for food use in 1972/73.⁴

Table 1—Wheat price and ending carryover for derived relationship

Assumed ending carryover	Season average wheat price PWSA
Million bushels	Dollars per bushel
1,000	1.28
900	1.29
800	1.30
700	1.32
600	1.36
500	1.49
400	1.92
300	3.97

An Appraisal of the Model

An appraisal of the model solutions for 1964-71 is shown in figures 3-6 where the solid line represents the actual data while the broken line is the model solution. The actual and estimated values for 1972/73 are also shown along with alternative solutions for the current 1973/74 marketing year.

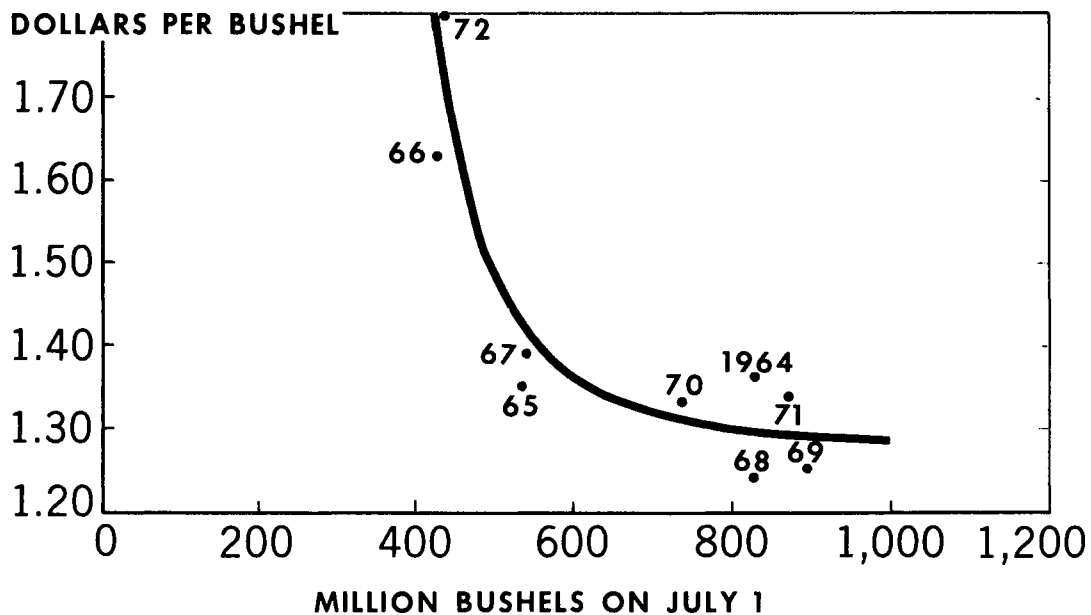
The six equation model was solved utilizing the Gauss-Seidel technique with starting data for 1964 and only exogenous data provided for the later years.⁵ Total wheat production was assumed to be predetermined and ending stocks for each year became the total beginning stocks for the following year. All of the relationships appear to fit well over the historical period. The performance of the food equation, which is not shown, was particularly accurate, with the largest error being a 7 million bushel overestimate for 1966. The seed equation yielded no error greater than 2 million bushels.

In analyzing the results of the model for 1972/73 in table 2 as well as in figures 3-6, the 1972/73 season must be characterized as atypical because of the large purchase of U.S. wheat by the Soviet Union.

⁴This specification implicitly assumes that as ending stocks approach zero, the season average price approaches infinity. As ending stocks approach infinity, the season average price approaches \$1.28 per bushel.

⁵Hein, Dale M., Jim Matthews and Abner Womack, "A Methods note on the Gauss-Seidel Algorithm for Solving Econometric Models", *Agricultural Economics Research*, Vol. 25, No. 3, July, 1973.

SEASON AVERAGE FARM PRICE AND ENDING STOCKS FOR WHEAT



U.S. DEPARTMENT OF AGRICULTURE

NEG. ERS 369-73 (11) ECONOMIC RESEARCH SERVICE

Although some purchases by the Soviet Union could have been anticipated, the ultimate volume was certainly unpredictable based on available data. For example, wheat production in the USSR in 1969/70 declined 14.2 million metric tons, but wheat imports rose only 0.9 million tons while domestic consumption and stock changes *declined* 12.9 million tons. A decision was apparently made to ration available Russian supplies and not import, despite abundant supplies in the major exporting countries. However, the shortfall in USSR production in 1972/73 was 13.3 million metric tons and in marked contrast imports rose 12.3 million tons. Consumption and stock changes *increased* 1.4 million metric tons.

The 1972/73 situation reflects a major Soviet policy decision to almost completely offset the shortfall in production with imports. The export relationship was therefore given a direct increase of around 5-½ million metric tons (200 million bushels) through the EXSHIF variable for 1972/73. Given this direct increase in exports, the other relationships appear to perform relatively well.

Before discussing results for 1973/74, a clear distinction needs to be made between model solutions and forecasts. Model solutions are defined as the output of the statistical model given specified values of the exogenous variables. The forecast is a synthesis of several factors including the model

Table 2—Wheat utilization and prices, actual and estimated

Item	Variable name	Units	1971/72	1972/73	
				Actual	Model solution
Food use	QF	mil. bu.	526	529	521
Feed use	QFE	do.	266	201	221
Seed use	QSE	do.	63	66	67
Total exports	TQEXP	do.	633	1,185	1,182
Exports	QEXP	do.	633	985	982
Add. exports	EXSHIF	do.	0	200	200
Ending stocks	TESK	do.	863	428	418
Season average wheat price	PWSA	\$/bu.	1.34	1.80	1.78

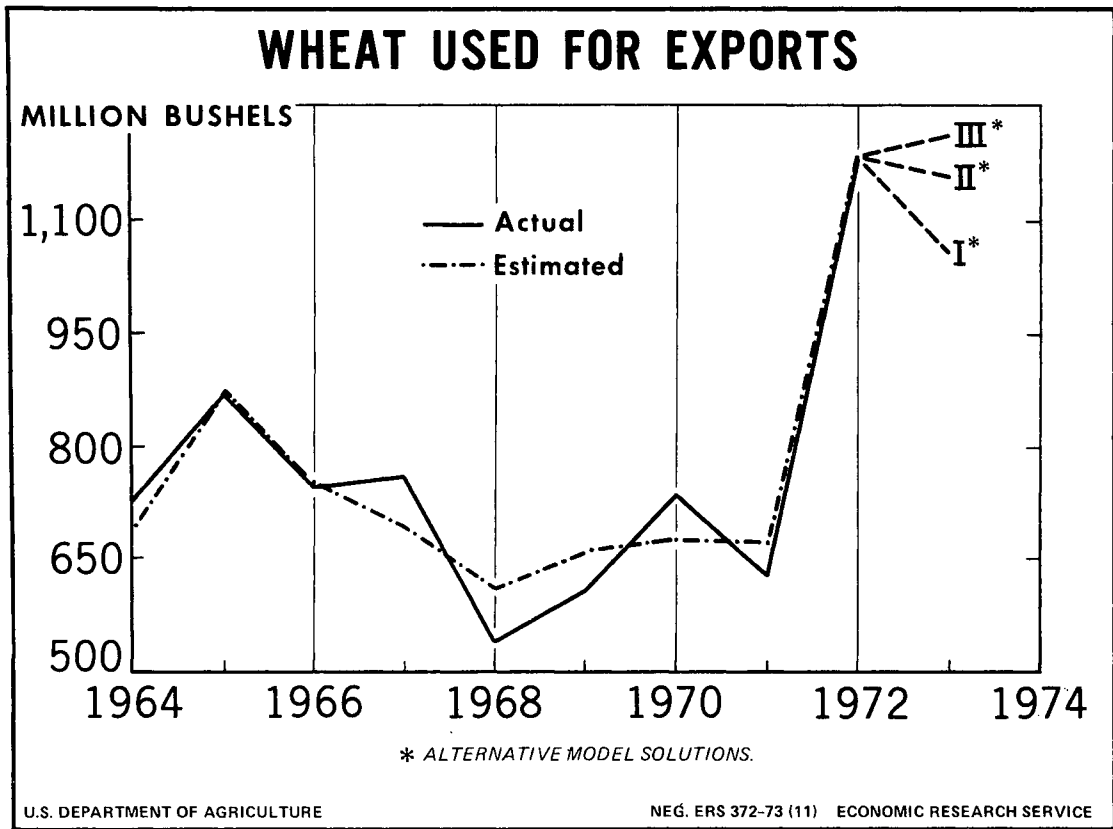


Figure 3

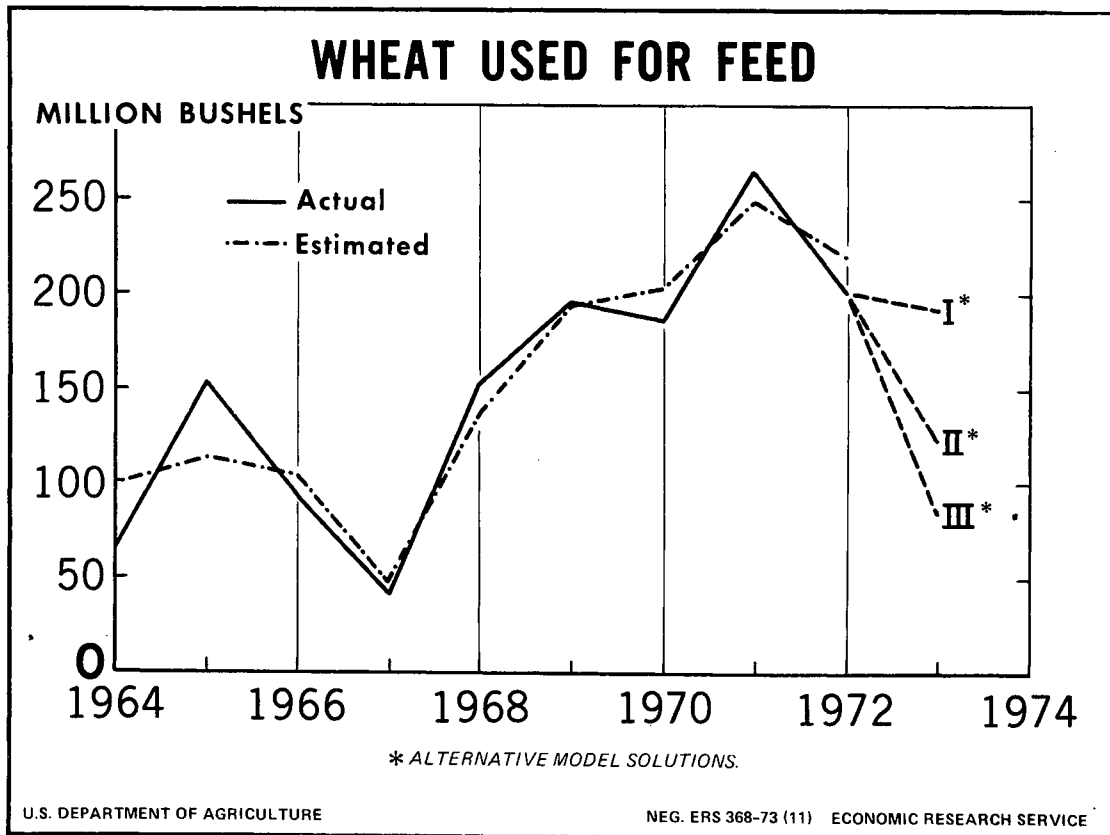


Figure 4

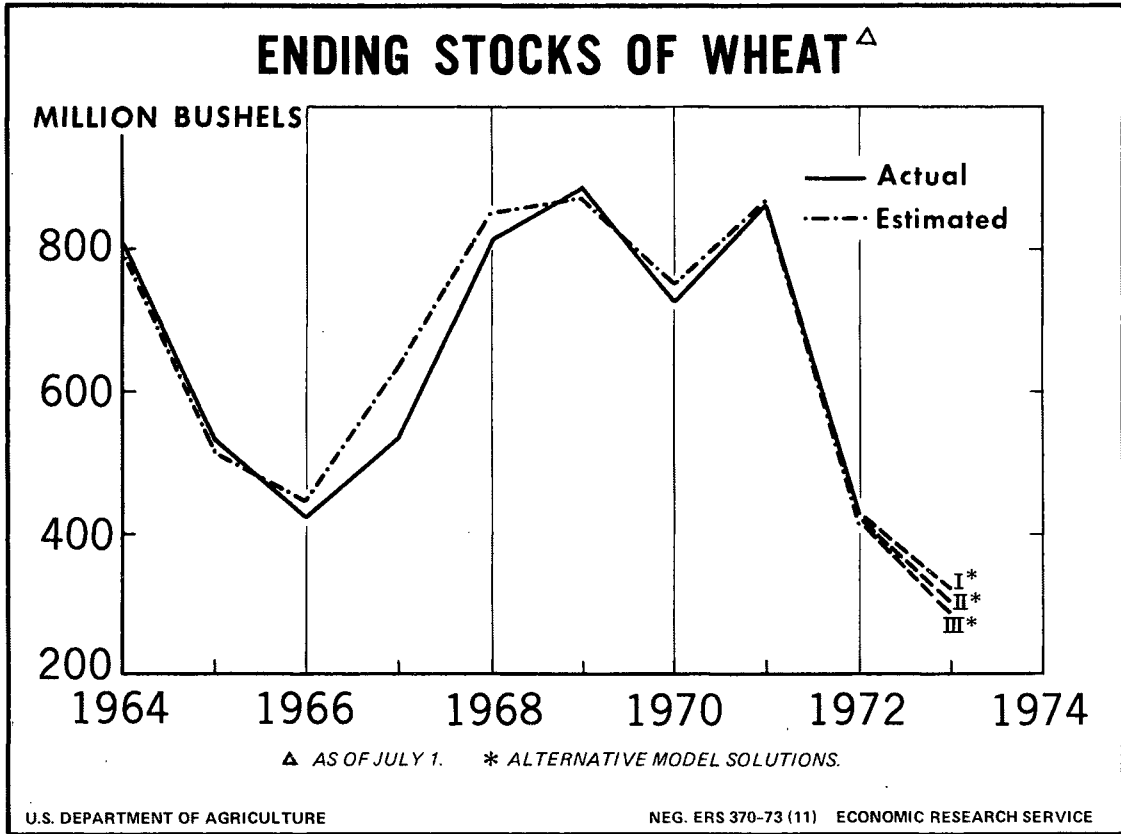


Figure 5

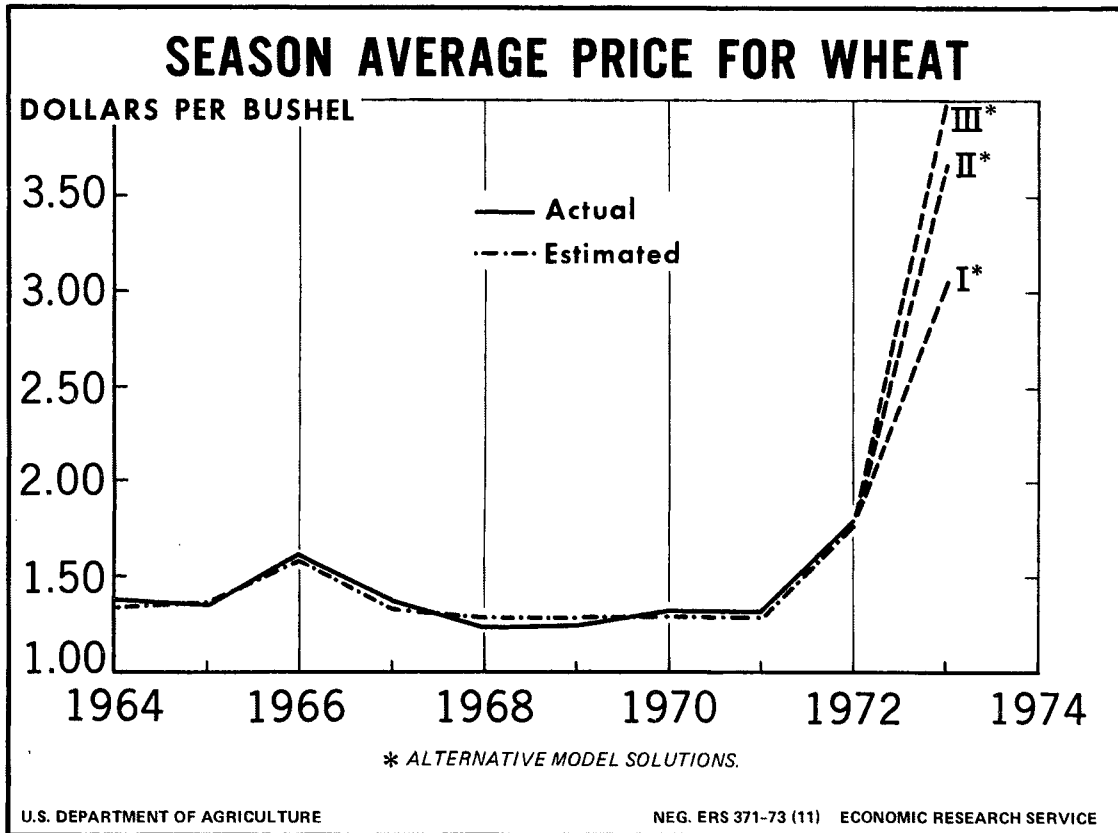


Figure 6

solutions, and any additional intuitive adjustments related to current market conditions and the validity of exogenous values. The model represents a tool which is designed to minimize some uncertainties and lower the degree of intuition that is required by providing a logical representation of the interrelationships of the wheat economy. This distinction may become clearer as the model forecasts for 1973/74 are developed from the above model solutions.

For 1973/74 the model was utilized for three alternative situations: (I) basic solution with no autonomous increases, (II) solution with autonomous increase to bring exports to levels consistent with current USDA estimates, and (III) solution with exports of around 1,200 million bushels. Results of the alternatives are presented in table 3 and figures 3-6.

In assessing the model solutions under alternative assumptions, two key qualifying factors should be noted. First, price controls which are not present in

Table 3—Wheat utilization and prices alternative solutions for 1973/74

Item	Variable name	Units	Basic solution	Current export solution	High export solution
			(I)	(II)	(III)
Food demand	QF	mil. bu.	518	508	503
Feed demand	QFE	do.	193	124	87
Seed demand	QSE	do.	75	75	75
Total exports	TQEXP	do.	1058	1,158	1,208
Exports	QEXP	do.	1058	1,058	1,058
Add. exports	EXSHIF	do.	0	100	150
Ending stocks	TESK	do.	324	303	294
Season average wheat price	PWSA	\$/bu.	3.07	3.69	4.01

the model would constrain retail bakery and cereal prices to the consumer and dampen the impact of sharply higher farm prices. Secondly, the price levels which are prevailing in all of the solutions are not within the range of prices which prevailed during the sample period for the system of equations. As a result, the historically established elasticities may result in an "overreaction" to the high price levels. This appears to be particularly true with regard to the feed relationships under the three solutions.

Within the context of these qualifying factors, each of the demand elements must be examined in formulating a forecast for 1973/74. The export situation is particularly unclear at this time. However, the results of the model indicate that the provisional July-September quarter average price of \$3.85 is consistent with exports in the 1,150-1,200 million bushel range. The model solutions of food demand reflect the impact of sharply increased price levels. However, there is no explicit mechanism to measure the impact of price controls or the suspension of the domestic marketing certificates. These factors suggest food demand will not decline as sharply as the model might indicate, perhaps staying in the area of 515 million bushels.

The price elasticity implied in the feed equation appears to lead to an "overreaction" for price levels

above \$3.70 a bushel. It seems more realistic to expect a feed use around 125 million bushels, still well below the 200 million bushels level of 1972/73. Finally, the impact of potential 1974/75 world production of grains on the prices in the fourth quarter of the marketing year (April-June 1974) may be more of a dampening factor on season average price than in the past. The forecast based on a synthesis of these adjustment factors and the model solutions for the 1973/74 marketing year are summarized in table 4. A model solution for 1974/75 is also included in table 4 as an early indication of the outlook for the expected record production.

Table 4—Wheat Utilization and Prices Forecast Based on Model Solutions

Item	1973/74	1974/75
Total Supply	2170	2145
Food	525	515
Feed	125	71
Seed	75	105
Domestic Disappearance	715	691
Exports	1158	1048
Total disappearance	1873	1739
Ending carryover	297	406
Season average price	\$3.90	\$2.10

Wheat Distribution and Prices 1/

Year	Domestic use			Total exports	Total ending stocks	National average loan rate	Season average price received for wheat	Total wheat supplies of other exporters	Total non-U.S. grain prod.	Cattle on feed in Western States	Prices received for sorghum July-Sept.
	Food	Feed	Seed								
	-----Million bushels-----				\$/bushel		Million bushel	Mil. metric ton	Thousand head	\$/cwt.	
1960/61	497.2	42.0	64.2	661.5	1411.3	1.78	1.74	1651	544.7	1766	1.69
1961/62	501.5	50.1	56.4	719.4	1322.0	1.79	1.83	1400	499.5	1742	1.71
1962/63	500.4	18.5	61.4	643.8	1195.2	2.00	2.04	1580	535.9	2054	1.77
1963/64	503.3	20.2	65.0	856.1	901.4	1.82	1.85	1909	561.2	2233	1.83
1964/65	509.2	68.8	65.6	725.0	817.3	1.30	1.37	1944	557.4	2265	1.82
1965/66	515.4	154.3	61.5	867.4	535.2	1.25	1.35	1792	574.5	2611	1.86
1966/67	501.9	93.8	77.4	744.3	424.4	1.25	1.63	1978	593.1	2992	1.85
1967/68	519.2	42.8	71.3	761.1	538.5	1.25	1.39	1821	633.1	2944	1.94
1968/69	519.7	154.8	60.9	544.2	816.7	1.25	1.24	2183	658.8	3266	1.66
1969/70	520.6	195.4	55.6	606.1	884.9	1.25	1.25	2477	667.9	4252	1.90
1970/71	519.5	187.0	62.1	737.5	731.5	1.25	1.33	2137	648.1	4384	1.97
1971/72	525.9	265.6	63.2	632.5	863.1	1.25	1.34	1938	728.4	5010	2.22

1/ A more complete set of data and documentation is available upon request.

APPENDIX A

I. Summary of Equations

$$PWSA = 1.277 + .1645 (AQF/TESK)^5$$

$$PWJ-S = -.021 + .998 PWSA$$

$$QF = 329.7 - 16.149 (PWSA+MC) + 1.002 POP + .180 CPIFAH$$

$$QFE = 28.94 + .043 COFWS - 66.867 PDIF - 88.417 DPEXP$$

$$QSE = 3.199 + 1.083 AWP_{t+1}$$

$$QEXP = 203224.48 - .211 TWSMC + 105.531 TM - 4.603 TGSRW$$

$$TQEXP = QEXP + EXSHIF$$

$$TESK = TWS - QF - QFE - QSE - TQEXP$$

$$TBSK = TESK_{t-1}$$

$$TWS = TWP + TBSK$$

II. Variable Description

PWSA = U.S. season average farm wheat price

PWJ-S = Average U.S. farm wheat price in July-September quarter

QF = Quantity of wheat processed for food

QFE = Quantity of wheat for feed use

QSE = Quantity of wheat for seed use

QEXP = Quantity of wheat exported both commercial and under government programs.

TESK = Total ending carryover stocks

TBSK = Total beginning carryover stocks

TQEXP = Total quantity of wheat exports including impacts of policy factors

AQF = Three year moving average of domestic food use of wheat

MC = Domestic milling certificate

POP = Total U.S. population

CPIFAH = Consumer Price Index for food at home

COFWS = Cattle on feed in 10 Western States on July 1

PDIF = Price difference between average hundredweight wheat and grain sorghum prices in July-September quarter

DPEXP = Dummy variable utilized to reflect unusual price movement which affected grain sorghum price expectations. DPEXP = 1 in 1967

AWP_{t+1} = Total acres of wheat planted in year t+1

TWSMC = Total wheat supplies of major U.S. competitors in world markets (Canada, Australia, Argentina).

TM = Time trend equal to year, e.g. for 1967/68 TM = 1967

TGPRW = Total grain production in the world excluding the United States, Australia, Argentina, and Canada

EXSHIF = Exports not wholly dictated by market factors

TWP = Total U.S. wheat production

TWS = Total U.S. wheat supplies

Units.

\$/bushel

\$/bushel

mil. bushels

mil. bushels

mil. bushels

mil. bushels

mil. bushels

mil. bushels

mil. bushels

mil. bushels

mil. bushels

mil. bushels

\$/bushel

mil. persons

1967=100

mil. head

\$/cwt

mil. acres

mil. bushels

mil. metric tons

mil. bushels

mil. bushels

mil. bushels

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Table 3.--Wheat: U.S. supply and disappearance, average 1965-69, by quarters, 1970-73

Year and quarter	Beginning stocks	Production	Imports	Total supply	Ending stocks	Total disappearance	Exports			Domestic						
							Grain ^{1/}	Flour	Products ^{2/}	Total	Flour	Other products ^{3/}	Total food	Seed	Feed ^{3/}	Total
----- Million bushels -----																
Average 1965-69																
July-Sept.	626.4	1,425.5	.4	2,052.3	1,649.2	403.1	163.2	14.8	2.2	180.2	128.7	3.3	132.0	26.2	64.7	222.9
Oct.-Dec.	1,649.2		.4	1,649.6	1,293.5	356.1	160.4	17.6	2.9	180.9	129.6	3.3	132.9	24.1	18.2	175.2
Jan.-Mar.	1,293.5		.4	1,293.9	952.3	341.6	149.4	12.7	3.1	165.2	126.5	3.3	129.8	.2	45.4	176.4
Apr.-June	952.3		.4	952.7	639.9	312.8	156.8	18.6	2.9	178.3	117.3	3.4	120.7	14.8		134.5
Season	626.4	1,425.5	1.6	2,053.5	639.9	1,413.6	629.8	63.7	11.1	704.6	502.1	13.3	515.4	65.3	128.3	709.0
1970/71																
July-Sept.	884.5	1,351.6	.2	2,236.7	1,788.5	448.2	154.2	9.6	3.2	167.0	131.8	3.5	135.3	24.4	121.5	281.2
Oct.-Dec.	1,788.5		.2	1,788.7	1,410.0	378.7	191.7	16.1	3.7	211.5	127.8	3.5	131.3	23.2	12.7	167.2
Jan.-Mar.	1,410.0		.3	1,410.3	1,060.4	349.9	166.0	11.3	2.1	179.4	125.7	3.5	129.2	.4	40.9	170.5
Apr.-June	1,060.4		.4	1,060.8	731.5	329.3	161.6	15.0	3.0	179.6	120.1	3.6	123.7	14.1	11.9	149.7
Season	884.5	1,351.6	1.1	2,237.6	731.5	1,506.1	673.5	52.0	12.0	737.5	505.4	14.1	519.5	62.1	187.0	768.6
1971/72																
July-Sept.	731.5	1,617.8	.2	2,349.5	1,873.3	476.2	150.0	11.7	2.5	164.2	132.1	3.5	135.6	24.8	151.6	312.0
Oct.-Dec.	1,873.3		.2	1,873.5	1,547.3	326.2	118.4	8.9	2.9	130.2	130.0	3.5	133.5	23.6	38.9	195.0
Jan.-Mar.	1,547.3		.3	1,547.6	1,210.4	337.2	133.4	10.7	2.9	147.0	126.4	3.5	129.9	.4	59.9	190.2
Apr.-June	1,210.4		.3	1,210.7	863.1	347.6	174.7	14.5	1.9	191.1	123.3	3.6	126.9	14.4	15.2	156.5
Season	731.5	1,617.8	1.0	2,350.3	863.1	1,487.2	576.5	45.8	10.2	632.5	511.8	14.1	525.9	63.2	265.6	854.7
1972/73																
July-Sept.	863.1	1,544.8	.2	2,408.1	1,865.6	542.5	200.1	10.5	2.8	213.4	128.8	3.6	132.4	24.2	172.5	329.1
Oct.-Dec.	1,865.6		.3	1,865.9	1,396.1	469.8	273.3	10.5	3.1	286.9	132.9	3.5	136.4	22.8	23.7	182.9
Jan.-Mar.	1,396.1		.4	1,396.5	926.9	469.6	292.8	11.0	4.0	307.8	128.3	3.6	131.9	.5	6.4	161.8
Apr.-June	926.9		.4	927.3	429.6	497.7	362.7	10.2	3.2	376.1	122.1	3.6	125.7	18.9		121.6
Season	863.1	1,544.8	1.3	2,409.2	429.6	1,979.6	1,128.9	42.2	13.1	1,184.2	512.1	14.3	526.4	66.4	202.6	795.4
1973/74																
July-Sept. ^{4/}	429.6	1,726.8	.3	2,156.7	1,475.2	681.5	382.0	12.2	1.5	395.7	130.9	3.6	134.5	28.0	123.3	285.8
Oct.-Dec.	1,475.2															
Jan.-Mar.																
Apr.-June																
Season																

^{1/} Adjusted for transshipments of U.S. wheat through Canada.

^{2/} Includes bulgar, rolled wheat, semolina and macaroni.

^{3/} Residual; approximates feed use and includes negligible quantities used for distilled spirits and beer. When seed allocation results in a negative feed residual, feed use is not shown by quarter.

^{4/} Partly estimated.

Table 4.--Wheat: Current indicators of export movement, by program, coastal area and class of wheat, July-September 1972 and 1973

Period, program, and coastal area	Wheat (grain only)-Inspections for export ^{1/}						
	Hard winter	Red winter	Hard spring	Durum	White	Mixed	Total
- - - - Million bushels - - - -							
<u>July-September 1972</u>							
Dollars	42.0	6.7	24.4	14.5	14.1	---	101.7
CCC Credit	30.3	5.0	3.9	.6	4.5	---	44.3
Barter	6.8	.3	.7	2.3	2.2	---	12.3
Commercial	79.1	12.0	29.0	17.4	20.8	---	158.3
P.L. 480	8.3	14.2	1.1	---	9.9	---	33.5
Total	87.4	26.2	30.1	17.4	30.7	---	191.8
<u>July-September 1973</u>							
Dollars	205.2	16.2	61.7	11.2	25.4	.8	320.5
CCC Credit	21.6	.2	1.1	.5	1.1	---	24.5
Barter	---	---	---	---	---	---	---
Commercial	226.8	16.4	62.8	11.7	26.5	.8	345.0
P.L. 480	20.0	.8	---	---	.9	---	21.7
Total	246.8	17.2	^{3/} 65.3	11.7	^{4/} 28.0	.8	369.8
<u>July-September 1972</u>							
Coastal areas:							
Great Lakes	---	1.0	11.4	15.9	^{2/}	---	28.3
Atlantic	---	4.3	---	---	.2	---	4.5
Gulf	78.1	20.9	5.0	1.1	---	---	105.1
Pacific	9.3	---	13.7	.4	30.5	---	53.9
Total	87.4	26.2	30.1	17.4	30.7	---	191.8
<u>July-September 1973</u>							
Coastal areas:							
Great Lakes	.8	1.4	35.2	10.5	---	---	47.9
Atlantic	2.6	4.8	.6	^{2/}	.1	---	8.1
Gulf	199.6	8.2	9.4	.9	---	---	218.1
Pacific	43.8	2.8	20.1	.3	27.9	.8	95.7
Total	246.8	17.2	65.3	11.7	28.0	.8	369.8

^{1/} Based on weekly reports of inspections for export. Does not include rail or truck movement to Canada or Mexico. ^{2/} Less than 50,000 bushels. ^{3/} Includes 2,462,000 bu. A.I.D. ^{4/} Includes 599,000 bu. A.I.D. Agricultural Marketing Service, Grain Division.

Table 5 ---Wheat: U.S. inspections for export, by programs and major country of destination, July-September 1972 and 1973

Year and Country	Dollar sales	CCC credit	Barter	P. L. 480	Total
----- 1,000 bushels -----					
<u>July-September 1973</u>					
Algeria	5,326	---	---	---	5,326
Argentina	9,526	---	---	---	9,526
Bangladesh	5,400	---	---	3,250	8,650
Belgium	3,091	---	---	---	3,091
Brazil	8,422	---	---	---	8,422
Chile	2,360	---	---	---	2,360
China (Taiwan)	3,809	---	---	---	3,809
Colombia	743	---	---	3,037	3,780
Egypt	2,412	---	---	---	2,412
France	2,393	---	---	---	2,393
Greece	3,596	---	---	---	3,596
India	29,010	---	---	---	29,010
Indonesia	8,568	---	---	---	8,568
Iran	1,340	4,151	---	---	5,491
Iraq	4,802	---	---	---	4,802
Israel	---	---	---	3,204	3,204
Italy	12,932	---	---	---	12,932
Japan	31,055	---	---	---	31,055
Korea	12,766	599	---	1,296	14,661
Mexico	7,207	---	---	---	7,207
Morocco	---	---	---	5,215	5,215
Netherlands	16,523	---	---	---	16,523
Nigeria	5,360	---	---	---	5,360
Pakistan	450	---	---	2,006	2,456
Peoples Rep. of China	69,955	---	---	---	69,955
Peru	2,546	830	---	---	3,376
Philippines	---	711	---	---	1/3,772
United Kingdom	6,343	---	---	---	6,343
USSR	39,414	15,875	---	---	55,289
Venezuela	4,702	---	---	---	4,702
Other	20,427	2,383	---	3,683	26,493
Grand Total	320,478	24,549	---	21,691	1/369,779
<u>July-September 1972</u>					
Algeria	---	---	3,337	---	3,337
Bangladesh	---	---	---	7,711	7,711
Belgium	2,915	---	---	---	2,915
Brazil	946	---	3,834	---	4,780
China (Taiwan)	4,248	---	1,318	---	5,566
El Salvador	867	---	327	---	1,194
France	1,457	---	---	---	1,457
India	---	---	---	1,363	1,363
Indonesia	---	---	---	3,255	3,255
Iran	---	3,440	---	---	3,440
Ireland	1,781	---	---	---	1,781
Israel	---	---	---	1,639	1,639
Japan	29,454	---	---	---	29,454
Korea	1,545	---	512	1,949	4,006
Mexico	6,602	---	---	---	6,602
Netherlands	16,015	---	---	---	16,015
Nigeria	3,080	---	---	---	3,080
Pakistan	---	3,992	---	11,325	15,317
Peoples Rep. of China	1,366	---	---	---	1,366
Peru	---	2,870	747	---	3,617
Philippines	822	4,354	---	---	5,176
Portugal	1,314	---	---	---	1,314
United Kingdom	3,025	---	---	---	3,025
USSR	13,189	18,508	---	---	31,697
Uruguay	---	---	---	4,364	4,364
Venezuela	6,542	---	---	---	6,542
Yugoslavia	---	10,665	---	---	10,665
Other	6,567	449	2,169	1,892	11,097
Grand Total	101,735	44,298	12,244	33,498	191,775

1/ Includes 3,061,000 bu. A.I.D.

Based on weekly reports of inspections for export by licensed grain inspectors and does not include rail and truck movement to Canada or Mexico.

Agricultural Marketing Service, Grain Division.

Table 6 --U.S. Wheat: Undelivered export sales by weeks for the 1973/74 marketing year 1/

Week ending	Hard winter	Red winter	Hard spring	White	Durum	Mixed	Total all wheat
----- Million bushels -----							
June 13	482	8	116	10	28	3	648
29 Countries identified	385.0	2.9	60.5	17.3	9.9	3.0	478.7
Unidentified	175.3	6.1	64.5	1.6	23.6	0	271.2
Total	560.3	9.0	125.0	18.9	33.5	3.0	749.9
July 6 Countries identified	494.4	8.2	123.1	47.4	24.9	3.0	700.8
Unidentified	121.4	5.5	45.5	11.0	31.6	0	214.9
Total	615.8	13.7	168.6	58.4	56.5	3.0	915.7
20 Countries identified	550.3	9.0	126.4	49.7	28.4	3.0	766.8
Unidentified	142.5	5.9	35.7	10.9	41.1	0	236.1
Total	692.8	14.9	162.1	60.6	69.5	3.0	1,002.9
Aug. 3 Countries identified	580.6	7.2	130.5	53.7	34.2	3.0	808.6
Unidentified	198.2	7.2	36.1	9.6	50.8	0	301.8
Total	778.8	14.4	166.6	63.3	85.0	3.0	1,110.4
17 Countries identified	604.6	5.4	129.7	68.3	35.7	2.3	846.0
Unidentified	194.9	7.2	34.0	9.3	44.3	0	289.7
Total	799.5	12.6	163.7	77.6	80.0	2.3	1,135.7
31 Countries identified	574.3	4.8	124.8	75.1	37.9	3.3	820.3
Unidentified	202.5	5.0	36.6	9.3	40.4	0	293.7
Total	776.8	9.8	161.4	84.4	78.3	3.3	1,114.0
Sept. 7 Countries identified	554.4	4.7	116.9	71.8	35.9	3.3	786.9
Unidentified	199.8	4.0	38.7	9.3	39.8	0	291.6
Total	754.2	8.7	155.6	81.1	75.7	3.3	1,078.5
28 Countries identified	484.4	6.7	121.2	78.3	31.7	.9	723.2
Unidentified	172.5	1.0	26.5	10.7	33.7	0	244.4
Total	656.9	7.7	147.7	89.0	65.4	.9	967.6
Oct. 5 Countries identified	463.5	7.1	116.4	75.6	30.2	0	692.7
Unidentified	170.2	1.0	25.3	10.7	33.0	0	240.3
Total	633.7	8.1	141.7	86.3	63.2	0	933.0
~8 Countries identified	384.4	1.8	115.9	70.4	26.7	.6	599.7
Unidentified	161.3	-0.4	2/21.5	9.3	45.6	0	2/237.4
Total	545.7	1.4	137.4	79.7	72.3	.6	837.1
Nov. 2 Countries identified							
Unidentified							
Total							

1/ Totals may not add due to rounding.

2/ Includes 9.9 million bushels unsold wheat shipped abroad and wheat in transit from U.S. Lake ports to Canadian ports. Also includes 7.9 million bushels of wheat optional origin.

Source: Reported to the U.S. Dept. of Commerce, by United States exporters under the Export Control Bulletin 84(A) issued on June 13, 1973. Beginning October 14 released by SRS; USDA.

Table 7.--Wheat: Cash prices for leading classes at major markets, 1972-73 ^{1/}

Major Market and year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Average
	- - - - Dollars per bushel - - - -												
<u>No. 1 HRW, Kansas City</u>													
<u>Ordinary protein</u>													
1972/73	1.58	1.82	2.10	2.15	2.25	2.62	2.67	2.48	2.42	2.51	2.63	2.69	2.33
1973/74	2.90	4.67	5.01	4.67									
<u>13½ protein</u>													
1972/73	1.68	1.90	2.15	2.21	2.30	2.65	2.68	2.49	2.45	2.55	2.69	2.80	2.38
1973/74	3.06	4.74	5.04	4.70									
<u>No. 2 SRW, Chicago</u>													
1972/73	1.53	1.76	2.02	2.11	2.28	2.60	2.65	2.47	2.37	2.45	2.71	2.82	2.31
1973/74	3.08	4.75	5.11	4.75									
<u>No. 2 SRW, St. Louis</u>													
1972/73	1.46	1.63	1.92	2.09	2.23	2.59	2.64	2.47	2.32	2.34	2.50	2.64	2.24
1973/74	2.91	4.37	4.94	4.53									
<u>No. 2 SRW, Toledo</u>													
1972/73	1.43	1.62	1.92	2.07	2.30	2.64	2.66	2.46	2.38	2.45	2.61	2.68	2.27
1973/74	3.10	4.71	5.07	4.70									
<u>No. 2 SW, Toledo</u>													
1972/73	1.49	1.72	1.97	2.07	2.30	2.64	2.65	2.46	2.38	2.44	2.58	2.66	2.28
1973/74	3.10	4.76	5.14	4.71									
<u>No. 1 SW, Portland</u>													
1972/73	1.60	1.82	2.12	2.41	2.53	2.78	2.80	2.56	2.59	2.61	2.78	3.13	2.48
1973/74	3.43	4.88	5.20	4.95									
<u>No. 1 Dk. NS, Minneapolis</u>													
<u>Ordinary protein</u>													
1972/73	1.57	1.72	1.92	2.02	2.08	2.32	2.38	2.22	2.28	2.33	2.47	2.67	2.16
1973/74	2.99	4.36	4.47	4.37									
<u>15% protein</u>													
1972/73	1.74	1.96	2.09	2.14	2.22	2.42	2.42	2.29	2.33	2.39	2.57	2.80	2.28
1973/74	3.07	4.50	4.80	4.50									
<u>Hard amber durum, Mpls.</u>													
1972/73	1.76	1.89	2.05	2.14	2.16	2.39	2.51	2.45	2.52	2.52	2.62	2.89	2.32
1973/74	4.04	7.52	7.08	5.90									

^{1/} On-track prices established at the close of the market. Prices do not include 75 cents per bushel payment required of processors of wheat for domestic human consumption in 1972/73.

Table 8 ---Wheat: Farm price, loan rate per bushel and price for equivalent quantity of major feed grain in region, 1972-73 1/

Item	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Average	Support rate
- - - - Price for 60 pounds (bushel weight of wheat) - - - -														
<u>Central and Southern Plains</u>														
<u>(Hard winter) 2/</u>														
Wheat 1972/73	: 1.32	1.52	1.77	1.90	1.92	2.34	2.40	1.90	2.04	2.12	2.11	2.34	1.97	1.23
Sorghum grain 1972/73	: 1.15	1.17	1.21	1.24	1.31	1.61	1.61	1.57	1.57	1.54	1.58	1.80	1.45	1.03
Wheat 1973/74	: 2.37	4.20	4.43	4.13										1.22
Sorghum grain 1973/74	: 1.91	2.50	2.32	2.24										1.04
<u>Cornbelt (Soft red winter) 3/</u>														
Wheat 1972/73	: 1.32	1.49	1.73	1.86	1.97	2.42	2.47	2.13	2.10	2.14	2.25	2.50	2.03	1.24
Corn 1972/73	: 1.24	1.24	1.31	1.26	1.29	1.56	1.50	1.48	1.50	1.56	1.83	2.27	1.50	1.17
Wheat 1973/74	: 2.58	4.28	4.76	4.38										1.24
Corn 1973/74	: 2.33	3.00	2.30	2.31										1.17
<u>East and South (Soft red winter) 4/</u>														
Wheat 1972/73	: 1.32	1.40	1.51	1.62	1.74	2.00	2.12	2.06	2.08	2.09	2.16	2.50	1.88	1.31
Corn 1972/73	: 1.42	1.43	1.46	1.46	1.48	1.67	1.75	1.78	1.78	1.78	1.96	2.42	1.70	1.28
Wheat 1973/74	: 2.48	3.94	4.24	4.13										1.31
Corn 1973/74	: 2.44	3.07	2.49	2.54										1.28
<u>Northern Plains (Spring and durum) 5/</u>														
Wheat 1972/73	: 1.36	1.50	1.69	1.80	1.84	2.12	2.15	1.92	1.98	2.05	2.08	2.37	1.90	1.31
Barley 1972/73	: 1.06	1.01	1.08	1.16	1.20	1.31	1.42	1.38	1.39	1.42	1.45	1.60	1.29	1.01
Wheat 1973/74	: 2.53	4.51	4.55	4.10										1.31
Barley 1973/74	: 1.62	2.35	2.38	2.46										1.01
<u>Pacific Northwest (White) 6/</u>														
Wheat 1972/73	: 1.42	1.54	1.81	2.08	2.27	2.58	2.57	2.24	2.33	2.36	2.36	2.79	2.20	1.25
Barley 1972/73	: 1.36	1.45	1.54	1.65	1.74	1.85	2.04	2.04	2.01	1.94	2.01	2.16	1.82	1.15
Wheat 1973/74	: 2.89	4.67	4.86	4.67										1.25
Barley 1973/74	: 2.46	3.00	3.00	3.05										1.15
<u>U.S. Average</u>														
Wheat 1972/73	: 1.32	1.51	1.73	1.89	1.97	2.38	2.38	1.97	2.06	2.15	2.15	2.43	<u>1/1.77</u>	1.25
Wheat 1973/74	: 2.47	4.45	4.62	4.22										1.37

1/ Simple averages with no adjustment made for relative feed value. Relative feeding value: Corn 1.00; wheat 1.05; barley .90; sorghum grain .95; reported in Consumption of Feed by Livestock, Production Research Report No. 79, ERS, USDA. 2/ Kansas, Nebraska, Texas, Oklahoma, and Colorado. 3/ Ohio, Indiana, Illinois, and Missouri. 4/ Pennsylvania, Maryland, Virginia, North Carolina, South Carolina, Georgia, Mississippi, Alabama, Louisiana, and Arkansas. 5/ North Dakota, South Dakota, and Minnesota. 6/ Washington, Oregon, and Idaho. 7/ Season average price including allowance for unredeemed loans and purchases by CCC.

Table 9.--White pan bread: Estimated retail and wholesale price of a 1-pound loaf; retailer's, wholesaler's, miller's and other spreads; farm value of ingredients; flour and wheat prices and related data, July-September 1973 and previous 4 quarters

Item	Unit	1972				1973			
		III	IV	I	II	July	Aug.	Sept.	III
Retail price <u>1/</u>	Cents per loaf	24.7	24.7	25.1	26.2	26.5	27.2	29.5	27.7
Retail spread <u>2/</u>	"	4.5	4.5	4.7	5.3	5.6	5.2	5.1	5.3
Wholesale price <u>3/</u>	"	20.2	20.3	20.4	20.8	20.9	22.0	24.4	22.4
Baker-wholesaler spread <u>4/</u>	"	13.9	13.3	13.4	13.5	13.9	12.2	14.8	13.6
Cost to baker	"								
All ingredients <u>5/</u>	"	6.3	6.9	7.0	7.4	7.0	9.8	9.7	8.8
Flour <u>6/</u>	"	4.2	4.6	4.8	4.9	4.5	6.8	7.1	6.1
Mill sales value of flour <u>6/</u>	"	3.8	4.4	4.5	4.7	4.3	6.5	6.9	5.9
Miller's flour spread <u>7/</u>	"	.7	.8	.9	.7	.9	1.2	1.0	1.0
Cost of wheat to miller <u>8/</u>	"	3.1	3.6	3.6	4.0	3.4	5.3	5.9	4.9
Other spreads <u>9/</u>	"	1.8	1.8	1.5	1.9	2.0	2.0	1.7	1.9
Farm value	"								
All ingredients <u>10/</u>	"	3.8	4.3	4.6	4.8	4.1	6.6	7.0	5.9
Wheat <u>11/</u>	"	2.8	3.4	3.4	3.6	2.8	5.0	5.6	4.5
Flour prices <u>12/</u> *									
F.o.b. mill	Dol. per cwt.	6.07	6.91	7.13	7.37	6.72	10.26	10.85	9.28
Delivered to bakers	"	6.57	7.37	7.52	7.81	7.18	10.76	11.21	9.72
Flour sales <u>12/</u>									
Sold in bags	Percent	13	18	19	21	17	13	8	13
Price differential for bags	Cents per cwt.	17	17	17	18	17	18	19	18
Wheat prices*									
Farm delivery point <u>13/</u>	Dol. per bu.	1.51	2.03	2.08	2.18	2.38	4.21	4.38	3.66
Delivered to millers <u>14/</u>	"	2.50	2.94	3.00	3.23	2.82	4.51	4.61	3.98

1/ Based on prices reported by Bureau of Labor Statistics. 2/ Spread between retail and wholesale prices. This spread is computed from unrounded data and may not reflect the difference between prices as rounded. 3/ Estimated from BLS prices and trade data. 4/ Spread between wholesale price and cost to baker of all ingredients. This spread is computed from unrounded data and may not reflect the difference between price and cost data as rounded. 5/ Cost of flour plus shortening, nonfat dry milk, sugar and other minor nonfarm produced ingredients. 6/ Cost or sales value of flour (0.6329 lb.) used per pound of bread. 7/ Spread between mill sales value of flour and cost of wheat to miller. This spread is computed from unrounded data and may not reflect the difference between mill sales value and cost as rounded. 8/ Cost of wheat (.01445 bu.) including marketing certificate. 9/ Charges for transportation, handling, storing all ingredients, for processing ingredients other than flour and cost of nonfarm produced ingredients such as yeast, salt, and malt extract. This spread is a residual figure computed from data as rounded. 10/ Returns to farmers for wheat, including an allowance for the marketing certificate, lard, shortening, nonfat dry milk, and sugar used in a 1-pound loaf. 11/ Returns to farmers for wheat, including the certificate, less imputed value of mill-feed byproducts. 12/ Based on monthly sales and prices of bread-type flour reported by a sample of flour milling firms. 13/ Weighted average for hard winter and spring wheat in the 10 major wheat producing States. 14/ Includes allowance for marketing certificate.

*Wheat and flour prices do not include allowance for marketing certificate since July 1, 1973, effective date of repeal.

Table 10.--Wheat and flour: Price relationships at milling centers annual and by quarters, 1971-73

Year and month	At Kansas City					At Minneapolis				
	Cost of wheat to produce 100 lb. of flour 1/	Wholesale price of-				Cost of wheat to produce 100 lb. of flour 1/	Wholesale price of-			
		Bakery flour per 100 lb. 2/	Byprod-ucts obtained 100 lb. flour 3/	Total products			Bakery flour per 100 lb. 2/	Byprod-ucts obtained 100 lb. flour 3/	Total products	
				Actual	Over cost of wheat				Actual	Over cost of wheat
----- Dollars -----										
<u>1971/72</u>										
July-Sept.	5.33	5.35	.70	6.05	.72	5.47	6.05	.66	6.71	1.24
Oct.-Dec.	5.44	5.34	.80	6.14	.70	5.51	6.01	.75	6.76	1.25
Jan.-Mar.	5.47	5.33	.78	6.11	.64	5.48	5.97	.76	6.73	1.25
Apr.-June	5.50	5.34	.69	6.03	.53	5.48	5.93	.69	6.62	1.14
Season	5.43	5.34	.74	6.08	.65	5.48	5.99	.71	6.70	1.22
<u>1972/73</u>										
July-Sept.	6.06	5.99	.81	6.80	.74	5.97	6.48	.76	7.24	1.27
Oct.-Dec.	7.15	6.80	1.19	7.99	.84	6.82	7.14	1.13	8.27	1.45
Jan.-Mar.	7.50	7.02	1.27	8.29	.79	7.05	7.34	1.22	8.56	1.51
Apr.-June	7.82	7.31	1.19	8.50	.68	7.55	7.51	1.19	8.70	1.15
Season	7.13	6.78	1.11	7.89	.76	6.85	7.12	1.07	8.19	1.34
<u>1973/74</u>										
July-Sept. 4/	9.76	9.13	1.54	10.67	.91	9.36	9.54	1.50	11.04	1.68
Oct.-Dec.										
Jan.-Mar.										
Apr.-June										
Season										

1/ Based on 73 percent extraction rate, cost of 2.28 bushels: At Kansas City, No. 1 Hard Winter, 13 percent protein, and at Minneapolis, No. 1 Dark Northern Spring, simple average of 13 percent and 15 percent protein. Beginning July 1973 excludes domestic certificate. 2/ Quoted as 95 percent patent at Kansas City and standard patent at Minneapolis, bulk basis. 3/ Assumed 50-50 millfeed distribution between bran and shorts or middlings, bulk basis. 4/ Preliminary.

Compiled from reports of Agricultural Marketing Service and Bureau of Labor Statistics, Department of Labor.

Table 11.--Cereal and bakery products: Retail price index, 1960-73

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
(Index 1967 = 100)													
1960	85.8	86.1	86.2	86.4	86.3	86.6	87.5	87.6	87.7	88.1	88.2	88.4	87.1
1961	88.5	88.7	88.9	88.9	88.9	88.9	88.7	88.9	88.9	89.2	89.7	89.7	88.9
1962	90.0	90.4	90.5	90.5	90.7	90.6	91.1	91.0	91.1	91.1	91.5	91.3	90.8
1963	91.7	92.2	92.1	92.2	92.2	92.2	92.2	92.1	92.1	92.1	92.1	92.0	92.1
1964	92.1	92.0	91.8	91.8	91.9	92.2	92.2	92.5	92.7	93.2	93.4	93.7	92.5
1965	93.8	93.4	93.6	93.7	93.5	93.7	93.8	93.8	93.9	93.9	94.0	94.7	93.8
1966	95.4	95.5	95.9	96.3	96.5	96.8	96.9	99.0	99.9	99.8	100.1	100.3	97.7
1967	100.3	100.0	100.1	100.0	100.3	99.8	99.7	99.9	99.9	99.7	99.9	99.9	100.0
1968	99.8	99.7	99.7	99.8	99.9	100.1	100.6	100.9	101.1	101.1	101.4	101.4	100.4
1969	101.7	101.9	102.3	102.4	102.6	103.0	103.5	103.5	103.8	104.4	104.7	105.4	103.3
1970	105.9	106.6	107.2	107.7	108.0	108.2	108.7	109.8	110.2	111.0	111.2	111.6	108.9
1971	112.4	112.8	113.0	113.9	114.1	114.2	114.8	114.5	114.6	114.3	114.1	113.8	113.9
1972	113.7	114.3	114.8	115.0	114.7	114.5	114.4	114.4	114.6	114.6	115.0	115.8	114.7
1973	116.3	117.8	119.0	120.2	122.1	123.0	123.5	124.7	132.4				
1974													

Bureau of Labor Statistics, U.S. Department of Labor.

Table 12.--Wheat: Monthly average gross export prices and net costs to buyer at selected ports, 1972-73 ^{1/}

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Average
- - - - Cents per bushel - - - -													
GULF PORTS: NO. 2 HARD RED WINTER, ORDINARY PROTEIN													
<u>1972/73</u>													
Export price	176	205	232	238	246	283	293	269	267	274	283	294	255
Payment rate	12	33	18	---	---	---	---	---	---	---	---	---	5
Net cost to buyer	164	172	214	238	246	283	293	269	267	274	283	294	250
<u>1973/74</u>													
Export price	320	493	524	489									
Payment rate	---	---	---	---									
Net cost to buyer	320	493	524	489									
BALTIMORE: NO. 2 SOFT RED WINTER													
<u>1972/73</u>													
Export price	161	183	209	224	243	274	282	264	258	267	280	287	244
Payment rate	2	18	9	---	---	---	---	---	---	---	---	---	2
Net cost to buyer	159	165	200	224	243	274	282	264	258	267	280	287	242
<u>1973/74</u>													
Export price	322	488	516	481									
Payment rate	---	---	---	---									
Net cost to buyer	322	488	516	481									
PORTLAND: NO. 2 WESTERN WHITE													
<u>1972/73</u>													
Export price	164	187	221	237	263	287	291	268	266	268	288	327	255
Payment rate	3	16	14	---	---	---	---	---	---	---	---	---	3
Net cost to buyer	161	171	207	237	263	287	291	268	266	268	288	327	252
<u>1973/74</u>													
Export price	363	528	557	536									
Payment rate	---	---	---	---									
Net cost to buyer	363	528	557	536									
DULUTH: NO. 1 NORTHERN SPRING, 14% PROTEIN													
<u>1972/73</u>													
Export price	170	188	205	213	219	244	245	229	233	241	255	282	227
Payment rate	5	25	13	---	---	---	---	---	---	---	---	---	4
Net cost to buyer	165	163	192	213	219	244	245	229	233	241	255	282	223
<u>1973/74</u>													
Export price	318	468	495	452									
Payment rate	---	---	---	---									
Net cost to buyer	318	468	495	452									

^{1/} Export subsidies were reduced to zero on September 23, 1972.

Table 13.--Wheat: CCC operations, stock ownership, sales and dispositions at specified dates 1972-73 1/

Item	Price Support Operations		
	1972 crop as of		1973 crop
	September 30, 1972	June 30, 1973	as of September 30, 1973
----- Million bushels -----			
Loans made	103.7	143.0	50.9
Loan repayments	38.7	127.7	18.2
Deliveries	---	2/	---
Remaining under current loan	65.0	15.3	32.7
Purchases	---	---	---
----- Million bushels -----			
Stock Ownership			
----- Million bushels -----			
CCC	294.5	3/209.2	189.9
Sealed under bond	2.7	11.0	4/
Reseal loan	262.5	66.7	13.2
Remaining under current loan	65.0	15.3	32.7
Total CCC and loans outstanding	624.7	302.2	235.8
Privately held ("free") stocks	1,240.9	127.4	1,239.4
Total stocks all positions	1,865.6	429.6	1,475.2
----- Million bushels -----			
Sales and Dispositions			
----- Million bushels -----			
	July-September 1972	July-June 1972/73	July-September 1973
Statutory Minimum Price <u>5/</u>	180.0	315.8	1.3
Domestic	.2	.8	.1
Export			
GR 261 and 345 <u>6/</u>	11.4	16.6	---
Donations	12.4	28.6	.9
Total export	23.8	45.2	.9
Total sales and dispositions	204.0	361.8	2.3

1/ Based on current operating reports, which may differ from more complete fiscal reports.

2/ Less than 50,000 bushels.

3/ As of June 30, 1973, CCC's uncommitted inventory totaled 6 million bushels.

4/ All sealed under bond wheat has been released without priority.

5/ Sales for unrestricted use at the minimum price, which is the market price or not less than the formula prices at designated terminals, or outside of designated terminals, plus monthly markups.

6/ Sales for export at net export and gross export prices, respectively.

Agricultural Stabilization and Conservation Service.

Table 14.-- Wheat: Effective allotment, by States, 1973-74 ^{1/}

State	1973 National domestic wheat allotment	1974 National wheat allotment ^{2/}
- - - Acres - - -		
Alabama	17,920	49,819
Arizona	12,186	34,930
Arkansas	41,270	120,195
California	119,324	344,346
Colorado	875,943	2,579,970
Connecticut	75	205
Delaware	7,148	20,816
Florida	5,579	16,210
Georgia	40,149	112,470
Idaho	401,273	1,180,553
Illinois	524,260	1,543,130
Indiana	381,260	1,116,019
Iowa	32,624	96,532
Kansas	3,633,026	10,731,096
Kentucky	65,284	190,292
Louisiana	11,176	32,699
Maine	74	205
Maryland	41,539	118,646
Massachusetts	34	98
Michigan	349,417	1,003,368
Minnesota	330,836	976,654
Mississippi	17,747	51,834
Missouri	490,083	1,419,757
Montana	1,347,504	3,982,524
Nebraska	1,064,672	3,142,238
Nevada	4,781	13,746
New Jersey	13,155	37,554
New Mexico	159,637	468,173
New York	94,713	269,086
North Carolina	120,693	346,103
North Dakota	2,529,644	7,488,667
Ohio	482,742	1,403,262
Oklahoma	1,670,094	4,925,856
Oregon	281,693	823,632
Pennsylvania	147,383	415,746
Rhode Island	11	29
South Carolina	55,832	158,461
South Dakota	940,509	2,776,323
Tennessee	52,920	149,379
Texas	1,377,456	4,047,325
Utah	97,001	282,880
Vermont	119	322
Virginia	74,612	212,344
Washington	675,872	1,993,433
West Virginia	6,866	19,078
Wisconsin	14,292	41,346
Wyoming	89,572	262,647
National Reserve		
Total allotment	18,700,000	55,000,000

^{1/} Includes an allowance for small farms ^{2/} Represents the acreage needed with average yields to produce enough wheat for estimated domestic use and exports in 1974/75.

Table 15.--Wheat programs: Comparison of provisions for 1973 and 1974 wheat crops

Item	1973 Program ^{1/}	1974 Program ^{2/}
National wheat allotment	Not applicable	55.6 million acres
National domestic wheat allotment	18.7 million acres	Not applicable
Loan	\$1.25 per bushel	\$1.37 per bushel
Domestic certificate	Difference between average price received by farmers in the first 5 months (July-Nov. 1973) of the marketing year and 100 percent of wheat parity on July 1, 1973.	Not applicable
Total support or guarantee to program participant for certificate production	100 percent of parity (\$3.39)	Not applicable
Guaranteed return or target price	Not applicable	Target price of \$2.05 per bushel. The guaranteed payment if any will be based on the differences between the target prices and the 5 month weighted average farm price.
Production eligible for loan	Total production on participating farm	Same as for 1973
Production eligible for domestic certificates	Production on 100 percent of farm domestic wheat allotment	Not applicable
Computation of guaranteed return or target payments	Not applicable	Payment rate times farm allotment times established yields.
Preliminary payment	75 percent of estimated value of certificates soon after July 1, 1971. Final payments made after December 1.	No preliminary payment. Any payment due will be made after December 1, 1974
Payment Limitations	Maximum value of 1973 wheat certificate plus voluntary set-aside payments to any person \$55,000.	Total payments under wheat, feed grain, and cotton programs limited to \$20,000 per person, excluding resource adjustments and payments.
Set-aside requirements	86 percent of farm domestic allotment for producers who elect to participate in voluntary set-aside. No set-aside required for other producers.	No set-aside required
Compensation for required set aside	Value of wheat certificates and loan eligibility	Not applicable
Limitations on acreage planted to wheat	Participant who sets aside cropland equal to the required percentage of his domestic wheat allotment and maintains his conserving base may plant all the remaining cropland on the farm to wheat or any other crop he wishes without loss of certificates (planting of quota crop limited by other persons). Voluntary set aside requirement limited total wheat acreage planted for harvest.	No limit on wheat acreage
Planting required to prevent loss of allotment	Producer must plant at least 90 percent of domestic allotment to wheat to maintain base. Base reduced by amount of underplanting up to 20 percent.	Participants required to plant 90 percent of allotment to wheat or a broad range of substitute crops or lose part of allotment.
Substitution	Any producer who sets aside cropland equal to the required percentages of his base and allotment and maintains his conserving base can plant his entire acreage to wheat, corn, sorghum, barley or soybeans without loss of payments, certificates, base acreage or allotment. A producer with only a base or only an allotment can participate in one program and plant all wheat or all feed grains without loss of benefits, base or allotment.	Any non conserving crop, and any conserving crop used for hay or grazing or other crops designated by the Secretary can be substituted to preserve history.
Conserving base	Acre diverted must be in addition to the conserving base, i.e., average acreage of conserving crops in 1959 and 1960.	No conserving base requirements
Farm program yield used to calculate benefits	Projected from 1969-71 average	Projected from 1968-72 average

^{1/} As announced under the Agricultural Act of 1970.

^{2/} As announced under the Agriculture and Consumer Protection Act of 1973.

Table 16.--Wheat: Price support activity, cumulative, by months 1969-1973 crops 1/

Item	Unit	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
<u>1969</u>													
Placed under loan 2/	Mil. bu.	124	221	297	336	347	353	384	391	397	403	406	407
Redeemed by farmers	"	---	---	3	19	34	62	97	116	131	151	167	175
Net under loan	"	124	221	294	317	313	291	287	275	266	252	239	232
Price above or below loan (\$1.25)	Dol.	.10	-.06	-.01	.03	.04	.05	.04	.05	.03	.07	.06	-.02
<u>1970</u>													
Placed under loan 2/	Mil. bu.	126	160	194	213	221	226	241	244	248	251	254	254
Redeemed by farmers	"	---	---	42	60	75	87	106	122	138	152	163	167
Net under loan	"	126	160	152	153	146	139	135	122	110	99	91	87
Price above or below loan (\$1.25)	Dol.	-.02	.06	.16	.18	.20	.16	.15	.16	.14	.15	.18	.21
<u>1971</u>													
Placed under loan 2/	Mil. bu.	77	134	252	318	343	359	409	420	427	434	437	438
Redeemed by farmers	"	---	---	6	14	27	44	71	91	135	182	207	227
Net under loan	"	77	134	246	304	316	315	338	329	292	252	230	211
Price above or below loan (\$1.25)	Dol.	.09	.03	.01	.05	.06	.09	.08	.09	.09	.11	.13	.08
<u>1972</u>													
Placed under loan 2/	Mil. bu.	59	78	104	122	130	135	141	142	143	143	143	143
Redeemed by farmers	"	---	---	39	45	51	61	78	87	97	106	119	128
Net under loan	"	59	78	65	77	79	74	63	55	46	37	24	15
Price above or below loan (\$1.25)	Dol.	.07	.26	.48	.64	.72	1.13	1.13	.72	.81	.90	.90	1.18
<u>1973</u>													
Placed under loan 2/	Mil. bu.	32	42	51	55								
Redeemed by farmers	"	3	14	18	21								
Net under loan	"	29	28	33	34								
Price above or below loan (\$1.25)	Dol.	1.22	3.20	3.37	2.97								

1/ Based on operating reports.

2/ Includes direct purchases.

Table 17.--Wheat and Flour: U.S. exports by country of destination, fiscal years, 1972-73

Destination	July-June 1971-72				July-June 1972-73				
	Wheat	Flour 2/	Total	Wheat	Flour 2/	Total	Wheat	Flour 2/	Total
	1,000 Bushels	1,000 Bushels	1,000 Metric Tons	1,000 Bushels	1,000 Bushels	1,000 Metric Tons	1,000 Bushels	1,000 Bushels	1,000 Metric Tons
Western Hemisphere:									
Canada	3/	20	20	1	3/	21	21	1	
Mexico	14,763	23	14,786	402	24,581	7	24,588	669	
Costa Rica	1,933	33	1,966	54	2,656	64	2,720	74	
El Salvador	1,673	66	1,739	47	2,262	49	2,311	63	
Guatemala	2,424	103	2,527	69	2,270	175	2,445	67	
Other Central America	5,205	335	5,540	151	4,824	688	5,512	150	
Dominican Republic	3,249	125	3,374	92	2,601	152	2,753	75	
Haiti	--	43	43	1	74	87	161	4	
Jamaica	867	947	1,814	49	1,683	1,297	2,980	81	
Trinidad and Tobago	2,261	5	2,266	62	2,789	89	2,878	78	
Other Bermuda and Caribbean	815	494	1,309	36	540	300	840	23	
Argentina	--	--	--	--	--	--	--	--	
Bolivia	2,156	1,462	3,618	98	752	57	809	22	
Brazil	16,426	568	16,994	462	43,973	812	44,785	1,219	
Chile	--	247	247	7	334	296	630	17	
Colombia	15,574	554	16,128	439	10,215	782	10,997	299	
Ecuador	3,974	143	4,117	112	4,534	210	4,744	129	
Guyana	1,385	31	1,416	39	1,736	14	1,750	48	
Peru	16,510	328	16,838	458	20,524	172	20,696	563	
Surinam	518	174	692	19	352	104	456	12	
Uruguay	301	6	307	8	4,365	4	4,369	119	
Venezuela	23,746	37	23,783	647	23,569	46	23,615	643	
Other South America	1,029	38	1,067	29	1	40	41	1	
Total	114,809	5,782	120,591	3,282	154,635	5,466	160,101	4,357	
Western Europe:									
EC:									
Belgium-Luxembourg	6,537	4/	6,537	178	6,221	--	6,221	169	
France	2,497	--	2,497	68	7,218	--	7,218	196	
Germany, West	5,951	2	5,953	162	22,986	--	22,986	626	
Italy	3,096	--	3,096	84	8,701	--	8,701	237	
Netherlands	21,157	402	21,559	587	35,350	282	35,632	970	
Total	39,238	404	39,642	1,079	80,476	282	80,758	2,198	
Other Western Europe:									
Iceland	7	214	221	6	8	315	323	9	
Norway	3,176	2	3,178	87	3,414	3	3,417	93	
Portugal	6,301	23	6,324	172	3,794	16	3,810	103	
Spain	4	--	4	4/	2	--	2	4/	
Switzerland	4,887	--	4,887	133	5,539	--	5,539	151	
United Kingdom	25,493	17	25,510	694	19,908	7	19,915	542	
Others	326	85	411	11	5,454	52	5,506	150	
Total	40,194	341	40,535	1,103	38,119	393	38,512	1,048	
Eastern Europe:									
Poland	--	--	--	--	22,407	--	22,407	610	
Romania	--	--	--	--	1,051	--	1,051	29	
Yugoslavia	1,235	--	1,235	34	12,566	2	12,568	342	
Others	104	--	104	3	6,565	--	6,565	179	
Total	1,339	--	1,339	37	42,589	2	42,591	1,159	
Total Europe	80,771	745	81,516	2,219	161,184	677	161,861	4,405	
U.S.S.R.	--	--	--	--	347,895	--	347,895	9,468	
Asia:									
Bangladesh	5/ 11,175	--	11,175	304	27,362	--	27,362	745	
China, Peoples Republic of	--	--	--	--	21,731	--	21,731	591	
China, Republic of (Taiwan)	11,506	--	11,506	313	18,295	--	18,295	498	
Cyprus	1,101	61	1,162	32	1,436	84	1,520	41	
Hong Kong	1,152	27	1,179	32	1,923	21	1,944	53	
India	27,814	117	27,931	760	18,046	335	18,381	500	
Indonesia	4,460	2,224	6,684	182	17,457	726	18,183	495	
Iran	21,607	4	21,611	588	18,482	2	18,484	503	
Israel	13,088	3,094	16,182	440	12,955	2,356	15,311	417	
Japan	80,646	3	80,649	2,195	124,086	7	124,093	3,377	
Jordan	1,545	2,162	3,707	101	3	3,373	3,376	92	
Khmer Republic	--	767	767	21	533	618	1,151	31	
Korea, Republic of	62,726	1,742	64,468	1,745	55,477	4,071	59,548	1,621	
Lebanon	4,331	1,282	5,613	153	2,638	480	3,118	85	
Mansei and Nampo Islands	608	149	757	21	--	--	--	--	
Pakistan	5/ 32,915	4/	32,915	896	36,054	80	36,134	983	
Philippines	14,767	694	15,461	421	15,632	1,091	16,723	455	
Saudi Arabia	--	5,086	5,086	138	673	4,792	5,465	149	
Sri Lanka	--	11,199	11,199	305	--	7,387	7,387	201	
Syrian Arab Republic	8,527	--	8,527	232	--	--	--	--	
Turkey	2,876	807	3,683	100	--	1,128	1,128	31	
Vietnam, South	7,375	2,714	10,089	274	7,506	1,613	9,119	248	
Others	8,192	278	8,470	231	3,652	359	4,011	109	
Total	316,411	32,410	348,821	9,493	383,941	28,523	412,464	11,225	
Africa:									
Algeria	17,297	--	17,297	471	14,975	--	14,975	408	
Ghana	1,513	12	1,525	41	1,545	42	1,587	43	
Guinea	--	916	916	25	--	655	655	18	
Morocco	16,578	2,581	19,159	521	9,395	2,915	12,310	335	
Nigeria	12,740	438	13,178	359	12,528	7	12,535	371	
South Africa, n.e.c.	--	--	--	--	--	--	--	--	
Sierra Leone	1,008	3	1,011	28	1,067	2	1,069	29	
Tunisia	6,645	582	7,227	197	1,872	763	2,635	72	
Zaire	2	1,300	1,302	35	515	160	675	18	
Others	7,961	647	8,608	234	16,226	658	16,884	460	
Total	63,744	6,479	70,223	1,911	58,123	5,202	63,325	1,724	
Oceania	--	--	--	--	--	161	161	4	
Unidentified Canadian Transshipments	--	--	--	--	20,463	--	20,463	557	
World Total	575,735	45,493	621,228	16,907	1,126,241	40,029	1,166,270	31,740	
Other Products	9,679	--	9,679	263	14,676	--	14,676	399	
Grand Total	585,414	45,493	630,907	17,170	1,140,917	40,029	1,180,946	32,139	

1/ Data includes shipments for relief. 2/ Grain equivalent. 3/ Transshipments through Canada have been included in data for countries of ultimate destination. 4/ Less than 500 metric tons. 5/ Exports to Bangladesh are included with Pakistan through April.

Foreign Agricultural Service
Grain and Feed Division, CAB/SSS
August 1973

Table 18.--Wheat and flour (wheat equivalent): Exports by type of transaction and program, United States, annual 1967-72

Program	Year beginning July					
	1967	1968	1969	1970	1971	1972 ^{1/}
	- - - - 1,000 bushels - - - -					
<u>Commercial</u>						
Cash and CCC Credit ^{2/}	283,593	241,663	276,807	401,715	315,477	975,288
Barter	83,327	51,541	60,047	91,896	79,413	58,020
Total	366,920	293,204	336,854	493,611	394,890	1,033,308
<u>PL 480</u>						
Long-term credit						
Foreign currency	225,310	82,206	69,447	46,970	22,686	---
Dollars	118,819	111,818	154,697	144,056	153,593	90,442
Total	344,129	194,024	224,144	191,026	176,279	90,442
Donations						
Government	31,006	38,008	33,663	33,395	43,199	39,338
Voluntary relief	18,309	17,202	11,423	18,537	17,417	19,074
Total	49,315	55,210	45,086	51,932	60,616	58,412
<u>Other ^{3/}</u>	723	1,736	---	966	754	2,092
Total exports ^{4/}	761,087	544,174	606,084	737,535	632,539	1,184,254

^{1/} Preliminary.

^{2/} Unassisted sales as well as those with government assistance in the form of (1) export payments in cash and (2) extension of credit and credit guarantees for relatively short periods.

^{3/} Agency for International Development and predecessor agencies. Includes various country relief programs authorized by Congress.

^{4/} Includes bulgar, rolled wheat, meal and groats, wheat flour, semolina, and macaroni products in terms of wheat. This data is also adjusted for transshipments of United States wheat through Canada.

Foreign Development and Trade Division, ERS.

Table 19.--Wheat: Supply and disappearance, United States, Canada, Australia, and Argentina, average 1960-64 and 1965-69, annual 1970-73

Crop year	Supply			Disappearance	
	Beginning carryover <u>1/</u>	Production	Total <u>2/</u>	Domestic	Exports including flour
----- Million bushels -----					
United States					
Year beginning July 1					
Average					
1960-64	1,228	1,222	2,455	605	721
1965-69	627	1,437	2,066	721	705
1970	885	1,351	2,237	768	738
1971	731	1,618	2,350	855	632
1972 <u>3/</u>	863	1,545	2,409	795	1,184
1973 <u>4/</u>	430	1,727	2,158	755	1,150
Canada					
Year beginning August 1					
Average					
1960-64	509	538	1,047	148	407
1965-69	606	681	1,287	164	418
1970	1,009	332	1,341	163	434
1971	744	530	1,274	187	505
1972 <u>3/</u>	584	533	1,117	176	575
1973 <u>4/</u>	366	625	991	180	500
Australia					
Year beginning December 1					
Average					
1960-64	29	305	334	78	234
1965-69	88	387	475	91	247
1970	265	290	555	89	332
1971	134	313	447	98	291
1972 <u>3/</u>	58	241	299	113	168
1973 <u>4/</u>	18	485	503	114	360
Argentina					
Year beginning December 1					
Average					
1960-64	36	263	299	134	113
1965-69	47	238	289	148	108
1970	29	181	210	149	36
1971	25	209	234	156	60
1972 <u>3/</u>	18	250	284	159	119
1973 <u>4/</u>	6	198	204	158	33

1/ From previous crops for the U.S. and Canada farm stocks are included; net changes in farm stocks for Australia and Argentina are reflected in domestic disappearance.

2/ Supply for U.S. includes imports. Australian and Argentine imports are generally insignificant, with exception of 1972 for Argentina.

3/ Preliminary.

4/ Estimated.

Compiled from records of Foreign Agricultural Service, Grain and Feed Division.

WS-226, November 1973

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Table 20.--Wheat: World trade, production and stocks for 1971/72, 1972/73, and projected levels for 1973/74, years beginning July 1

Country or Region	1971/72	1972/73 (preliminary)	Projected for 1973/74	
			as of August 10	as of October 26
----- Million metric tons -----				
Exports				
Canada	13.7	15.7	15	13.7
Australia	8.4	5.4	7	6.8
Argentina	1.2	3.3	1	1.3
Sub-total	23.3	24.4	23	21.8
W. Europe	8.6	12.0	9	12.0
(Excluding intra EC-9)	(4.6)	(7.5)	(6)	(7.0)
USSR	5.5	2.5	4	4.0
All Others	1.2	2.4	1	1.5
Total non-U.S.	38.6	41.3	37	39.3
USA 1/	16.9	32.0	30	31.0
World total	55.5	73.5	67	70.3
(World total excluding intra EC-9)	(51.5)	(69.0)	(64)	(65.3)
Imports				
W. Europe	12.2	13.0	14	13.5
(Excluding intra EC-9)	(8.2)	(8.5)	(11)	(8.5)
Japan	5.0	5.5	6	5.5
E. Europe	4.8	4.7	5	4.0
China, People's Rep. of	3.0	5.4	6	6.5
USSR	3.4	14.9	6	5.5
All Others	27.1	30.0	30	35.3
World total	55.5	73.5	67	70.3
(World total excluding intra EC-9)	(51.5)	(69.0)	(64)	(65.3)
Production 2/				
Canada	14.4	14.5	17	17.0
Australia	8.5	6.6	11	13.2
Argentina	5.7	6.8	6	5.4
W. Europe	51.0	51.3	50	49.8
USSR 3/	98.8	85.8	95	100.0
E. Europe	30.0	30.7	31	31.5
All other foreign	88.2	93.4	91	90.9
Total foreign	296.6	289.1	301	307.8
USA	44.0	42.0	47	47.0
World total	340.6	331.1	348	354.8
Stocks, ending (June 30)				
Major competitors 4/	26.0	17.3	16.5	18.1
USA	23.5	11.6	7.9	6.8
Total	49.5	28.9	24.4	24.9
Consumption				
World total 5/	336.6	355.4	---	360.4

1/ Include transshipments through Canadian ports, excludes products other than flour.

2/ Production data includes all harvests occurring within the July-June year shown, except that small grain crops from the early-harvesting Northern Hemisphere areas are "moved forward"; i.e.; the May 1972 harvests in areas such as India, North Africa and southern USA are actually included in "1972/73" accounting period which begins July 1, 1972.

3/ Beginning with the current report, production figures and estimates for all years for the USSR are expressed in terms of gross weight, the same as official Soviet data; this adjustment causes a corresponding increase in all data for total world production.

4/ Canada, Australia, and Argentina.

5/ Based on an aggregate of local marketing year data for individual countries.

Source: Foreign Agricultural Service.

Table 21.--Wheat: World wheat supply and distribution, marketing years 1960-73

Year	Area Harvested 1,000 Ha.	Yield Qu./Ha.	Beginning Stocks 2/ 1,000 metric ton	Production 1,000 metric ton	Total Exports 1,000 metric ton	Consumption Total 3/ 1,000 metric ton
1960/61	201,261	11.9	70,421	240,201	43,840	238,448
1961/62	200,995	11.2	72,174	225,719	46,898	234,678
1962/63	206,172	12.4	63,215	255,577	45,684	252,291
1963/64	205,521	11.5	66,501	236,291	58,394	245,879
1964/65	215,093	12.7	56,913	272,643	52,649	274,033
1965/66	215,069	12.2	55,523	261,928	61,413	271,453
1966/67	213,287	14.2	45,998	302,793	57,477	302,109
1967/68	217,488	13.4	46,682	292,057	53,487	282,765
1968/69	223,291	14.5	55,974	324,357	50,222	302,782
1969/70	216,222	14.1	77,549	305,633	55,860	303,646
1970/71	204,747	15.1	79,536	308,629	55,889	322,907
1971/72	210,621	16.2	65,258	340,588	56,024	336,633
1972/73 4/	207,060	15.9	69,213	331,061	73,429	355,407
1973/74 5/	217,765	16.3	44,867	354,820	67,094	360,384

1/ Data in this table are based on an aggregate of differing local marketing years, and will therefore differ from July-June data appearing elsewhere in this report.

2/ Stocks data are only for selected countries and exclude such important countries as the USSR, the People's Republic of China and part of Eastern Europe for which stocks data are not available.

3/ For countries for which stock data are not available, consumption estimates assume a constant stock level.

4/ Preliminary.

5/ Estimated.

Source: Foreign Agricultural Service

Table 22.--Wheat: Rotterdam, c.i.f., quotations for cargoes/parcels in nearest shipment position, by months, 1968-73

Year beginning	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Average
----- Dollars per bushel -----													
Canadian No. 1 CWRS-14- 1/													
1968	2.03	2.02	2.02	2.01	2.04	2.02	2.07	2.07	2.00	1.93	1.94	1.94	2.01
1969	1.93	1.89	1.88	1.91	1.94	1.94	1.97	2.00	2.03	1.98	2.00	1.97	1.95
1970	1.96	2.00	2.06	2.14	2.10	2.07	2.08	2.02	1.99	1.99	1.90	1.94	2.02
1971	1.94	1.94	1.95	1.96	2.00	2.01	2.01	1.98	1.98	1.99	1.98	1.97	1.98
1972	1.97	1.99	2.54	2.73	2.76	2.87	N.Q.	3.14	3.12	3.18	3.30	N.Q.	2.76
1973	N.Q.	1/5.74	1/6.20	1/6.07									
United States No. 2 Hard Winter, 12 percent													
1968	1.85	1.82	1.84	1.85	1.85	1.87	1.85	1.85	1.80	1.78	1.79	1.81	1.83
1969	1.86	1.74	1.62	1.61	1.63	1.67	1.67	1.68	1.67	1.69	1.63	1.65	1.68
1970	1.75	1.78	1.89	1.91	1.91	1.88	1.90	1.89	1.87	1.83	1.79	1.78	1.85
1971	1.80	1.77	1.76	1.74	1.79	1.76	1.76	1.74	1.75	1.76	1.77	1.76	1.76
1972	1.76	1.78	2.27	2.54	2.53	2.97	2.98	2.67	2.67	2.79	3.09	3.52	2.63
1973	3.91	5.45	5.75	N.Q.									
United States Dark Northern Spring, 15 percent													
1968	2.00	2.01	2.02	2.02	2.00	1.99	1.98	1.98	1.95	1.92	1.94	1.93	1.98
1969	1.91	1.88	1.90	1.91	1.91	1.93	1.95	1.94	1.97	1.96	1.98	1.96	1.93
1970	1.95	1.98	2.03	2.09	2.09	2.11	2.11	2.08	2.05	2.02	1.95	1.97	2.04
1971	1.97	1.97	1.98	2.00	2.02	2.00	1.98	1.97	1.98	1.97	1.99	1.94	1.98
1972	1.93	1.97	2.33	2.52	2.50	2.87	3.18	2.97	2.80	2.90	3.23	2/3.58	2.72
1973	3.92	5.34	5.46	5.23									

1/ Prior to August 1971 Canada No. 2 Manitoba, effective August 1973 - Canadian Western Spring Wheat (CWRS)--No. 1--13.5 protein.
2/ Effective June 1973, 14 percent.

Compiled from International Wheat Council data by Grain and Feed Division, FAS.

Table 23.--Wheat: World wheat and flour trade (grain equivalent), year beginning July, 1963-73 1/

Region and country	1963	1964	1965	1966	1967	1968	1969	1970	1971	Prelim. Forecast 1972 : 1973	
----- million metric tons -----											
Exports											
Canada	15.0	11.9	14.9	14.8	8.9	8.7	8.9	11.5	13.7	15.7	13.7
Australia	7.8	6.4	5.7	6.9	7.0	5.3	7.4	9.3	8.4	5.4	6.8
Argentina	2.8	4.3	7.8	3.1	1.4	2.7	2.1	1.7	1.2	3.3	1.3
Sub-total	25.6	22.6	28.4	24.8	17.3	16.7	18.4	22.5	23.3	24.4	21.8
West Europe	4.8	6.8	6.9	5.8	7.7	9.2	11.1	6.4	8.6	12.0	12.0
East Europe	2.3	.3	.9	1.7	2.3	2.0	1.3	.1	.2	.5	.7
USSR	2.7	2.2	2.6	4.4	5.3	5.8	6.4	7.1	5.5	2.5	4.0
Other	.9	1.3	1.0	.7	.7	.8	.8	.4	1.0	2.1	.8
Total non U.S.	34.3	33.2	39.8	37.4	33.3	34.5	38.0	36.5	38.6	41.5	39.3
United States	23.1	19.3	23.4	20.0	20.2	14.7	16.5	19.8	16.9	32.0	31.0
Total	57.4	52.5	63.2	57.4	53.5	49.2	54.5	56.3	55.5	73.5	70.3
Imports											
Japan	3.9	3.5	3.5	4.3	4.0	4.2	4.4	4.8	5.0	5.5	5.5
West Europe	10.9	11.1	11.7	10.9	10.3	12.8	12.7	13.8	12.2	13.0	13.5
East Europe	6.0	7.4	7.2	5.4	4.9	4.3	4.7	6.5	4.8	4.7	4.0
USSR	9.7	2.2	8.5	3.1	1.5	0.2	1.1	0.3	3.4	14.9	5.5
China, People's Rep. of	5.2	5.0	6.3	5.0	4.2	3.5	5.1	3.5	3.0	5.4	6.5
Sub-total	35.7	29.2	37.2	28.7	24.9	25.0	28.0	28.9	28.4	43.5	35.0
Africa 2/	2.8	3.3	3.8	6.0	5.6	3.6	3.7	5.6	5.2	4.9	6.4
Latin America 3/	3.0	3.7	3.9	4.6	5.1	4.3	3.9	3.7	4.3	6.3	6.1
West Asia 4/	1.4	1.7	1.2	1.8	1.6	1.7	2.3	3.5	3.8	1.7	3.6
South Asia 5/	6.2	8.8	8.7	9.1	9.3	5.4	5.4	4.7	4.2	6.4	8.3
Other Asia 6/	1.7	1.2	1.4	1.3	1.8	2.0	2.7	3.0	3.1	3.0	3.3
Others	6.6	4.6	7.0	5.9	5.2	7.2	8.5	6.9	6.5	7.7	7.6
Total	57.4	52.5	63.2	57.4	53.5	49.2	54.5	56.3	55.5	73.5	70.3

1/ Data include Intra-EC-9 trade, but exclude products other than flour in grain equivalent; U.S. data also adjusted for transshipments through Canada.

2/ Algeria, Egypt, Libya, Morocco, Nigeria, South Africa, Sudan and Tunisia.

3/ Mexico, Brazil, Chile, Colombia, Peru and Venezuela.

4/ Iran, Iraq, Israel, Jordan, Lebanon, Saudi Arabia, Syria, and Turkey.

5/ Bangladesh, Ceylon, India, Indonesia and Pakistan.

6/ Philippines, Taiwan, and South Korea.

Source: Foreign Agricultural Service.

Table 24 --Rye: U.S. Supply and disappearance, average 1965-69, by quarters, 1970-73

Year and quarter	Beginning stocks	Production	Imports	Total supply	Ending stocks	Total disappearance	Exports	Domestic				
								Food	Seed	Industry	Feed 1/	Total
----- 1,000 bushels -----												
<u>Average 1965-69</u>												
July-Sept.	16,901	27,644	247	44,792	35,223	9,569	756	1,369	2,581	871	3,992	8,813
Oct.-Dec.	35,223		284	35,507	27,676	7,831	491	1,410	2,581	1,196	2,153	7,340
Jan.-Mar.	27,676		179	27,855	23,300	4,555	316	1,400	281	1,374	1,184	4,239
Apr.-June	23,300		452	23,752	18,556	5,196	998	1,223	168	1,111	1,696	4,198
Season	16,901	27,644	1,162	45,707	18,556	27,151	2,561	5,402	5,611	4,552	9,025	24,590
<u>1970/71</u>												
July-Sept.	21,130	36,840	185	58,155	48,142	10,013	12	1,502	3,162	696	4,641	10,001
Oct.-Dec.	48,142		417	48,559	40,804	7,755	5	1,377	3,162	973	2,238	7,750
Jan.-Mar.	40,804		61	40,865	34,361	6,504	404	1,319	343	1,137	3,301	6,100
Apr.-June	34,361		30	34,391	27,876	6,515	3,201	1,219	206	629	1,260	3,314
Season	21,130	36,840	693	58,663	27,876	30,787	3,622	5,417	6,873	3,435	11,440	27,165
<u>1971/72</u>												
July-Sept.	27,876	49,288	131	77,295	64,770	12,525	1,604	1,380	2,530	544	6,467	10,921
Oct.-Dec.	64,770		110	64,880	54,620	10,260	143	1,363	2,530	816	5,408	10,117
Jan.-Mar.	54,620		---	54,620	49,332	5,288	4	1,334	275	997	2,678	5,284
Apr.-June	49,332		---	49,332	45,634	3,698	---	1,134	165	709	1,690	3,698
Season	27,876	49,288	241	77,405	45,634	31,771	1,751	5,211	5,500	3,066	16,243	30,020
<u>1972/73</u>												
July-Sept.	45,634	29,536	154	75,324	62,595	12,729	17	1,178	2,070	353	9,111	12,712
Oct.-Dec.	62,595		---	62,595	54,120	8,475	174	1,225	2,070	780	4,226	8,301
Jan.-Mar.	54,120		---	54,120	48,865	5,255	1,174	1,314	225	993	1,549	4,081
Apr.-June	48,865		---	48,865	33,305	15,560	8,352	1,500	135	1,033	4,540	7,208
Season	45,634	29,536	154	75,324	33,305	42,019	9,717	5,217	4,500	3,159	19,426	32,302
<u>1973/74</u>												
July-Sept. 2/	33,305	25,506	---	58,811	36,155	22,656	12,116	1,435	2,438	500	6,167	10,540
Oct.-Dec.	36,155											
Jan.-Mar.												
Apr.-June												
Season												

1/ Residual item; roughly approximates total feed use.

2/ Partly estimated.

Table 25.--Rye: Farm and cash prices, by selected States and markets, 1972-73

Item	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Season average 1/
	- - - - Dollars per bushel - - - -												
<u>Colorado</u>													
1972/73	.92	.96	1.00	1.00	1.02	1.08	1.11	1.13	1.18	1.17	1.21	1.25	1.00
1973/74	1.36	1.70	1.86	1.94									
<u>Georgia</u>													
1972/73	2.00	2.00	2.00	2.00	2.00	2.10	2.10	2.10	2.20	2.00	2.00	2.10	1.98
1973/74	2.20	2.75	2.75	2.75									
<u>Kansas</u>													
1972/73	.79	.84	.86	.85	.93	1.05	1.00	.99	1.00	1.00	1.02	1.11	.87
1973/74	1.19	1.55	1.60	1.60									
<u>Minnesota</u>													
1972/73	.81	.80	.80	.83	.90	.94	.92	.92	.90	.88	.93	1.04	.85
1973/74	1.18	1.82	2.19	2.22									
<u>Nebraska</u>													
1972/73	.87	.87	.93	.96	.98	1.11	1.11	1.13	1.16	1.14	1.16	1.22	.93
1973/74	1.25	1.60	1.70	1.78									
<u>North Dakota</u>													
1972/73	.69	.70	.72	.74	.79	.84	.83	.86	.85	.79	.86	.95	.78
1973/74	1.09	1.82	2.19	2.20									
<u>South Dakota</u>													
1972/73	.74	.73	.74	.77	.84	.92	.87	.89	.86	.82	.88	.95	.78
1973/74	1.06	1.70	2.20	2.15									
<u>U.S. average farm</u>													
1972/73	.96	.81	.96	.95	1.01	1.02	.97	.98	.95	.95	.95	1.46	.94
1973/74	1.35	1.78	2.12	2.14									
<u>Minneapolis No. 2</u>													
1972/73	.98	.97	.98	1.05	1.14	1.15	1.13	1.17	1.09	1.10	1.23	1.32	1.11
1973/74	1.60	2.17	2.79	2.65									
<u>Winnipeg No. 3</u>													
<u>Canadian Western</u>													
1972/73	.99	1.05	1.15	1.18	1.22	1.53	1.70	1.51	1.37	1.46	1.59	1.97	1.39
1973/74	2.52	2.72	3.24										

1/ Includes allowance for loans outstanding and purchases by the Government valued at the average loan and purchase rate. Simple average for Minneapolis No. 2 and Winnipeg No. 3.

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NOVEMBER 1973

OUTLOOK CONFERENCE SCHEDULED FOR DECEMBER 17-19, 1973

The National Agricultural Outlook Conference has been set for December 17 through 19, 1973, at the U.S. Department of Agriculture in Washington, D.C. This year's Conference is about 2 months earlier than usual to give farmers and farm suppliers more time to plan for 1974 food production.

The 1974 outlook for U.S. agriculture and the general economy will receive particular attention at the Conference. The outlook for farm inputs such as fuel, fertilizer, pesticides, and farm equipment will be stressed. Sessions on the 1974 outlook for major commodities will make up an important part of the Conference as usual. The Conference is sponsored by USDA's Economic Research Service, Extension Service, and Agricultural Research Service.