OUTLOOK '85

PROCEEDINGS

Agricultural Outlook Conference

United States Department of Agriculture

Dec. 3-5, 1984
Washington, D.C.

THE WORLD COARSE GRAIN SITUATION AND OUTLOOK

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OUTLOOK '85

Annual Agricultural Outlook Conference
Session #12, Washington, D.C.

For Release: Tuesday, December 4, 1984

The global coarse grain situation from the summer of 1983 through this past summer has been both exciting and frustrating, especially for those of us involved in forecasting. And this marketing year will be equally interesting, but for different reasons. In 1983/84 global output dropped dramatically--by over 11 percent--the largest decline in recent history. In 1984/85 Soviet grain imports may set a record. Changes in output, total supplies, feed use, trade, ending stocks and prices have been dramatic in recent years and are likely to remain so for at least another year. The situation and outlook by supply and demand categories will be discussed below, concentrating on major factors of special interest this year, such as the Soviet grain situation and the European Community's grain surplus.

Supply Situation and Outlook

World coarse grain output this year is forecast to set a record, but to rise only 1.4 percent above the 1982/83 level. However, this year's production may be more than 14 percent above 1983/84's depressed level. The distribution of output changes has varied by categories of countries.

Coarse Grain Production

	1982/83	1983/84 Estimated	1984/85 Projected
		Million tons	
World	778.7	689.4	789.3
United States	250.7	136.7	232.7
Total Foreign	528.0	552.7	556.7
Major Exporters	56.8	57.7	63.3
Major Importers	263.0	273.7	270.1
Other Foreign	208.1	221.3	223.2

Foreign output has continued to rise in recent years with an almost 5 percent gain in 1983/84 while U.S. output plummetted. This year foreign output is forecast up again. Continuing increases are being made by foreign exporters as a group as well as by other foreign countries excluding major importers. The biggest contributor to increases in the other foreign countries category is China, which this year has seen an almost 12-million-ton rise in total coarse grains, mostly corn, after a 9-million-ton increase last year. However, in the category of major importers, crop output has varied in recent years. Despite a huge increase in production forecast for non-EC Western Europe, major importers as a group may have a more than 1 percent drop in output this year. This decline is due to a sharp drop in expected Soviet output, down 20 percent in 1984/85.

Production In Major Foreign Exporters

	1982/83	1983/84 Estimated	1984/85 Projected
		Million tons	
Canada	26.5	21.0	21.9
Argentina	18.2	17.9	18.5
South Africa	4.5	5.2	10.0
Australia	3.9	9.3	8.0
Thailand	3.8	4.4	4.9

Output in the major foreign exporters has varied among the 5 countries. Canadian barley output dropped from its record 1982/83 level last year and this year as yields fell. In contrast, Australian barley production rose last year from the 1982/83 recent low and likely will fall somewhat in 1984/85 but reach the second highest level. South Africa may recover from the drought which kept output in 1982/83 and 1983/84 at only 40 percent of output the previous 5 years. But, output of the major competitors combined rose last year and is expected to rise even more this year. The main gain this year will be from a more normal South African crop. It will not be harvested until spring 1985 and, with low domestic supplies, South Africa is not likely to export much during the current U.S. marketing year. Thus, the supply situation in major foreign exporters will benefit U.S. exports this year. Exports in major competitors are highly correlated with output in contrast with the United States.

Demand Situation and Outlook

The major use of coarse grains is for livestock and poultry feed. All other uses--food, seed, and industrial--account for about 40 percent of global use and have risen slightly in recent years. In foreign countries non-feed uses account for a somewhat higher percentage, but still less than half of total coarse grain use. For corn, slightly over half of foreign use is non-feed categories combined, as corn is an important food staple in many developing countries. Also, use of corn for industrial starch and as an additive in gasoline is important.

The level of use of coarse grains in animal rations and the share by individual grain is a function of grain production and prices, and livestock numbers and profitability. Feed grain usage can rise either with larger animal numbers or with higher grain feeding rates per animal.

Feed Use of Coarse Grains

	1982/83	1983/84 Estimated	1984/85 Projected
		Million tons	
World	461	444	453
Foreign	322	326	327
Major Importers	238	242	241

Global feed use of coarse grains dropped last year and is expected to pick up in 1984/85 to its third highest level. This global decline was because of the drop in U.S. use in 1983/84. In contrast, foreign feed use grew last year and may rise marginally this year, though it may fall slightly in the major importers, as a projected decline in the USSR more than offsets expected higher use in the European Community.

Production changes will have a major impact on feed use patterns this year both in the United States and abroad. A record barley crop in the European Community will likely have several results--increased feeding of both coarse grains and wheat despite lower animal numbers and reduced imports. In contrast, in the Soviet Union a much lower output of coarse grains may cause a drop in coarse feeding and large imports necessary to maintain total grain feeding at last year's level in the face of record livestock inventories. The U.S. situation and outlook will be detailed in another paper.

In addition to domestic output, changes in the number and composition of animals will influence use levels in individual countries. About 40 percent of foreign feed use is in the USSR and the European Community. Soviet animal numbers have continued to increase and are at record levels for all categories except for sheep and goats. (See attached table) Some slowdown in Soviet livestock production growth is anticipated during the first half of 1985, but barring a particularly severe winter, no serious disruptions in the livestock sector are anticipated. In the European Community, however, recent policies to reduce the dairy surplus have caused a decline in dairy cattle numbers. Total grain consuming animal units in the EC may be down by 1-2 percent in 1984/85. However, the 24 million-ton-gain in total grain output in the EC this year has depressed domestic prices and may result in higher feeding rates per animal. Thus, animal numbers and total coarse grain feeding may go in opposite directions in the two major foreign coarse grain feed users this year.

An interesting pattern to watch in 1984/85 is shifts between grains used as animal feed. Corn, sorghum, barley and oats will not only be competing against each other but also against wheat. Wheat feed as a share of total coarse grains fed has risen in the past 2 years in the European Community, but has vacillated in the Soviet Union and in foreign countries as a group. Availability and relative prices of grains have induced shifts in feed rations in many countries, impacting not only on domestic use but also on trade patterns for grains.

Feed Use of Major Grains By Major Countries

	United States	USSR	European Community	Total Foreign
			Million Tons	
Corn				
1982/83	114.9	16.0	17.9	144.7
1983/84	94.6	20.0	17.0	141.7
1984/85	101.6	24.0	16.8	147.3
Total Coarse Grains				
1982/83	139.6	68.0	53.7	321.6
1983/84	117.3	82.0	49.4	326.4
1984/85	125.3	78.0	50.0	327.4
Wheat				
1982/83	5.3	45.0	15.3	83.4
1983/84	10.2	34.0	20.0	79.8
1984/85	8.8	39.0	22.0	89.7

Trade Situation and Outlook

Global trade will likely be up sharply this year following sizable declines in 1981/82 and 1982/83 and near stagnation in 1983/84. As the attached table shows, world trade on an October-September year (excluding intra-EC trade) is expected to reach almost 100 million tons, the second highest level. Several changes have taken place this year and last year which have impacted on trade flows. Among importing countries some of these changes include:

- reduced imports in recent years by the European Community and other Western European countries. In fact, the EC is expected to become a net coarse grain exporter for the first time in 1984/85.

- reduced Chinese imports in 1983/84 and likely low import needs this year compared to the 1.5 to 2.5 million tons imported the 2 previous years.

- the switch of South Africa to a net importer last year and this year.

- the large variations of Soviet coarse grain imports in recent years, ranging from 23.5 million tons in 1980/81 (October-September) to 11 million in 1982/83.

- increased import needs of North African countries, especially this year.

- import swings by Mexico which took 7.2 million tons in 1982/83 and is forecast to import 4.7 million in 1984/85.

- the continued expansion in Japanese imports, while Taiwan reduced imports in 1983/84 and is likely to rebound this year, but the Republic of Korea may see a another decline.

Demand for imported feed grains was related in all those countries to changes in domestic production and animal numbers, which in turn are influenced by financial and economic factors affecting grain and livestock prices and consumer demand for meat. The continuing rise in global trade from the mid-1970's to the end of the decade was reversed with declines through 1983/84. However, this year will likely see a rebound.

Several interesting factors have impacted on the distribution of exports in recent years:

- declines in Canadian barley exports paralleling crop problems and allowing export levels at the minimum of current long term agreements.

- swings in Australian barley exports.

- the virtual absence of South Africa as an exporter in 1983/84 or 1984/85 (October-September) as drought plagued last year's crop and this year's crop to be harvested in the spring of 1985 will be used first to rebuild stocks.

- large EC barley exports with total coarse grain exports expected at 6 percent of the world total.

- the emergence of China as a corn exporter.

Foreign Factors Affecting U.S. Trade

Because of the various changes in foreign supply and demand conditions last year and this year, U.S. exports have benefitted. Despite high prices in 1983 and reduced world exports, U.S. coarse grain exports rose and filled the gap caused by lower shipments from several competitors. Corn exports, which fell last year, are forecast up for the world, the United States, and foreign exporters this year. Sorghum exports rose for both the United States and competitors last year and are expected to remain at about the same levels in 1984/85. Barley exports will continue to increase this year for competitors and the United States alike as they did in 1983/84.

Some specific factors and policies which could depress U.S. exports this year and in coming years include:

- the impact of the huge EC grain crop this year on their export and import levels and future domestic trade policies. Large barley and wheat supplies in the EC are encouraging higher use of domestic output for feed and starch purposes as well as higher prospective exports. EC imports have continued to drop for several years and exports of both wheat and barley will likely rise following the 20 percent grain output gain in 1984/85. Even with larger forecast exports, coarse grain ending stocks will rise to near-record levels and total grain stocks will significantly exceed previous levels. In assessing potential EC competition, it is important to look at wheat as well as barley. The current situation is one of relatively low EC export subsidies because of depressed domestic prices and the high value of the dollar.

- surplus corn supplies in China and their emergence as a supplier of corn to other Asian countries which are basically U.S. markets. The continued crop increases over the last 3 years affects China's standing as both as importer and an exporter.

- the return of South Africa as a major exporter towards the end of the current October-September coarse grain trade year and into next year.

- the actual distribution between grains imported by the USSR and their sources of supply this year, and any changes in needs, animal rations or policies next year.

- demand factors such as a continued strong U.S. dollar, potential rise in interest rates, foreign debt constraints, and overall economic growth abroad, which could reduce foreign demand for U.S. exports.

In contrast there are a number of positive factors which appear to outweigh the negative ones this year:

- heavy Soviet imports so far and forecast record grain imports for the year. As of November 15th, sales and shipments combined of U.S. corn to the USSR for the 1984/85 marketing year were 8.3 million tons. The attached table shows the sharp annual changes in Soviet coarse grain output, feed use, and imports in recent years, as well as the continued rise in animal numbers.

- continued imports from South Africa this year, though considerably below last year.

- reduced Canadian barley supplies and increased corn import needs again this year.

- lower corn, barley, and sorghum prices this year and a more favorable coarse grain: wheat price ratio. The likelihood of lower coarse grain prices next year.

- recent positive macroeconomic factors--drop in interest rates, some decline in value of dollar, and outlook for improved global economic and financial situations in many countries in 1985.

- low stocks in foreign countries. Forecast 1984/85 ending stocks are below 6 of the last 8 years for foreign countries excluding the USSR.

The Future

The current outlook is one of relatively low ending stocks, with an 11.2 percent expected global stocks to use ratio in 1984/85--lower than all but 4 of the last 25 years. Ending stocks are low in foreign countries as a group and foreign countries excluding the Soviet Union and in a number of individual countries, with the notable exception of EC countries. However, the future outlook may be one of larger coarse grain supplies and increased competition from other countries and from other grains. Supply growth may be enhanced by emerging biotechnologies which increase yields of corn and other coarse grains. However, yield gains in feed wheat varieties will also likely continue to be made, increasing the competition among grains. Such increases are already taking place in a number of countries and are likely to increase, especially in the United States, the European Community, and Australia.

Global demand for coarse grains and annual changes will continue to be driven by the number of animals and feeding rates per animal. The number of animals is a function of meat demand and overall economic conditions, while feeding rates are influenced by technology. Thus, the increase in total feeding is not likely to rise by as much as animal numbers or meat demand as feed to meat conversion ratios decline with improved feeding technology and/or the increased production of meat from animals which already have low conversion ratios--poultry. It is expected that global meat demand will rise in the 1980's but at a lower rate than in the 1970's. However, growth in demand for feed grains may rise in those markets which are increasing commercialization of feeding operations with the greater use of concentrate feeds. The largest regional increases in per capita meat consumption over the next 10 years are expected to be in high income North African and Middle Eastern countries and East Asian countries, with notable growth expected in the Soviet Union and China. In the developing countries economic growth and financial conditions will be the major factor affecting meat and feed grain demand. Soviet coarse grain use and imports will be affected by policies concerning meat output growth and by any changes in feed rations among the grains and between grains and protein meals. China will likely be a market for imported coarse grains in the future as meat output expands to increase protein consumption in that country. However, internal transportation and storage constraints in the near future may enable China to export substantial quantities of corn in some years. Other demand factors affecting future use of and imports of coarse grains include import policies affecting wheat versus coarse grain preferences and use of long-term grain agreements.

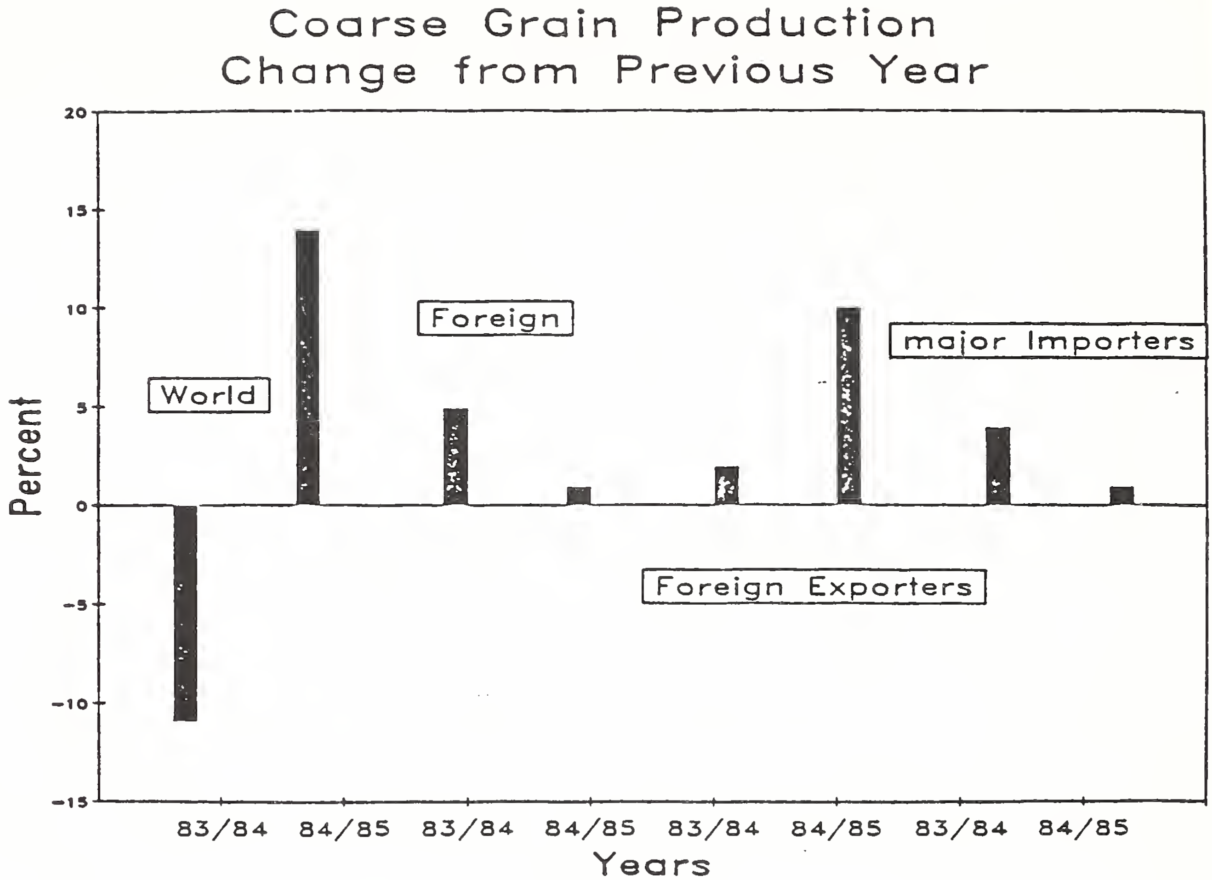
COARSE GRAIN TRADE

(OCTOBER-SEPTEMBER YEAR)

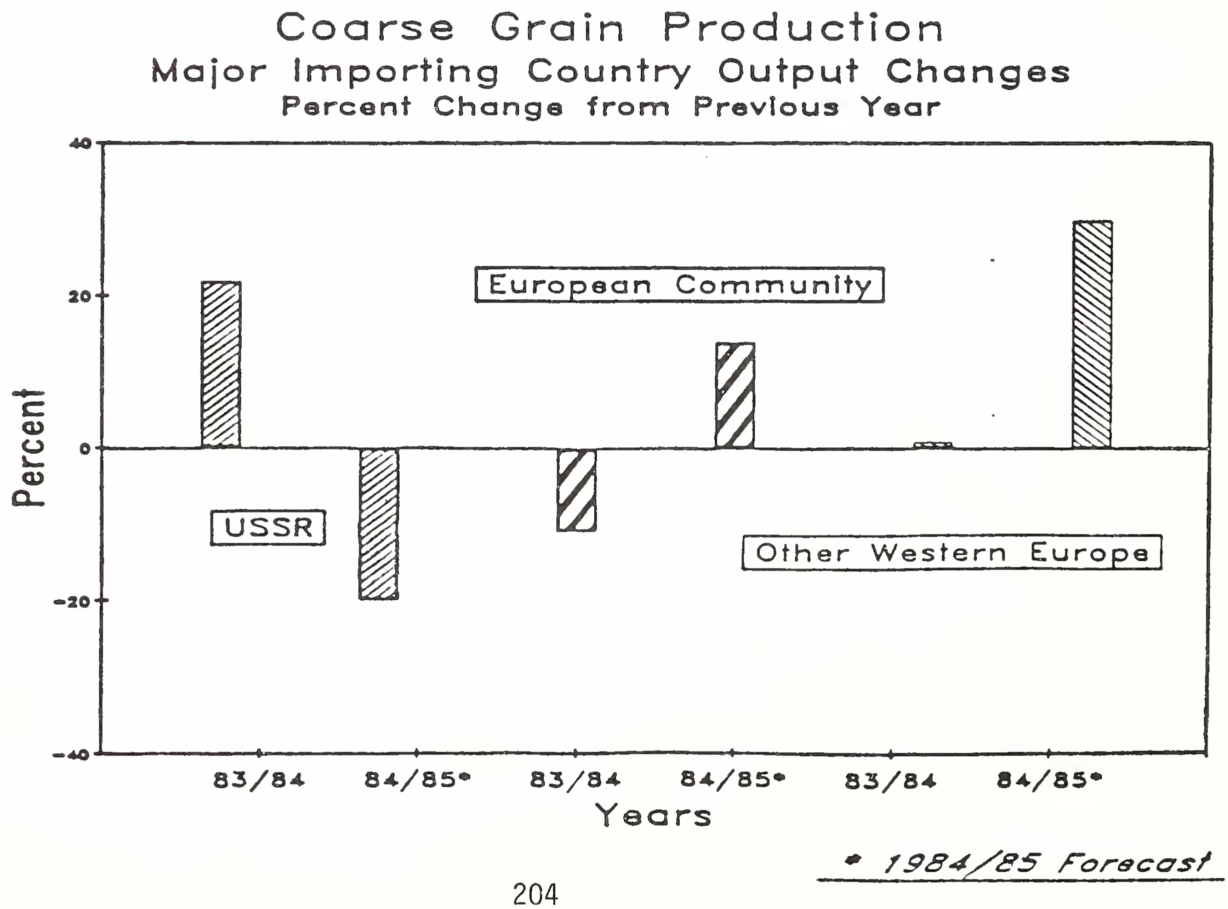
	1982/83	1983/84	1984/85 FORECAST
		MILLION TONS	
WORLD	91.3	90.9	99.9
FOREIGN	37.3	35.2	38.6
U.S.	54.0	55.7	61.3

COARSE GRAIN IN THE USSR

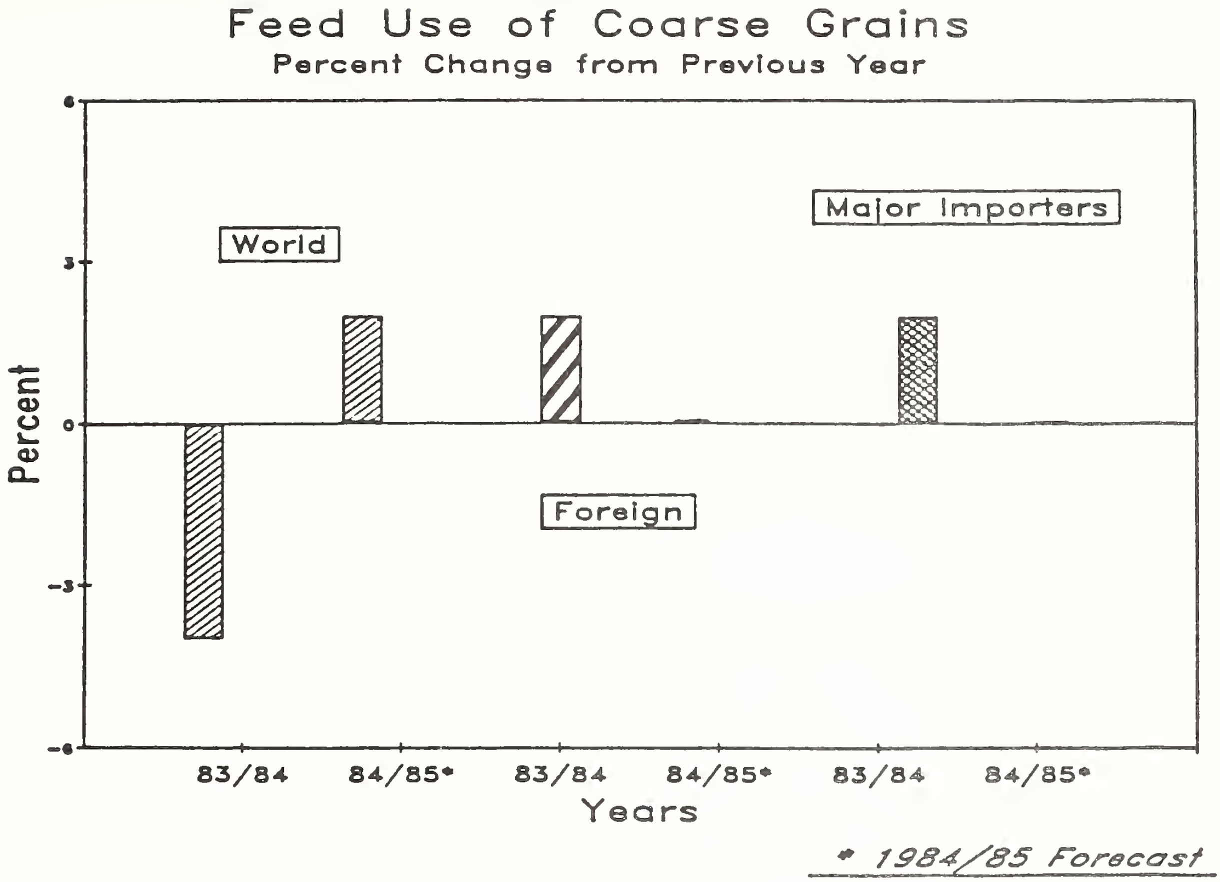
	1982/83	1983/84	1984/85 FORECAST
		MILLION TONS, JULY-JUNE YEAR	
PRODUCTION	86	105	84
FEED USE	68	82	78
IMPORTS	11.3	11.5	23.0
		MILLION HEAD (AS OF SEPT. 1)	
ANIMAL NUMBERS			
CATTLE	93.6	95.1	97.0
HOGS	59.1	61.8	62.6
POULTRY	747.0	764.0	774.7

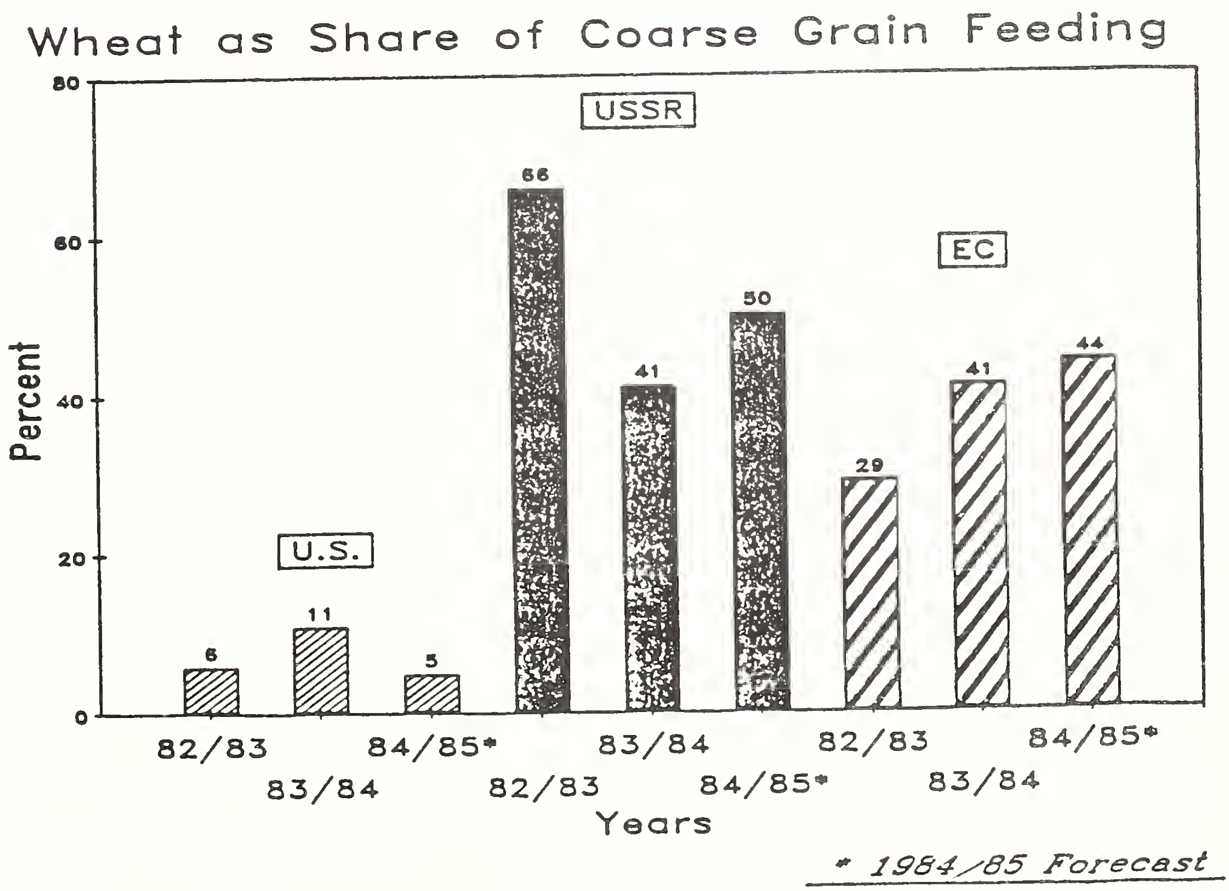


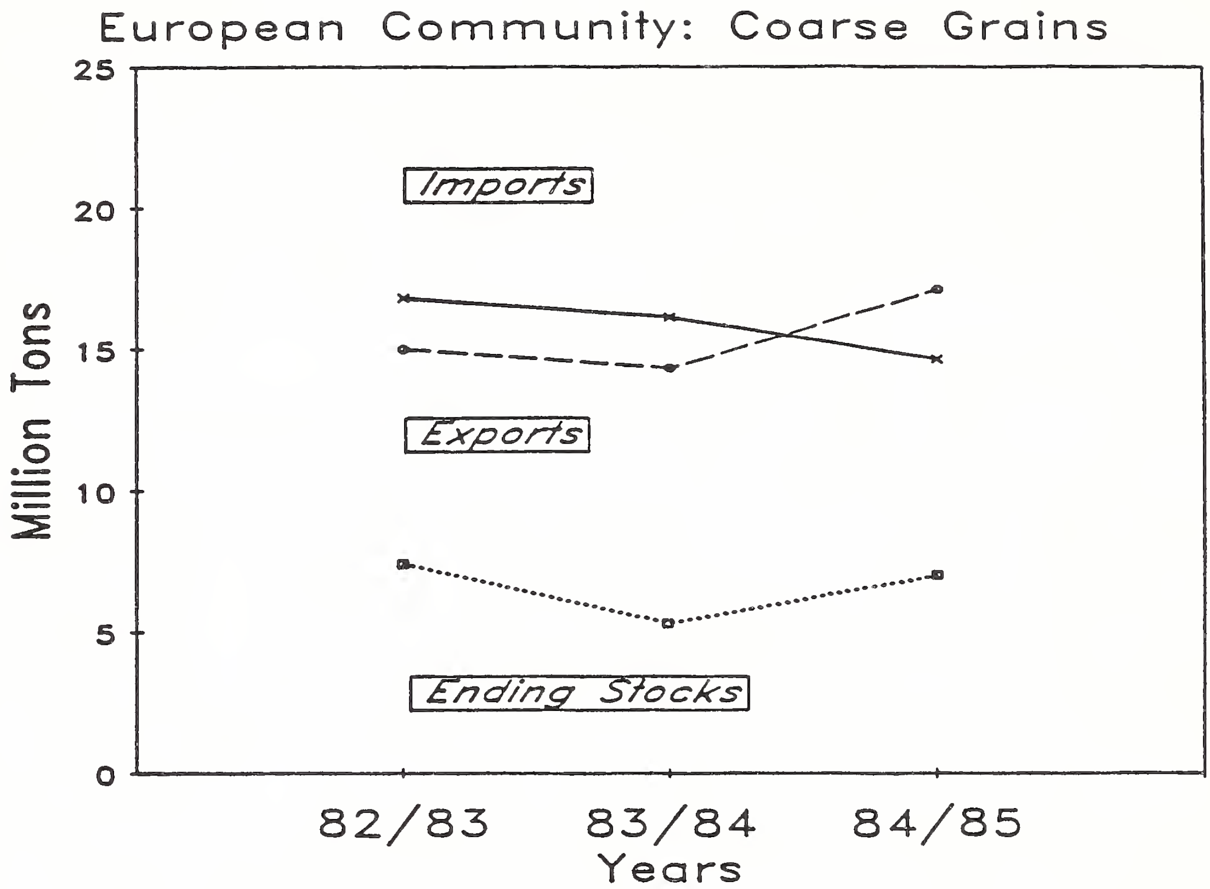
Coarse Grain Production
Change from Previous Year
Percent
20
15
10
5
0
-5
-10
-15
World
Foreign
major Importers
Foreign Exporters
83/84
84/85
83/84
84/85
83/84
84/85
83/84
84/85
Years

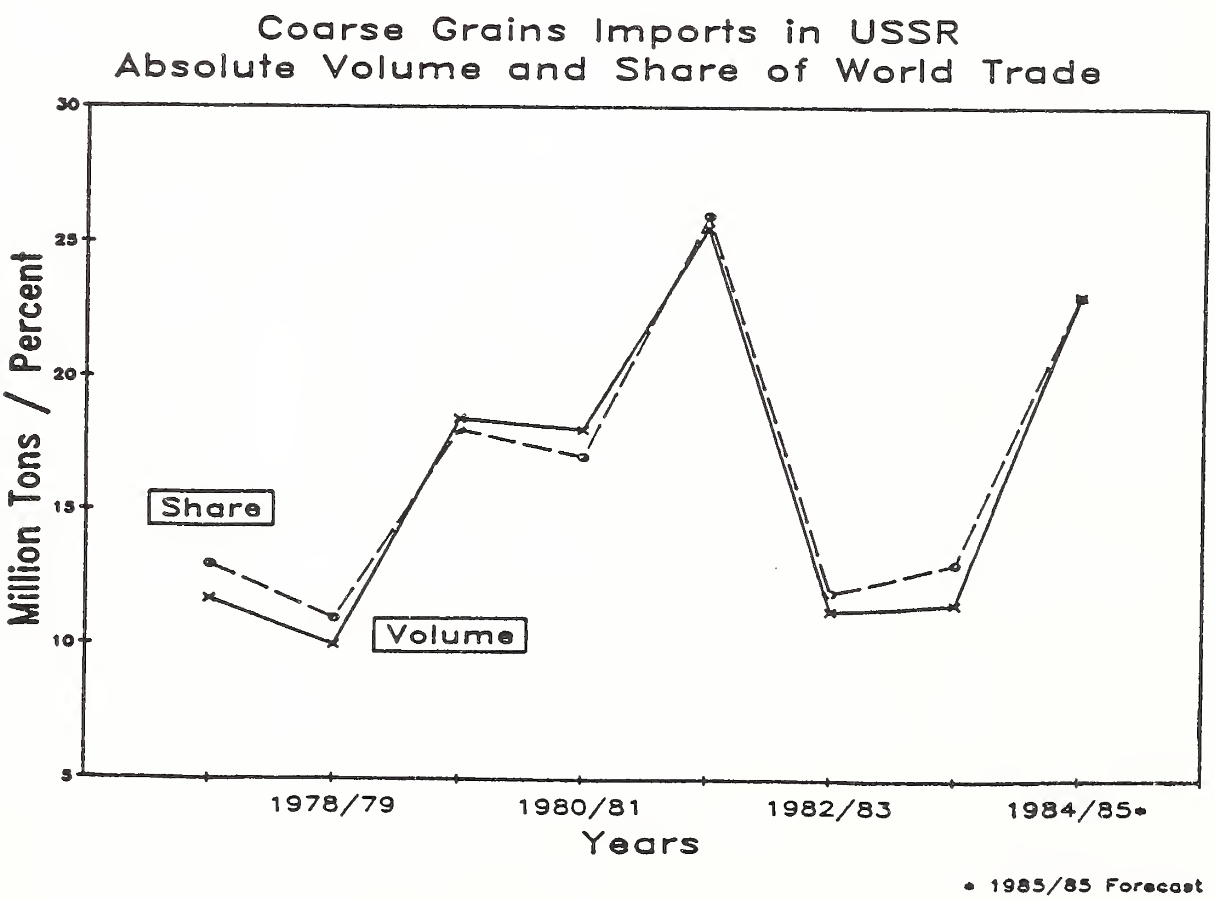


Coarse Grain Production
Major Importing Country Output Changes
Percent Change from Previous Year
Percent
40
20
0
-20
-40
European Community
USSR
Other Western Europe
83/84
84/85*
83/84
84/85*
83/84
84/85*
Years
* 1984/85 Forecast


Feed Use of Coarse Grains
Percent Change from Previous Year
6
3
0
-3
-6
Percent
World
Major Importers
Foreign
83/84
84/85*
83/84
84/85*
83/84
84/85*
Years
* 1984/85 Forecast


Wheat as Share of Coarse Grain Feeding
80
60
40
20
0
Percent
USSR
EC
U.S.
6
11
5
66
41
50
29
41
44
82/83
83/84
84/85*
82/83
83/84
84/85*
82/83
83/84
84/85*
Years
* 1984/85 Forecast


European Community: Coarse Grains
Million Tons
0
5
10
15
20
25
Imports
Exports
Ending Stocks
82/83
83/84
84/85
Years


Coarse Grains Imports in USSR
Absolute Volume and Share of World Trade
Million Tons / Percent
5
10
15
20
25
30
Share
Volume
1978/79
1980/81
1982/83
1984/85*
Years
* 1985/85 Forecast