

The Agricultural Outlook for the Bicentennial Year Plus One

By C. Edward Harshbarger

As the bicentennial year in the nation's history becomes a memory, it seems appropriate to salute the many outstanding achievements in American agriculture that have enabled the world to forestall the Malthusian specter of widespread starvation. The American farmer has the ability to produce enough food and fiber to meet not only his own needs but also those of almost 60 other people. No other nation can make this claim. The United States, of course, has been blessed with an abundance of natural resources and a climate conducive to agricultural production. Because of these factors and many others, American agriculture has grown and prospered, and the whole world has benefited from it.

Yet, despite all of the progress to date in American food production, there still is much worldwide concern over the availability of foodstocks. Much of the world's population is malnourished; some still die from **starvation** each year. Indeed, it would appear that the challenge of providing adequate food to a growing population will be even more demanding in the future than it has been during the last 200 years. The American farmer, with his wonderful technology and innovative ingenuity, will be expected to

assume much of the **responsibility** for seeing that the production achievements of the past are extended into the future. If these responsibilities are met in a dedicated fashion, perhaps the threat of malnutrition and hunger will be but a memory when this nation pauses to celebrate another 200 years of history in 2176.

Despite all of the noteworthy changes that have occurred in agriculture, a few things remain the same. For example, agricultural production involves biological processes **which** are quite rigid: a certain amount of time is required for plants and animals to complete the growth and development process, even under ideal conditions. All of man's improved technology and new management practices have not been able to negate these biological constraints. Furthermore, farmers are still grappling with uncertainty. Although they may know more about weather patterns, disease control, and price forecasting than their forefathers, today's farmers and ranchers are still subject to the risks of floods, drought, disease problems, and severe price fluctuations which play havoc with their farm operations. Minimizing these risks will be the key to success in the future, and accomplishing this

goal will require additional technological improvements, new management tools, and better economic information.

The capital investment in American agriculture now averages nearly \$200,000 per farm, up **300** per cent since **1960**. Financial mistakes, therefore, can be very costly, and extra care must be taken to avoid them. For this reason, questions about the outlook for the economy, farm prices, government programs, and probable production levels are of prime importance to the financial well-being of agriculture. This is especially true today given the sharp fluctuations that have occurred in farm prices and incomes in recent years. With this background, then, a review of **1976** developments will help set the stage for discussing the agricultural outlook for **1977**.

1976 HIGHLIGHTS

A marked expansion in livestock production coupled with vacillating demand for grains summarizes the **1976** agricultural picture. As a consequence, farm prices continued to fluctuate during the year with increases in one period being generally offset by declines in the next. The index of prices received by farmers did exhibit some strength during the second quarter in response to a seasonal decline in red meat production. In addition, grain prices rose during this same period due to increases in export demand as well as to growing concerns about the effects of the drought on winter wheat production. Since the second quarter, however, commodity prices have generally trended downward under the weight of expanded meat production and ample grain supplies. Furthermore, foreign demand has not been quite as strong in recent months as it was earlier this year, reflecting the overall increase in world grain production which will likely reduce total world trade in agricultural commodities during **1976-77**.

Although farm prices fell **5** per cent in October to a level **9** per cent below a year

earlier, price gains during the first half of the year will hold the **1976** average very close to the **1975** figure. Therefore, a larger volume of marketings has resulted in a record flow of cash receipts to farmers this year. It is currently estimated that total cash receipts for all of **1976** will exceed the **1975** level of **\$90** billion by **5** to **6** per cent. However, production costs in **1976** are up again and will virtually offset the increase in gross income. Thus, net farm income for **1976** is expected to be up only slightly from the **\$22.7** billion realized in **1975**.

Still, these income figures fail to reflect the full scope of the adjustments that have occurred in **1976**. During the **first 9** months of **1976**, for example, total red meat production was approximately **8** per cent more than in the comparable year-earlier period. However, beef output ran **10** per cent above year-earlier levels during this period because producers increased fed cattle marketings sharply and continued to liquidate their cowherds. On the other hand, hog producers behaved differently. Instead of cutting back, they expanded their breeding stock in response to the very favorable hog to feed price ratios that had existed during the last half of **1975** and early **1976**. Thus, while hog marketings during the **first 6** months of **1976** were **5** per cent smaller than a year earlier, farrowings were **16** per cent higher, and this bolstered pork supplies in the third and fourth quarters to levels well above year-ago figures. For the year, it is estimated that pork production will be about **5** per cent larger than in **1975**.

With the exception of a brief period last spring, returns to cattle feeding were negative in **1976**. Prices on choice steers receded from a yearly high of about **\$45** per hundredweight in April to a level of about **\$36** per hundredweight in late summer. Although prices have edged up since then, it is expected that cattle producers will continue to reduce inventories and hold feedlot placements somewhat below year-earlier levels until feeding becomes more profitable.

Unlike cattle, the hog industry has enjoyed good profits throughout most of the year, which explains the expansion phase now underway in the hog cycle. In June, prices on barrows and gilts averaged about \$50 per hundredweight, but prices fell by a surprising amount during September and October, indicating that the expansion in supplies may be more vigorous than originally anticipated. If so, hog producers may be in for some financial disappointments in the coming months.

Some interesting adjustments also occurred in the crop sector. Coming into 1976, grain prices were relatively low, reflecting the record harvests of 1975 and the early indications that 1976 production levels would likely be very large. However, a number of developments ultimately led to considerable price strength by midyear. First, a severe drought over a large part of the wheat belt triggered a nervous reaction in wheat markets. Soon to follow were reports about problems with the condition of the winter wheat crop in Russia and news about a disastrous drought situation in Western Europe. Finally, total demand for corn and soybeans grew unexpectedly during this period, virtually eliminating any hope of a significant buildup in carryover stocks.

To summarize 1976 crop production, wheat output turned out much better than originally expected, while the corn and soybean harvests fell short of targeted goals because of the summer drought. In the case of feed grains and wheat, final production levels were virtually the same as those for 1975, but soybean output was down nearly 20 per cent due to a 10 per cent decline in acreage and lower average yields. Wheat prices have slipped sharply since summer, owing to a general weakness in total demand and the likelihood of a substantial increase in carryover reserves. Feed grain prices have also weakened since summer, but not nearly to the same extent as wheat because supplies are seemingly in better balance with prospective demand. The sharp drop in

soybean production has buoyed prices during the last half of this year and further strength may be in the offing.

PREVIEW OF 1977

A number of factors will influence agricultural developments in the year ahead. For example, the current pause in the economy raises some doubts about the ultimate strength of consumer demand for food in 1977. Although most economic indicators point to some renewed vigor in the coming months, it seems unlikely that growth rates in economic activity will be so robust as to significantly boost disposable incomes and employment rates. If the economy is unable to break out of its current lethargy, the domestic demand for agricultural commodities will show only modest strength in the year ahead.

Other factors influencing the outlook for farm prices and incomes include the prospects for agricultural exports and the extent to which producers adjust output in 1977. Generally, foreign demand appears to be quite strong, although the overall increase in world grain production during the past year will likely shave the volume of exports somewhat below last year's record. Nevertheless, because of the growing importance of agricultural exports as a market force in the farm economy, the total demand picture for food and farm products in the year ahead is reasonably bright.

The supply picture is blurred by the usual questions about weather patterns, government programs, livestock-feed price ratios, and the like. Generally, total meat supplies in 1977 are expected to be approximately equal to 1976 levels, with increases in pork output offsetting probable declines in beef. Poultry supplies will probably remain about the same. In the crop sector, production levels will depend largely on weather conditions as total acreage is not expected to change appreciably. Although there will be no set-aside requirements under the farm program for 1977, constraints on land

availability coupled with uncertainties about production costs, the weather, and commodity prices will likely temper, if not preclude, a significant expansion in production plans. Therefore, the realization of higher levels of output in **1977** will hinge on further improvements in yields, which implies that either the weather will have to be more favorable than it was in **1976**, or that one crop will have to be substituted for another. Some substitution will no doubt occur, probably cotton for soybeans in the South and soybeans for corn in the Midwest, but these decisions will depend on relative prices at the time the **1977** planting season begins.

The volume of farm marketings in **1977** will likely be moderately larger than in **1976** if crop and livestock production turns out as expected. Thus, given the reasonably strong prospects for total demand, farm prices on average should compare very favorably with those of **1976**, bolstering the chances for an increase in total cash receipts from farm marketings in **1977**. However, **higher** outlays for fuel, pesticides, machinery, and other essential items will erode most, if not all, of the gains in gross farm income. Hence, **1977** net farm income is not likely to differ significantly from the **\$23** billion estimated for **1975** and **1976**. From a distribution standpoint, however, the producers of feed grains, soybeans, cotton, and cattle are expected to fare better than the producers of wheat and hogs.

Stability in Food Prices?

After tolerating 3 consecutive years of rapidly rising food prices, consumers finally experienced some relief in **1976**. For the year, it is estimated that food prices will average about **3 to 4** per cent above **1975**, which is in sharp contrast to the **14** per cent gains registered in **1973** and **1974**. This moderation in the rate of price increase is attributable to the expansion in total meat supplies in **1976** and to generally ample quantities of most other foods.

Furthermore, the reduction in the general rate of inflation in the economy eased some of the pressures on various marketing charges in the food bill.

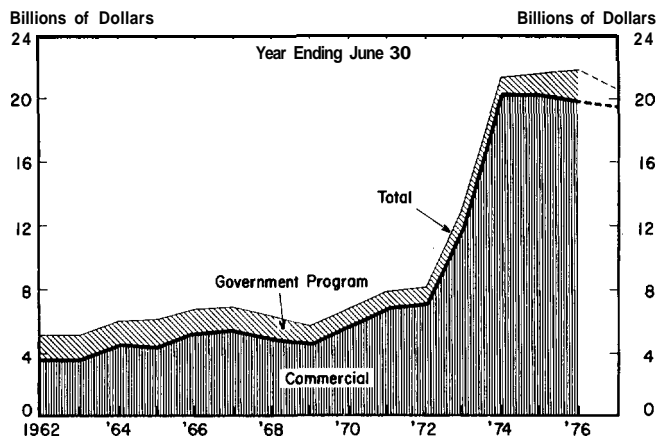
Looking ahead, per capita food supplies are likely to remain plentiful during the first half of **1977**, which promises to hold food prices fairly well in check. The outlook for the second half of the year is clouded by uncertainties about production levels, overall demand, and the general rate of inflation in the economy. If conditions materialize as expected, food supplies should be large enough to help keep the lid on **1977** food prices, but other forces may overshadow this tendency toward stability. For example, marketing spreads—the price differentials between farmers and **retailers**—could widen which would cause food prices to rise assuming that farm prices remain the same.

The general rate of inflation probably affects marketing spreads as much as any other factor. For **1976**, it is estimated that the farm-to-retail price spread on all food items will be about **5** per cent wider than in **1975**. This increase, of course, conforms very closely with the overall rate of price increase in the economy. Therefore, in view of the outlook for farm prices in the year ahead, any gain in **1977** food prices will probably be largely attributable to widening margins between farm and retail as reflected by the general rate of inflation. As seen at this time, the rise in food prices in **1977** likely will be somewhat higher than the increase posted in **1976**.

Agricultural Exports to Remain Strong

Although world grain supplies have increased rather significantly in **1976**, the prospects for U.S. agricultural exports still remain favorable. Sales in the current fiscal year are expected to approach the lofty **\$21-\$22** billion levels achieved in the last three periods (Chart 1). The volume of shipments may fall somewhat from the fiscal **1976** record level, but higher

Chart 1
U.S. AGRICULTURAL EXPORTS



SOURCE: U.S. Department of Agriculture.

average prices for soybeans, oilmeal, and cotton will help offset this loss. The surplus from agricultural trade has amounted to about \$12 billion in each of the last 3 fiscal years. In the current period, agricultural imports will likely approach \$12 billion, a 15 per cent gain over last year, thereby reducing the surplus to about \$10 billion. However, this figure is still far above any historical average and will certainly help alleviate U.S. balance of payments difficulties.

After 2 mediocre years, world grain production in 1976-77 promises to be some 6 to 8 per cent larger than in the previous year, despite the small decline in U.S. output and the drought-stricken crops of Western Europe. The Soviet Union is responsible for a large portion of the increase with a near-record level of production in 1976. Preliminary forecasts indicate that Soviet grain production may exceed 220 million metric tons, up nearly 60 per cent from the disastrous harvest in 1975. Consequently, U.S. grain sales to the Soviet Union will be down sharply from the \$2 billion sold in 1975-76. Of course, sales were destined to fall anyway because of the 5-year agreement that was signed last year restricting annual wheat and feed grain sales to a minimum of 6

million metric tons and a maximum of 8 million metric tons unless the U.S. Government approves a higher level. Although Russia has satisfied the terms of the agreement for the current year, Soviet purchases of about 1.5 million metric tons of soybeans may signal their reevaluation of the need for more protein in their livestock rations. If so, a potentially profitable market may be looming on the horizon for U.S. farmers.

The increase in world grain production will push total supplies for 1976-77 above anticipated consumption levels, enabling carryover reserves to grow in the coming year. While the increase for feed grains will be small, ending wheat stocks are expected to be up sharply from 62 million metric tons in 1976 to more than 90 million metric tons in 1977. The ending wheat carryover will represent about one-fourth of what was produced in 1976-77 and can hardly be regarded as burdensome.

COMMODITY OUTLOOK FOR 1977

The general picture for agriculture in the year ahead has several positive features which should lend some support to farm income. As noted, total demand is expected to hold up very well during 1977, and if the economy perks up again in the near term, potential demand will be boosted even further. The supply situation is perhaps more uncertain because production levels are difficult to predict. Obviously, favorable crop weather and expectations of good profit margins in livestock feeding will be prerequisites for an expansion in output in 1977.

Livestock Situation

Based on recent reports on livestock inventories, the livestock outlook through midyear 1977 will be dominated by rapidly expanding pork supplies and high, but easing, output of beef. Although the demand for red meat is strong, heavy pork supplies will effectively keep the pressure on hog prices during this period, holding them well below the

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\$48.50 per hundredweight average realized in the first 6 months of 1976. Lower feedlot placements coupled with a seasonal decline in the slaughter of cattle off grass offer considerable promise for higher cattle prices by midyear. During the second quarter, prices on choice steers will probably equal, if not exceed, year-earlier levels, which, in 1976, averaged \$42 per hundredweight. Production levels and prices during the second half of 1977 are less certain, although it is generally anticipated that pork output—while declining seasonally—will exceed 1976 levels, whereas beef output probably will be down somewhat.

A closer examination of the hog situation reveals that 1977 pork production will probably exceed the 1976 level by 10 to 12 per cent, with most of the increase occurring during the first half of the year. As noted, prices are not likely to show much strength over and above a seasonal increase in the spring which will probably fall short of \$40 per hundredweight. Some slippage is anticipated during the second half of the year; prices could easily fall below \$30 per hundredweight if production continues to expand sharply. Thus, for the year as a whole, prices seem destined to average sharply below the \$44 per hundredweight estimated for 1976. Obviously, 1977 is not going to be a very profitable year for the hog industry.

The outlook is brighter for cattle. The inventory adjustments that began in 1975 have accelerated in 1976 with the result that total cattle numbers are significantly lower. It is estimated that the inventory of cattle on farms as of January 1, 1977, will be approximately 121 million head, or 7 million fewer head than a year ago. Because farmers have been culling their herds, beef slaughter in 1976 was at record levels, thus depressing prices. These adjustments in numbers are expected to continue in the year ahead, although the inventory reduction should not be nearly as large as it has been in 1976. Sometime within the next 2 years, cattle numbers are expected

to bottom out and start increasing, which will temporarily diminish beef supplies and bolster prices.

But what is the price picture for next year? Briefly, it is an improving one. Based on reports as of October 1, 1976, fed cattle marketings during the first half of 1977 should run slightly below year-earlier levels. If the slaughter of grass-fed animals falls as expected, total beef supplies will probably diminish enough to bolster prices on choice steers to the mid-to-high \$40's by midyear. Despite the adjustments that have occurred in herd sizes during the last 2 years, the supply of feeder cattle is still large enough to support feedlot placements at high levels, given the proper economic incentive. If prices do increase as projected in the first half of 1977, new placements during this period will likely keep second-half fed cattle marketings close to 1976 levels. A decline in the slaughter of cows and nonfed steers and heifers will reduce total slaughter, but a probable increase in average slaughter weights arising from a larger proportion of grain-fed cattle in the total slaughter mix will prevent beef output from dropping appreciably. Thus, when potential pork supplies are added to the picture, total red meat output could increase enough during the second half of 1977 to bring about some weakness in cattle prices. Still, it is anticipated that the yearly average will run between \$43 and \$45 per hundredweight on choice steers, as compared with the \$39 per hundredweight estimated for this year. Hence, at these prices, producers will probably be at least breaking even throughout most of 1977, unless feed costs rise sharply.

The picture for feeder cattle prices continues to improve, although net returns are still negative. With the adjustments that have occurred in herd sizes, together with the outlook on slaughter prices, feeder cattle prices should show some strength in 1977. However, significant gains may still be a year away. The

Table 1
BALANCE SHEET FOR MAJOR CROPS
United States
(Millions of Bushels or Tons)

	Corn (bu) Marketing Year Oct. 1 - Sept. 30		All Feed Grains (ton) Marketing Year*		Soybeans (bu) Marketing Year Sept. 1 - Aug. 31		Wheat (bu) Marketing Year June 1 - May 31	
	1975-76	1976-77†	1975-76	1976-77†	1975-76	1976-77†	1975-76	1976-77†
Supply								
Beginning Carryover	359	399	16.8	19.1	185	244	430	664
Production and Imports	5769	6064	202.9	208.2	1521	1252	2136	2129
Total	6128	6463	219.7	227.3	1706	1496	2566	2793
Disappearance								
Domestic	4018	4285	145.5	153.0	907	871	729	795
Exports	1711	1600	55.1	51.6	555	540	1173	1050
Total	5729	5885	200.6	204.6	1462	1411	1902	1845
Ending Carryover	399	578	19.1	22.7	244	85	664	948

*Marketing year begins October 1 for corn and grain sorghum, July 1 for barley and oats.

†Preliminary projections available November 1, 1976.

SOURCE: U.S. Department of Agriculture.

dairy industry has experienced a better-than-average year in **1976** due to stronger prices and more stable costs. In the year ahead, some increase in prices is anticipated, but higher costs may leave dairy net incomes about the same. After enjoying a good year in **1976**, the broiler and egg industry may retreat somewhat in **1977**. Prices will no doubt average lower, which could elicit some decline in meat output later in the year. Egg supplies, however, may still be a little larger in **1977**.

Crop Situation

Table 1 summarizes the highlights for the **1976-77** crop marketing year. The production of feed grains and wheat in **1976** was virtually the same as in **1975** for both crops. However, a significant increase in the beginning carryover for wheat pushed total supplies for the current marketing year about **7** per cent above year-earlier levels, and was the highest total since the early **1960's**. Soybean supplies are off sharply this year due to a reduction in acreage

and lower yields. However, a larger carryover coming into the new marketing year partly offset the **20** per cent decline in **1976** production.

With the possible exception of soybeans, grain stocks appear ample for meeting anticipated domestic and foreign demand without reducing carryover stocks next summer and fall. The domestic use of feed grains in **1976-77** will be up for the second consecutive year, but the increase will not be nearly as sharp as the **12** per cent gain in the previous marketing year. Despite a larger supply, total wheat usage is not expected to show much change from **1975-76** due to general weakness in export demand. However, under the current price situation, wheat is competitive with feed grains, and so the decline in exports will likely be offset by more wheat feeding to livestock. Soybean supplies in the coming year will be relatively tight and prices are expected to remain very sensitive to changes in the overall picture. Although total disappearance will decline this year as a result of the reduced **1976**

harvest, usage is still expected to approach 1.4 billion bushels, about 150 million bushels above 1976 production. Thus, the carryover next fall will be nearing minimum levels.

In the last marketing year, farmers received prices which averaged about \$3.50, \$2.50, and \$5.00 per bushel for wheat, corn, and soybeans, respectively. Given the prospects for the coming year, some changes can be expected in average grain prices. Since wheat supplies are presently weighing heavily on the market, the average price for 1976-77 is almost certain to be less than \$3.00 per bushel. Some seasonal strength is expected in the coming months, but if 1977 crop prospects promise to be large, considerably weaker wheat prices could occur before next summer. Like wheat, corn prices will probably rise seasonally this winter and spring, but the overall average price is not expected to differ significantly from last year's figure. Soybeans, however, will likely do much better than a year ago because of the tight supply situation. While short crops typically hit their price peaks early in the marketing year, there is a good chance that soybean prices will advance beyond current levels until more is known about the potential size of the 1977 crop. Thus, an average price near \$6.50 per bushel seems likely for 1976-77.

Exceptionally strong demand and a probable **drawdown** in carryover stocks despite an increase in production highlight the cotton situation. Prices in the year ahead are expected to remain profitable, although sharp increases will be blunted by increased competition from

manmade fibers. The favorable outlook will likely induce producers to expand acreage in 1977. If the production prospects point to large increases, some price weakness will likely occur in cotton prices later next year. Ample supplies describe the fruit and vegetable situation for 1976, but adjustments in output will probably occur in 1977 to shore up market prices. If output is reduced, some price improvement can be expected. However, the net returns to growers in the year ahead probably will not change appreciably, barring any unusual circumstances.

A CONCLUDING COMMENT

Describing the agricultural outlook for 1977 is a difficult task because of the delicate situation that currently exists in commodity markets. As noted, the price prospects for most major farm products are generally favorable for the coming year, although the outlook for wheat and hog producers has to be regarded as disappointing. But from an income standpoint, the nation's farmers and ranchers should enjoy a reasonably good year by historical standards. However, history shows that agriculture is frequently bombarded with sudden and unexpected changes that can be very disruptive. Given the present uncertainty about the future course of the economy, the international situation, and 1977 production levels, producers should exercise more than the usual amount of caution in their planning as they begin the third century in the history of American agriculture.