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World grain and oilseed production

Estimates of the drought-damaged U.S. grain and soybean harvest have been revised upward slightly the past couple of months. But from a worldwide perspective, the upward revisions in estimates for the United States have been offset by a scaling down of the bumper production prospects elsewhere. The latest U.S. Department of Agriculture estimates point to a worldwide grain harvest of 1,533 million metric tons in the 1988/89 crop year. This estimate, which combines wheat, coarse grain, and rice production, foreshadows a 4 percent decline from last year and the smallest world grain harvest in five years. The estimate for world oilseed production in 1988/89 is currently pegged at 200 million metric tons, down 3 percent from last year but otherwise the second largest on record.

The latest USDA estimates of U.S. and world crop production totals were released on November 9. In general, the world estimates for a given crop year combine the harvest results for Northern Hemisphere countries during the latter half of one calendar year with the harvest results for Southern Hemisphere countries during the first half of the following calendar year. Many Southern Hemisphere crops that will be included in the 1988/89 crop-year totals were in the early stages of planting and/or plant development at the time the latest estimates were made. Since the harvest results for these crops are still subject to the vagaries of weather, the current estimates for 1988/89 crop production in some countries are still very preliminary. Nevertheless, the track record of the USDA's November estimate of foreign grain production has been reasonably accurate in recent years. Over the past 7 years, the changes between the November estimate and the final estimate of foreign grain production have averaged less than 2 percentage points. For foreign soybean production, however, the revisions to the November estimates typically have been larger, averaging a little over 4 percentage points.

The latest projection of world grain production in 1988/89 encompasses estimates of 502 million metric tons for wheat, 710 million metric tons for coarse grains (corn, sorghum, oats, barley, and rye) and 320 million metric tons (on a milled basis) for rice. Of the three components, only rice production is expected to

record an increase. With gains both here and abroad, world rice production is expected to be up 4 percent in 1988/89. In contrast, the estimate for world wheat production foreshadows a nominal decline from last year as the cut in U.S. production exceeds the projected gain in wheat production elsewhere. World coarse grain production is expected to decline 10 percent, reflecting both a sharp decline for the U.S. and, for the second consecutive year, a 1 percent decline in foreign coarse grain production.

The current projection for world oilseed production in 1988/89 encompasses estimates of 94 million metric tons for soybeans, 32 million tons for cottonseed, and 21 to 22 million tons each for peanuts, sunflower seed, and rapeseed. Flaxseed, copra, and palm kernel accounts for the remaining 9.5 million metric tons of estimated world oilseed production. Among the major components, projected declines of nearly 9 percent for soybeans and 5 percent for rapeseed account for

Recent trends in world grain and oilseed production

| | 1984/85 | 1985/86 | 1986/87 | 1987/88 | 1988/89* |
|-------------------|---------------------------------|---------|---------|---------|----------|
| | (-----million metric tons-----) | | | | |
| Grains | | | | | |
| Wheat | 511.8 | 499.8 | 529.6 | 504.5 | 502.1 |
| U.S. | 70.6 | 66.0 | 56.9 | 57.4 | 49.3 |
| Foreign | 441.2 | 433.8 | 472.7 | 447.1 | 452.7 |
| Coarse grains** | 814.0 | 841.7 | 833.3 | 789.7 | 710.0 |
| U.S. | 237.7 | 274.9 | 252.8 | 215.7 | 142.2 |
| Foreign | 576.3 | 566.8 | 580.6 | 574.0 | 567.8 |
| Rice (milled) | 319.2 | 320.1 | 318.4 | 308.7 | 320.5 |
| U.S. | 4.4 | 4.3 | 4.3 | 4.0 | 5.0 |
| Foreign | 314.8 | 315.8 | 314.1 | 304.7 | 315.5 |
| Total grains | 1,645 | 1,662 | 1,681 | 1,603 | 1,533 |
| U.S. | 313 | 345 | 314 | 277 | 196 |
| Foreign | 1,332 | 1,316 | 1,367 | 1,326 | 1,336 |
| Oilseeds | | | | | |
| Soybeans | 93.1 | 97.0 | 97.9 | 102.9 | 94.0 |
| U.S. | 50.6 | 57.1 | 52.8 | 52.3 | 41.1 |
| Foreign | 42.5 | 39.9 | 45.1 | 50.5 | 52.8 |
| Other oilseeds*** | 97.8 | 99.0 | 96.4 | 103.5 | 106.3 |
| U.S. | 8.5 | 8.3 | 6.6 | 8.2 | 7.8 |
| Foreign | 88.7 | 90.7 | 89.8 | 95.2 | 98.5 |
| Total oilseeds | 191.0 | 196.0 | 194.3 | 206.4 | 200.3 |
| U.S. | 59.2 | 65.4 | 59.4 | 60.6 | 49.0 |
| Foreign | 131.8 | 130.6 | 134.9 | 145.8 | 151.3 |

SOURCE: U.S. Department of Agriculture.

*Preliminary, based on projections as of November 9, 1988.

**Includes corn, sorghum, oats, barley, rye, and millet.

***Includes cottonseed, peanuts, sunflowerseeds, and flaxseed. Estimates for foreign and total world production also include rapeseed, copra, and palm kernel.

1988 corn and soybean production estimates for District states*

| | Area harvested | | Yield | | Production | |
|-----------------|----------------|------------------|------------------|------------------|-----------------|------------------|
| | Million acres | Percent change** | Bushels per acre | Percent change** | Million bushels | Percent change** |
| Corn | | | | | | |
| Illinois | 9.5 | + 4 | 72 | -45 | 684 | -43 |
| Indiana | 4.8 | + 3 | 78 | -42 | 374 | -41 |
| Iowa | 10.4 | + 3 | 83 | -36 | 863 | -34 |
| Michigan | 1.6 | -18 | 65 | -32 | 104 | -44 |
| Wisconsin | 2.0 | -30 | 70 | -41 | 136 | -59 |
| Dist. states | 28.2 | - 1 | 76.5 | -40 | 2,162 | -41 |
| United States | 56.7 | - 4 | 82.3 | -31 | 4,671 | -34 |
| Soybeans | | | | | | |
| Illinois | 8.7 | 0 | 27 | -29 | 235 | -29 |
| Indiana | 4.2 | - 3 | 28 | -30 | 118 | -32 |
| Iowa | 7.8 | - 1 | 30 | -31 | 236 | -31 |
| Michigan | 1.2 | +11 | 28 | -20 | 34 | -11 |
| Wisconsin | .4 | +25 | 31 | -18 | 12 | + 2 |
| Dist. states | 22.4 | 0 | 28.4 | -29 | 634 | -29 |
| United States | 56.8 | 0 | 26.6 | -21 | 1,512 | -21 |

*USDA estimates as of November 9, 1988.

**From 1987.

the bulk of this year's anticipated decline in world oilseed production.

Despite recent upward revisions, the drought-reduced U.S. grain and soybean harvest accounts for all this year's anticipated declines in world production of all grains and oilseeds. The latest U.S. Department of Agriculture estimates point to a U.S. grain harvest of 196.5 million metric tons, up 3 percent from the estimate made two months earlier but still 29 percent lower than last year. Reflecting both the drought and the large acreage held out of production under government farm programs, this year's U.S. grain harvest will likely be the smallest since the corn blight year of 1970. Elsewhere in the world, production of all grains is expected to total 1,336 million metric tons, up 1 percent from last year and second only to the foreign grain harvest of 1986/87. The anticipated rise in total foreign grain production encompasses projections of sizable gains for Australia, India, and the 12 countries comprising the European Community. In contrast, the drought-reduced Canadian grain harvest is likely to be off by a third from last year while that for the USSR and China is expected to be off 5 and 3 percent, respectively.

U.S. oilseed production is expected to total 49 million metric tons, up 1 percent from 2 months ago but down 19 percent from last year and the lowest since 1976. Elsewhere in the world, oilseed production in the 1988/89 crop year is expected to total 151.3 million metric tons, up 4 percent from last year and another new high for foreign oilseed production. An anticipated 12 percent rise in the combined soybean harvest for Brazil and Argentina accounts for a

proportionately large share of the projected rise in foreign production of all oilseeds.

The recent upward revisions to the U.S. grain and oilseed production estimates have come primarily in the corn and soybean estimates. The latest U.S. corn production estimate, at 4.67 billion bushels (equivalent to 118.7 million metric tons) is up nearly 5 percent from the projections of two months ago but still off 34 percent from last year. The estimate reflects a harvested area of 56.7 million acres and a national average corn yield of 82.3 bushels per acre. Reflecting the extensive drought losses, the yield estimate is off 31 percent from last year's record high and only marginally above the 9-year low set during the 1983 drought.

The nation's 1988 soybean harvest, now estimated at 1.51 billion bushels (41.1 million metric tons), is up 3 percent from the projection of 2 months ago but still down 21 percent from last year. The latest estimates peg the average soybean yield at 26.6 bushels per acre, down 21 percent from last year and just slightly above the seven-year low set in 1983. Some 56.8 million acres of soybeans were harvested, only nominally less than last year. Ironically, harvested soybean acreage this year will likely exceed that for corn. The only other year that harvested soybean acreage in the U.S. exceeded that for corn was in 1983 when, similar to the situation this year, substantial corn acreage was held out of production under government price support program provisions.

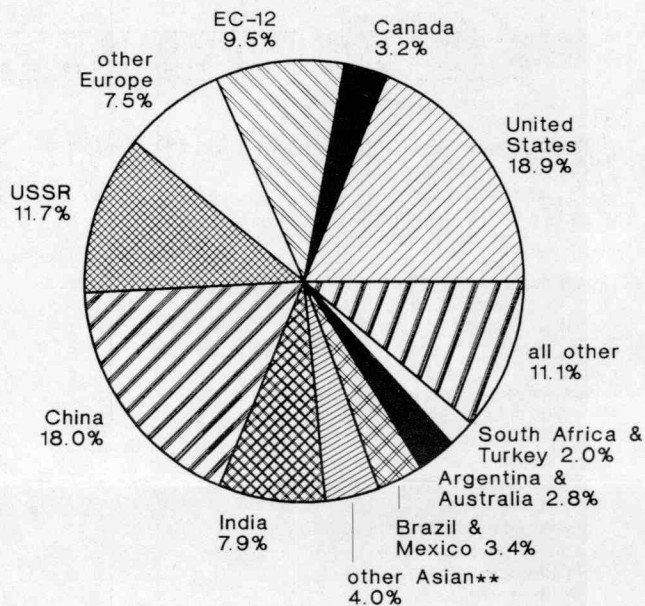
The U.S. share of world grain production has varied widely in some years, largely reflecting weather conditions here and abroad and sudden shifts in U.S. government price support programs that raise or lower the acreage devoted to grains domestically. But excluding years of major drought in the United States, there has been a remarkable consistency in the U.S. share of world grain production since the early 1960s. With this year's drought, it appears the U.S. share of world grain production will fall to less than 13 percent. But during the past four years, the U.S. share of world grain production averaged 19 percent, identical to the share held by the United States in both the mid 1970s and the mid 1960s.

The consistency over time in the U.S. share of world grain production holds for both coarse grains as well as the combined total for wheat and rice. Over the past four years, the U.S. accounted for just under 30 percent of world coarse grain production, up only marginally from the roughly 28.5 percent share held in both the mid 1970s and the mid 1960s. The U.S. share of combined wheat and rice production in recent years averaged just over 8 percent, only marginally below the levels of 10 and 20 years ago.

While the U.S. share of world grain production has held fairly constant over time, the U.S. share of world oilseed production has tumbled since the mid 1970s. During the past four world crop production years (1984/85-1987/88) the U.S. accounted for 31 percent of world oilseed production, down from 36 percent in the mid 1970s. The decline in the U.S. oilseed share stems partly from the rapid growth in foreign production of oilseeds not grown in the United States. For instance, average annual world production of rapeseed in the mid 1980s was 2.5 times the level of the mid 1970s. In the same vein, world palm kernel production in the mid 1980s was 2.3 times the level of the mid 1970s. In addition, the declining U.S. share of world oilseed production stems partly from the faster growth in soybean production abroad than here at home. Reflecting this, annual U.S. soybean production from 1984 through 1987 averaged only 27 percent above the average of the mid 1970s. Elsewhere in the world, soybean production in the mid 1980s averaged more than 80 percent above a decade earlier. With the slower growth domestically, the U.S. share of world soybean production dropped from 63 percent in the mid 1970s to 54 percent in the mid 1980s.

For at least the last two decades, the rapid growth in foreign soybean production has been centered in Brazil and Argentina. Together, those two countries harvested 27.7 million metric tons of soybeans in the 1987/88 crop year, more than double their joint output a decade earlier and equivalent to 27 percent of world soybean production last year. Projections for the current crop year foreshadow a combined soybean harvest of 31.0 million metric tons from Brazil and Argentina. More recently, soybean production within the twelve countries comprising the European Community have contributed to the rapid foreign growth. Last year, soybean production in the EC reached 1.8 million metric tons up from only 0.1 million tons 4 years earlier. While soybean production in the EC declined this year, to an estimated 1.6 million tons, that still equates to the output from Brazil and Argentina as recently as the early 1970s.

**Share of world grain production*
(average, 1985/86-1987/88)**



*Includes wheat, coarse grains, and milled rice.
**Indonesia, Pakistan, and Thailand.

Gary L. Benjamin

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Selected Agricultural Economic Indicators

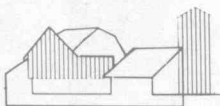
| | Latest period | Value | Percent change from | | |
|---|---------------|--------|---------------------|----------|---------------|
| | | | Prior period | Year ago | Two years ago |
| Receipts from farm marketings (\$ millions) | | | | | |
| Crops* | July | 11,914 | 2.8 | 8 | 24 |
| Livestock | July | 5,254 | -2.6 | 43 | 47 |
| Government payments | July | 6,419 | 5.9 | 0 | 5 |
| | July | 240 | 71.4 | -76 | n.a. |
| Real estate farm debt outstanding (\$ billions) | | | | | |
| Commercial banks | June 30 | 14.0 | 3.3 [†] | 10 | 24 |
| Farm Credit System | June 30 | 28.7 | -1.5 [†] | -8 | -25 |
| Life insurance companies | June 30 | 9.58 | -0.8 [†] | -7 | -15 |
| Farmers Home Administration | December 31 | 10.1 | 0.1 [†] | -3 | -3 |
| Nonreal estate farm debt outstanding (\$ billions) | | | | | |
| Commercial banks | June 30 | 28.7 | 7.7 [†] | 0 | -12 |
| Farm Credit System | June 30 | 9.5 | 6.8 [†] | -5 | -24 |
| Farmers Home Administration | December 31 | 16.0 | -1.1 [†] | -2 | -4 |
| Interest rates on farm loans (percent) | | | | | |
| 7th District agricultural banks | | | | | |
| Operating loans | October 1 | 11.67 | 3.8 [†] | 3 | 3 |
| Real estate loans | October 1 | 11.04 | 3.9 [†] | 3 | 3 |
| Commodity Credit Corporation | November | 8.12 | 0.0 | 2 | 42 |
| Agricultural exports (\$ millions) | | | | | |
| Corn (mil. bu.) | September | 3,180 | 10.5 | 36 | 66 |
| Soybeans (mil. bu.) | August | 154 | 21.8 | 38 | 199 |
| Wheat (mil. bu.) | August | 36 | 21.6 | -34 | 75 |
| | August | 114 | -5.3 | -4 | -8 |
| Farm machinery sales^P (units) | | | | | |
| Tractors, over 40 HP | October | 6,158 | 61.7 | 11 | 22 |
| 40 to 139 HP | October | 3,992 | 48.7 | 2 | 7 |
| 140 HP or more | October | 2,166 | 92.9 | 36 | 63 |
| Combines | October | 990 | 16.1 | -36 | -30 |

N.A. Not applicable.

*Includes net CCC loans.

[†]Prior period is three months earlier.

^P Preliminary



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