Rice Situation and Outlook Yearbook. Market and Trade Economics Division, Economic Research Service, U.S. Department of Agriculture, November 2002, RCS-2002.

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Summary

Record Supplies, Weaker Prices Projected for 2002/03 U.S. Rice Market

Total U.S. rice supplies for 2002/03 (August-July) are projected at a record 264 million hundredweight (cwt) (rough basis), up almost 4 percent from a year earlier. A 37-percent increase in beginning stocks to 39 million cwt more than offset a fractional drop in production to 212 million cwt—still the second highest on record—and a 1-percent cut in imports to 13 million cwt. This is the second consecutive year of record total rice supplies, primarily due to bumper crops in both 2001 and 2002.

U.S. rice plantings for 2002/03 are estimated at more than 3.2 million acres, down 3 percent from a year earlier. All of the acreage decline is in the South. A bearish price outlook—as well as heavy rains at plantings in parts of the Delta—are behind the decline. The average yield is projected at a record 6,611 pounds per acre, up 182 pounds from a year earlier. Increased plantings of new, higher yielding southern long grain varieties are behind this year's third consecutive record yield.

Long grain accounts for all of this year's production decline. Long grain production in 2002/03 is projected at 157.5 million cwt, down 5 percent from a year earlier's record, a result of weaker plantings. Nearly all U.S. long grain rice is produced in the South. In contrast, combined medium/short grain production is projected to increase 14 percent to 54.5 million cwt, primarily a result of larger plantings. At planting, medium grain prices were slightly higher than a year earlier and stronger than prices for long grain, a major factor behind expanded plantings of medium/short grain acreage this year. Last year, rice production in California—where more than two-thirds of the U.S. medium/short grain crop is grown—was down 12 percent from a year earlier, a main factor driving the higher medium grain prices.

In the South, acreage is typically shifted among classes of rice—i.e., long, medium, and short—based on expected returns. Higher field yields for long grain rice made long grain more profitable to many southern producers, despite higher prices for medium grain rice.

Total use is projected at a record 225 million cwt in 2002/03, up 4 percent from a year earlier. Exports account for the majority of this year's higher use. Total U.S. rice exports are projected at a record 100 million cwt, 6 percent above a year earlier. Competitive prices, record supplies, and expanded global trade are behind the robust U.S. export forecast. Rough rice exports for 2002/03 are projected at a record 35 million cwt, up 10 percent from a year earlier's previous high. Combined milled and brown rice exports (on a rough basis) are projected at 65 million cwt, up 4 percent from 2001/02 and the largest since 1996/97. Total domestic use is projected at a record 125 million cwt, up almost 3 percent from a year earlier.

Total ending stocks for 2002/03 are projected at 39 million cwt, unchanged from a year earlier and the largest since 1992/93. The stocks-to-use ratio is projected at 17.3 percent, down from a year earlier's 18.1 percent. About 4 million cwt of the 2002 U.S. rice crop has been forfeited to the U.S. Department of Agriculture's Commodity Credit Corporation (CCC), the first significant forfeiture in 8 years. Of the 4 million cwt forfeited, 1 to 2 million will likely be taken over by the CCC. The rest was sold earlier this year at or below market prices, a factor contributing to lower prices this year.

U.S. Long Grain Supplies Projected To Rise 4 Percent to Record

U.S. long grain supplies are projected at a record 193.5 million cwt, up 4 percent from a year earlier. A 130-percent increase in beginning stocks and record imports more than offset the smaller crop. At 26.8 million cwt, beginning stocks of long grain rice are the largest since 1987/88. Long grain imports are projected at nearly 9.3 million cwt, fractionally above a year earlier.

Total long grain use is projected at a record 167.7 million cwt, an increase of more than 5 percent from a year earlier. Domestic use is projected at a record 88.7 million cwt, more than 3 percent above 2001/02. Long grain exports are projected to climb more than 7 percent to 79 million cwt, second only to the 1994/95 record of 81.4 million. Long grain ending stocks are projected to drop 1 million cwt to 25.8 million cwt in 2002/03. The resulting stocks-to-use ratio is 15.4 percent, down from 16.8 a year earlier.

Total supplies of combined medium/short grain rice are projected at 68.9 million cwt, nearly 3 percent above a year earlier. A 14-percent increase in production more than offset a drop in beginning stocks and weaker imports. Imports, projected at 3.8 million cwt, are down 7 percent from a year earlier's record.

Total medium/short grain use is projected to increase nearly 2 percent to 57.3 million cwt. Both domestic use and exports are projected higher in 2002/03. Medium/short grain domestic use is projected to increase more than 1 percent to 36.3 million cwt. Exports are projected to expand 2 percent to 21 million cwt. The net result is a 1-million-cwt increase in ending stocks to 11.6 million cwt. The stocks-to-use ratio is projected to rise 20.3 percent, up from 18.9 percent a year earlier.

The 2002/03 season-average farm price (SAFP) is projected at $3.70 to $4.00 per cwt, down from $4.17 a year earlier and the lowest since 1986/87. This is the sixth consecutive year of declining SAFP in the United States. In October 2002, quoted prices for long-grain rice were the lowest in more than 15 years, a result of record U.S. supplies and continued weak international prices. For medium/short grain rice, U.S. price quotes began to drop in July in anticipation of a larger U.S. harvest this year. By mid-November, medium grain price quotes were slightly lower than a year earlier but still higher than quotes in 2000/01 when California produced a record crop.

U.S. prices for long grain milled rice are well below a year earlier. In mid-November, prices for high-quality southern long grain (U.S. No. 2, 4-percent brokens, f.o.b mill in Houston) were quoted at $198 per ton, down $22 from a year earlier. Prices were actually reported as low as $165 in June, the lowest in 15 years. The recent price strength was primarily due to tight milling capacity in the South during the summer and early fall. Prices for California medium grain milled rice (U.S. No. 1, 4-percent brokens, f.o.b. mill in Sacramento) have been quoted at $265 per ton since mid-April, down $20 from a year earlier.

Global Rice Prices Show Little Strength, Despite Smaller Supplies and Stronger Trade

Since July 2002, global trading prices have dropped 5 to 10 percent, despite contracting supplies and expanding trade. Prices for Thailand's 100 percent grade B have been quoted at $188-$197 per ton since early August, quite low by historical comparison. From April through July 2002, prices were reported at $200-$210 per ton. In November 2001, trading prices began to rise due to government intervention purchases by Thailand. By July 2002, prices began to drop due to record subsidized exports from India. India began subsidizing exports in the spring of 2001. Global trading prices have shown little movement since early fall. During much of 2001, global trading prices had been the lowest in three decades, a result of bumper crops in most major exporting countries, and, except for parts of the Middle East, no significant production problems in a major importing country.

Global rice production in 2002/03 is projected at 381.8 million tons (milled basis) down 4 percent from a year earlier and the smallest since 1996/97. This is the third consecutive year of declining global rice production. Despite the smaller crop, only modest price strengthening is expected in 2002/03—a result of reduced export subsidies from India. Since this forecast assumes normal weather for the remainder of the 2002/03 market year, a major weather problem could alter this projection. Global ending stocks are projected at 106.1 million tons, down 20 percent from a year earlier and the lowest since 1987/88.

India and China—both major exporters—account for the bulk of this year's expected reduction in global rice production. However, both countries are expected to have plenty of supplies for both their domestic market and to remain major exporters in 2002 and 2003. Other major exporters—Thailand, Vietnam, and the United States—are expected to produce record or near-record crops in 2002/03. Drought reduced Pakistan's 2001/02 and 2002/03 crops, limiting exports. Most major importers are expecting to harvest bumper crops in 2002/03.

For 2003, global rice trade is projected at 26.6 million tons (milled basis), fractionally above a year earlier and second only to the 1998 record of 27.7 million tons. In 2002, global rice trade jumped 9 percent. Indonesia, Iraq, and Iran account for most of the expansion in 2002 imports. In 2003, Thailand, Vietnam, Burma, China, and the United States are all expected to ship more rice than this year, while India and Pakistan are expected to export less.

Rice Conversions

1 cwt = 100 pounds = 2.22 bushels = .0453 metric ton
1 metric ton = 2,204.6 pounds = 22.046 cwt = 48.992 bushels
1 cwt rough rice = .032 metric ton milled
1 metric ton milled = 31 cwt rough

Bumper Crop, Record Supplies Projected for 2002/03

U.S. rice supplies are projected to increase almost 4 percent to a record 264 million hundredweight (cwt) in 2002/03, the result of a huge carry-in, bumper harvest, and near-record imports. At 212 million cwt, production is fractionally below a year earlier's record as smaller plantings were nearly offset by a record yield. Long grain supplies, projected at a record 193.5 million cwt, are up 4 percent from a year earlier. Combined medium/short grain supplies are projected to increase 3 percent to 68.9 million cwt.

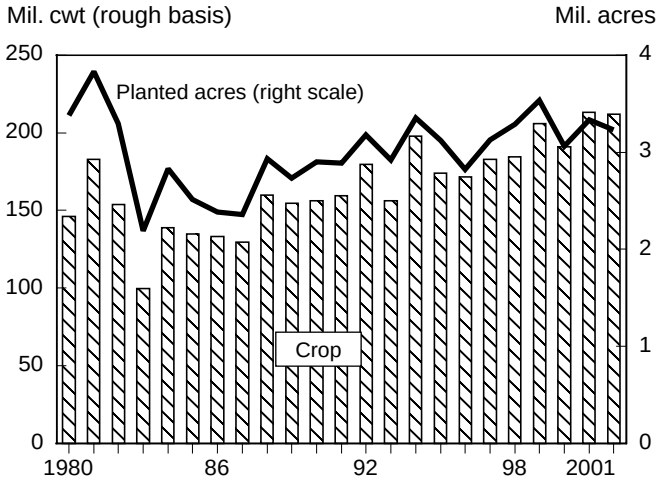
U.S. Rice Production Drops Fractionally On Smaller Plantings

Based on estimates by the U.S. Department of Agriculture's (USDA) National Agricultural Statistics Service (NASS) in early November, the 2002/03 U.S. rice crop is forecast at 212 million hundredweight (cwt) (rough basis), down fractionally from a year earlier and the second largest on record. A 3-percent cut in plantings to 3.23 million acres was almost offset by a higher yield. The average yield, projected at a record 6,611 pounds per acre, is up 182 pounds from a year earlier. This is the third consecutive year of a record U.S. average yield and fourth consecutive year of an increasing average.

NASS reports annual rice production grown in six States: Arkansas, California, Louisiana, Mississippi, Missouri, and Texas. These six States account for about 99 percent of total U.S. rice production. Rice production in other States is neither reported by USDA's NASS nor included in the U.S. total. Florida accounts for the bulk of unreported production, with Oklahoma, Tennessee, Illinois, South Carolina, and Kentucky typically producing smaller amounts.

Figure 1

U.S. 2002 rice crop projected at near-record 212 million cwt

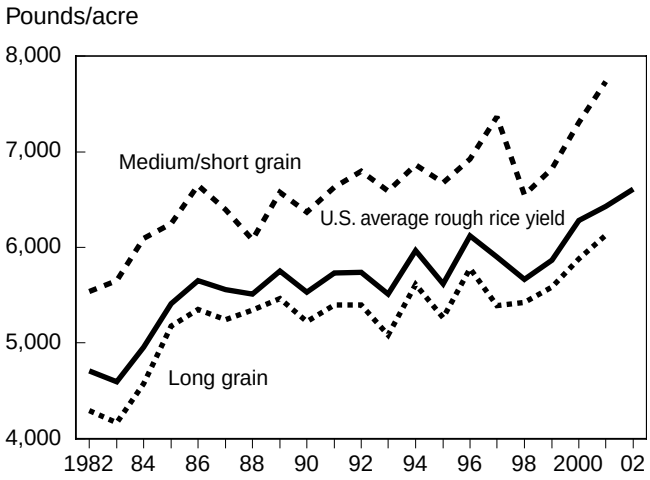


2002 projected.

Source: NASS, USDA.

Figure 2

U.S. rough rice yields have climbed to record highs each year since 2000



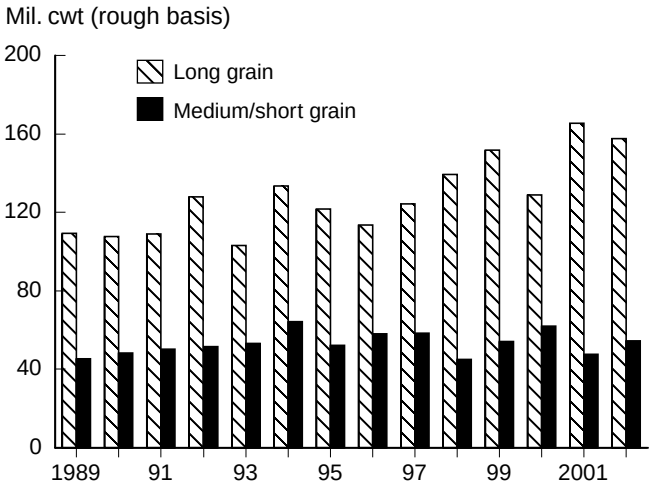
2002 projected. 2002 long and combined medium/short grain yields not available.

Source: NASS, USDA.

Long grain accounts for all of this year's decline in rice production. U.S. long grain production is projected at 157.5 million cwt, down 5 percent from a year earlier's record. In contrast, medium grain production is projected at 52.6 million cwt, up 14 percent from a year earlier. Short grain production, accounting for less than 1 percent of the total U.S. crop, is projected at

Figure 3

U.S. 2002 long grain crop projected to drop 5 percent to 157.5 million cwt



2002 projected.

Source: NASS, USDA.

almost 1.9 million cwt, up 19 percent from 2001/02. California produces the bulk of U.S. short grain rice.

Expectations of a large carryover by season-end—plus excessive rain in parts of the Delta—were major factors behind smaller long grain acreage this year. In 2001/02, U.S. long grain supplies jumped 22 percent, a result of a record crop. In contrast, at planting, medium grain price quotes had risen nearly 50 percent since the start of the 2001/02 market year, a major reason for both larger plantings in California—which grows mostly medium grain—and shifts to medium grain acreage from long grain in the South.

U.S. Average Yield Estimated at Record 6,611 Pounds Per Acre

In early November, NASS forecasted average field yields for 2002/03 at a record 6,611 pounds per acre, up nearly 4 percent from a year earlier. Generally favorable weather across most of the South during critical growing months; expanded plantings of newer, higher yielding long grain varieties; and a shift in acreage to the high yielding California rice from the lower yielding southern rice are behind the record yield. This is the third consecutive year of a record average yield. Annual yield growth has averaged 4 percent since 1999/2000 after being almost stagnant from 1988/89 to 1998/99.

Field yields are projected higher this year for all reporting States except Louisiana, with record yields projected for all southern reporting States. The Arkansas yield is projected at 6,450 pounds per acre, up 200 pounds from last year; California at 8,300 pounds, up 130; Mississippi at 6,600 pounds, up 100; Missouri at 6,000 pounds, up 50; and Texas at 7,000 pounds, up 300. Louisiana's yield is projected at 5,500 pounds, unchanged from a year earlier's record.

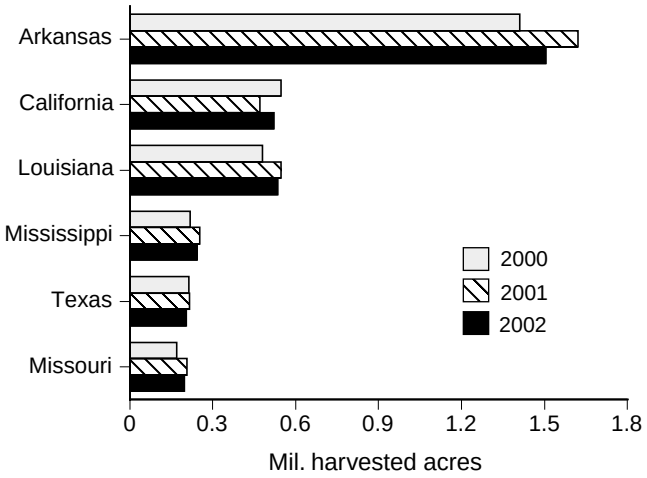
Despite an increase of almost 2 percent this year, rice yields in California remain below the 8,500 pounds per acre record achieved in 1991, 1992, and 1994. In fact, except for 1997, 2001, and 2002 average rice yields in California have been less than 8,000 pounds since 1995. Environmental regulations, adverse weather, and varieties grown are likely factors behind California's lower yields.

Rice Crops Projected Smaller in All Southern Growing States

Rice acreage is smaller this year in all reporting States except California. Arkansas, the largest rice producing State, accounts for the bulk of this year's acreage decline. Planted area dropped 115,000 acres to 1.52 million. Declines in other States were much smaller. Missouri's rice plantings are estimated at 201,000 acres, a drop of 10,000 from 2001/02 but still the second highest on record. Rice acreage in Missouri has substantially increased over the past decade. Mississippi's rice acreage is estimated at 245,000 acres, down 10,000 from a year earlier. Heavy rains early in

Figure 4

Rice acreage declined in 2002 in every State except California



2002 estimated.

Source: NASS, USDA.

the planting season likely reduced rice plantings in these three Mississippi Delta rice-growing States.

Louisiana's rice acreage is estimated at 540,000 acres, down 8,000 from a year earlier. In Texas, rice area is estimated at 206,000 acres, down 11,000 from a year earlier and well below the 1968 record of 599,000 harvested acres. This is the smallest rice plantings in Texas since the mid-1930s. Rice acreage in Texas has declined sharply since the early 1980s. Higher production costs than other southern States, lack of an economically viable rotation crop for many producers, and weather problems such as hurricanes account for the long-term decline in rice plantings in Texas. In contrast to the South, planted area in California is estimated at 523,000 acres, a 50,000-acre increase from a year earlier but still below the 1981 record of 600,000 acres.

Total U.S. rice production is projected to decline about a million cwt in 2002, with a larger California crop nearly offsetting weaker production in all southern growing States. Reduced plantings account for the smaller crops in the South. Arkansas reports the largest reduction, with 2002 production projected to drop more than 4 percent to 97.1 million cwt, still the second highest on record. Crop reductions in other States are much smaller. Louisiana's rice crop is projected at 29.4 million cwt, down 2 percent from a year earlier. In Missouri, rice production is projected at 11.8 million cwt, a drop of 4 percent from the 2001/02 record. Mississippi's production is forecast to decline nearly 3 percent to 16 million cwt. At 14.4 million cwt, Texas' rice production is about 1 percent below a year earlier.

In contrast, California's 2002 rice crop is estimated at 43.2 million cwt, an increase of 12 percent from a year earlier. Greater plantings and a higher yield are behind the larger crop.

Total U.S. Supplies Projected at Record 264 Million Cwt

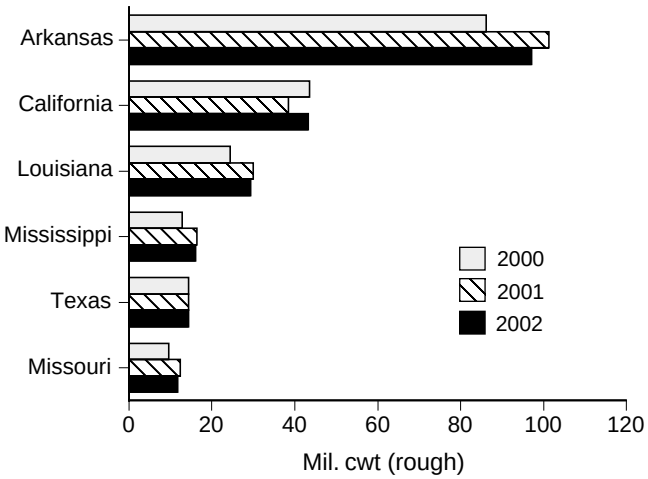
Total U.S. rice supplies in 2002/03 are projected at a record 264 million cwt, up almost 4 percent from a year earlier and the second consecutive year of record supplies. A 37-percent increase in beginning stocks more than offset a slight drop in imports and the smaller crop. Based on data from the NASS August *Rice Stocks* report, beginning stocks for 2002/03 are estimated at 39 million cwt, up 10.5 million cwt from a year earlier and the largest since 1993/94.

U.S. rice imports for 2002/03 are projected at 13 million cwt, down fractionally from a year earlier's record. In 2001/02, U.S. rice imports jumped 22 percent to 13.2 million cwt, with large shipments of medium grain rice to Puerto Rico from Australia accounting for most of the increase. Australia shipped smaller amounts to Puerto Rico early in the 2002/03 market year. Australia has not typically supplied rice to the United States.

Excluding the Australian shipments, nearly all U.S. rice imports are specific aromatic varieties not currently

Figure 5

All rice producing States except California produced smaller crops in 2002

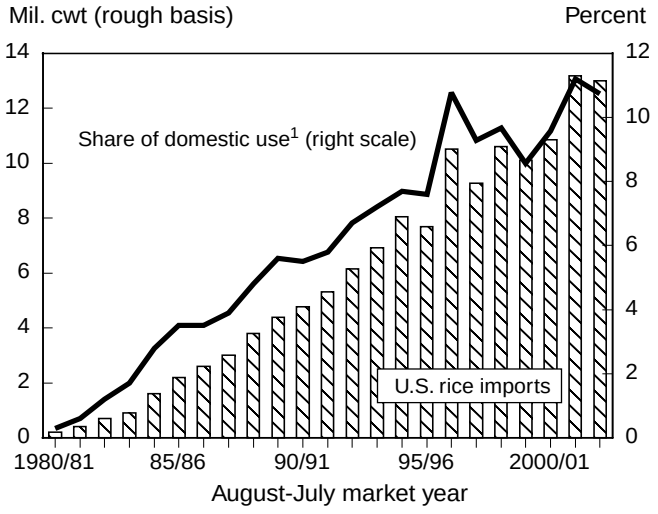


2002 forecast.

Source: NASS, USDA.

Figure 6

U.S. rice imports are projected at near-record level in 2002/03



[1] Does not include seed use.
2002/03 projected.

Source: WAOB, USDA.

grown in the United States. Most are long grain varieties. U.S. rice imports have increased sharply over the past two decades. About 80 percent of U.S. rice imports typically come from Thailand—mostly jasmine rice—and the bulk of the remainder is basmati from India and Pakistan. Italy also exports small quantities of arborio rice to the United States, with smaller quantities often imported from Vietnam, China, and Egypt.

Long grain—the dominant class of rice grown in the United States—accounts for the bulk of the increase in total rice supplies this year. Total long grain supplies are projected at a record 193.5 million cwt, up 4 percent from a year earlier. A huge carryin and record imports more than offset the smaller crop. Data from the August 2002 *Rice Stocks* report indicated long grain stocks at the beginning of the 2002/03 market year at 26.8 million cwt, a 130-percent increase from a year earlier and the largest since 1987/88.

For medium/short grain rice, supplies are projected at 68.9 million cwt, up nearly 3 percent from a year earlier. This year's larger crop more than offset tighter beginning stocks and a decline in imports. Data from the August 2002 *Rice Stocks* report indicate beginning stocks of medium/short grain rice at 10.7 million cwt, down nearly 32 percent from a year earlier. A 12-percent drop in California's rice production in 2001/02 is the main factor behind this year's smaller carry-in. Imports of medium/short grain rice are projected to drop 7 percent to 3.8 million cwt, second only to a year earlier's record.

U.S. 2002/03 Rice Exports Projected at Record 100 Million Cwt

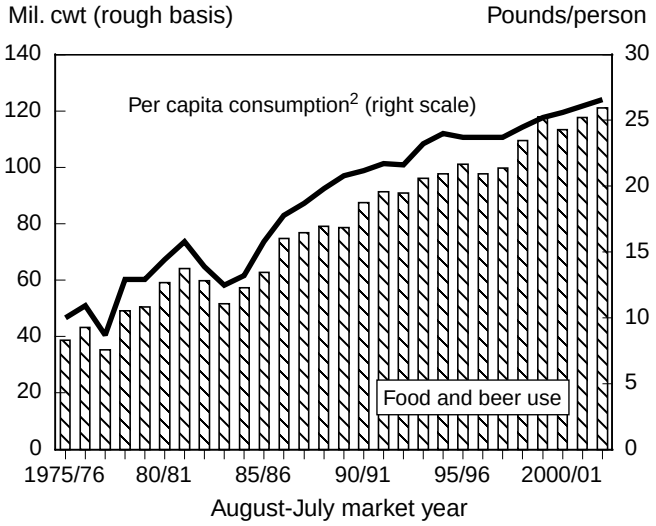
Total rice use in 2002/03 is projected to increase more than 4 percent from a year earlier to a record 225 million cwt, with both domestic use and exports the highest on record. Total domestic use is projected to increase nearly 3 percent to 125 million cwt, while U.S. exports are expected to climb 6 percent to 100 million. Long grain accounts for the bulk of the expansion in both domestic use and exports. Total long grain use is projected at a record 167.7 million cwt, up more than 5 percent from 2001/02. Combined medium/short grain total use is projected to be slightly higher this year. Ending stocks of total rice are projected at 39 million cwt, the largest since 1993/94.

Total Rice Use in 2002/03 Projected at Record 225 Million Cwt

Total rice use—*domestic and residual plus exports*—in 2002/03 is projected at a record 225 million cwt, up more than 4 percent from a year earlier. Both domestic use—including residual, or unreported losses in transporting and marketing—and exports are projected to be record highs in 2002/03. Exports account for the majority of the increase in total rice use this year. Total U.S. rice exports are projected at a record 100 million cwt, more than 6 percent above a year earlier and 1.2 million cwt above the 1994/95 previous high.

Figure 7

U.S. rice consumption continues to rise[1]



[1] Does not include U.S. territories. [2] Population data since 1988/89 are ERS estimates based on BEA estimates that smoothed in data from the 2000 Census of Population.

2002/03 projected.

Source: FAS, USDA.

Total domestic utilization (*food, industrial, and residual* plus *seed use*) is projected at a record 125 million cwt, up almost 3 percent from 2001/02. Food, industrial, and residual is projected at a record 121 million cwt, an increase of nearly 3 percent.

While rice consumption in the United States has increased steadily since the late 1970s, the rate of growth has slowed since the mid-1990s. During the 1980s and early 1990s growth in total U.S. rice consumption (excluding shipments to U.S. territories) averaged more than 4 percent a year. Since 1995/96, growth in U.S. rice consumption has averaged 2.5 percent.

In February, USDA's 2002 long-term baseline projection forecasted a growth rate of a little more than 2 percent a year for the next decade. While less than half the rate achieved a decade ago, growth is still more than double the rate of population growth.

Food use accounts for most of the expansion in U.S. rice consumption over the past two-and-a-half decades. Strong growth in U.S. food use has been largely due to a big increase in immigration from Asia, Latin America, and Africa since the late 1970s. These ethnic groups typically have much higher per capita rice consumption than the United States as a whole. In addition, greater emphasis on healthy lifestyles, convenience, and versatility have encouraged greater U.S. rice consumption.

Per capita rice consumption—including direct food use, processed foods, pet foods, and beer—has nearly doubled since the early 1980s and is currently projected at more than 26 pounds. Since 1990/91, per capita consumption has grown nearly half-a-pound annually, down from a pound a year in the 1980s.

U.S. Rice Exports Projected To Climb to Record 100 Million Cwt

U.S. rice exports in 2002/03 are projected to increase more than 6 percent to a record 100 million cwt (rough basis). Competitive U.S. prices, huge U.S. supplies, and greater world trade are behind the robust export forecast. Exports are projected to be 1.2 million cwt larger than the previous high reported in 1994/95. Both rough and milled rice exports are projected to increase this year, with rough rice exports projected to account for the bulk of the increase in total exports this year.

U.S. rough rice exports for 2002/03 are projected at 35 million cwt, up 10 percent from a year earlier and the second consecutive year of record U.S. rough rice exports. In 2001/02, record purchases by Mexico and Central America were responsible for a 39-percent jump in U.S. rough exports to 31.7 million cwt. This year, continued strong shipments to Mexico and Central America, plus large purchases by Cuba and Brazil are behind the record rough rice export projection. Recent legislation allowing U.S. sales of food and medicine to Cuba is behind this year's robust sales to Cuba. Brazil sometimes buys large amounts of U.S. rice in years when regional supplies are inadequate for Brazil's large domestic market.

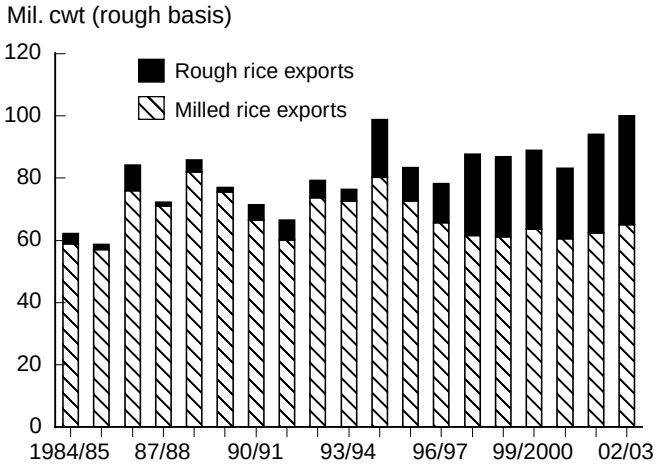
Southern long grain accounts for the bulk of U.S. rough rice exports, with most of this rice going to Latin America. Turkey is the only other large market for U.S. rice. Turkey typically imports California medium grain rice but will take southern medium grain if California supplies are tight. Turkey's purchases of U.S. rice—mostly rough rice—have been relatively small compared with previous years. Last November, Turkey placed a temporary ban on imports of U.S. rice, but sales have resumed. The European Union typically imports much smaller amounts of U.S. rough rice, mostly long grain.

The United States is the only major rice exporter that allows rough rice exports, and rough rice has become a larger share of U.S. exports, accounting for more than 30 percent in recent years. U.S. rough rice exports have expanded substantially since 1990/91. None of the large Asian exporting countries allows rough rice exports. However, Argentina, Uruguay, and Guyana ship some rough rice within Latin America, and Australia has shipped rough rice to Turkey.

Combined milled and brown rice exports (on a rough basis) are projected at 65 million cwt in 2002/03, up nearly 4 percent from a year earlier and the largest since 1996/97. Stronger global rice trade in 2002 and 2003 plus competitive U.S. prices are behind the higher milled rice export forecast. The price difference over similar grades of rice from Thailand—a major competitor of the United States in South Africa and parts of the Middle East—has declined substantially in recent years. From almost $90 per ton in 2000/01, the difference dropped to less than $40 in 2001/02 and has averaged just $15 per ton since August 2002.

Figure 8

U.S. rice exports are projected to be record high in 2002/03

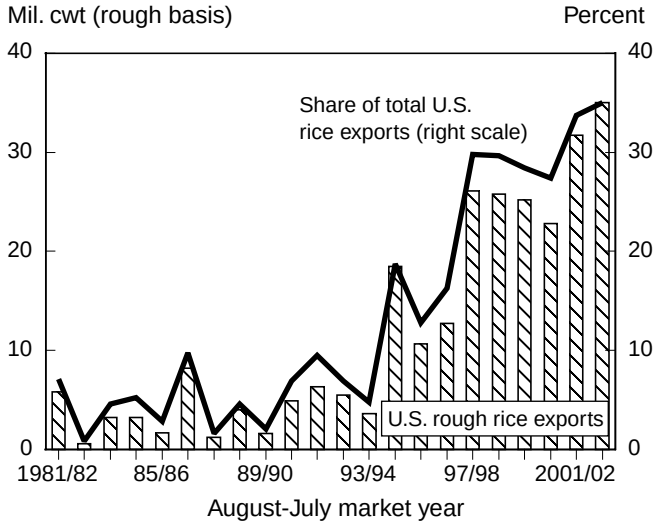


2002/03 projected.

Source: ERS, USDA.

Figure 9

Rough rice accounts for more than a third of U.S. rice exports



2002/03 projected.

Source: ERS, USDA.

Long Grain Accounts for Bulk of the Rise In Domestic Use and Exports

Long grain accounts for the bulk of the projected increase in total rice use in 2002/03. Total long grain use is projected at a record 167.7 million cwt, up more than 5 percent from a year earlier. Both domestic use and exports are projected higher this year.

Total domestic use (including residual) of long grain rice is projected at a record 88.7 million cwt, up more than 3 percent from a year earlier. Long grain exports are projected to increase more than 7 percent to 79 million cwt, the largest since the 1994/95 record 81.2 million cwt. Exports of both rough and milled long grain rice are expected to increase in 2002/03. Competitive prices, record U.S. supplies, and stronger global demand are behind expectations of increased U.S. long grain exports in 2002/03.

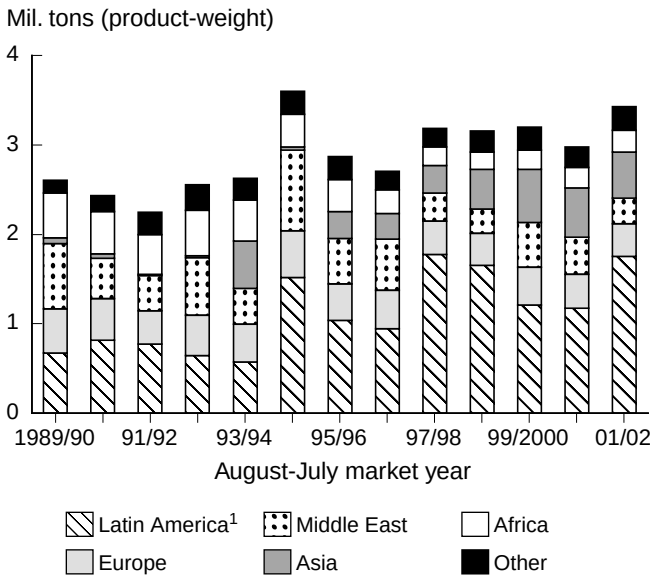
Total use of combined medium/short grain rice is projected at 57.3 million cwt, up less than 2 percent from a year earlier but well below the 1993/94 record of 61.3 million. Both domestic use, including residual, and exports are projected to increase in 2002/03. Medium/short grain domestic use is projected at 36.3 million cwt, up slightly more than 1 percent from a year earlier.

Medium/short grain exports in 2002/03 are projected to increase 2 percent to 21 million cwt, the largest since 1987/88. Japan, Turkey, and Jordan have been top markets for U.S. medium/short grain rice at least since the mid-1990s. Three other buyers are important this year as well. First, South Korea—which barred rice imports for more than two decades—has been a regular buyer of U.S. rice since 2001/02. Second, Taiwan has purchased U.S. medium/short grain rice, the first purchases in several decades. And finally, Uzbekistan has purchased medium/short grain rice under U.S. food aid programs in both 2001/02 and 2002/03.

Japan is the largest global importer of medium/short grain rice and the largest market for U.S. medium/short grain rice as well. In fact, more than half of California's annual rice exports typically go to Japan. The United States supplies about half of Japan's annual rice imports. China, Australia, and Thailand supply most of the rest. Virtually all of Japan's rice imports are purchased under the World Trade Organization's (WTO) minimum access requirements. Extremely high tariffs on any over-quota rice imports virtually preclude

Figure 10

Latin America is the largest market for U.S. rice exports



[1]Includes Mexico.

Source: Bureau of the Census, USDC.

purchases beyond the minimum access requirements. Japan's WTO imports are not scheduled to increase until another WTO agreement is reached.

Like Japan, both South Korea's and Taiwan's rice imports are solely the result of minimum access agreements under the WTO. South Korea's minimum access imports are scheduled to increase annually from 1995 through 2004. As a requirement for joining the WTO, Taiwan agreed to a minimum access import level for rice in 2002. Access after this year for Taiwan is currently being debated.

U.S. Ending Stocks Projected To Remain Largest Since 1992/93

U.S. ending stocks of all rice for 2002/03 are projected at 39 million cwt, virtually unchanged from a year earlier and the largest since 1992/93. An almost 4-percent increase in total supplies virtually offset record total use. The resulting stocks-to-use ratio is projected at 17.3 percent, down from a year earlier's 18.1 percent.

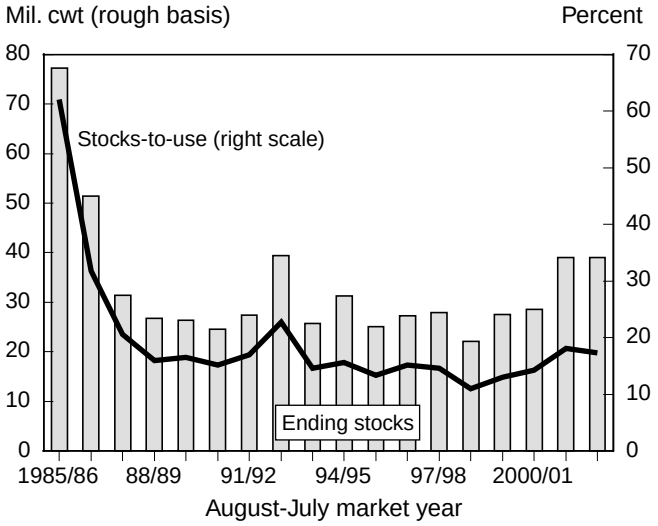
The ending stocks situation is expected to be somewhat different by class of rice. For long grain rice, ending stocks are projected to drop 4 percent to 25.8 million cwt, still the second largest since 1987/88. The long grain stocks-to-use ratio is projected at 15.4 percent, down from a year earlier's 16.8 percent but still

the second highest in a decade. Assuming normal weather worldwide, U.S. long grain prices are expected to remain under severe price pressure for at least the remainder of the 2002/03 market year.

In contrast, medium/short grain ending stocks for 2002/03 are projected to increase 9 percent to 11.6 million cwt. A 3-percent increase in medium/short grain supplies more than offset a slight rise in total use. The resulting medium/short grain stocks-to-use ratio is projected at 20.3 percent, up from 18.9 percent a year earlier.

Figure 11

U.S. ending stocks are projected to be highest since 1992/93

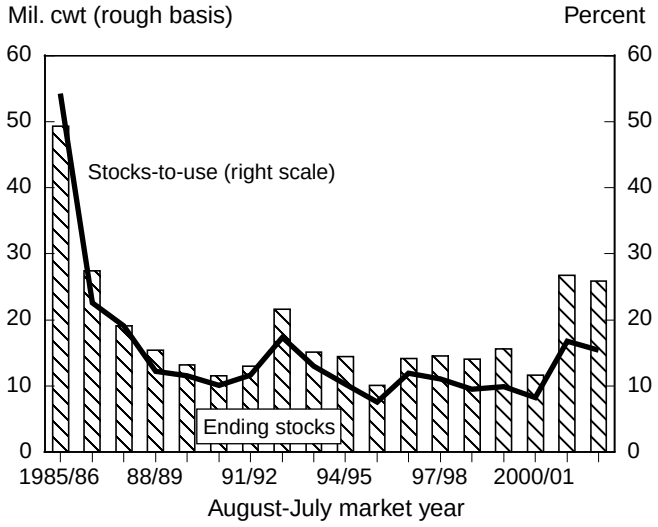


2002/03 projected.

Source: ERS, USDA.

Figure 12

Long grain ending stocks are projected to drop 4 percent in 2002/03

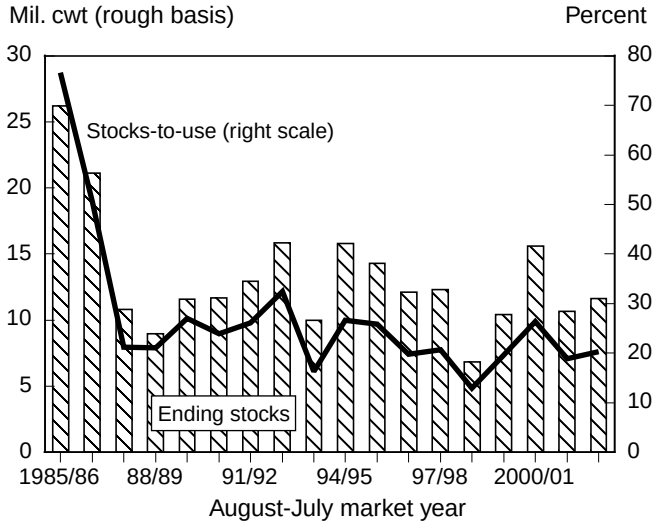


2002/03 projected.

Source: ERS, USDA.

Figure 13

Medium/short grain ending stocks are projected to increase 7 percent in 2002/03



2002/03 projected.

Source: ERS, USDA.

U.S. Season-Average Farm Price Projected Lowest Since 1986/87

The U.S. season-average farm price for 2002/03 is projected at $3.70 to $4.00 per cwt, down from $4.17 a year earlier and the lowest since 1986/87. Record supplies of rice at home, continued low international prices, and sales of forfeited rice by USDA's Commodity Credit Corporation at or below market prices are behind the bearish price outlook. Without a major weather disturbance, there is little reason to expect any significant strengthening of world prices. U.S. producers are expected to realize marketing loan benefits for the remainder of the 2002/03 market year. Total U.S. food aid shipments in fiscal 2002 are estimated to be 380,300 up from almost 231,000 tons a year earlier.

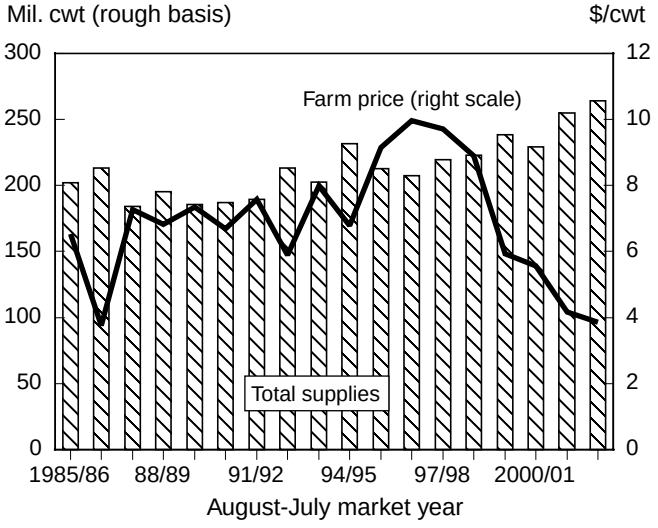
Season-Average Farm Price Projected at $3.70 to $4.00 Per Cwt

The 2002/03 season-average farm price is projected at $3.70 to $4.00 per cwt, down from $4.17 a year earlier and the lowest since 1986/87. This is the 6th year of declining season-average farm prices for U.S. rice. Record supplies of rice at home and continued weak prices in the international rice market are behind the bearish price outlook.

Average U.S. monthly cash prices for rough rice have sharply declined since early 1999. In August 2002, USDA's average cash price was estimated at $3.72 per cwt, the lowest since July 1987. Prices have rebound 10-15 cents per cwt, with the mid-November price reported at $3.86 per cwt. Even with the recent up-tick in prices, U.S. monthly cash prices have been below a year earlier every month since November 1998.

Figure 14

U.S. season-average farm price projected lowest since 1986/87



2002/03 is mid-point of projected range.

Source: ERS, USDA.

Price movements by class of rice are somewhat different. Quoted prices for long grain rice have steadily declined since early 2001, primarily due to two consecutive years of record U.S. supplies of long grain rice and extremely low prices for long grain rice in international markets.

In mid-November, long grain rough rice prices were quoted at around $3.50 per cwt in the Delta and up to 25 cents higher on the Gulf Coast. Although price quotes in the Delta are up slightly from last month, on average, southern long grain prices are the lowest in more than 15 years. In fact, there has been no significant price strength for southern long grain rice in more than a year.

For California medium grain rice, farm price quotes have dropped since May on expectations of a larger crop in 2002. In mid-November, California medium grain prices were calculated at $4.90 per cwt, up about 20 cents from September and October. Recent sales to South Korea and Taiwan are behind the slight increase. Despite this month's slight increase, prices are down more than a dollar from May. In 2001/02, California rice production dropped nearly 12 percent from a year earlier's record, boosting prices that year. Because the bulk of California's rough rice is sold under some form of pooling method, rough rice prices are determined by the milled rice price.

In the South, medium grain prices were quoted around $5.00 per cwt in mid-November, up from less than $4.00 in August. Despite higher prices for medium

than long grain rice at planting, southern producers boosted medium grain plantings 21,000 acres to 177,000, well below 309,000 acres in 2000.

Marketing Loan Gains in 2001/02 Averaged $3.21 Per Cwt

U.S. producers are eligible for marketing loan benefits when foreign prices (represented by USDA's weekly adjusted world price) fall below the loan rate for rough rice. Loan rates vary by class of rice—long, medium, and short grain—with an all-rice average loan rate fixed at $6.50 per cwt. Since the spring of 1999 world prices have remained below the loan rate, making U.S. rice producers eligible for marketing loan benefits.

From August 1995 until late March 1999, the adjusted world price exceeded the loan rate, thus marketing loan payments were not available. Payment rates were less than $1 per cwt from the spring of 1999 until the start of the 1999/2000 market year. Declining world prices caused payment rates to rise during 1999/2000 and by mid-March 2000 payment rates exceeded $2 per cwt for all three classes of rice—long, medium, and short. Payment rates continued to rise in 2000/01 as the adjusted world price declined.

From May through July 2001 the adjusted world price for all three classes of rice averaged $2.82 per cwt, the lowest on record. The average payment rate during these 3 months by class was $3.68 for long grain, $3.57 for medium, and $3.55 for short grain. This is the largest payment rate for long grain rice since the summer of 1987 and the largest payment rate on record for medium and short grain rice. A slight strengthening of the adjusted world price last fall reduced the payment rate 20 to 25 cents for all three classes of rice. However, the average payment rate was $3.21 per cwt for 2001/02.

Through November 2002, the 2002/03 payment rate has averaged $3.25 per cwt, up a few cents from the 2001/02 average. Without a major weather disturbance in some part of the globe, little if any significant increase in the world price is likely, indicating continued high payment rates at least until the end of the 2002/03 market year.

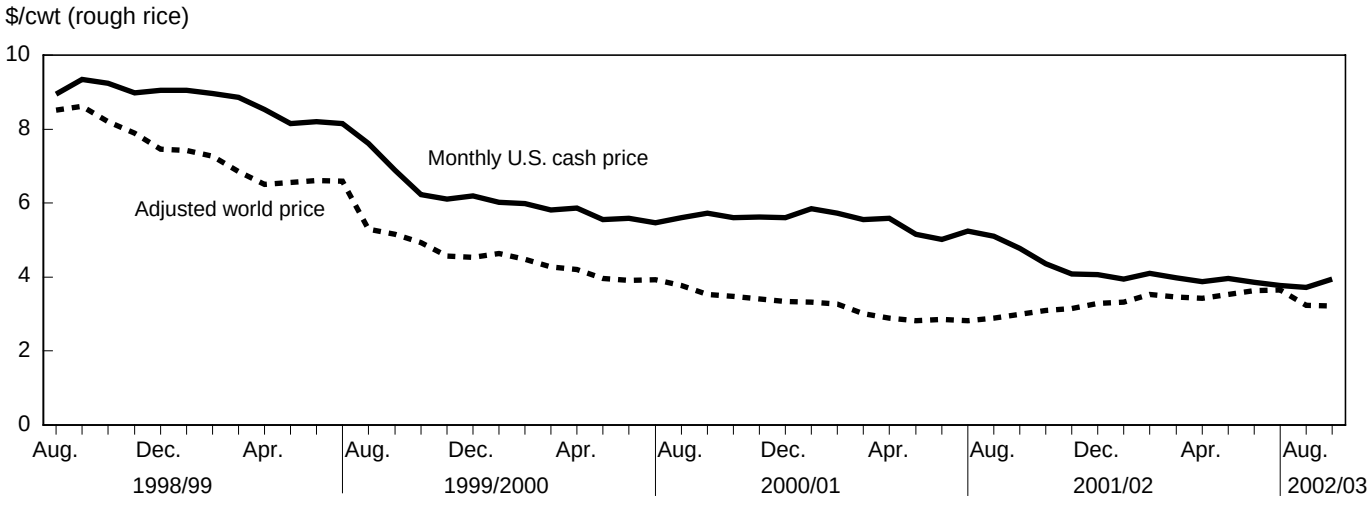
U.S. Food Aid Shipments for Rice Increased 65 Percent in FY 2002

Total U.S. food aid shipments in fiscal 2002 (October 2001 to September 2002) are estimated at 380,317 tons, up almost 150,000 from a year earlier. Food aid accounted for almost 11 percent of total U.S. rice exports in fiscal 2002, up from less than 8 percent a year earlier. In both the text and tables of this report, U.S. food aid shipments—reported on a product-weight basis—are assigned appropriate October-September fiscal years based on date of purchase, not actual shipment date. In fiscal 2001, total U.S. food aid shipments totaled 230,700 tons, down from 394,200 a year earlier.

U.S. rice is shipped under four food aid programs: PL 480 (Title I and Title II), Section 416 (b) surplus

Figure 15

U.S. rough rice prices remain depressed



Source: Monthly farm prices, NASS, USDA. Adjusted world prices, FSA, FAS, and WAOB/USDA.

removal, Food for Progress, and Global Food for Education. In fiscal 2002, shipments under PL 480 Title I (concessional sales) totaled 185,727 tons, up more than 99,500 from a year earlier. Indonesia accounted for the bulk of the Title I shipments in 2002, taking 90,135 tons. Uzbekistan ranked second with 58,519 tons. The Philippines accounted for the remainder, purchasing 37,073 tons. Purchases under PL 480 Title II, or food donations, accounted for nearly 67,000 tons in fiscal 2002. Indonesia was the largest recipients of Title II donations. Other major recipients in fiscal 2002 were: Niger, Burkina Faso, Benin, Nepal, and Guatemala.

More than 64,000 tons of rice were purchased in fiscal 2002 under the Section 416 (b) program. Major recipients were North Korea, the Philippines, and Ukraine. Exports under the Food for Progress program totaled 38,880 tons, up from 29,090 a year earlier. Nigeria, Cote d'Ivoire, and Senegal together accounted for nearly three-fourths of fiscal 2002 shipments. Finally, shipments under the Global Food for Education program totaled 24,580 tons, slightly below a year earlier. Mozambique, Congo, and Nigeria together accounted for about half the total shipments. Other recipients under the Global Food for Education program in fiscal 2002 included Gambia, El Salvador, and Ghana.

In fiscal 2001, Title I agreements for rice totaled 86,200 tons, down 55,800 from a year earlier. Uzbekistan was the largest recipient, purchasing 51,300 tons. The Philippines accounted for the remainder, purchasing 34,900 tons in 2001. In addition, 58,100 tons of rice were purchased in fiscal 2001 under PL 480 Title II, down 27,500 tons from a year earlier. Major recipients of Title II in fiscal 2001 were Indonesia, Guatemala, Benin, Burkina Faso, Cambodia, Niger, and Senegal.

In fiscal 2001, 30,650 tons were shipped under the Section 416 (b) program, down from more than 147,000 tons purchased for export under Section 416 (b) in fiscal 2000. Cambodia, Jamaica, and Nicaragua accounted for all of the shipments in 2001. U.S. rice exports purchased under the Food for Progress program totaled 29,090 tons in fiscal 2001, down 2,130 from a year earlier. Russia was the largest recipient, taking nearly 11,500 tons. Togo, Haiti, Azerbaijan, and Georgia accounted for most of the remainder. Finally, in fiscal 2001, shipments under the newly created Global Food for Education program totaled 26,670 tons. Major recipients included Moldova, Mozambique, Congo-Brazzaville, El Salvador, Cambodia, and Gambia.

U.S. Rice Prices Drop in Face of Record Production And Supplies

An almost 12-percent increase in production—plus record imports and a larger carry-in—boosted total U.S. rice supplies to 254.7 million cwt, the largest to date. Long grain accounted for all of the supply expansion, combined medium/short grain supplies were down more than 10 percent, primarily due to an almost 1-percent cut in California's 2001/02 harvest. Both domestic use and exports were higher than a year earlier. Ending stocks rose almost 37 percent to nearly 39 million cwt, the largest since 1992/93. The season-average farm price for rice dropped almost 26 percent to $4.17 per cwt, the lowest since 1986/87 and fifth consecutive year of decline.

U.S. Rice Crop Climbs 12 Percent to Record 213 Million Cwt

The 2001/02 U.S. rice crop is estimated at a record 213 million cwt, up nearly 12 percent from a year earlier. The record crop is the result of a 9-percent increase in plantings to 3.34 million acres and a 2-percent boost in the average yield to a record 6,429 pounds per acre. This was the second consecutive year of a record yield.

Long grain accounted for all the area expansion. Long grain rice plantings rose 23 percent to more than 2.71 million acres, fractionally below the 1999/2000 record. Plantings of medium grain rice dropped 27 percent to 595,000, the lowest since 1988/89. Medium grain plantings were down in both California—where more than two-thirds of the U.S. medium grain crop is grown—and in the South. Plantings of short grain rice—which accounts for less than 1 percent of U.S. rice production—were estimated at 26,000 acres, a drop of 10,000 from 2000/01. California—which produces the bulk of the U.S. short grain crop—accounted for nearly all of the area decline.

The 2001/02 area expansion was primarily due to higher prices at planting for long grain rice—a result of a 12-percent drop in long grain supplies a year earlier—and lack of a better planting option. Plantings increased in every southern rice-growing State.

In Arkansas, 2001 rice plantings are estimated at a record 1.63 million acres, up 15 percent from a year earlier. At 548,000 acres, Louisiana's rice acreage was 13 percent larger than a year earlier. Mississippi's rice plantings, estimated at 255,000 acres, were up 16 percent from 2000/01. In Texas, rice plantings increased fractionally to 217,000. Despite the increase, Texas rice acreage is down nearly two-thirds from its 1968 high of 599,000 acres. Rice acreage in Texas has declined substantially over the past decade, a result of high production costs, lack of a viable rotation crop for many producers, and more problems with hurricanes, flooding, and drought than other regions. Missouri's rice area climbed 24 percent to a record 211,000 acres. Rice acreage in Missouri has expanded substantially since the late 1980s.

The national average yield for 2001 is estimated to have been 6,429 pounds per acre, up 148 pounds from 2000 and a record to date. Yields were higher than a year earlier in all rice growing States except Texas where yields were flat. Yields in 2001 were the highest on record in Arkansas, Louisiana, Mississippi, Missouri, and Texas. In the South, generally favorable weather conditions across the region and the introduction of new, high yielding long grain varieties were the main factors behind such strong yields in 2001.

Arkansas' yield of 6,250 pounds per acre was up more than 2 percent from a year earlier and the highest to date. In Louisiana, average yields climbed 8 percent to a record 5,500 pounds per acre. Mississippi's yield jumped 10 percent to 6,500 pounds per acre. The Texas yield is estimated to have been 6,700 pounds per acre, unchanged from a year earlier. At 5,950 pounds per acre, Missouri's 2001 yield was up more than 4 percent from a year earlier. In California, the average yield rose nearly 3 percent to 8,170 pounds per acre, still below the record 8,500 achieved in 1991, 1992, and 1994. Adverse weather problems, environmental regulations, and unique characteristics of the varieties

have, at times, contributed to California's weaker yields in recent years.

In 2001, year-to-year production changes varied by class. Long grain production is estimated to have been a record 165.3 million cwt, up 28 percent from a year earlier. A 23-percent increase in long grain area plus a record yield accounted for the bumper crop. In contrast, medium grain production dropped 22 percent from a year earlier, a result of weaker plantings. The short grain crop is estimated to have declined more than 38 percent to 1.6 million cwt, also due to smaller plantings. The 2001 short grain crop was the smallest since 1997.

Rice production increased in 2001 in every reporting State except California, with Arkansas and Missouri harvesting record crops. Arkansas accounted for the largest share of the production increase. Arkansas' 2001 crop is estimated at 101.3 million cwt, up 18 percent from a year earlier, a result of greater plantings and a record yield. Arkansas is the largest rice growing State, accounting for more than 45 percent of total U.S. rice production.

Louisiana's 2001 rice crop is up 23 percent—and at 30 million cwt—is the second largest on record. Rice production in Mississippi is estimated at 16.4 million cwt, an increase of nearly 28 percent. In Missouri, 2001 rice production is estimated at 12.3 million cwt, also up 28 percent from a year earlier. Rice production in Texas is estimated at 14.5 million cwt, up fractionally from 2000. In contrast to the southern rice-growing States, California's 2001 rice crop is estimated to have declined nearly 12 percent to 38.5 million cwt, a result of smaller plantings.

U.S. 2001/02 Long Grain Supplies Climb to Record 186.1 Million Cwt

U.S. rice supplies in 2001/02 are estimated to have been 254.7 million cwt, up 11 percent from a year earlier and the highest on record at that time. A bumper crop, record imports, and a larger carryin, were behind the expanded supplies. Beginning stocks—estimated at 28.5 million cwt—were up nearly 4 percent from a year earlier and are the largest since 1995/96. California accounted for nearly all of the increase in beginning stocks.

U.S. rice imports in 2001/02 totaled nearly 13.2 million cwt, a record, and up nearly 22 percent from a year earlier. Medium grain shipments to Puerto Rico from Australia accounted for almost all of the 2.3-million-cwt year-to-year expansion in imports. Australia has not typically been a supplier of rice to the United States. Thailand, India, and Pakistan typically account for more than 95 percent of U.S. rice imports.

The supply situation varied somewhat by grain type. Total long grain supplies jumped nearly 22 percent to a record 186.1 million cwt. A 28-percent increase in production to a record 165 million cwt plus record imports of 9.2 million cwt more than offset a decline in beginning stocks. Long grain rice stocks entering the 2001/02 marketing year were estimated at 11.6 million cwt, a drop of 26 percent from a year earlier and the lowest since 1996/97. Imports of long grain rice are up nearly 5 percent from a year earlier.

For medium/short grain rice, total supplies dropped 10 percent in 2001/02 to 67.1 million cwt. A 23-percent cut in production to 47.7 million cwt more than offset a 50-percent increase in beginning stocks and an almost doubling of imports. Medium/short imports were estimated at a record 4 million cwt. Shipments to Puerto Rico from Australia accounted for all of the increase. At 15.6 million cwt, medium/short grain beginning stocks were the highest since 1995/96.

U.S. Rice Exports Rose 13 Percent In 2001/02

Total U.S. rice use, including exports, domestic consumption, and residual (unreported losses in processing, transporting, and marketing), was 215.8 cwt in 2001/02, up almost 8 percent from a year earlier and the largest on record at the time. Both exports and domestic use were higher than a year earlier.

Total domestic disappearance (domestic use plus residual) was a near-record 121.7 million cwt, up 4 percent from a year earlier. Food, industrial, and residual—estimated at 117.7 million cwt—was up 4 percent from 2000/01. Seed use, at 4 million cwt, was down fractionally from a year earlier.

Long grain accounted for all of the expansion in total domestic and residual use in 2001/02. Domestic and residual use of long grain rice is estimated at 85.8 million cwt, up 13 percent from a year earlier. Some of the increase was due to a shift to long grain from medium/short grain brewers and food processors. In contrast, domestic and residual use for medium/short grain rice is estimated at 35.9 million cwt, down 13 percent from a year earlier. Tighter supplies and relatively high prices—compared with long grain rice—accounted for the decline in medium/short grain domestic use.

Both milled and rough rice exports expanded in 2001/02. Rough rice exports, estimated at a record 31.7 million cwt, increased 39 percent from a year earlier. Record shipments to Mexico and Central America were behind the robust rough rice export expansion. Milled rice exports are reported at 62.4 million cwt, up 3 percent from a year earlier. In 2001/02, U.S. milled rice exports were higher than a year earlier to Japan and Uzbekistan. In contrast, milled rice exports were smaller than a year earlier to the European Union, South Africa, and Saudi Arabia.

U.S. 2001/02 Ending Stocks Largest in a Decade

Ending stocks for all U.S. rice rose 37 percent in 2002/03 to 39 million cwt, the largest since 1992/93. The resulting stocks-to-use ratio rose to 18.1 percent from 14.2 percent a year earlier. Long grain rice accounted for all of the increase.

Ending stocks of long grain rice rose 130 percent to 26.8 million cwt, the largest since 1986/87. The resulting stocks-to-use ratio more than doubled to 16.8 percent, the largest since 1992/93. In contrast, combined medium/short grain ending stocks declined nearly 32 percent to 10.7 million cwt. The stocks-to-use ratio dropped to 18.9 percent from 26.3 percent in 2000/01.

The 2001/02 season-average price was reported at $4.17 per cwt, down nearly 26 percent from a year earlier and the lowest since 1986/87. Record U.S. supplies and only fractional strength in international trading prices—which were the lowest in three decades at the start of the 2001/02 market year—were the primary factors behind a weaker U.S. average rice price in 2001/02.

Global Prices Show Little Strength Despite Larger Trade

Despite three consecutive years of declining world rice production and stronger trade this year, global trading prices remain at near 15-year lows. In fact, prices have actually dropped 5-10 percent since spring, primarily due to continued large subsidized exports by India. From March through mid-November 2001, international prices were the lowest in three decades. Beginning last December, prices have been slightly boosted by government intervention purchases by Thailand. Little, if any, price strength is expected in the near-term as Thailand's and Vietnam's main crops are harvested. Although global production is projected to drop 4 percent in 2002/03, major exporting countries are projected to have adequate supplies to meet export commitments. In addition, except for parts of the Middle East and Central Asia suffering from continued drought, no major importing region is currently experiencing a significant weather problem. In Indonesia, despite a delay in the onset of the rainy season, a bumper 2002/03 crop is still projected.

Global Rice Production Projected To Drop Third Consecutive Year

In late November 2002, global trading prices were at near 15-year lows and had traded within a very narrow range since late August. Prices had actually strengthened from January 2002 through mid-July, primarily due to government intervention purchases by Thailand. Record exports of subsidized rice by India account for weaker prices this fall.

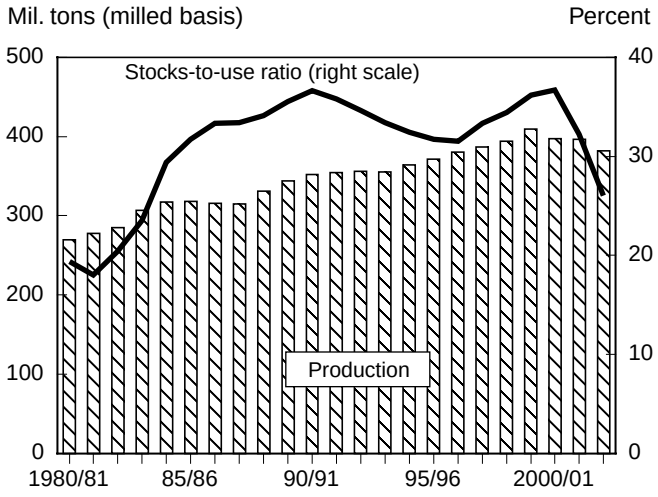
In 2003, global prices are projected to post modest increases, despite expectations of bumper harvests in Thailand and Vietnam in 2002/03. Two factors are behind the mildly bullish price outlook. First, the Government of Thailand announced early this year that it would continue its intervention purchases in 2002/03. And second, India just announced it will lower its subsidy level for rice exports next year, likely giving a boost to global prices in 2003. This price expectation assumes normal weather.

World rice production is projected at 381.8 million tons (milled basis) in 2002/03, down almost 4 percent from a year earlier and the lowest since 1996/97. This is the third consecutive year of declining global rice production, with production projected to be nearly 7 percent below the 1999/2000 record of 409.3 million tons.

India, a major exporter and second largest rice producing country, accounts for the bulk of this year's decline, with 2002/03 rice production projected to drop 15 percent from a year earlier's record to 78 million tons, the smallest since 1992/93, a result of an unfavorable monsoon. China, also a major exporter, accounts for most of the rest of this year's global production decline. This is the fifth consecutive year of lower production in China, the world's largest producer. Despite smaller crops, both of these countries have plenty of rice for their domestic market and to remain major exporters. Two other exporters—Pakistan and Australia—are projected to harvest smaller crops this year. However, little price strength is likely given pro-

Figure 16

Global rice production in 2002/03 is projected to be the smallest since 1996/97



Production is aggregate of local marketing years. All data reported on a milled basis.
2002/03 projected.

Source: ERS, USDA.

jections for bumper crops in other major exporting countries, i.e., Thailand, Vietnam, the United States, and Egypt.

Among the major importers, only South Korea, the Philippines, and Japan are projected to harvest significantly smaller crops this year. And except for the Philippines, the weaker crops will not effect import levels. Despite a boost in rice production in North Korea this year, total food supplies remain inadequate, a result of several years of declining food production. Outside Asia, Brazil—the largest non-Asian rice producing country—is projected to produce a slightly smaller crop in 2002/03, boosting imports. Severe drought continues to limit production in Iran and Iraq, although production is projected to increase slightly for both countries this year. And while Nigeria's production is projected to increase for the third consecutive year, production remains 50 percent below levels reported a decade ago. In contrast to these importing countries, bumper crops are projected for Indonesia, Bangladesh, and Malaysia.

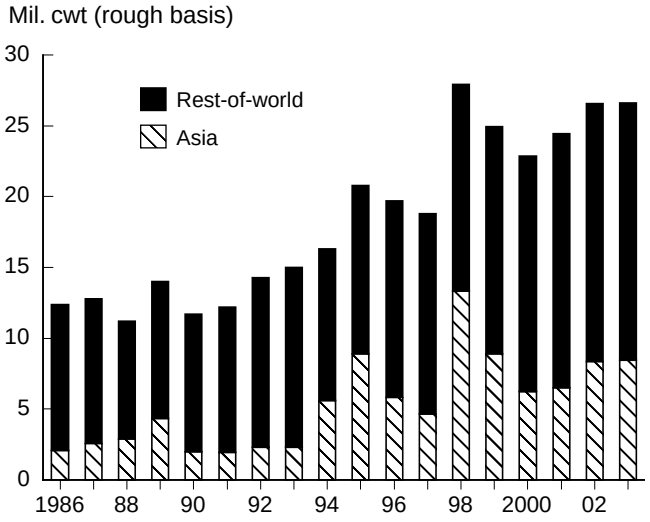
Global ending stocks are projected to drop 20 percent to 106.1 million tons. This is the third consecutive year of declining global stocks and the lowest since 1987/88. In 1999/2000, global ending stocks were a record 144.2 million cwt.

China accounts for more than half of this year's expected reduction in global ending stocks. China's ending stocks have declined each year since the 1999/2000 record of 98.5 million tons. India's ending stocks are projected to drop nearly 40 percent this year to 13.9 million cwt, the smallest since 1998/99. Stocks are expected to decline in 2002/03 in Indonesia, Vietnam, Thailand, Burma, and Brazil as well.

World trade is projected at more than 26.6 million tons in calendar year 2003, fractionally above a year earlier and second only to the 1998 record of 27.6 million. In 2003, larger imports by Iran, Bangladesh, the European Union, Saudi Arabia, China, Russia, and Yemen are projected to nearly offset weaker imports by Indonesia, Iraq, Senegal, and Brazil. Imports are projected unchanged from 2003 for Nigeria, the Philippines, Japan, Malaysia, Cuba, Mexico, and South Africa. Among exporters, stronger exports by Thailand, Burma, China, Vietnam, Australia, and the United States are nearly matched by projected reductions for India and Pakistan.

Figure 17

Global rice trade is projected nearly flat in 2003



2002 and 2003 projected.
Source: FAS, USDA.

In 2002, global trade rose 9 percent to almost 26.6 million cwt. A major expansion in Indonesia's imports to 3.5 million tons, near-record imports by Iran and Iraq, and continued large purchases by the Philippines were responsible for the bulk of the import expansion in 2002. On the export side, a 4.6-million-ton jump in India's exports to 6.5 million more than offset reductions by nearly all other exporting countries this year.

International Trading Prices Remain Depressed

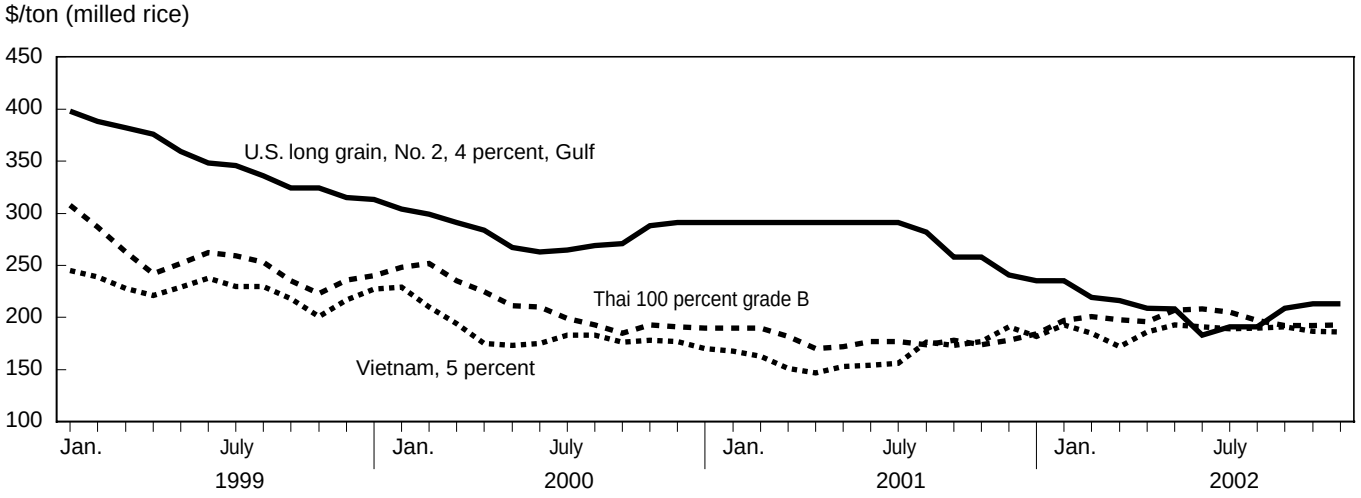
Global trading prices are currently at near 15-year lows, despite three consecutive years of declining world production and ending stocks, and—since 2001—stronger global trade. In fact, prices have actually dropped 5-10 percent since mid-summer, a result of a record pace of subsidized exports from India.

Prices had risen from December 2001 through last spring, primarily due to government intervention purchases by Thailand and temporary supply problems in Vietnam. During much of 2001 trading prices hovered at 30-year lows, a result of subsidized exports from India (which began in June 2001), and adequate export supplies worldwide.

In November 2002, export price quotes for Thailand's 100 percent grade B in Bangkok averaged $193 per ton, up a dollar from a month earlier and nearly $20 higher than a year earlier. Since August 2002, prices have traded between $188 and $197 per ton. Government inter-

Figure 18

Global rice prices are trading in a very narrow range



All prices quoted "free-on-board" vessel at local port.

Source: Thai prices, U.S. Ag Counselor, Bangkok, Thailand; U.S. prices, AMS/USDA; Vietnam, industry sources.

vent (ect.). Government intervention purchases and currency fluctuations account for much of the oscillation since August.

Price quotes for Vietnamese 5-percent brokens in Ho Chi Min City averaged $186 per ton in November 2002, down a dollar from a month earlier and about $5 below September. Recent declines are due to completion of its 10th-month harvest. Vietnam's prices have traded within a very narrow range since late 2001.

Like Thailand, Vietnam faces intense competition from India in low quality markets. Since June 2001, India has been the lowest-priced source for rice, first for parboiled rice and low quality 100 percent brokens, and more recently for higher quality regular milled white rice. Except for its premium basmati rice and top quality parboiled rice, India rarely competes with the United States in the global rice market.

Prices for similar type and quality of U.S. long grain rice—No. 2, 4-percent brokens, f.o.b. Houston—have risen 20 percent since June largely due to tight milling capacity. In November, price quotes at Texas mills for U.S. long grain milled rice (number 2, 4 percent brokens) averaged $198 per ton, unchanged from early September but $20 to $30 higher than quoted prices last summer. Despite the recent strength, prices are likely to be under substantial pressure the remainder of the market year due to record supplies and intense competition in the global market.

The U.S. price difference over Thailand for similar grades of rice has narrowed substantially since the start of the 2001/02 market year. In November 2002, the difference averaged $21 per ton, nearly unchanged since September 2002 but well below the August 2001 average of more than $100. The difference had actually disappeared during much of the summer. Recent price strength for U.S. rice accounts for the slight difference in prices. From 1997/98 through 2000/01 the difference averaged about $80 per ton.

Prices for U.S. California milled rice have remained substantially higher than prices for U.S. long grain. This month, quoted prices for California medium grain milled rice (number 1, 4 percent brokens, Sacramento mill) average $265 per ton, unchanged since April. Prices dropped about $22 per ton in April on expectations of a larger 2002 California crop. Recent sales to South Korea and Taiwan—plus regular purchases by Japan—have offset the price effects of this year's larger California crop.

Thailand, Vietnam, and China Projected To Ship More Rice in 2003

Of the six largest rice exporters—Thailand, India, Vietnam, the United States, China, and Pakistan—only India and Pakistan are projected to ship less rice in 2003, with India accounting for the bulk of the decline. Thailand, Vietnam, China, and the United States are projected to export greater quantities. Among the medium-sized exporters, Burma, Australia, and Uruguay are projected to expand exports in 2003 while exports from Egypt and Argentina are projected unchanged from 2002. In 2002, record exports of 6.5 million tons by India more than offset reductions by nearly all major and medium-sized exporters.

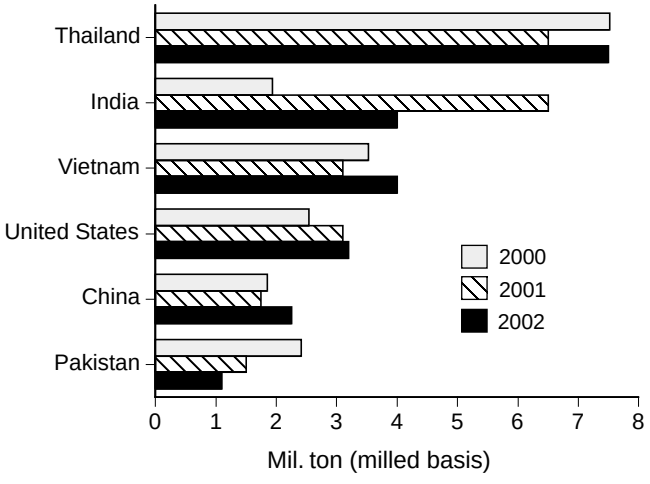
Major Exporters

Thailand: Thailand is expected to remain the world's largest rice exporter, shipping a near-record 7.5 million tons in 2003, up 1 million from this year. A bumper crop and robust world trade are behind the bullish export forecast. Thailand's 2002/03 crop is projected at 16.5 million tons (milled), unchanged from a year earlier and only slightly below the 2000/01 record. A fractional drop in area is projected to offset a higher yield in 2002/03.

Thailand traditionally competes with the United States in certain high-quality long grain rice markets—primarily in the European Union (EU), the Middle East, and South Africa—and with Vietnam, India, China, and Pakistan in various intermediate- and low-quality long grain markets. Thailand exports mostly indica rice—including parboiled rice and 100 percent brokens—and smaller quantities of premium jasmine rice, an aromatic. Thailand exports more than a million tons of its premium jasmine rice each year, with the United States a major market.

Figure 19

Thailand, Vietnam, China, and the U.S. are projected to increase exports in 2003



These six countries account for more than 85 percent of global rice exports.

2002 and 2003 projected.

Source: FAS, USDA.

Vietnam: Vietnam is typically the world's second largest rice exporter and is projected to export 4 million tons in 2003, up 900,000 tons from this year. Exports would still be below Vietnam's 1999 record of 4.55 million tons. Intense price competition from India, plus occasional supply problems, account for Vietnam's 2002 weak export performance.

Vietnam is projected to produce a near-record 27.6 million tons of rice in 2002/03, virtually unchanged from a year earlier but 3 percent below the 1999/2000 record. A slightly higher yield is expected to offset a fractional drop in area this year. All of Vietnam's rice exports are indica rice.

Vietnam produces three major rice crops a year. The 10-month crop accounts for 25 percent of production and is harvested between November and February in the South. This crop is declining in area and is the lowest yielding of Vietnam's three crops. The largest crop, the winter-spring crop, accounts for nearly 50 percent of total production and is harvested in February-March.[1] The winter-spring crop has more than doubled since 1988/89 and has the highest yield of the three crops. The winter-spring crop accounts for

[1] The harvest dates are for production occurring in southern Vietnam. Harvest dates differ in the north, but most rice production occurs in the south.

the bulk of Vietnam's exports. As of late November, the Government of Vietnam was projecting a bumper winter-spring harvest. The summer-autumn crop accounts for 25 percent of annual production and is harvested July through September.

China: China's 2003 rice exports are projected to climb 500,000 tons to 2.25 million, still well below the 1998 record of more than 3.7 million tons. Although China's 2002/03 crop is projected to drop 1.1 million tons to 123.2 million—the sixth consecutive year of declining production and the smallest crop since 1994/95—it still has plenty of rice to satisfy domestic demand and to expand exports. The smaller crop is based on weaker plantings more than offsetting a higher yield.

China's 2002/03 rice area is estimated at 28 million hectares, down 812,000 from a year earlier and the smallest since 1963/64. China's rice plantings have declined nearly 12 percent since 1997/98, with its early indica crop accounting for the bulk of the decline. China announced a new grain policy in 1999 that reduces incentives to plant low-quality early rice, which is grown mostly in the south. Much of the early rice crop is of poor quality and is either stored for years or used as feed.

United States: The United States is projected to export 3.2 million tons of rice in 2003, up 100,000 from 2002 and the largest on record. Record U.S. supplies, competitive prices, and robust global import demand are behind the record trade forecast. The U.S. share of world trade is projected at 12 percent, up fractionally from a year earlier but still below 2000.

The U.S. share of world rice trade has generally declined since the mid-1970s. In 1975, the United States accounted for about 28 percent of global rice exports. By 1989, the U.S. share had shrunk to 20 percent and was less than 15 percent by 1995. Greater supplies from low-cost Asian exporters account for the bulk of the decline in the U.S. market share over the past 25-plus years. In the late-1980s, Vietnam re-entered the global rice export market after an absence of more than 30 years. In the mid-1990s, India switched from exporting a few hundred thousand tons a year to regularly exporting more than a million tons. In addition, by the 1990s the top South American exporters—Argentina and Uruguay—both significantly expanded exports, mostly within the MERCOSUR trading block.

Southern long grain accounts for around 80 percent of U.S. rice exports, with Mexico, Central America, the European Union (EU), Saudi Arabia, Canada, and South Africa the largest markets. Brazil sometimes buys substantial amounts of U.S rice when regional supplies are inadequate. The United States also exports smaller quantities of japonica rice, mostly to Japan, Turkey, and Jordan. Since 2001, the United States has also exported japonica rice to Uzbekistan and South Korea. This year Taiwan bought U.S. rice as part of its World Trade Organization agreement. California supplies most of U.S. japonica exports.

India: For 2003, India is projected to export 4 million tons, down 2.5 million from its 2002 record but still one of the highest levels of export for India. The export contraction is based on a severe tightening of supplies in India after this year's 15-percent cut in production to 78 million tons, the smallest annual production since 1992/93. An unfavorable monsoon—the first since 1987/88—cut area 11 percent to 40 million hectares, the smallest since 1987/88. The yield was reduced in 2002/03 as well. Since late-May 2001, India has heavily subsidized exports of its parboiled rice and certain grades of its low quality indica rice, allowing India to substantially expand exports, mostly parboiled and brokens to West Africa.

India exports both a premium-priced basmati rice to higher income countries, as well as low-quality non-aromatic long grain milled rice to developing countries. Principal markets for basmati are the Middle East, the EU, and the United States. Russia, South Africa, other Sub-Saharan Africa, and the Middle East are major export markets for India's non-basmati rice. Much of India's non-basmati exports to South Africa and the Middle East are parboiled.

Pakistan: Pakistan is projected to export 1.1 million tons of rice in 2003, down 400,000 tons from this year and the lowest since 1992/93. Pakistan's exports have dropped sharply since the 2001 record of more than 2.4 million tons, primarily due to three consecutive years of severe drought that has sharply reduced production.

In 2002/03 Pakistan is projected to produce 3.85 million tons of rice, fractionally below a year earlier and the smallest since 1994/95. Production this year is expected to be 25 percent below the 1999/2000 record of almost 5.2 million tons. Weaker plantings account for the bulk of the 3-year production decline, yield reductions have been more modest. Nearly all of Pakistan's rice is produced in irrigated fields.

Like India, Pakistan exports both high-quality basmati rice—which sells at a substantial premium in high-income markets—as well as intermediate- and low-quality non-aromatic long grain milled rice to developing countries, mostly in Africa, where it competes with Thailand and Vietnam. Around a third of Pakistan's rice production is basmati. Higher income countries purchase the bulk of Pakistan's basmati exports. For all rice, Africa, Afghanistan, Bangladesh, Indonesia, the Middle East, and the EU were leading export markets for Pakistan in 2001/02. The Government of Pakistan is actively trying to increase rice production through price incentives, timely availability of inputs, and technical assistance.

Burma: In 2003, Burma is projected to export 1.5 million tons of rice, an increase of 500,000 tons from 2002 and the largest in 30 years. Burma's rice exports have expanded each year since 2000. Burma was the world's largest rice exporter prior to World War II and remained a major exporter through the mid-1960s when shipments began a long-term decline. By the 1990s, exports had dropped sharply, averaging less than 100,000 tons a year from 1997 through 1999. Burma's exports have picked up in recent years, primarily due to larger production. Trade is strictly controlled by the Government of Burma.

Burma's 2002/03 rice crop is projected at more than 10.4 million tons, unchanged from a year earlier but slightly below the 2000/01 record of nearly 10.8 million tons. Area is projected at a record 6.2 million hectares.

Burma exports mostly low-quality, but competitively priced, long grain rice. Most of Burma's rice exports are 25-percent brokens, with the remainder being parboiled and small quantities of high-quality long grain rice. Burma exports almost exclusively indica rice.

Australia: Australia's rice exports in 2003 are projected to increase 100,000 tons to 500,000, still below the 1999 record of 667,000 tons. Exports are down sharply from levels reported from 1999 to 2001, a result of declining production in 2001/02 and 2002/03. Australia's 2002/03 rice production is projected at 751,000 tons, a drop of 19 percent from a year earlier and the smallest since 1995/96. A 20-percent drop in plantings to 120,000 hectares—the smallest since 1990/91—accounts for the 2002/03 production decline. Limited water supplies are responsible for the reduced plantings this year. Rice production in Australia remains well below the 2000/01 record of almost 1.3 million tons.

Australia's rice farmers plant in October and harvest in April-May. The rice crop is grown almost exclusively in New South Wales. The bulk of Australia's rice is exported. Australia produces and exports primarily high-quality japonica rice and has captured around 18 percent of the Japanese market since WTO-agreed imports were first purchased in 1995/96. Papua New Guinea and some countries in the Middle East—primarily Turkey and Jordan—are other major export markets for Australian rice producers. Limited supplies of water for irrigation are a constraint on any significant expansion in Australia's rice production.

Egypt: Egypt is projected to export 500,000 tons of rice in 2003, unchanged from a year earlier but below the 1969 record of 772,000 tons. Virtually all of Egypt's rice exports are japonica rice, with the eastern Mediterranean a major market. Egypt's rice exports have increased sharply since the late 1990s, a result of both larger crops and—in some years—export subsidies. In 2001 Egypt exported 705,000 tons of rice—the second highest on record—a result of both record production and export subsidies.

Since 1999/2000, Egypt has harvested record- or near-record crops each year, a major factor behind the strong export performance in recent years. Egypt's 2002/03 rice production is projected at 3.8 million tons, up 6 percent from a year earlier but still 4 percent below the 2000/01 record. This year's larger crop is the result of expanded area. Much of Egypt's rice production receives government subsidy.

Argentina: Argentina and Uruguay are the two largest rice exporters in South America, growing and shipping mostly indica rice, primarily to markets within Latin America. In 2003, Argentina's rice exports are projected at 350,000 tons, unchanged from a year earlier but well below the 1999 record of 674,000 tons. Argentina's rice exports have dropped sharply since 1999, a result of both weaker demand from Brazil—the region's largest market—and smaller supplies in Argentina.

Argentina's 2002/03 rice crop—harvested in spring 2003—is forecast at 510,000 tons, up 16 percent from a year earlier but nearly 53 percent below the 1998/99 record of 1.08 million tons. This year's larger crop is the result of increased area. Despite larger plantings this year, rice area in Argentina remains less than half its 1998/99 record of 289,000 hectares. Low prices and declining imports by Brazil—Argentina's largest

export market—account for the drop in harvested area for rice since 1998/99.

Uruguay: Like Argentina, rice production in Uruguay has declined since the 1998/99 record, as weaker prices and smaller imports by Brazil after 1998 have led to reduced plantings. In 2002/03, Uruguay's rice production is projected at 1 million tons, up 6 percent from a year earlier and the first increase since 1998/99. The larger crop is the result of a stronger yield; area is unchanged. Despite this year's crop, production remains 23 percent below the 1998/99 record of 1.3 million tons. Uruguay's area has not declined as sharply as in Argentina. At 160,000 hectares in 2002/03, rice plantings in Uruguay are down 22 percent from the 1998/99 record of 205,000.

Uruguay is projected to export 650,000 tons in 2003, up 50,000 from a year earlier but still below the 2001 record of 806,000 tons. Uruguay is the largest rice exporter in South America. Although exports are below record, Uruguay has maintained a brisk pace of exports since the mid-1990s. Both Argentina and Uruguay have special trade arrangements in the Brazilian market afforded them by their membership in the MERCOSUR trade block (which includes Argentina, Brazil, Paraguay, and Uruguay).

Smaller Exporters

In addition to the major exporters described above, several other countries typically export smaller amounts of rice each year.

The EU: Although a net importer of rice, the EU regularly exports rice outside the region. In 2003, the EU is projected to export 325,000 tons, up 50,000 from a year earlier and the largest since 1999. Italy accounts for nearly all of the EU rice exports outside the region. The EU exports japonica rice, mostly to countries in the eastern Mediterranean. The EU exports smaller amounts of rice—mostly food aid—to the former Soviet Union, the Balkans, North Korea, and Sub-Saharan Africa.

EU production in 2002/03 is projected to be a record-high of nearly 1.8 million tons, up 10 percent from a year earlier. Larger plantings and a record yield are responsible for the bumper crop. Despite this year's higher plantings, rice area remains nearly 8 percent below the 1996/97 record of 426,000 hectares. The bulk of the EU's rice production is japonica, although indica's share has increased since the late 1980s.

Despite government set-a-side programs, rice production in the EU has been at record or near-record levels since 1996/97, a major factor behind the substantial accumulation of rice stocks over the past decade. In 2002/03, ending stocks are projected at a record 911,000 tons. Extremely slow expansion in domestic rice consumption has also contributed to rising stocks in the EU.

Japan: Although a net importer of rice, Japan has exported rice each year since 1997. Virtually all of this rice is shipped as food aid, mostly to Asia. Japan is one of the highest cost rice producers in the world, producing primarily high-quality japonica (short and medium) grain rice. In 2003, Japan is projected to export 150,000 tons of rice, unchanged from a year earlier. In 2001, Japan exported 501,000 tons, mostly to North Korea. In 1998, it exported 642,000 tons of rice, mostly food aid to Indonesia. This was the largest amount of rice exported by Japan in a single year since 1981.

Japan's rice exports are primarily the result of declining domestic consumption and large supplies, including rice imported under the World Trade Organization Minimum Access Agreement. Despite declining rice area in Japan, rising yields offset much of the area contraction, contributing to large ending stocks. Producer prices in Japan are substantially above trading prices, a major factor behind its large supplies and high ending stocks.

Rice production in Japan in 2002/03 is projected at 8.08 million tons, down 2 percent from a year earlier, a result of a weaker yield and slightly smaller plantings. Rice production in Japan has declined almost 39 percent since the 1967/68 record of 13.2 million tons. A 48-percent drop in area is responsible for the long-term production decline.

Taiwan: In 2003, Taiwan is projected to export 90,000 tons of rice, unchanged from a year earlier but below levels shipped from 1999 to 2001. Taiwan typically exports a small amount of rice each year, mostly as food aid. Like Japan, Taiwan faces declining rice consumption that, when combined with producer prices above international trading levels, leads to surplus rice. Taiwan's 2002/03 production is projected at almost 1.2 million tons, down 4 percent from a year earlier, a result of smaller plantings. The yield is projected to be record high. Like Japan, Taiwan's Government operates programs designed to shift rice land to alternative crop enterprises.

Guyana: Guyana is typically the third largest rice exporting country in South America. In 2003, Guyana is projected to export 175,000 tons of rice, up 25,000 from a year earlier but almost 39 percent below the 1997 record of 285,000 tons. Guyana's rice area has expanded substantially since the early 1990s, reaching a record 150,000 hectares in 2000/01, double 1992/93 rice area. For 2002/03, rice production is projected at 370,000 tons, unchanged from a year earlier's record and double 1993/94 production. Record plantings are behind recent production expansion. Yields remain below the 1997/98 record.

Despite larger crops and only modest expansion in domestic use, Guyana's exports have substantially declined since the mid-1990s, primarily due to a lack of competitiveness in world markets. The EU is the primary market for Guyana's rice.

Global Import Demand in 2003 Projected Second Highest on Record

Global rice imports climbed 9 percent in 2002 to 26.6 million tons (milled basis) and are projected to be fractionally higher in 2003. Trade in 2003 is forecast to be the second only to the record 27.6 million tons shipped in 1998. In 2003, higher imports by Iran, Bangladesh, the EU, Saudi Arabia, China, and Russia are projected to almost offset weaker imports by Indonesia, Iraq, Senegal, and Brazil. In 2002, Indonesia, Iran, Iraq, and Taiwan were responsible for greater global import demand.

Major Importers

Asia

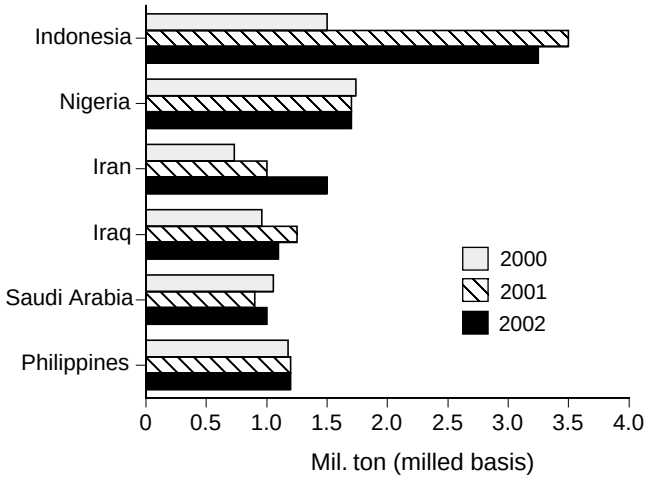
Asia is the largest import market for rice in the world. Asia is projected to import nearly 8.5 million tons of rice in 2003, up fractionally from a year earlier. Imports have increased each year since 2000, but remain well below the 1998 record of more than 13 million tons. The huge expansion in imports in 1998 was largely driven by El Nino crop damage in the region, primarily in Southeast Asia.

Indonesia: Indonesia is projected to remain one of the world's largest rice importers, taking 3.25 million tons in 2003, down 250,000 from this year and well below its record of almost 5.8 million in 1998. Despite the slight drop, imports in 2003 are more than twice the levels reported in 2000 and 2001. Declining stocks, rising demand, and stagnant production are behind Indonesia's robust import growth since 2002. Indonesia's 2002/03 crop is projected at 32.5 million tons, up fractionally from a year earlier but nearly 3 percent below the 1999/2000 record. Indonesia has had difficulty maintaining record rice acreage, especially on its densely populated main island of Java. Lack of inputs and weather problems are behind weaker yields since 1999/2000.

Use has exceeded production every year since 1991/92, causing Indonesia to regularly import large amounts of rice. Indonesia's ending stocks have declined each year since the 1998/99 record and are unlikely to continue declining. USDA's long-term global rice market forecast projects Indonesia to regularly increase imports and remain a major importer of rice for the foreseeable future.

Figure 20

Rice imports by top buyers are projected to remain robust in 2003



These six countries account for more than a third of global rice imports

2002 and 2003 projected.

Source: FAS, USDA.

The Philippines: The Philippines are projected to import 1.2 million tons of rice in 2003, unchanged from this year but well below the 1998 record of 2.2 million tons. Imports have risen every year since 2000, despite record or near-record crops each year. The Philippines is projected to produce 8.3 million tons of rice in 2002/03, down 2 percent from a year earlier. The smaller crop is due to a weaker yield, area is record high.

Despite growing domestic rice consumption, ending stocks have risen every year since 1998/99 and are projected at a record 3.6 million tons in 2002/03. Consumption, projected at a record 9.1 million tons (milled), is expected to exceed milled rice production by 805,000 tons. This marks the 12th consecutive year that consumption has exceeded production. Lack of

resources to expand rice growing areas and develop infrastructure, slow growth in yields, and steadily increasing population indicate the Philippines will be a regular importer of significant amounts of rice in the foreseeable future.

Bangladesh: In 2003, Bangladesh is projected to import 500,000 tons of rice, up 225,000 tons from a year earlier and the first increase since 1998. Imports remain well below the 1999 record of 2.5 million tons. Extremely small beginning stocks, fractional growth in production, plus record consumption are behind the higher import forecast for 2003. In 2002/03, Bangladesh is projected to produce 26 million tons of rice, up 500,000 from a year earlier and the largest to date. A record yield more than offset a slight drop in area.

From 1998/99 through 2002/03, Bangladesh produced record crops each year. This was a major factor behind the decline in Bangladesh's rice imports each year from 1999 through 2002. Bangladesh has substantially increased both area and yield since the late 1990s. In addition, Bangladesh's ending stocks rose substantially in the late 1990s, also contributing to weaker imports.

Bangladesh has a preference for parboiled rice, although price is a limiting factor and may force imports of low-quality long grain if cheap parboiled is not available. Despite expanding production, Bangladesh is projected to remain a major importer of rice over the next decade.

China: In 2003, China is forecast to import 300,000 tons of rice, up 75,000 from this year. Nearly all of China's rice imports are fragrant rice from Thailand that is bought by high-income urban consumers. China is self-sufficient in rice, given the current policy environment. For 2003, China's 2.25 million tons of exports will exceed imports by more than 1.9 million tons. China is projected to increase imports over the next 10 years, mostly higher quality specialty rice to urban consumers.

China has agreed to open its market for up to 2.6 million tons of rice under a tariff-rate quota (TRQ) upon membership into the WTO, evenly split between japonica and indica. The TRQ will increase to 5.3 million by 2004. Rice imported under the TRQ will face a minimal tariff. Above-quota imports will face very high tariff rates. China is not expected to import the full TRQ in the next few years.

Japan and South Korea: Since 1995, these two countries have opened their rice markets to limited imports in accordance with minimum access criteria of the Uruguay Round of the General Agreement on Tariffs and Trade (UR-GATT). Both have extremely strong preferences for japonica varieties for table consumption. The United States competes with Australia and China, and to a lesser extent Italy and Egypt—for the medium grain exports into these East Asian markets. However, because Japan and South Korea use long grain rice in certain processed uses, a portion of the import competition is open to other potential suppliers, mostly Thailand.

Under the UR-GATT, Japan's minimum access purchases were scheduled to rise from nearly 380,000 tons (milled basis) in 1995/96 to 758,000 tons by 2000/01. However, in late 1998 Japan opted for rice tariffication as part of the GATT-WTO. This allowed the rate of growth in its annual rice imports—0.8 percent of base period (1986-88) consumption—to drop to 0.4 percent in return for allowing over-quota imports. Japan imported 644,000 tons of rice in its 1999/2000 fiscal year (April-March), and 682,000 tons in 2000/01 in accordance with UR-GATT minimum access import criteria. Japan's minimum access imports are expected to remain at 682,000 tons a year unless a new agreement is reached. The United States has supplied almost half of Japan's minimum access imports since 1995/96. Japan is projected to import 650,000 tons (milled basis) of rice in 2003, unchanged from a year earlier.

The tariff on over-quota imports was set at 352 yen per kilogram for 1999/2000, nearly 5 times the average price of U.S. rice imported in 1998/99. To date, there has been virtually no over-quota rice imports.

South Korea's minimum access amount is much smaller than Japan's, rising from only 57,000 tons (milled basis) in 1995/96 to 205,000 tons by 2004/05. South Korea's 2002/03 crop is estimated at 5 million tons, down 10 percent from a year earlier. This is the smallest rice crop since 1995/96 and the first decline in production since 1998/99. Both area and yield are smaller this year, a result of too much rain during the spring and summer.

This year is the first decline in rice plantings in South Korea since 1996/97. Rice area had been declining for a decade prior to 1997, but increased every year from 1997 to 2001. South Korea's rice consumption had declined from 1979/80 through 1999/2000, a result of declining per capita consumption. Total consumption has risen in recent years as population growth has off-

set declining per capita consumption. At 5.1 million tons in 2001/02 and 2002/03, rice consumption is the largest since 1995/96. Ending stocks have increased every year since 1996/97 and are projected to be a record 2 million tons in 2002/03.

South Korea imported about 142,520 tons (brown rice basis) of rice under the WTO in 2001/02. China supplied 70,000 tons, the United States 30,000, Australia 22,500, and Thailand 20,000 tons. This was the first time the United States sold any rice to South Korea as part of its WTO Minimum Access Agreement. In 2002/03 South Korea is scheduled to import 171,000 tons (brown rice basis) under its WTO commitments. Through mid-October the United States has supplied 40,000 tons of rice to South Korea, all from California. South Korea is projected to import 150,000 tons (milled basis) in 2002, unchanged from a year earlier.

North Korea: North Korea is projected to import 450,000 tons in 2003, up 50,000 from a year earlier. Food aid accounts for all of North Korea's rice imports. Japan has provided the bulk of these shipments in recent years. South Korea gave around 300,000 tons of rice to North Korea in 2002.

North Korea's food situation is better this year, with rice production expected to climb 11 percent to 1.5 million tons—the largest since 1999/2000—the result of larger plantings and a higher yield. However, production remains well below the 1999/2000 crop of 1.6 million tons and far below even a minimal level of subsistence.

North Korea's rice production has contracted severely since the late 1980s. Existing data suggest that during the 1980s North Korea's rice production averaged slightly more than 2 million tons (milled basis) on 642,000 hectares, with an average paddy yield of nearly 4.7 tons per hectare. From 1990 to 1999, rice production averaged 1.44 million tons on 596,000 hectares with paddy yields of 3.5 milled tons per hectare.

Taiwan: Taiwan joined the WTO in late 2001. As a requirement for membership Taiwan agreed to import 144,720 tons (brown rice basis) in 2002. Taiwan's import commitments after 2002 are being negotiated at this time. For calendar year 2003, Taiwan is projected to import 125,000 tons (milled basis), unchanged from 2002.

Taiwan is essentially self-sufficient in rice. For the past several decades Taiwan typically imported 3,000 to 5,000 tons of rice each year, almost entirely varieties not currently grown on the island. Producer prices on Taiwan are 4 to 5 times prices in the international market for similar grades of rice. The Government of Taiwan strictly controls imports to protect producers from lower priced imported rice.

Like Japan, Taiwan has experienced both declining total and per capita rice consumption for decades, a result of higher incomes. In 2002/03, Taiwan is projected to produce 1.28 million tons of rice, up fractionally from a year earlier, a result of a near-record yield. At 310,000 hectares, rice area was down more than 8 percent from a year earlier and the lowest in more than 40 years.

The Middle East

Rice imports in 2003 by the Middle East are projected at a record 4.76 million tons, up 11 percent from a year earlier. Severe drought in the region has kept production well below the 1999/2000 record of 2.24 million tons. In 2002/03, rice production is projected at 1.7 million tons, up 5 percent from a year earlier, a result of larger plantings, the yield is actually lower. Despite this year's increase, production remains 25 percent below record.

The Middle East relies on imports to supply more than two-thirds of its rice consumption. The region has little ability to expand production and is expected to consume more rice each year. The region is traditionally the world's strongest market for high-quality rice—mostly parboiled, premium long grain varieties, and basmati. Iran, Iraq, and Saudi Arabia are the largest importers. Turkey and Jordan import smaller amounts of rice, mostly japonica.

Iran: At 1.5 million tons, Iran's 2003 import projection is up 500,000 tons from a year earlier and the largest since 1996. Iran's 2002/03 crop is projected at 1.33 million tons, up 2 percent from a year earlier but 28 percent below the 1998/99 record 1.85 million. Rice production in Iran dropped sharply from 1999/2000 to 2001/02, a result of a severe drought that cut both area and yield. Iran has been a major rice importer since the late 1970s and imported a record 1.76 million tons in 1995.

Iraq: Iraq is projected to import 1.1 million tons in 2003, down 150,000 from a year earlier. Iraq imports rice under the United Nation's Oil-for-Food Program. Like Iran, Iraq's rice crop is suffering from severe drought. Iraq's 2002/03 crop is projected at 100,000

tons, up 10,000 from a year earlier but well below the 1994/95 record of 250,000 tons. Like Iran, Iraq's production has declined each year from 1999/2000 to 2001/02.

Saudi Arabia: In 2003, Saudi Arabia is projected to import 1 million tons of rice, up 100,000 from a year earlier and just 53,000 tons below the 2001 record. Saudi Arabia does not grow any rice. The country is a major market for parboiled rice.

Other Middle East: Turkey's imports are projected at 250,000 tons, down 25,000 this year and well below the 1995 record of 416,000 tons. At 260,000 tons, rice production in Turkey is up 25 percent from a year earlier and even with the 1996/97 record. Despite an economic downturn, consumption continues to rise, a major factor behind growth in Turkey's imports. Turkey is typically the second largest market for japonica rice—after Japan—with the United States, Egypt, Australia, and the EU its major suppliers. Turkey only became a significant import market in the mid-1980s when production declined.

Syria's 2003 imports are projected at 150,000 tons, unchanged from a year earlier but almost 50 percent below record levels imported in the mid-1990s. Jordan's imports in 2003 are projected to remain unchanged at 90,000 tons, down about 50 percent from the mid-1990s. The United States typically supplies 30 to 40 percent of Jordan's rice imports. Finally, at 250,000 tons, Yemen's rice imports in 2003 are the largest on record. The United States supplies little rice to Syria or Yemen. Syria, Jordon, and Yemen do not grow rice.

Sub-Saharan Africa

Imports by Sub-Saharan Africa (including the Republic of South Africa) are projected at nearly 6.2 million tons in 2003, down 3 percent from a year earlier and 4 percent below the 2001 record of 6.4 million. A 2-percent increase in production to 7.2 million tons, plus record beginning stocks account for most of the decline in imports. With the exception of the Republic of South Africa, most of Sub-Saharan Africa has traditionally been a low-quality rice market.

Nigeria: Nigeria is the largest rice importer in Sub-Saharan Africa and currently ranks second only to Indonesia in the global import market. Nigeria's 2003 rice imports are projected at 1.7 million tons, unchanged from a year earlier and just fractionally below its 2001 record. Accelerating growth in demand with only marginal expansion in imports account for Nigeria's continued robust import performance.

Nigeria's production in 2002/03 is projected at 2.2 million tons, up 100,000 from a year earlier but more than a million tons below levels achieved a decade ago. Nigeria purchases mostly parboiled rice. Thailand supplied the bulk of this rice during the 1990s. In 2001, India began to ship parboiled rice to Nigeria, all with a very high subsidy.

South Africa: The Republic of South Africa is projected to import 650,000 tons in 2003, unchanged from this year's record. India, Thailand, and the United States supply most of South Africa's rice imports, largely parboiled. The United States has lost substantial market share in this high-quality market. South Africa does not produce rice.

Other Sub-Saharan Africa: Senegal is a major market for brokens and a growing market for rice in Sub-Saharan Africa. In 2003, Senegal is projected to import 750,000 tons of rice, down 150,000 from a year earlier's record. Imports by Senegal have risen substantially since 1995, as consumption growth has outpaced production. Imports supply the bulk of Senegal's rice consumption. The Côte d'Ivoire is projected to import 650,000 tons of rice in 2003, up 25,000 from a year earlier and just fractionally below the 2001 record. Strong growth in consumption drives import expansion by Côte d'Ivoire, despite record production in 2001/02 and 2002/03. Imports account for half of all rice consumed in Cote d' Ivoire.

Ghana is projected to import 225,000 tons in 2003, unchanged from a year earlier's record. Ghana's imports continue to increase despite larger production. Guinea is projected to import 300,000 tons of rice in 2003, unchanged from a year earlier but 25,000 tons below the 2001 record. Like much of Sub-Saharan Africa, production cannot keep up with Guinea's rising rice consumption.

Latin America

Imports by Latin America (Mexico, the Caribbean, Central America, and South America) are projected at 2.75 million tons in 2003, down fractionally from this year. Imports remain well below the 1998 record of 3.65 million tons that were largely driven by El Nino crop damage to the region. Total production in the

region is projected to increase 1 percent to 14 million tons, about a million tons below the 1998/99 record.

Latin America is primarily an indica market, with the United States a major supplier to Mexico, Central America, and much of the Caribbean. Except for the Caribbean, these are primarily rough rice markets for the United States. In South America, the bulk of milled rice imports are typically from other South American countries—primarily Argentina and Uruguay. Regional trading preferences and locational advantages account for much of the intra-regional buying within South America.

Mexico: Mexico is projected to import 500,000 tons in 2003, unchanged from a year earlier's record. A long-term decline in production and a steady rise in use account for the continued growth in imports. The United States supplies nearly all of Mexico's rice imports. Mexico imports mostly rough rice, nearly all long grain. U.S. exporters have a locational advantage over Asian exporters and now face no tariffs under the North American Free Trade Agreement. The United States is one of few rice-exporting countries that allows rough rice exports. In fact, none of the major Asian exporting countries ships rough rice.

The Caribbean: The region is projected to import a record 985,000 tons in 2003, up 15,000 tons from a year earlier. Imports by the Caribbean have nearly doubled over the past decade, largely due to declining production and steadily rising use. Rice production in the Caribbean for 2002/03 is forecast at 572,000 tons, up fractionally from a year earlier but well below the record 809,000 tons in 1984/85. Substantially smaller plantings account for most of the long-term production decline.

Cuba, Haiti, and the Dominican Republic are the largest markets for rice in the Caribbean. Cuba is projected to import a record 550,000 tons in 2003, unchanged from a year earlier, but nearly double levels imported prior to 1991/92. Rice production is projected at 260,000 tons in 2002/03, unchanged from 2001/02 but only half the level produced in 1989/90. Rice production in Cuba has declined substantially since the mid-1980s, with both plantings and yield well below earlier levels.

In 2003, Haiti is projected to import a record 265,000 tons, up 5,000 from a year earlier. Rising consumption and stagnant production are behind the steady rise in imports. Haiti's rice imports have more than doubled in the past decade. The Dominican Republic is projected to import 50,000 tons in 2003, up 10,000 from a year earlier but well below levels imported in the mid- and late 1990s. Rice imports by the Dominican Republic have varied from as low as 1,000 tons in 1994 to a high of 73,000 in 1999. Rice production in the Dominican Republic has expanded each year since 1999/2000 and is projected at 318,000 tons in 2002/03, just a little smaller than the record 1992/93 crop. Haiti is an important market for U.S. rice, with U.S. food aid accounting for some of both countries' imports.

Brazil: Brazil is typically Latin America's largest rice importer. Brazil is projected to import 550,000 tons in 2003, down 50,000 from this year and the fifth consecutive year of declining imports. Imports remain well below the 1998 record of nearly 1.6 million tons. Brazil's 2002/03 crop is projected at 7.15 million tons, virtually unchanged from 2001/02 but well below the 1998/99 record of 7.9 million tons.

Rice consumption has exceeded production every year since 1988/89, making Brazil a major rice importer. Because of special trade arrangements under the MERCOSUR trade agreement, Argentina and Uruguay dominate the Brazilian market. In years when Argentina and Uruguay were unable to supply Brazil's import needs, the United States typically shipped substantial amounts to Brazil, mostly in the form of rough rice. Total rice consumption in Brazil appears to have virtually leveled off since the late-1990s at around 8 million tons. Declining per capita consumption is being virtually offset by a rising population.

Central America: The region is projected to import 380,000 tons in 2003, down 25,000 from a year earlier's record. Nicaragua accounts for all of the 2003 import decline. Production in Central America is expected to drop about 2 percent to 451,000 in 2002/03, almost 22 percent below the 1997/98 record. Costa Rica and Panama account for most of the production decline in 2002/03. Rice consumption in the region has steadily increased and is outstripping any growth in production. The United States supplies nearly all of the imported rice to the region. The bulk of Central America's rice imports are rough rice, nearly all long grain. Costa Rica, Nicaragua, and Honduras are the largest rice markets in Central America.

Other regions

The EU: The EU is projected to import 850,000 tons in 2003, up 50,000 from this year but below the 1996 record of 923,000 tons. The EU imports mostly indica rice—with the United States and Thailand the

largest suppliers—as well as basmati rice from India and Pakistan.

The EU has produced bumper crops every year since 1996/97, with 2002/03 production projected at a record of nearly 2.8 million tons, a result of larger plantings and a record yield. With consumption growing at a very slow rate, these bumper crops have led to a very large increase in stocks in the EU. For 2002/03 ending stocks are projected at a record 911,000 tons, up 18 percent from a year earlier. Italy and Spain are the two largest rice-producing countries in the EU. Northern Europe accounts for the bulk of EU rice imports.

The former Soviet Union: The countries of the former Soviet Union are projected to import 658,000 tons of rice in 2003, up 13 percent from a year earlier and the largest since 1999. Production in 2002/03 is projected at 724,000 tons, an increase of 13 percent from a year earlier but only about half the size of the 1990/91 crop. Strong growth in consumption over the past decade, stagnant production, and tighter stocks are behind recent growth.

Russia is the largest market for rice in the former Soviet Union, with imports projected at 350,000 tons in 2002, up 27 percent from a year earlier. Russia's rice production is projected at 323,000 tons in 2002/03—less than half the level produced in 1989/90. Uzbekistan is projected to be the second largest import market in the region in 2003, taking 175,000 tons, unchanged from a year earlier's record. Rice production in Uzbekistan collapsed in 2000/01 and 2001/02, a result of a severe drought in the region. Production in 2002/03 is projected at 125,000 tons, up from 42,000 a year earlier but still less than half the level produced in 1999/2000.

United States: Imports by the United States are projected at a record 415,000 tons in 2003, up 15,000 from a year earlier. Thailand accounts for almost 80 percent of U.S. rice imports, shipping mostly jasmine rice. Basmati rice from India and Pakistan account for most of the remainder. Imports have expanded in the United States for more than 20 years.

China's Japonica Rice Market: Growth and Competitiveness

James Hansen, Frank Fuller, Frederick Gale,
Frederick Crook, Eric Wailes, and Michelle Moore

Abstract: This article briefly describes the evolution of China's japonica rice market over the last two decades, including the impact of changes on China's competitiveness in key Asian import markets. While China has traditionally exported long grain (or indica) rice varieties, in recent years it has exported substantial amounts of japonica rice as well. China's share of Japan's World Trade Organization (WTO) minimum access imports has more than doubled since 1995. The current round of WTO negotiations is expected to result in greater market access and lower tariffs for japonica rice exports to key Asian markets, with China a potential source for much of the expanded trade.

Keywords: China, rice, production, policy, exports, imports, prices, WTO.

China's rice economy is among the world's most diverse with respect to both the number of varieties grown and the different climatic conditions under which rice is produced. China has six agro-climatic zones for producing rice, ranging from the warm and humid tropics in the south, to the cooler subtropics of central China, and to northern China with its much cooler climate and shorter growing season. The extreme variation in agro-climatic conditions is a major reason for the large number of rice varieties grown in China.

In China, japonica rice was traditionally grown and consumed primarily in the northern provinces, while indica rice was dominant in the south. In 2000, indica rice accounted for about 60 percent of China's total rice production of 188 million tons (rough rice) and japonica rice about 29 percent, the remaining 11 percent is glutinous rice and some indigenous rice varieties (Crook et al.). Each year, China produces an early, a single, and a late indica crop; a single and late japonica crop in the Yangzi River valley; and a single japonica crop in the north. China is the largest rice-producing country in the world, accounting for a third or more of global production.

There are distinct differences between japonica and indica rice, the two primary types of rice grown worldwide. When cooked, japonica rice becomes moist, sticky, and clingy, and has a more rounded appearance than indica varieties. In contrast, indica rice typically cooks dry, separate, and fluffy; and is typically longer and thinner than japonica rice. Consumers typically have distinct preferences for either one rice or the other, with little substitution between the two. Indica is the dominant grain produced worldwide.

China's Japonica Rice Area Has Expanded for Two Decades

Japonica rice area in China has expanded for the past two decades, growing from 11 percent of total rice area in 1980 to 29 percent by 2000 (Crook et al.). The largest expansion of japonica rice plantings has occurred in the three northeastern provinces, with growth averaging more than 5 percent a year during the 1990s, an increase totaling more than a million hectares. Most of the growth occurred in Heilongjiang province, where japonica rice was the most profitable crop during the 1990s. In the lower Yangzi River valley provinces of Jiangsu, Zhejiang, and Anhui, producers have substituted indica with japonica rice. In 2000, profits from japonica rice in Heilongjiang on a per-mu (the Chinese measure of area equal to 1/15 of a hectare) basis averaged 146 yuan, compared with 36 for corn, -9 for wheat, and 86 for soybeans.

Rapidly rising prices were responsible for much of the increase in China's grain production—including rice—

in the mid-1990s. From 1992 to 1994, japonica prices in China more than doubled, with the expansion of rice area in Heilongjiang province coinciding with the rapid rise in prices. In contrast, soybean prices rose much slower, making rice a more attractive planting option to producers in Heilongjiang where soybeans are the major crop.

Corn prices rose as well over this period, likely explaining why rice area did not expand as rapidly in Jilin where corn is the major crop. China's rice prices peaked in 1995 and 1996, and have declined since. In Heilongjiang, rice area has remained fairly stable since 1999. However, while rice area in Jilin exhibited little growth until 1999, since 1999 rice area has increased almost 40 percent, adding an additional 194,000 hectares to China's japonica area.

A major factor behind the expansion of rice area in Heilongjiang was the introduction of dry-field seedling transplantation methods in the mid-1980s (Kako et al.). The method generates faster maturation than direct seeding—important in regions that have a short growing season. Another factor that promoted the rapid area expansion in Heilongjiang was the abundance of both land and water resources.

However, continued expansion of japonica production in the northeast is unlikely, and the existing area may even decline if water shortages occur. Water resources in many areas of the north and the northeast are already limited. Hebei and Liaoning are currently experiencing serious water shortages, with groundwater in some locations already insufficient. Some increase in rice plantings may occur in certain parts of northeastern China where water supplies are more abundant, but growth will be slow even in these areas.

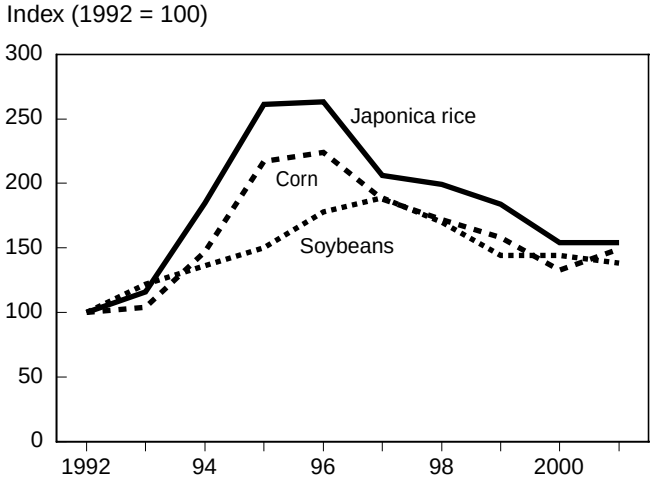
In recent years, the government began to understand and became quite concerned about the water constraints in China. The government has announced it will prohibit rice production in the Beijing area after 2005 to conserve water. In addition, a new water law is currently being written and the issue of transferability of water rights is being considered; two factors that could limit or reduce rice area in the future.

Japonica rice is also grown in central China in the Yangzi River valley (which includes the provinces of Jiangsu, Anhui, Hubei, Zhejiang, and Shanghai). In the past, these provinces grew mostly low-quality early indica rice, with much of it bought by the government. This type of rice was mostly grown in the southern, eastern, and central provinces of China. However, in 1999 China made a major change in its grain policy, with one result being that it no longer purchased low quality rice. By 2001, approximately 80 percent of the rice grown in Jiangsu Province was japonica.

Farmers in these provinces have increased plantings of japonica rice, a result of both the new grain policy and a growing consumer preference for japonica rice in the region. In these areas, water is not a limiting factor. However, expansion is constrained by climate. The daily temperature variation is not large enough in the Yangzi River valley to produce high quality japonica rice. High quality japonica varieties require a regular period of cooler temperatures at night found farther north that allow the plant to fully develop the starch molecules.

Figure A-1

Trends in China's farm prices: Japonica rice, corn, and soybeans



Source: China Ministry of Agriculture Information Center.

Japonica Rice Consumption is on The Rise in China

Demand for japonica rice in China has been rising at the same time that per capita consumption of all rice has declined. Several factors are behind the growth in japonica consumption. First, migration of rural people to the cities in northern China has boosted japonica consumption. While high-income urban consumers in northern China historically preferred japonica rice, the rural population in the region has traditionally consumed little rice. However, when the rural people migrate to the cities they often acquired a taste for rice—and in northern China that is typically japonica. Other factors boosting japonica consumption have been increased north-

south migration and improved national marketing channels. These two factors are increasing demand for japonica rice in southern China as well.

Brand names are becoming an important marketing factor, likely boosting japonica consumption. Japonica brands are usually associated with northeastern counties or regions known for quality rice, such as *Wu Chang, Xiang Shui,* and *Mei He*. Branded rice is more commonly found in supermarkets than in wholesale markets, but it is sold in both outlets. Supermarkets are becoming an increasingly important outlet for rice in China because they emphasize food safety, high quality, and convenience.

Despite rising demand for japonica rice, the rapid expansion of japonica production in China, particularly in the northeast, has outpaced domestic consumption. In fact, over 20 million tons of japonica rice are currently in stocks in northeast China, depressing prices. While China's japonica prices are below international levels, high internal transportation and transaction costs often make it unprofitable to move rice out of northeastern China. The cost of trucking rice from Heilongjiang to Shanghai can exceed $25 per ton (Crook et al.).

Also, despite evidence that China's rice markets are increasingly integrated, insufficient rail and road infrastructure continue to create bottlenecks in the flow of rice from north to south (Park et al.; Huang and Rozelle, 2002b). The persistence of large stocks of high-quality japonica rice in the northeast may reflect continued administrative barriers to inter-provincial grain trade, since other provinces also have excessive rice stocks. Nevertheless, inter-provincial transportation and marketing costs are expected to decline with China's entry to the WTO and its ongoing reform of its grain marketing system. Reforms include gradual abolition of government grain procurement and expanding the commercialization of China's grain bureau system.

Freer Markets and Modern Mills Improve Quality of China's Rice

China's agricultural sector has steadily adopted more market-oriented policies and institutions over the last two decades, and the changes in producer incentives have important implications for the future of japonica rice production in northeastern China. Grain policy reforms in 1998 and 1999 were aimed at:

- Reducing the central government's expenditures for the grain procurement and distribution system,
- creating a clear division between local grain transactions and maintenance of the national grain reserve,
- increasing the commercial orientation of local grain bureaus, and
- improving the quality of grain produced in China.

With the reform's emphasis on profitability of local grain operations and improved grain quality, grain bureaus in northeastern China are tapping into the growing market for high-quality japonica rice across China and abroad.

Historically, the quality of China's japonica rice has not been on a par with rice produced in Japan or the United States. The inferior status was a result of both the quality of the rough rice produced and the technology of the milling operations themselves. However, there have been substantial improvement in both of these areas in recent years.

First, breeding programs in Heilongjiang and Jilin have produced japonica rice varieties of high enough quality to compete in international markets. And second, while average milling technology in China is still 20 to 30 years behind Japan, several new mills have been built in northern China that utilize modern equipment from Japan (Satake) and Switzerland (Bühler). Local grain bureaus have established a number of these mills as private companies or joint ventures with Japanese, Korean, Taiwanese, or Hong Kong firms. Most of these new mills have a daily capacity of 100 tons, but a few mill more than 300 tons (Crook et al.).

Many of the new mills are designated as 'leading companies' or 'dragon-head companies' at the local or provincial level. Leading companies are part of China's agricultural industrialization strategy developed in the 1990s and continue to play an important role in the agricultural structural adjustment strategy emphasized since 2000 (Huang and Rozelle, 2002a). The leading company acts as a bridge between the older planned economy and the newer market economy, providing direction and substantial assistance to farmers while seeking to maximize profits. Government agencies at various levels facilitate the establishment of leading companies by providing land, tax breaks, financing, and access to agricultural inputs (Crook et al.).

The leading company facilitates the introduction of new technologies, production methods, and quality control practices at the farm level. In the rice industry, leading companies frequently contract with townships

and villages to produce a specific variety of rice using prescribed production methods. At harvest, the rice is sold to the leading company, usually with a premium of 40-80 cents per hundredweight (cwt). The company provides the seed and technical assistance to the farmers. Some companies also provide operating loans, or sell fertilizer and other inputs on credit to farm households. In this manner, the leading companies are assuming some of the rural credit and agricultural extension activities previously carried out by the Ministry of Agriculture grain bureaus and other government agencies (Crook et al.).

In northeastern China, leading companies are playing a key role in the production and marketing of rice that meets China's 'green food' standards. Detailed guidelines for green rice production are not publicly available; however, green rice is grown using reduced levels of chemical pesticide and fertilizer inputs.

There are two grades of green rice in China: Grade A (reduced chemical inputs) and Grade AA (organic). The Ministry of Agriculture has a Center for Green Foods, which maintains and enforces green food certification for production and processing. Once a product has been certified as meeting the green standards, processors can place the green food logo (a green image depicting the sun, water, and a seedling) on its package. Green rice is currently estimated to account for less than 1 percent of total rice production in China. However, green rice is particularly important for japonica because the bulk of the land that meets the green standards is located in northeastern China, especially in Heilongjiang (Crook et al.).

China Accounts for a Growing Share of Japan's Rice Imports…

The three largest import markets in Asia for japonica rice are Japan, South Korea, and Taiwan. China exported 216,000 tons of rice to these three markets in 2000, nearly 20 percent of all rice imported by the three countries. Turkey is the largest non-Asian market for japonica rice and is typically the second largest import market. Egypt, Australia, and the United States supply most of Turkey's rice.

Japan partially opened its domestic market to rice imports following the signing of the Uruguay Round Agreement on Agriculture in 1995. Japan's minimum access imports—currently about 680,000 tons (milled basis)—are purchased under two programs: ordinary market access (OMA) and the simultaneous buy and sell (SBS) system. The OMA purchases are made by the Japanese Food Agency and are used almost exclusively for feed, industrial uses, and food aid. Under the SBS system, private firms import rice through a competitive tender process administered by the Japanese Food Agency (see Dyck et al. for a discussion of Japanese import policy). Although often blended with domestic rice, most SBS rice eventually enters consumer markets.

The United States, Australia, China, and Thailand account for the bulk of Japan's rice imports. Table A-1 shows the total quantity of Japan's rice imports and individual country market shares for both total imports and SBS tenders. China's total market share has increased from 8 percent in 1995 to almost 18 percent in 2001. While the OMA import shares have been relatively stable since 1995, China's share of Japan's SBS imports has increased from 22 percent to almost 66 percent by 2001/02. And while the United States' total market share has remained at 47 percent, the U.S. share of SBS imports has dropped from 53 to 25 percent.

China's increasing share of Japan's rice imports is a result of both quality improvements and competitive prices. The advancements in milling technology and rice breeding have enabled China's exporters to supply rice of similar quality and appearance to rice grown in Japan. The similarities between the two countries' rice allow the rice to be blended for use in the foodservice

Table A-1--Japan's total rice imports and market share by country

April-March crop year	Total rice imports 1/	Share by source: Total imports and SBS					
		China		United States		Australia	
		Total	SBS 2/	Total	SBS 2/	Total	SBS 2/
	Metric tons	Percent					
1995	408,794	7.9	22.3	47.4	53.4	21.3	18.1
1996	465,650	8.6	23.2	46.2	64.2	17.4	5.3
1997	544,341	8.1	25.2	50.1	62.9	15.7	5.7
1998	632,400	11.4	51.6	47.7	30.4	16.1	12.1
1999	653,100	11.7	52.2	47.9	30.7	16.0	12.2
2000	693,039	12.7	44.4	47.7	38.6	15.6	11.9
2001	679,969	17.8	65.7	47.7	25.2	14.7	8.5

1/ Actual shipment weights. 2/ Simultaneous buy and sell.

Source: Japan Grain and Feed Annual 2002, March 2002, FAS/USDA.

sector. China's rice prices have typically been below California prices. (See fig. A-2 for japonica prices in California and Heilongjiang).

Price differences between China's high-quality japonica rice and California's medium grain rice are not as great as the differences in production costs. For example, prices were nearly identical in July and August 2001. In 2001 the Heilongjiang wholesale price increased from January through September, reaching almost $245 per ton by late September. Prices then dropped to $198 by June 2002. In the United States, the California medium grain price decreased during the first 9 months of 2001, dropping to $220 by late September. Prices jumped to $287 in October 2001 and then dropped slightly to $265 in April at the start of the 2002 plantings. California prices have remained quite stable since last spring.

Production costs in northeastern China are lower than costs in the United States. Production costs in China are less than half those in California. Seed, chemicals, custom services, irrigation, and land costs are substantially lower in China than in California on both a per-hectare and a per-ton basis. However, labor costs per hectare and per ton are higher in China due to the extensive use of manual labor in rice production. Figure A-3 displays average Japonica production costs for China and California from 1995 to 2000.

…And is the Largest Supplier of Rice to South Korea

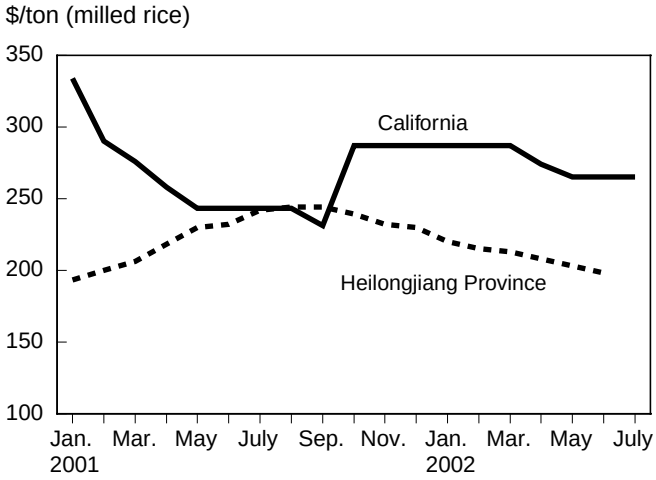
Since 1995 China has accounted for the largest share of South Korea's WTO rice imports. However, the quality of rice China exports to South Korea is much lower than the quality sold to Japan. The bidding process for Korea's minimum access imports typically grants import rights to the lowest bidder, which promotes imports of low-quality rice. Until 2001/02 this policy virtually eliminated competition from suppliers of high-quality japonica table rice such as the United Stares and Australia (Sumner and Lee). In 2001/02 South Korea made its first purchase of U.S. rice—about 30,000 tons—under South Korea's WTO minimum access commitments. South Korea has purchased even larger amounts of U.S. rice in 2002/03.

Domestic support policies have created a surplus supply of rice in South Korea, and recently announced reforms are aimed at reducing domestic supply. Though the reforms are intended to prepare South Korea for further expansion of imports, they do not address the current practices for allocating the quota (Choi). As long as South Korea awards the bulk of its imports to the lowest bidder, the abundance of low-cost rice in northeast China will likely enable China to remain a major supplier.

Taiwan's entry into the WTO in 2002 created a new market for high-quality japonica rice exports. For sev-

Figure A-2

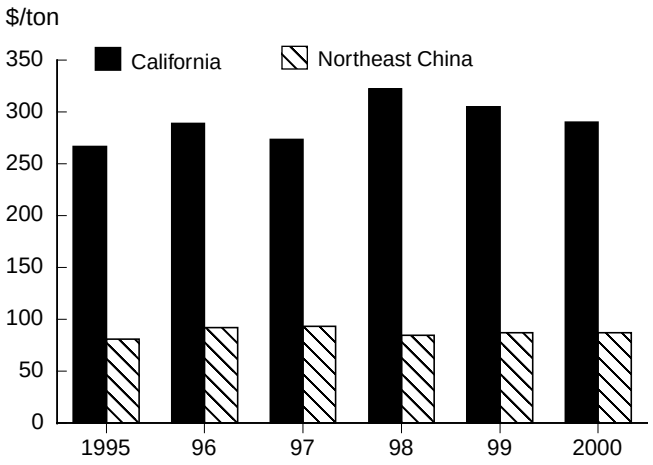
Monthly prices for Japonica rice: Heilongjiang Province and California



Sources: China National Grain and Oil Information Center and Analysis and Forecast Department, China Grain Market Monthly Report, Issue No. 29, June 26, 2002. *Rice Situation and Outlook Yearbook* (2001) and *Rice Situation and Outlook Report* (RCS 0802).

Figure A-3

Cost of production, rough rice: Northeast China and California



Sources: Northeast China cost data: Research Centre for Rural Economy, Ministry of Agriculture, PRC. California cost data: ERS/USDA.

eral decades, Taiwan virtually banned rice imports to protect domestic producers from lower priced rice. Taiwan's 2001 WTO accession agreement included a minimum access quota of 144,700 tons for rice (brown rice basis) in 2002. In addition, the agreement stated the imported rice could not be disposed of through food aid, re-exported, or used as feed; outlets frequently used by Japan and South Korea to prevent imports from competing with domestic table rice. Government authorities were granted 65 percent of the import quota rights; private traders the rest (Huang).

Political considerations are likely to play an important role in Taiwan's selection of import sources, particularly for the government's share of the quota. However, China's japonica rice should compete well in terms of quality and price with exports from the United States and Australia. The status of Taiwan's rice import commitments after 2002 is unclear and is currently being negotiated.

Recent improvements in the quality of milled rice in China—coupled with the integrated supply chain of the leading company system—create the potential for China to export high-quality japonica rice at competitive prices. However, high internal transportation costs continue to hamper the movement of grain from production areas to ports and consumption centers, as well as erode China's competitiveness in export markets. If greater investment in transportation and other infrastructure is successful at lowering costs, China's competitiveness will be improved. In addition, the recent emphasis on green production techniques may be particularly appealing to environmentally conscious consumers in Japan, Taiwan, and South Korea.

Growing demand for japonica rice in China may eliminate China's excess stocks of high-quality japonica rice. In addition, water constraints and competition from other crops for crop land are likely to slow or even halt the expansion of japonica rice area. Rising water costs and increasing off-farm employment may eventually increase China's production costs. However, in the near term, China's japonica supplies will likely be more than adequate to satisfy domestic demand and allow China to remain a top exporter.

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List of Appendix Tables

Appendix table 1--Estimated supply, disappearance, and price, by type of rice, U.S. (rough equivalent of rough and milled rice) 1/

Item	Unit	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02 2/	2002/03 3/
Total rice:									
Area planted	Mil. acres	3.12	2.82	3.13	3.29	3.53	3.06	3.34	3.23
Area harvested	"	3.09	2.80	3.10	3.26	3.51	3.04	3.31	3.21
Yield	Pounds/acre	5,621	6,120	5,897	5,663	5,866	6,281	6,429	6,611
Beginning stocks 4/	Mil. cwt	31.28	25.04	27.24	27.91	22.08	27.48	28.48	38.95
Production	"	173.87	171.60	182.99	184.44	206.03	190.87	213.05	212.01
Imports	"	7.70	10.52	9.26	10.60	10.11	10.85	13.19	13.00
Total supply 4/	"	212.85	207.16	219.50	222.95	238.21	229.20	254.72	263.97
Domestic & residual 5/	"	104.58	101.61	103.92	114.04	121.88	117.50	121.69	125.01
Exports	"	83.24	78.31	87.67	86.84	88.85	83.21	94.08	100.00
Total use	"	187.82	179.91	191.59	200.88	210.73	200.72	215.76	225.01
Ending stocks 6/	"	25.04	27.24	27.91	22.08	27.48	28.48	38.95	38.96
CCC	"	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA
Free	"	25.04	27.24	27.91	22.08	27.48	28.48	38.95	NA
Average market price 7/	$/cwt	9.15	9.96	9.70	8.89	5.93	5.61	4.17	3.70-4.00
Long grain:									
Area harvested	Mil. acres	2.31	1.97	2.31	2.57	2.72	2.19	2.70	NA
Yield	Pounds/acre	5,265	5,777	5,391	5,426	5,587	5,882	6,130	NA
Beginning stocks	Mil. cwt	14.41	10.12	14.14	14.52	14.06	15.62	11.64	26.78
Production	"	121.73	113.63	124.49	139.33	151.86	128.76	165.33	157.51
Total supply 8/	"	142.52	132.86	146.49	162.22	173.49	153.12	186.12	193.54
Domestic & residual 5/	"	66.90	61.35	59.71	76.71	87.60	76.17	85.81	88.72
Exports	"	65.51	57.37	72.25	71.45	70.28	65.32	73.53	79.00
Total use	"	132.40	118.72	131.97	148.16	157.88	141.49	159.34	167.72
Ending stocks	"	10.12	14.14	14.52	14.06	15.62	11.64	26.78	25.82
Average market price 7/	$/cwt	9.37	10.60	10.20	8.79	5.70	5.84	NA	NA
Medium/short grain:									
Area harvested	Mil. acres	0.78	0.84	0.79	0.69	0.79	0.85	0.62	NA
Yield	Pounds/acre	6,676	6,926	7,369	6,548	6,822	7,308	7,733	NA
Beginning stocks	Mil. cwt	15.78	14.29	12.13	12.32	6.82	10.43	15.60	10.67
Production	"	52.14	57.97	58.51	45.12	54.16	62.12	47.72	54.51
Total supply 8/	"	69.70	73.32	71.95	59.58	63.28	74.83	67.09	68.92
Domestic & residual 5/	"	37.68	40.26	44.20	37.37	34.29	41.34	35.88	36.29
Exports	"	17.73	20.93	15.42	15.39	18.56	17.89	20.55	21.00
Total use	"	55.42	61.19	59.62	52.76	52.85	59.23	56.43	57.29
Ending stocks	"	14.29	12.13	12.32	6.82	10.43	15.60	10.67	11.63
Average market price 7/	$/cwt	8.82	8.37	8.52	9.18	6.62	5.15	NA	NA

NA = Not available.

Note: Totals might not add because of rounding.

1/ August 1 to July 31 marketing year. 2/ Estimated. 3/ Projected as of November 2002. 4/ Includes broken kernel rice not included in estimates by type. 5/ Residual is the sum of unreported use, processing losses, and estimating errors. 6/ Includes the following quantities of broken kernel rice (type undetermined) not included in estimates of ending stocks by type: 1995/96, .63 million cwt; 1996/97, .98 million, 1997/98, .98 million; 1998/99, 1.20 million; 1999/2000, 1.43 million; 2000/01, 1.25 million; 2001/02, 1.50 million; 2002/03, 1.50 million cwt. 7/ Marketing year weighted average price received by farmers. 8/ Includes imports.

Source: National Agricultural Statistics Service and Economic Research Service, USDA.

Appendix table 2--Rough and milled rice (rough equivalent): Marketing year supply and disappearance

Year beginning Aug. 1	Supply				Disappearance					Ending stocks--July 31		
					Domestic use							
	Beginning stocks	Production	Imports	Total	Food, industrial and residual	Seed	Total	Exports	Total disappearance	CCC inventory	Free	Total
	Million cwt											
1970/71	16.4	83.8	1.4	101.6	34.0	2.5	36.5	46.5	83.0	9.5	9.1	18.6
1971/72	18.6	85.8	1.1	105.5	34.7	2.5	37.2	56.9	94.1	2.7	8.7	11.4
1972/73	11.4	85.4	0.5	97.3	35.2	3.0	38.2	54.0	92.2	0.1	5.0	5.1
1973/74	5.1	92.8	0.2	98.1	37.0	3.6	40.6	49.7	90.3	0.0	7.8	7.8
1974/75	7.8	112.4	0.0	120.2	39.6	4.0	43.6	69.5	113.1	0.0	7.1	7.1
1975/76	7.1	128.4	0.0	135.5	38.6	3.5	42.1	56.5	98.6	18.7	18.2	36.9
1976/77	36.9	115.6	0.0	152.5	43.2	3.2	46.4	65.6	112.0	18.6	21.9	40.5
1977/78	40.5	99.2	0.1	139.8	35.3	4.3	39.6	72.8	112.4	10.8	16.6	27.4
1978/79	27.4	133.2	0.1	160.7	49.1	4.3	53.4	75.7	129.1	8.3	23.2	31.6
1979/80	31.6	131.9	0.1	163.6	50.5	4.8	55.3	82.6	137.9	1.7	24.0	25.7
1980/81	25.7	146.2	0.2	172.1	59.1	5.1	64.2	91.4	155.6	0.0	16.5	16.5
1981/82	16.5	182.7	0.4	199.6	64.2	4.4	68.6	82.0	150.6	17.5	31.5	49.0
1982/83	49.0	153.6	0.7	203.3	59.7	3.2	62.9	68.9	131.8	22.3	49.2	71.5
1983/84	71.5	99.7	0.9	172.1	51.6	3.3	54.9	70.3	125.2	25.0	21.9	46.9
1984/85	46.9	138.8	1.6	187.3	57.4	3.1	60.5	62.1	122.6	44.3	20.4	64.7
1985/86	64.7	134.9	2.2	201.8	62.9	2.9	65.8	58.7	124.5	43.6	33.7	77.3
1986/87	77.3	133.4	2.6	213.3	74.7	2.9	77.6	84.2	161.8	9.1	42.3	51.4
1987/88	51.4	129.6	3.0	184.0	76.8	3.6	80.4	72.2	152.6	0.0	31.4	31.4
1988/89	31.4	159.9	3.8	195.1	79.0	3.4	82.4	85.9	168.3	0.0	26.7	26.7
1989/90	26.7	154.5	4.4	185.6	78.6	3.6	82.2	77.1	159.3	0.0	26.3	26.3
1990/91	26.3	156.1	4.8	187.2	87.6	3.6	91.2	71.4	162.6	0.1	24.5	24.6
1991/92	24.6	159.4	5.3	189.3	91.2	4.1	95.3	66.5	161.9	0.4	27.0	27.4
1992/93	27.4	179.7	6.2	213.2	91.0	6.6	94.6	79.2	173.8	0.1	39.3	39.4
1993/94	39.4	156.1	6.9	202.5	96.2	4.1	100.3	76.4	176.7	0.0	25.8	25.8
1994/95	25.8	197.8	8.1	231.6	97.6	3.9	101.5	98.8	200.3	0.1	31.2	31.3
1995/96	31.3	173.9	7.7	212.9	101.1	3.5	104.6	83.2	187.8	0.0	25.0	25.0
1996/97	25.0	171.6	10.5	207.2	97.7	3.9	101.6	78.3	179.9	0.0	27.2	27.2
1997/98	27.2	183.0	9.3	219.5	99.8	4.1	103.9	87.7	191.6	0.0	27.9	27.9
1998/99	27.9	184.4	10.6	223.0	109.6	4.4	114.0	86.8	200.9	0.0	22.1	22.1
1999/00	22.1	206.0	10.1	238.2	117.9	4.0	121.9	88.8	210.7	0.0	27.5	27.5
2000/01	27.5	190.9	10.9	229.2	113.4	4.1	117.5	83.2	200.7	0.0	28.5	28.5
2001/02 1/	28.5	213.0	13.2	254.7	117.7	4.0	121.7	94.1	215.8	0.0	39.0	39.0
2002/03 2/	39.0	212.0	13.0	264.0	121.0	4.0	125.0	100.0	225.0	N/A	39.0	39.0

N/A = Not available.

1/ Estimated. 2/ Projected as of November 2002.

Source: National Agricultural Statistics Service and Economic Research Service, USDA.

Appendix table 3--Long grain rough and milled rice (rough equivalent): Marketing year supply and disappearance

Year beginning August 1	Supply 1/			Disappearance			Ending stocks 1/
	Beginning stocks	Production	Total 2/	Domestic and residual	Exports	Total	Total
				Million cwt			
1982/83	17.6	93.4	111.5	38.7	47.0	85.7	25.8
1983/84	25.8	64.3	90.7	29.5	44.8	74.3	16.4
1984/85	16.4	96.0	113.8	34.1	42.0	76.1	37.7
1985/86	37.7	100.4	140.1	48.8	42.0	90.8	49.3
1986/87	49.3	96.8	148.5	51.2	69.9	121.1	27.4
1987/88	27.4	89.0	119.1	49.5	50.5	100.0	19.1
1988/89	19.1	119.4	141.9	55.5	71.0	126.5	15.4
1989/90	15.4	109.2	128.6	54.5	60.8	115.3	13.2
1990/91	13.2	107.8	125.3	52.2	61.6	113.8	11.5
1991/92	11.5	109.1	125.3	56.8	55.6	112.4	13.0
1992/93	13.0	128.0	146.4	55.0	69.8	124.8	21.6
1993/94	21.6	103.1	130.6	58.4	57.0	115.4	15.1
1994/95	15.1	133.4	155.4	59.6	81.4	141.0	14.4
1995/96	14.4	121.7	142.5	66.9	65.5	132.4	10.1
1996/97	10.1	113.6	132.9	61.3	57.4	118.7	14.1
1997/98	14.1	124.5	146.5	59.7	72.3	132.0	14.5
1998/99	14.5	139.3	162.2	76.7	71.4	148.2	14.1
1999/00	14.1	151.9	173.5	87.6	70.3	157.9	15.6
2000/01	15.6	128.8	153.1	76.2	65.3	141.5	11.6
2001/02	11.6	165.3	186.1	85.8	73.5	159.3	26.8
2002/03 3/	26.8	157.5	193.5	88.7	79.0	167.7	25.8

1/ Stocks and total supply by grain size do not sum to total rice stocks or supply due to the exclusion of broken kernel rice in estimates of stocks by grain size. 2/ Includes imports. 3/ Projected as of November 2002.

Sources: National Agricultural Statistics Service and Economic Research Service, USDA.

Appendix table 4--Medium/short grain rough and milled rice (rough equivalent): Marketing year supply and disappearance

Year beginning August 1	Supply 1/			Disappearance			Ending stocks 1/
	Beginning stocks	Production	Total 2/	Domestic and residual	Exports	Total	Total
				Million cwt			
1982/83	30.2	60.2	90.6	24.2	21.9	46.1	44.7
1983/84	44.7	35.4	80.2	26.0	25.4	51.4	28.8
1984/85	28.8	42.8	73.5	27.7	20.1	47.8	25.7
1985/86	25.7	34.5	61.7	18.8	16.7	35.5	26.2
1986/87	26.2	36.6	61.8	26.4	14.3	40.7	21.1
1987/88	21.1	40.6	63.5	31.0	21.7	52.7	10.8
1988/89	10.8	40.5	50.8	26.9	14.9	41.8	9.0
1989/90	9.0	45.3	55.6	27.7	16.3	44.0	11.6
1990/91	11.6	48.3	60.5	39.0	9.8	48.8	11.7
1991/92	11.7	50.2	62.4	38.6	10.9	49.5	12.9
1992/93	12.9	51.6	64.9	39.6	9.5	49.0	15.8
1993/94	15.8	53.0	71.2	41.8	19.4	61.3	10.0
1994/95	10.0	64.3	75.1	41.9	17.5	59.4	15.8
1995/96	15.8	52.1	69.7	37.7	17.7	55.4	14.3
1996/97	14.3	58.0	73.3	40.3	20.9	61.2	12.1
1997/98	12.1	58.5	71.9	44.2	15.4	59.6	12.3
1998/99	12.3	45.1	59.6	37.4	15.4	52.8	6.8
1999/00	6.8	54.2	63.3	34.3	18.6	52.9	10.4
2000/01	10.4	62.1	74.8	41.3	17.9	59.2	15.6
2001/02	15.6	47.7	67.1	35.9	20.6	56.4	10.7
2002/03 3/	10.7	54.5	68.9	36.3	21.0	57.3	11.6

1/ Stocks and total supply by grain size do not sum to total rice stocks or supply due to the exclusion of broken kernel rice in estimates of stocks by grain rice.
2/ Includes imports. 3/ Projected as of November 2002.

Sources: National Agricultural Statistics Service and Economic Research Service, USDA.

Appendix table 5--Rough rice milled, total milled produced, and milling yields, United States

Year beginning August 1	Rough rice milled	Total milled rice produced 1/	Total milling yields	Total heads produced 1/	Head rice milling
	---1,000 cwt---		Lb/cwt	1,000 cwt	Lb/cwt
1978/79	117,961	83,427	70.7	68,749	58.3
1979/80	123,993	89,071	71.8	78,327	63.2
1980/81	141,016	102,278	72.5	89,513	63.5
1981/82	131,841	95,129	72.2	82,022	62.2
1982/83	118,726	84,517	71.2	73,713	62.1
1983/84	111,151	79,012	71.1	68,237	61.4
1984/85	107,195	74,580	69.6	64,063	59.8
1985/86	115,542	81,808	70.8	69,347	60.0
1986/87	140,804	100,257	71.2	83,760	59.5
1987/88	130,818	91,481	69.9	76,863	58.8
1988/89	145,639	104,119	71.5	86,820	59.6
1989/90	136,994	99,453	72.6	85,188	62.2
1990/91	132,523	95,431	72.0	79,993	60.4
1991/92	129,796	91,521	70.5	76,685	59.1
1992/93	139,553	97,707	70.0	82,182	58.9
1993/94	144,602	107,564	74.4	92,618	64.0
1994/95	161,040	119,261	74.1	102,374	63.6
1995/96	146,428	104,488	71.4	91,003	62.2
1996/97	141,345	99,026	70.1	86,776	61.4
1997/98	140,096	97,042	69.3	84,528	60.3
1998/99	142,737	98,915	69.3	85,795	60.1
1999/00	153,708	106,944	69.6	91,735	59.7
2000/01	148,274	101,745	68.6	86,291	58.2
2001/02 2/	147,138	101,174	68.8	86,527	58.8

1/ Includes brown rice. 2/ Preliminary.

Source: Rice Millers' Association.

Appendix table 6--U.S. rice milling yields 1/

Year beginning August 1	South 2/	California	United States
		Lb/cwt	
1974/75	71.15	74.60	71.92
1975/76	69.31	73.88	70.38
1976/77	71.95	72.80	72.11
1977/78	69.28	69.56	69.33
1978/79	70.50	71.69	70.72
1979/80	70.88	74.43	71.80
1980/81	70.78	77.61	72.50
1981/82	71.56	74.99	72.20
1982/83	71.07	69.21	71.20
1983/84	71.07	71.62	71.10
1984/85	70.50	66.90	69.57
1985/86	70.44	71.90	70.80
1986/87	71.71	65.38	71.20
1987/88	70.96	67.37	69.93
1988/89	72.07	69.40	71.49
1989/90	72.66	72.36	72.60
1990/91	72.38	70.59	72.01
1991/92	70.80	69.53	70.51
1992/93	70.53	68.17	70.01
1993/94	74.78	73.32	74.39
1994/95	75.24	69.76	74.06
1995/96	71.53	71.90	71.36
1996/97	70.45	69.61	70.06
1997/98	69.80	67.76	69.27
1998/99	69.58	68.63	69.30
1999/00	69.96	68.11	69.58
2000/01	68.30	69.74	68.62
2001/02 3/	69.41	66.28	68.76

1/ Milled rice--head rice and brokens--produced per 100 pounds of rough rice milled. 2/ Arkansas, Louisiana, Mississippi, Missouri, and Texas.
3/ Preliminary.

Source: Rice Millers' Association.

Appendix table 7--Rice stocks: Rough and milled 1/

Date	Rough					Milled			
	On farms or in farm warehouses	At mills and in attached warehouses	In warehouses (not attached to mills)	In ports or in transit	Total all positions	At mills and in attached warehouses	In warehouses (not attached to mills)	In ports or in transit	Total all positions
					1,000 cwt				
December 1:									
1986	36,264	18,739	90,153	384	145,540	4,578	461	650	5,689
1987	29,789	13,648	71,902	81	115,420	4,841	617	1,232	6,690
1988	39,581	12,741	79,245	121	131,688	4,813	550	915	6,278
1989	40,040	10,084	66,166	83	116,373	4,254	782	720	5,756
1990	37,662	9,548	65,905	52	113,167	4,046	605	1,180	5,831
1991	37,249	9,630	66,857	54	113,790	3,564	495	351	4,410
1992	39,966	14,434	76,887	196	131,483	3,580	855	1,882	6,317
1993	24,164	13,624	70,789	668	109,245	3,849	192	840	4,881
1994	41,223	15,682	83,713	693	141,311	3,290	511	1,044	4,845
1995	32,936	12,561	74,951	883	121,331	4,368	331	1,010	5,709
1996	32,719	13,228	72,321	801	119,069	4,056	280	1,315	5,651
1997	33,470	13,505	76,302	1,066	124,343	4,144	101	1,437	5,682
1998	35,584	10,631	74,532	231	120,978	3,861	128	1,427	5,416
1999	50,762	11,112	78,012	67	139,953	3,679	185	721	4,585
2000	38,085	13,174	81,613	1,055	133,927	4,373	115	1,874	6,362
2001	52,680	13,033	88,127	721	154,561	4,640	187	1,080	5,907
April 1:									
1983	23,778	22,307	62,649	299	109,033	3,295	492	3,165	6,952
1984	15,802	17,432	46,515	17	79,766	3,838	464	2,999	7,301
1985	18,709	16,438	60,188	707	96,042	3,538	481	2,101	6,120
1986	22,232	19,371	73,700	914	116,217	2,818	425	208	3,451
March 1:									
1987	19,561	15,962	70,780	483	106,786	3,881	561	117	4,559
1988	10,104	28,905	36,464	125	75,598	5,680	1,233	1,059	7,972
1989	27,266	12,704	49,439	641	90,050	5,589	189	1,502	7,280
1990	15,965	10,390	51,381	218	77,954	5,259	327	410	5,996
1991	19,345	9,404	43,554	124	72,427	4,002	408	858	5,268
1992	20,658	8,283	46,631	211	75,783	3,888	837	952	5,677
1993	22,397	11,900	57,197	187	91,681	3,474	643	1,075	5,192
1994	11,703	15,056	52,697	147	79,603	4,232	1,010	563	5,805
1995	23,239	12,793	59,271	622	95,925	4,078	349	1,192	5,619
1996	20,520	11,102	53,283	941	85,846	3,072	148	479	3,699
1997	16,003	13,112	49,519	1,510	80,144	3,590	381	640	4,611
1998	21,205	11,736	54,449	661	88,051	4,453	344	1,082	5,879
1999	22,290	9,745	47,409	806	80,250	3,700	172	472	4,344
2000	27,212	11,787	50,969	269	90,237	3,526	128	916	4,570
2001	18,715	10,838	53,814	2,653	86,020	4,057	129	798	4,984
2002 2/	31,725	15,325	66,279	179	113,508	3,689	155	969	4,813
August 1:									
1983	6,032	11,190	45,899	36	63,157	2,843	223	2,830	5,896
1984	1,250	11,017	27,425	14	39,706	3,976	50	1,095	5,121
1985	697	13,398	44,402	653	59,150	3,023	304	515	3,842
1986	2,031	15,432	52,476	1,008	70,947	3,033	398	1,099	4,530
1987	984	9,986	30,718	115	41,803	5,044	632	1,168	6,844
1988	1,242	7,714	14,789	3	23,748	4,461	189	679	5,329
1989	1,176	7,296	10,084	31	18,587	4,178	752	902	5,832
1990	599	5,370	13,133	51	19,153	3,650	548	998	5,196
1991	852	5,149	12,636	58	18,695	3,569	217	457	4,243
1992	1,109	6,166	13,179	77	20,531	3,833	486	529	4,848
1993	1,708	7,055	21,786	35	30,584	4,179	658	1,365	6,202
1994	517	5,601	14,674	115	20,907	2,710	188	697	3,595
1995	862	6,578	15,279	45	22,764	4,225	1,028	1,055	6,308
1996	486	5,542	13,818	125	19,971	3,296	269	49	3,614
1997	428	7,256	13,647	462	21,793	3,269	474	76	3,819
1998	1,136	6,401	13,287	167	20,991	3,598	329	868	4,795
1999	1,560	5,516	9,432	118	16,626	3,230	103	444	3,777
2000	1,141	5,909	14,899	21	21,970	3,129	155	548	3,832
2001	921	5,178	15,699	220	22,018	3,896	165	376	4,437
2002 2/	5,180	6,599	19,728	302	31,809	3,581	88	1,261	4,930

1/ Does not include stocks located in areas outside the major rice producing States of Arkansas, California, Louisiana, Mississippi, Missouri, and Texas. 2/ Preliminary.

Source: National Agricultural Statistics, USDA.

Appendix table 8--State and U.S. rice production by class

State	1989	1990	1991	1992	1993	1994	1995
				1,00 cwt			
Long grain:							
Arkansas	57,458	53,034	58,328	66,912	53,928	68,160	61,218
California	2,250	1,314	1,168	1,200	1,145	567	600
Louisiana	13,128	14,805	12,500	19,278	14,648	19,413	21,022
Mississippi	13,395	14,250	12,320	15,675	12,985	18,467	15,552
Missouri	4,056	3,713	4,641	5,328	4,557	6,396	5,936
Texas	18,874	20,690	20,180	19,622	15,801	20,442	17,402
United States	109,161	107,806	109,137	128,015	103,064	133,445	121,730
Medium grain:							
Arkansas	6,322	6,912	8,392	8,940	8,007	12,666	11,682
California	26,315	28,215	28,399	31,342	34,112	39,627	33,972
Louisiana	8,360	11,664	12,235	9,568	9,460	10,035	5,187
Mississippi	1/	1/	1/	1/	1/	1/	1/
Missouri	52	47	51	48	1/	52	111
Texas	392	490	400	735	294	810	400
United States	41,441	47,328	49,477	50,633	51,873	63,390	51,241
Short grain:							
Arkansas	60	54	60	62	159	114	120
California	3,825	900	693	948	1,014	830	780
United States	3,885	954	753	1,010	1,173	944	900
Total grains:							
Arkansas	63,840	60,000	66,780	75,914	62,094	80,940	73,020
California	32,390	30,429	30,260	33,490	36,271	41,224	35,352
Louisiana	21,488	26,469	24,735	28,846	24,108	29,448	26,209
Mississippi	13,395	14,250	12,320	15,675	12,985	18,467	15,552
Missouri	4,108	3,760	4,692	5,376	4,557	6,448	5,936
Texas	19,266	21,180	20,580	20,357	16,095	21,252	178,702
United States	154,487	156,088	159,367	179,658	156,110	197,779	173,871

State	1996	1997	1998	1999	2000	2001	2002 2/ 3/
				1,00 cwt			
Long grain:							
Arkansas	55,055	65,192	73,644	79,417	68,478	91,632	NA
California	360	693	537	340	639	1,001	NA
Louisiana	22,687	24,731	26,727	29,050	23,114	29,590	NA
Mississippi	12,480	13,804	15,544	18,250	12,862	16,445	NA
Missouri	5,162	6,095	7,280	9,828	9,576	12,257	NA
Texas	17,885	13,970	15,596	14,978	14,087	14,405	NA
United States	113,629	124,485	139,328	151,863	128,756	165,330	157,508
Medium grain:							
Arkansas	16,770	13,908	12,400	15,513	17,514	9,620	NA
California	36,150	40,557	29,218	32,850	40,400	35,939	NA
Louisiana	3,290	2,250	1,380	1,775	1,288	424	NA
Mississippi	1/	1/	1/	1/	1/	1/	NA
Missouri	111	106	156	108	57	60	NA
Texas	580	270	250	294	255	62	NA
United States	56,901	57,091	43,404	50,540	59,514	46,105	52,589
Short grain:							
Arkansas	120	120	80	124	120	60	NA
California	949	1,296	1,631	3,500	2,482	1,550	NA
United States	1,069	1,416	1,711	3,624	2,602	1,610	1,916
Total grains:							
Arkansas	71,945	79,220	86,124	95,054	86,112	101,312	97,137
California	37,459	42,546	31,386	36,690	43,521	38,490	43,243
Louisiana	25,977	26,981	28,107	30,825	24,402	30,014	29,425
Mississippi	12,480	13,804	15,544	18,250	12,862	16,445	16,038
Missouri	5,273	6,201	7,436	9,936	9,633	12,317	11,820
Texas	18,465	14,240	15,846	15,272	14,342	14,467	12,350
United States	171,599	182,992	184,443	206,027	190,872	213,045	212,013

NA = Not available.

1/ No grain estimates. 2/ Projected as of November 2002. 3/ State production by grain type not available.

Source: National Agricultural Statistics, USDA.

Appendix table 9--State and U.S. rice acreage, yield, and production, by class

State	Area			Yield			Production		
	1999	2000	2001	1999	2000	2001	1999	2000	2001
	1,000 acres			Pounds / acre			1,000 cwt		
Long grain:									
Arkansas	1,374	1,130	1,472	5,780	6,060	6,225	79,417	68,478	91,632
California	5	9	13	6,800	7,100	7,700	340	639	1,001
Louisiana	581	455	538	5,000	5,080	5,500	29,050	23,114	29,590
Mississippi	323	218	253	5,650	5,900	6,500	18,250	12,862	16,445
Missouri	182	168	206	5,400	5,700	5,950	9,828	9,576	12,257
Texas	253	209	215	5,920	6,740	6,700	14,978	14,087	14,405
United States	2,718	2,189	2,697	5,587	5,882	6,130	151,863	128,756	165,330
Medium grain:									
Arkansas	249	278	148	6,230	6,300	6,500	15,513	17,514	9,620
California	450	505	433	7,300	8,000	8,300	32,850	40,400	35,939
Louisiana	35	25	8	5,070	5,150	5,300	1,775	1,288	424
Missouri	2	1	1	5,400	5,700	6,000	108	57	60
Texas	6	5	1	4,900	5,100	6,200	294	255	62
United States	742	814	591	6,811	7,311	7,801	50,540	59,514	46,105
Short grain:									
Arkansas	2	2	1	6,200	6,000	6,000	124	120	60
California	50	34	25	7,000	7,300	6,200	3,500	2,482	1,550
United States	52	36	26	6,969	7,228	6,192	3,624	2,602	1,610
Total grains:									
Arkansas	1,625	1,410	1,621	5,850	6,110	6,250	95,054	86,112	101,312
California	505	548	471	7,270	7,940	8,170	36,690	43,521	38,490
Louisiana	616	480	546	5,000	5,080	5,500	30,825	24,402	30,014
Mississippi	323	218	253	5,650	5,900	6,500	18,250	12,862	16,445
Missouri	184	169	207	5,400	5,700	5,950	9,936	9,633	12,317
Texas	259	214	216	5,900	6,700	6,700	15,272	14,342	14,467
United States	3,512	3,039	3,314	5,866	6,281	6,429	206,027	190,872	213,045

Sources: Annual Crop Production 2000 Summary, January 2002; Crop Production, September & November 2002; National Agricultural Statistics Service, USDA.

Appendix table 10--State and U.S. rice area planted, by class

State	Area planted					
	1992	1993	1994	1995	1996	1997
	1,000 acres					
Long grain:						
Arkansas	1,249	1,115	1,218	1,148	918	1,168
California	15	14	7	8	5	9
Louisiana	410	325	400	460	465	535
Mississippi	280	250	315	290	210	240
Missouri	116	105	130	119	95	120
Texas	338	293	340	310	290	255
United States	2,408	2,102	2,410	2,335	1,983	2,327
Medium grain:						
Arkansas	150	162	220	200	260	230
California	369	413	470	449	484	493
Louisiana	220	220	225	115	70	50
Mississippi	1/	1/	1/	1/	2	1/
Missouri	1	1/	1	1/	1/	2
Texas	15	7	15	10	10	5
United States	755	802	931	774	826	780
Short grain:						
Arkansas	1	3	2	2	2	2
California	12	13	10	10	13	16
United States	13	16	12	12	15	18
Total grain:						
Arkansas	1,400	1,280	1,440	1,350	1,180	1,400
California	396	440	487	467	502	518
Louisiana	630	545	625	575	535	585
Mississippi	280	250	315	290	210	240
Missouri	117	105	131	119	97	122
Texas	353	300	355	320	300	260
United States	3,176	2,920	3,353	3,121	2,824	3,125

State	Area planted					2002 as share
	1998	1999	2000	2001	2002	of 2001
	1,000 acres					
Long grain:						
Arkansas	1,293	1,378	1,138	1,480	1,350	91
California	9	5	9	13	8	62
Louisiana	595	585	460	540	530	98
Mississippi	270	325	220	255	245	96
Missouri	142	184	169	210	200	95
Texas	280	254	210	216	205	95
United States	2,589	2,731	2,206	2,714	2,538	94
Medium grain:						
Arkansas	205	250	280	150	165	110
California	420	455	507	435	490	113
Louisiana	30	35	25	8	10	125
Mississippi	1/	1/	1/	1/	1/	1/
Missouri	3	2	1	1	1	100
Texas	5	6	5	1	1	100
United States	663	748	818	595	667	112
Short grain:						
Arkansas	2	2	2	1	1	100
California	31	50	34	25	25	100
United States	33	52	36	26	26	100
Total grain:						
Arkansas	1,500	1,630	1,420	1,631	1,516	93
California	460	510	550	473	523	111
Louisiana	625	620	485	548	540	99
Mississippi	270	325	220	255	245	96
Missouri	145	186	170	211	201	95
Texas	285	260	215	217	206	95
United States	3,285	3,531	3,060	3,335	3,231	97

1/ No medium grain estimated. 2/ As estimated in the September 2002 Acreage report.

Sources: 1990 to 2001, Crop Production, various issues, NASS, USDA.

Appendix table 11--U.S. rice acreage, yield, and production

Crop year 1/	Planted	Harvested	Yield	Production
	---1,000 acres---		Lb/acre	1,000 cwt
1958	1,439	1,415	3,164	44,760
1959	1,607	1,586	3,382	53,647
1960	1,614	1,595	3,423	54,591
1961	1,618	1,589	3,411	54,198
1962	1,789	1,773	3,726	66,045
1963	1,785	1,771	3,968	70,269
1964	1,797	1,786	4,098	73,166
1965	1,804	1,793	4,255	76,281
1966	1,980	1,967	4,322	85,020
1967	1,982	1,970	4,537	89,379
1968	2,367	2,353	4,425	104,142
1969	2,141	2,128	4,318	91,904
1970	1,826	1,815	4,618	83,805
1971	1,826	1,818	4,718	85,768
1972	1,824	1,818	4,700	85,439
1973	2,181	2,170	4,274	92,765
1974	2,550	2,531	4,440	112,386
1975	2,833	2,818	4,558	128,437
1976	2,489	2,480	4,663	115,648
1977	2,261	2,249	4,412	99,223
1978	2,993	2,970	4,484	133,170
1979	2,890	2,869	4,599	131,947
1980	3,380	3,312	4,413	146,150
1981	3,827	3,792	4,819	182,742
1982	3,295	3,262	4,710	153,637
1983	2,190	2,169	4,598	99,720
1984	2,830	2,802	4,954	138,810
1985	2,512	2,492	5,414	134,913
1986	2,381	2,360	5,651	133,356
1987	2,356	2,333	5,555	129,603
1988	2,933	2,900	5,514	159,897
1989	2,731	2,687	5,749	154,487
1990	2,897	2,823	5,529	156,088
1991	2,884	2,781	5,731	159,367
1992	3,176	3,132	5,736	179,658
1993	2,920	2,833	5,510	156,110
1994	3,353	3,316	5,964	197,779
1995	3,121	3,093	5,621	173,871
1996	2,824	2,804	6,120	171,599
1997	3,125	3,103	5,897	182,992
1998	3,285	3,257	5,663	184,443
1999	3,531	3,512	5,866	206,027
2000	3,060	3,039	6,281	190,872
2001	3,335	3,314	6,429	213,045
2002 2/	3,231	3,207	6,611	212,013

1/ August 1 to July 31 crop year. 2/ Preliminary.
Source: Crop Production, NASS, USDA.

Appendix table 12--U.S. and State average rice yields per harvested acre

Crop year	United States	Arkansas	California	Louisiana	Mississippi	Missouri	Texas
				Pounds			
1959	3,382	3,400	4,650	2,850	2,700	3,400	3,150
1960	3,423	3,525	4,775	2,850	2,950	3,400	3,075
1961	3,411	3,500	4,800	2,925	3,300	3,300	2,900
1962	3,726	3,850	4,950	3,050	3,200	4,200	3,550
1963	3,968	4,300	4,325	3,325	3,900	4,200	4,125
1964	4,098	4,300	5,050	3,300	3,800	4,300	4,150
1965	4,255	4,300	4,900	3,550	3,700	4,500	4,600
1966	4,322	4,300	5,500	3,700	4,300	4,400	4,200
1967	4,537	4,550	4,900	3,900	4,300	4,600	5,000
1968	4,425	4,300	5,325	3,850	4,400	4,500	4,550
1969	4,318	4,750	5,525	3,500	4,450	4,600	3,950
1970	4,618	4,800	5,700	3,900	4,500	4,400	4,500
1971	4,718	5,050	5,200	3,800	4,600	4,800	5,100
1972	4,700	4,975	5,700	3,825	4,559	4,449	4,727
1973	4,274	4,770	5,616	3,451	4,306	4,346	3,740
1974	4,440	4,610	5,290	3,650	4,180	3,886	4,494
1975	4,558	4,540	5,750	3,810	3,900	4,210	4,560
1976	4,663	4,770	5,520	3,910	4,200	4,200	4,810
1977	4,412	4,230	5,810	3,670	4,000	3,700	4,670
1978	4,484	4,450	5,220	3,820	4,250	4,330	4,700
1979	4,599	4,320	6,520	3,910	4,050	3,810	4,220
1980	4,413	4,110	6,440	3,550	3,840	4,180	4,230
1981	4,819	4,520	6,900	4,060	4,390	4,080	4,700
1982	4,710	4,290	6,700	4,160	4,120	4,480	4,690
1983	4,598	4,280	7,040	3,820	4,000	4,090	4,340
1984	4,954	4,600	7,120	4,150	4,350	4,600	4,940
1985	5,414	5,200	7,300	4,370	5,350	4,810	5,490
1986	5,651	5,300	7,700	4,550	5,400	5,120	6,250
1987	5,555	5,250	7,550	4,550	5,100	5,400	5,900
1988	5,514	5,350	7,020	4,500	5,300	5,100	6,000
1989	5,749	5,600	7,900	4,430	5,700	5,200	5,700
1990	5,529	5,000	7,700	4,860	5,700	4,700	6,000
1991	5,731	5,300	8,500	4,850	5,600	5,100	6,000
1992	5,736	5,500	8,500	4,650	5,700	4,800	5,800
1993	5,510	5,050	8,300	4,550	5,300	4,900	5,400
1994	5,964	5,700	8,500	4,750	5,900	5,200	6,000
1995	5,621	5,450	7,600	4,600	5,400	5,300	5,600
1996	6,120	6,150	7,490	4,870	6,000	5,550	6,200
1997	5,897	5,700	8,250	4,630	5,800	5,300	5,500
1998	5,663	5,800	6,850	4,530	5,800	5,200	5,600
1999	5,866	5,850	7,270	5,000	5,650	5,400	5,900
2000	6,281	6,110	7,940	5,080	5,900	5,700	6,700
2001	6,429	6,250	8,170	5,500	6,500	5,950	6,700
2002 1/	6,611	6,450	8,300	5,500	6,600	6,000	7,000

1/ Preliminary as of November 2002.

Source: National Agricultural Statistics Service, USDA.

Appendix table 13--Proportional distribution of rice production, by class, United States

Crop year	Long grain	Medium grain	Short grain	Total production
		---Percent---		1,000 cwt
1959	50.5	29.1	20.4	53,647
1960	48.2	35.2	16.6	54,591
1961	45.3	38.4	16.3	54,198
1962	43.7	41.8	14.5	66,045
1963	36.8	48.7	14.5	70,269
1964	37.5	50.2	12.3	73,166
1965	43.0	45.6	11.4	76,281
1966	41.6	46.5	11.9	85,020
1967	48.5	42.3	9.2	89,379
1968	46.8	42.1	11.1	104,142
1969	49.0	40.3	10.7	91,904
1970	49.3	40.4	10.3	83,805
1971	52.6	37.2	10.2	85,768
1972	50.0	40.0	9.9	85,439
1973	47.2	42.4	10.4	92,765
1974	53.3	36.8	9.8	112,386
1975	49.5	40.7	9.8	128,437
1976	60.6	31.8	7.6	115,648
1977	62.7	26.5	10.8	99,223
1978	63.7	27.4	9.0	133,170
1979	61.2	30.6	8.2	131,947
1980	59.4	35.2	5.4	146,150
1981	60.4	33.7	5.9	182,742
1982	60.8	33.4	5.8	153,637
1983	64.5	27.5	8.0	99,720
1984	69.2	25.4	5.4	138,810
1985	74.4	21.1	4.5	134,913
1986	72.6	24.2	3.3	133,356
1987	68.7	29.1	2.3	129,603
1988	74.7	23.1	2.3	159,897
1989	70.7	26.8	2.5	154,487
1990	69.1	30.3	0.6	156,088
1991	68.5	31.0	0.5	159,367
1992	71.3	28.2	0.6	179,658
1993	66.0	33.2	0.8	156,110
1994	67.5	32.1	0.5	197,779
1995	70.0	29.5	0.5	173,871
1996	66.2	33.2	0.6	171,599
1997	68.0	31.2	0.8	182,992
1998	75.5	23.5	0.9	184,443
1999	73.7	24.5	1.8	206,027
2000	67.5	33.2	1.4	190,872
2001	77.6	21.6	0.1	213,045
2002 1/	74.3	24.8	0.1	212,013

1/ Estimated November 2002.

Source: National Agricultural Statistics Service, USDA.

Appendix table 14--Use and ending stocks for rice, United States

Crop year	Food, industrial and residual 1/	Seed	Exports	Total use 2/	Ending stocks	Stocks-to-use ratio
			---Mil. cwt---			Percent
1960	25.3	2.1	29.5	56.9	10.1	17.8
1961	27.9	2.3	29.2	59.4	5.3	8.9
1962	25.8	2.4	35.5	63.7	7.7	12.1
1963	26.2	2.5	41.8	70.5	7.5	10.6
1964	28.5	2.5	42.5	73.5	7.7	10.5
1965	30.5	2.7	43.3	76.5	8.2	10.7
1966	30.5	2.7	51.6	84.8	8.5	10.0
1967	31.0	3.2	56.9	91.1	6.8	7.5
1968	35.7	2.9	56.1	94.7	16.2	17.1
1969	32.5	2.5	56.9	91.9	16.4	17.8
1970	34.0	2.5	46.5	83.0	18.6	22.4
1971	34.7	2.5	56.9	94.1	11.4	12.1
1972	35.2	3.0	54.0	92.2	5.1	5.5
1973	37.0	3.6	49.7	90.3	7.8	8.6
1974	39.6	4.0	69.5	113.1	7.1	6.3
1975	38.6	3.5	56.5	98.6	36.9	37.4
1976	43.2	3.2	65.6	112.0	40.5	36.1
1977	35.3	4.3	72.8	112.4	27.4	24.4
1978	49.1	4.3	75.7	129.1	31.6	24.5
1979	50.5	4.8	82.6	137.9	25.7	18.6
1980	59.1	5.1	91.4	155.6	16.5	10.6
1981	64.2	4.4	82.0	150.6	49.0	32.5
1982	59.7	3.2	68.9	131.8	71.5	54.2
1983	51.6	3.3	70.3	125.2	46.9	37.5
1984	57.4	3.1	62.1	122.6	64.7	52.8
1985	62.9	2.9	58.7	124.5	77.3	62.1
1986	74.7	2.9	84.2	161.8	51.4	31.8
1987	76.8	3.6	72.2	152.6	31.4	20.6
1988	79.0	3.4	85.9	168.3	26.7	15.9
1989	78.6	3.6	77.1	159.3	26.3	16.5
1990	87.6	3.6	71.4	162.6	24.6	15.1
1991	91.2	4.1	66.5	161.9	27.4	16.9
1992	91.0	3.6	79.2	173.8	39.4	22.7
1993	96.2	4.1	76.4	176.7	25.8	14.6
1994	97.6	3.9	98.8	200.3	31.3	15.6
1995	101.1	3.5	83.2	187.8	25.0	13.3
1996	97.7	3.9	78.3	179.9	27.2	15.1
1997	99.8	4.1	87.7	191.6	27.9	14.6
1998	109.6	4.4	86.8	200.9	22.1	11.0
1999	117.9	4.0	88.8	210.7	27.5	13.0
2000	113.4	4.1	83.2	200.7	28.5	14.2
2001	117.7	4.0	94.1	215.8	39.0	18.1
2002 3/	121.0	4.0	100.0	225.0	39.0	17.3

1/ Includes shipments to U.S. territories. 2/ Includes residual. 3/ Projected.

Source: National Agricultural Statistics Service, USDA.

Appendix table 15--U.S. rice distribution patterns 1/

Crop year	Direct food use 2/	Imports	Direct food use plus imports	Processed foods	Total food use 3/	Brewers' use	Total domestic use 4/
				Million cwt (milled)			
1955/56	8.1	0.1	8.3	1.5	9.8	4.2	13.9
1956/57	8.7	0.0	8.7	1.6	10.3	3.6	13.8
1960/61	10.3	0.2	10.5	2.2	12.7	3.5	16.1
1961/62	11.3	0.3	11.6	2.3	13.9	3.4	17.2
1966/67	11.1	0.0	11.1	3.0	14.1	3.8	17.8
1969/70	13.0	0.1	13.1	3.0	16.1	5.1	21.2
1971/72	12.8	0.8	13.6	3.5	17.1	5.4	22.5
1973/74	13.2	0.1	13.3	3.4	16.7	5.9	22.6
1974/75	12.6	0.1	12.7	2.5	15.2	6.0	21.2
1975/76	13.0	0.0	13.0	2.9	15.8	6.4	22.2
1978/79	15.2	0.1	15.3	3.7	19.0	7.9	26.9
1980/81	18.8	0.2	18.9	4.5	23.4	8.0	31.4
1982/83	19.2	0.5	19.7	3.3	23.0	9.6	32.6
1984/85	21.2	1.1	22.3	5.4	27.7	9.7	37.4
1986/87	22.9	1.9	24.7	7.6	32.4	10.7	43.0
1988/89	25.1	2.7	27.7	8.6	36.3	11.2	47.5
1990/91	28.0	3.5	31.4	12.2	43.7	11.0	54.7
1994/95	31.5	6.0	37.5	16.1	53.6	10.7	64.3
1995/96	36.3	5.3	41.6	14.9	56.5	11.2	67.7
1996/97	35.8	7.4	43.2	14.1	57.3	11.1	68.4
1997/98	37.6	6.4	44.0	15.6	59.5	10.7	70.2
1998/99	38.1	7.3	45.4	16.1	61.6	11.1	72.7
1999/2000	39.2	7.1	46.3	16.9	63.2	11.4	74.5
2000/01	37.1	7.5	44.5	18.2	62.8	11.1	73.9

1/ Does not include shipments to U.S. territories or seed use. 2/ Does not include imports. 3/ Includes direct food use, processed foods, and imports. 4/ Includes total food use and brewers' use.

Sources: Direct food use and processed food use data are from milled rice distribution surveys reported by domestic rice mills. Survey data 1955/56 to 1990/91, Economic Research Service, USDA. Survey data 1994/95 to 2000/01 compiled by Food Research Associates for the USA Rice Federation. Import data are from the U.S. Department of Commerce. Brewers' use data are from the U.S. Treasury Department.

Appendix table 16--Prices and ending stocks for rice

Crop year	Ending stocks	Farm price	Loan rate	Target price	Announced world price	Direct payment
	Mill. cwt			---$/cwt---		
1955	34.60	4.81	4.66	---	---	---
1956	20.00	4.86	4.57	---	---	---
1957	18.20	5.11	4.72	---	---	---
1958	15.70	4.68	4.48	---	---	---
1959	12.10	4.59	4.38	---	---	---
1960	10.10	4.55	4.42	---	---	---
1961	5.30	5.14	4.71	---	---	---
1962	7.70	5.04	4.71	---	---	---
1963	7.50	5.01	4.71	---	---	---
1964	7.70	4.90	4.71	---	---	---
1965	8.20	4.93	4.50	---	---	---
1966	8.50	4.95	4.50	---	---	---
1967	6.80	4.97	4.55	---	---	---
1968	16.20	5.00	4.60	---	---	---
1969	16.40	4.95	4.72	---	---	---
1970	18.60	5.17	4.86	---	---	---
1971	11.40	5.34	5.07	---	---	---
1972	5.10	6.73	5.27	---	---	---
1973	7.80	13.80	6.07	---	---	---
1974	7.10	11.20	7.54	---	---	---
1975	36.90	8.35	8.52	---	---	---
1976	40.50	7.02	6.19	8.25	---	0.00
1977	27.40	9.49	6.19	8.25	---	0.00
1978	31.60	8.16	6.40	8.53	---	0.78
1979	25.70	10.50	6.79	9.05	---	0.00
1980	16.50	12.80	7.12	9.49	---	0.00
1981	49.00	9.05	8.01	10.68	---	0.28
1982	71.50	7.91	8.14	10.85	---	2.71
1983	46.90	8.57	8.14	11.40	---	2.77
1984	64.70	8.04	8.00	11.90	---	3.76
1985	77.30	6.53	8.00	11.90	3.62	3.90
1986	51.42	3.75	7.20	11.90	3.51	4.70
1987	31.37	7.27	6.84	11.66	5.99	4.82
1988	26.74	6.83	6.63	11.15	6.54	4.31
1989	26.31	7.35	6.50	10.80	6.05	3.56
1990	24.59	6.70	6.50	10.71	5.46	4.16
1991	27.41	7.58	6.50	10.71	5.95	3.07
1992	39.44	5.89	6.50	10.71	4.95	4.21
1993	25.77	7.98	6.50	10.71	6.07	3.98
1994	31.28	6.78	6.50	10.71	6.10	3.79
1995	25.03	9.15	6.50	10.71	7.71	3.22
1996	27.24	9.96	6.50	2/ ---	7.66	2.77
1997	27.91	9.70	6.50	2/ ---	8.45	2.71
1998	22.08	8.89	6.50	2/ ---	7.37	2.92 3/
1999	27.48	5.93	6.50	2/ ---	4.49	2.82 3/
2000	28.48	5.61	6.50	2/ ---	3.20	2.60 3/
2001	38.95	4.17	6.50	2/ ---	3.33	2.10 3/
2002 1/	38.95	3.70-4.00	6.50	10.50	3.40	2.35 4/

--- = Not applicable. N/A = Not available.

1/ Forecast. 2/ Eliminated in 1996 farm act. 3/ Does not include supplemental AMTA payments of $1.45 per cwt in 1998, $2.82 in 1999, $2.82 in 2000, and $2.39 in 2001. 4/ Direct payment rate under the 2002 Farm Act..

Sources: Ending stocks and farm price data, National Agricultural Statistics Service, USDA; CCC caryyover, target price, direct payments, and announced world price, Farm Service Agency, USDA.

Appendix table 17--Class loan rates and differentials

Item	Crop year							
	1987	1988	1989	1990	1991	1992	1993	1994
	$/hundredweight							
Milled rice:								
Long whole kernels	11.36	10.89	10.81	10.84	10.74	10.74	10.75	10.72
Medium and short whole kernels	10.36	9.89	9.81	9.84	9.74	9.74	9.75	9.72
Broken kernels	5.68	5.45	5.41	5.42	5.37	5.37	5.37	5.36
Differential (milled basis) 1/	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Rough rice 2/:								
Average, all classes	6.84	6.63	6.50	6.50	6.50	6.50	6.50	6.50
Average, long grain	7.03	6.75	6.68	6.68	6.65	6.66	6.67	6.64
Average, medium grain	6.54	6.33	6.13	6.21	6.11	6.13	6.11	6.13
Average, short grain	6.39	5.98	5.98	6.12	6.07	6.13	5.89	6.02

Item	Crop year							
	1995	1996	1997	1998	1999	2000	2001	2002
	$/hundredweight							
Milled rice:								
Long whole kernels	10.69	10.77	10.69	10.71	10.66	10.71	10.69	10.66
Medium and short whole kernels	9.69	9.77	9.69	9.71	9.66	9.71	9.69	9.66
Broken kernels	5.35	5.38	5.35	5.35	5.33	5.35	5.35	5.33
Differential (milled basis) 1/	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Rough rice 2/:								
Average, all classes	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Average, long grain	6.68	6.68	6.67	6.67	6.67	6.66	6.67	6.66
Average, medium grain	6.12	6.17	6.14	6.14	6.12	6.12	6.09	6.06
Average, short grain	5.99	6.02	6.07	6.04	6.04	6.16	6.13	6.12

1/ The loan differential (milled basis) is the difference between the class whole kernel loan rates for long and medium grain rice.
2/ Announced farm-stored loan rates. Loan rates per hundredweight of rough rice are based on the yields of whole and broken milled rice kernels from the milled-rice kernels from the milling process. The loan rate is the total of a) the quantity of whole-kernel milled rice times the whole-kernel milled rice loan rate,plus b) the quantity of broken milled rice times broken rice loan rate.

Source: Farm Service Agency, USDA.

Appendix table 18--World market rice prices, loan rate basis 1/

Date	Milled kernel rates				Rough rates		
	Long	Medium	Short	Broken	Long	Medium	Short
	---$/cwt---				---$/cwt---		
1987:							
January 20 - March 31	5.70	5.12	5.06	2.85	3.53	3.23	3.13
April 7 - April 21	5.87	5.28	5.22	2.94	3.63	3.34	3.23
April 28	5.98	5.28	5.21	2.99	3.70	3.34	3.23
May 5 - May 19	5.98	5.38	5.31	2.99	3.70	3.40	3.29
May 26 - June 23	6.11	5.52	5.45	3.06	3.78	3.49	3.37
June 30	6.00	5.39	5.32	3.00	3.71	3.41	3.30
July 7 - July 21	5.89	5.29	5.22	2.95	3.65	3.35	3.23
July 28	6.02	5.45	5.38	3.01	3.73	3.44	3.33
August 4	6.15	5.58	5.51	3.07	3.81	3.52	3.41
August 11	6.27	5.69	5.62	3.13	3.88	3.59	3.48
August 18	6.39	5.69	5.62	3.19	3.95	3.60	3.48
August 25	6.51	5.84	5.76	3.25	4.03	3.69	3.57
September 1	6.76	6.11	6.03	3.38	4.18	3.86	3.73
September 8	7.28	6.56	6.49	3.64	4.51	4.15	4.02
September 15	7.90	7.22	7.14	3.95	4.89	4.56	4.41
September 22	8.66	7.95	7.87	4.33	5.36	5.01	4.86
September 29 - October 6	9.54	8.80	8.73	4.77	5.91	5.55	5.39
October 13 - October 27	10.21	9.42	9.35	5.10	6.32	5.94	5.77
November 3 - November 10	9.88	9.05	8.99	4.94	6.12	5.71	5.55
November 17 - November 24	9.81	9.04	8.93	4.91	5.90	5.63	5.43
December 1 - December 8	9.42	8.57	8.47	4.71	5.66	5.35	5.16
December 15 - December 29	9.42	8.43	8.32	4.71	5.66	5.27	5.08
1988:							
January 5	9.42	8.43	8.32	4.71	5.66	5.27	5.08
January 12	9.90	8.84	8.73	4.95	5.95	5.52	5.34
January 19 - January 26	11.22	9.72	9.61	5.61	6.74	6.10	5.90
February 2 - March 22	11.66	10.24	10.14	5.83	7.01	6.41	6.21
March 29	11.61	10.25	10.15	5.80	6.98	6.41	6.22
April 5 - April 19	11.83	10.46	10.36	5.92	7.12	6.54	6.35
April 26	11.56	10.31	10.21	5.78	6.95	6.44	6.25
May 3 - May 10	11.02	9.97	9.88	5.51	6.63	6.22	6.03
May 17 - May 31	10.58	9.72	9.62	5.29	6.37	6.05	5.86
June 7	10.09	9.28	9.18	5.04	6.07	5.78	5.59
June 14	10.28	9.44	9.34	5.14	6.19	5.88	5.69
June 21-28	10.69	9.87	9.77	5.35	6.43	6.14	5.95
July 5-12	10.98	10.17	10.08	5.49	6.61	6.32	6.13
July 19 - August 2	11.13	10.33	10.25	5.56	6.69	6.42	6.23
August 9	10.85	9.99	9.91	5.42	6.52	6.22	6.03
August 16	10.55	9.72	9.64	5.27	6.34	6.05	5.87
August 23 - September 6	10.68	9.82	9.74	5.34	6.42	6.11	5.93
September 13	10.43	9.57	9.48	5.22	6.28	5.96	5.78
September 20 - October 4	10.30	9.43	9.34	5.15	6.19	5.87	5.69
October 11 - October 25	10.13	9.30	9.21	5.07	6.10	5.79	5.61
November 1	10.03	9.23	9.16	5.01	6.18	5.78	5.53
November 8 - December 13	9.87	9.08	9.01	4.94	6.10	5.69	5.44
December 20 - December 27	9.55	8.80	8.74	4.77	5.90	5.51	5.27
1989:							
January 3 - January 10	9.55	8.80	8.74	4.77	5.90	5.51	5.27
January 17 - January 24	9.79	9.12	9.07	4.89	6.05	5.71	5.46
January 31 - February 21	9.97	9.29	9.23	4.98	6.16	5.82	5.55
February 28 - March 7	10.11	9.46	9.38	5.06	6.25	5.92	5.64
March 14 - April 4	10.33	9.69	9.62	5.17	6.39	6.06	5.78
April 11	10.56	9.85	9.78	5.28	6.53	6.17	5.88
April 18	10.64	9.93	9.86	5.32	6.58	6.22	5.93

See footnote at end of table.

Continued--

Appendix table 18--World market rice prices, loan rate basis 1/--Continued

Date	Milled kernel rates				Rough rates		
	Long	Medium	Short	Broken	Long	Medium	Short
		---$/cwt---				---$/cwt---	
1989:							
April 25 - May 2	11.17	10.36	10.28	5.59	6.91	6.49	6.19
May 9 - May 16	11.41	10.69	10.60	5.71	7.05	6.69	6.37
May 23	11.60	10.83	10.74	5.80	7.17	6.78	6.46
May 30	11.91	11.09	11.00	5.96	7.36	6.94	6.62
June 6 - June 20	12.20	11.33	11.24	6.10	7.54	7.10	6.76
June 27	13.20	12.07	11.98	6.60	8.16	7.57	7.22
July 5	13.78	12.79	12.69	6.89	8.51	8.01	7.64
July 11 - August 1	14.41	13.39	13.30	7.21	8.91	8.39	8.00
August 8	14.15	12.91	12.82	7.07	8.74	8.10	7.73
August 15	13.00	11.82	11.74	6.50	8.04	7.42	7.08
August 22 - September 5	12.46	11.23	11.11	6.23	7.70	7.02	6.76
September 12	12.23	11.08	10.96	6.12	7.56	6.92	6.68
September 19 - October 10	11.74	10.57	10.45	5.87	7.26	6.61	6.38
October 17 - October 24	11.43	10.29	10.17	5.72	7.07	6.43	6.21
October 31	10.55	9.67	9.55	5.27	6.52	6.03	5.81
November 7 - November 14	10.16	9.37	9.25	5.08	6.28	5.84	5.63
November 21 - December 26	9.76	9.06	8.94	4.88	6.03	5.64	5.43
1990:							
January 2 - February 13	9.76	9.06	8.94	4.88	6.03	5.64	5.43
February 20	9.54	8.70	8.59	4.77	5.90	5.43	5.23
February 27-March 27	9.41	8.46	8.35	4.70	5.81	5.29	5.10
April 3 - April 17	9.31	8.25	8.14	4.66	5.75	5.17	4.98
April 24	9.11	8.10	7.99	4.56	5.63	5.07	4.89
May 1	8.87	7.95	7.84	4.43	5.48	4.97	4.79
May 8 - May 22	8.63	7.77	7.66	4.32	5.34	4.86	4.68
May 29	8.53	7.66	7.60	4.26	5.36	4.93	4.91
June 5 - June 19	8.45	7.58	7.52	4.22	5.31	4.88	4.86
June 26 - August 7	8.36	7.48	7.41	4.18	5.25	4.82	4.79
August 14 - August 21	8.31	7.38	7.31	4.16	5.22	4.75	4.73
August 28 - September 25	8.18	7.22	7.16	4.09	5.14	4.65	4.63
October 2 - December 18	8.28	7.32	7.27	4.14	5.20	4.72	4.70
December 26 - January 22, 1991	8.30	7.23	7.24	4.15	5.09	4.47	4.40
1991:							
January 29 - February 5	9.38	8.30	8.33	4.69	5.75	5.12	5.05
February 12 - March 5	9.39	8.36	8.37	4.70	5.76	5.15	5.07
March 12 - March 19	9.56	8.56	8.57	4.78	5.86	5.27	5.19
March 26 - April 9	9.66	8.69	8.70	4.83	5.92	5.35	5.26
April 16 - May 14	9.45	8.49	8.50	4.73	5.80	5.23	5.15
May 21 - July 30	9.63	8.64	8.65	4.81	5.90	5.32	5.24
August 6 - August 13	9.69	8.78	8.73	4.85	6.00	5.51	5.44
August 20 - November 19	9.74	8.80	8.75	4.87	6.03	5.52	5.45
November 26 - January 14, 1992	9.71	8.76	8.72	4.85	6.01	5.50	5.44
1992:							
January 21 - January 28	9.81	8.82	8.76	4.91	6.05	5.57	5.21
February 4 - March 24	9.98	9.03	8.95	4.99	6.15	5.70	5.32
March 31 - May 5	9.62	8.70	8.57	4.81	5.93	5.49	5.10
May 12 - July 14	9.43	8.46	8.32	4.71	5.81	5.34	4.96
July 21 - July 28	9.53	8.64	8.50	4.76	5.87	5.45	5.06
August 4 - August 11	9.65	8.76	8.74	4.82	5.98	5.51	5.50
August 18	9.50	8.64	8.63	4.75	5.89	5.44	5.42
August 25 - September 8	9.34	8.46	8.45	4.67	5.79	5.33	5.31
September 15 - September 22	9.15	8.25	8.24	4.57	5.67	5.20	5.18
September 29 - October 6	9.04	8.16	8.14	4.52	5.60	5.14	5.12
October 13 - November 17	8.88	7.96	7.93	4.44	5.50	5.02	4.99
November 24 - December 1	8.73	7.80	7.78	4.36	5.41	4.92	4.90

See footnote at end of table.

Continued--

Appendix table 18--World market rice prices, loan rate basis 1/--Continued

Date	Milled kernel rates				Rough rates		
	Long	Medium	Short	Broken	Long	Medium	Short
		---$/cwt---				---$/cwt---	
1993:							
December 8,1992-January 5	8.63	7.81	7.78	4.32	5.35	4.92	4.89
January 12	8.49	7.65	7.63	4.24	5.26	4.82	4.80
January 19 - February 9	8.38	7.54	7.51	4.19	5.27	4.76	4.73
February 16 - February 23	8.25	7.41	7.38	4.12	5.19	4.68	4.65
March 2 - March 9	8.07	7.18	7.15	4.04	5.08	4.54	4.51
March 16	7.98	7.07	7.04	3.99	5.02	4.47	4.44
March 23 - March 30	7.72	6.90	6.89	3.86	4.86	4.36	4.34
April 6 - April 13	7.50	6.76	6.75	3.75	4.72	4.27	4.25
April 20	7.36	6.63	6.61	3.68	4.63	4.19	4.16
April 27	7.07	6.42	6.39	3.54	4.45	4.05	4.02
May 4 - May 25	6.96	6.29	6.28	3.48	4.38	3.97	3.95
June 1 - July 27	6.75	6.06	6.03	3.38	4.25	3.83	3.80
August 3 - August 24	6.58	5.98	5.90	3.29	4.08	3.74	3.55
August 31 - September 21	6.80	6.17	6.09	3.40	4.22	3.86	3.67
September 28	6.69	6.06	5.98	3.35	4.15	3.79	3.60
October 5	7.43	6.76	6.68	3.72	4.61	4.23	4.02
October 12	7.95	7.21	7.12	3.97	4.93	4.51	4.29
October 19 - November 2	8.05	7.32	7.25	4.02	4.99	4.58	4.36
November 9	10.43	9.71	9.64	5.22	6.47	6.06	5.78
November 16 - November 30	11.48	10.76	10.67	5.74	7.12	6.71	6.39
December 7 - December 21	11.67	10.96	10.87	5.84	7.24	6.83	6.51
December 28	11.77	11.05	10.97	5.88	7.30	6.89	6.57
1994:							
January 4 - January 11	11.77	11.05	10.97	5.88	7.30	6.89	6.57
January 18	11.88	11.17	11.09	5.94	7.37	6.96	6.64
January 25	12.09	11.41	11.27	6.04	7.42	7.24	7.13
February 1 - March 15	12.20	11.52	11.38	6.10	7.49	7.31	7.20
March 22	11.42	11.53	11.38	5.71	7.01	7.28	7.15
March 29	11.32	11.54	11.40	5.66	6.95	7.28	7.15
April 6	10.54	11.55	11.40	5.27	6.47	7.25	7.10
April 12 - April 19	10.78	11.55	11.41	5.39	6.62	7.26	7.12
April 26	10.12	11.56	11.42	5.06	6.21	7.23	7.08
May 3	9.89	11.56	11.43	4.94	6.07	7.22	7.07
May 10 - May 24	9.76	11.57	11.43	4.88	5.99	7.22	7.06
May 31	8.94	11.36	11.20	4.47	5.49	7.06	6.88
June 7 - June 28	8.67	11.37	11.22	4.33	5.32	7.05	6.87
July 5	8.67	10.61	10.47	4.33	5.32	6.61	6.45
July 12	8.44	10.03	9.89	4.22	5.18	6.26	6.11
July 19 - July 26	8.44	9.76	9.62	4.23	5.18	6.10	5.96
August 2	8.47	9.31	9.16	4.23	5.25	5.76	5.43
August 9	8.47	9.31	9.16	4.23	5.25	5.76	5.43
August 16	8.60	8.94	8.79	4.30	5.33	5.56	5.25
August 23	8.71	8.95	8.79	4.35	5.40	5.57	5.26
August 30	8.71	8.95	8.79	4.35	5.40	5.57	5.26
September 6	9.06	8.94	8.79	4.53	5.62	5.59	5.29
September 13	9.06	9.12	8.96	4.53	5.62	5.69	5.38
September 20	9.06	9.12	8.96	4.53	5.62	5.69	5.38
September 27	9.06	9.12	8.96	4.53	5.62	5.69	5.38
October 4	9.06	9.12	8.96	4.53	5.62	5.69	5.38
October 11 - October 18	9.26	8.91	9.76	4.63	5.74	5.58	5.29
October 25 - December 13	9.43	8.91	8.77	4.72	5.79	5.59	5.31
December 20 - December 27	9.34	8.92	8.77	4.67	5.86	5.51	5.27

See footnote at end of table.

Continued--

Appendix table 18--World market rice prices, loan rate basis 1/--Continued

Date	Milled kernel rates				Rough rates		
	Long	Medium	Short	Broken	Long	Medium	Short
		---$/cwt---				---$/cwt---	
1995:							
January 3	9.46	8.78	8.72	4.73	5.86	5.51	5.27
January 10	9.59	8.77	8.71	4.80	5.94	5.51	5.27
January 17 - January 24	10.07	8.97	8.90	5.03	6.24	5.65	5.41
January 31 - February 21	10.20	8.95	8.91	5.10	6.41	5.68	5.64
February 28 - April 25	10.20	9.06	9.01	5.10	6.41	5.74	5.70
May 2 - May 16	10.37	9.18	9.12	5.19	6.52	5.82	5.77
May 23 - May 30	10.53	9.39	9.33	5.27	6.62	5.95	5.90
June 6 - June 13	11.69	9.54	9.48	5.82	7.35	6.10	6.06
June 20 - June 27	11.80	9.29	9.24	5.90	7.42	5.96	5.93
July 4	12.01	9.39	9.32	6.00	7.55	6.03	5.99
July 11	12.01	9.53	9.46	6.00	7.55	6.11	6.07
July 18	12.20	9.53	9.46	6.10	7.67	6.12	6.08
July 25	12.33	9.51	9.46	6.16	7.75	6.12	6.09
August 1 - August 8	12.57	9.62	9.51	6.28	7.85	6.18	6.02
August 15 - August 22	12.90	9.73	9.59	6.45	8.06	6.26	6.09
August 29 - September 5	12.50	9.74	9.61	6.25	7.81	6.24	6.07
September 12	12.71	9.73	9.60	6.36	7.94	6.25	6.08
September 19	12.92	9.73	9.59	6.46	8.07	6.26	6.09
September 26	13.22	10.00	9.86	6.61	8.26	6.43	6.26
October 3	13.37	10.23	10.11	6.68	8.35	6.57	6.40
October 10 - October 17	14.13	10.36	10.23	7.07	8.83	6.69	6.53
October 24 - October 31	14.44	10.35	10.23	7.22	9.02	6.70	6.55
November 7	14.20	10.36	10.22	7.10	8.87	6.69	6.53
November 14 - November 21	13.24	10.79	10.66	6.62	8.27	6.88	6.68
December 5	13.24	11.19	11.08	6.62	8.27	7.11	6.90
December 12 - December 26	13.03	11.34	11.22	6.52	8.14	7.18	6.96
1996:							
January 2 - January 16	13.03	11.34	11.22	6.52	8.14	7.18	6.96
January 23-January 30	13.20	11.44	11.45	6.60	8.06	7.21	7.38
February 6	13.00	11.99	11.99	6.50	7.94	7.50	7.68
February 13 - February 27	12.91	11.98	11.98	6.45	7.88	7.49	7.67
March 5 -March 12	12.91	11.76	11.77	6.45	7.88	7.37	7.55
March 19 - March 26	13.20	11.77	11.76	6.60	8.06	7.39	7.56
April 2	12.87	11.77	11.78	6.44	7.86	7.37	7.55
April 9	12.61	11.53	11.54	6.31	7.70	7.22	7.40
April 16 - May 7	12.46	11.54	11.54	6.23	7.61	7.22	7.39
May 14	11.96	11.26	11.26	5.98	7.30	7.03	7.20
May 21 - May 28	11.96	11.60	11.61	5.98	7.30	7.22	7.40
June 4	12.14	11.60	11.59	6.07	7.41	7.23	7.40
June 11 - June 18	12.64	11.70	11.70	6.32	7.72	7.32	7.49
June 25 - July 2	12.64	12.58	12.59	6.32	7.72	7.81	8.01
July 9 - July 23	12.81	12.58	12.59	6.40	7.82	7.82	8.02
July 30	12.71	12.59	12.58	6.35	7.76	7.82	8.01
August 6	12.75	12.78	12.63	6.37	7.88	8.01	7.71
August 13 - August 20	12.62	12.60	12.46	6.31	7.80	7.90	7.61
August 27 - October 1	12.39	12.61	12.48	6.19	7.66	7.89	7.60
October 8	12.29	12.62	12.47	6.15	7.60	7.89	7.59
October 15	12.18	12.61	12.47	6.09	7.53	7.88	7.58
October 22	11.99	12.40	12.25	5.99	7.41	7.75	7.45
October 29 - November 19	11.65	12.29	12.16	5.82	7.20	7.67	7.37
November 26 - December 10	11.53	12.29	12.15	5.77	7.13	7.66	7.36
December 17 - December 24	11.74	12.41	12.27	5.87	7.26	7.74	7.44
December 31	12.05	12.41	12.26	6.03	7.45	7.76	7.46

See footnote at end of table.

Continued--

Appendix table 18--World market rice prices, loan rate basis 1/--Continued

Date	Milled kernel rates				Rough rates		
	Long	Medium	Short	Broken	Long	Medium	Short
		---$/cwt---				---$/cwt---	
1997:							
January 7 - January 21	12.05	12.41	12.26	6.03	7.45	7.76	7.46
January 28	12.37	12.20	12.19	6.19	7.81	7.68	7.54
February 4 - March 4	12.23	12.20	12.18	6.12	7.72	7.67	7.53
March 11	11.80	12.22	12.19	5.90	7.45	7.66	7.51
March 18	11.66	12.21	12.19	5.83	7.33	7.65	7.50
March 25	11.36	11.77	11.76	5.68	7.17	7.38	7.24
April 1	11.15	11.77	11.74	5.58	7.04	7.37	7.22
April 8 - April 15	11.15	11.58	11.56	5.58	7.04	7.26	7.12
April 22	11.15	11.45	11.42	5.58	7.04	7.18	7.04
April 29	11.95	11.43	11.41	5.97	7.54	7.21	7.08
May 6 - May 20	13.28	11.41	11.39	6.64	8.38	7.27	7.15
May 27 - June 3	13.28	11.01	10.99	6.64	8.38	7.04	6.93
June 10	13.43	11.15	11.14	6.72	8.48	7.13	7.02
June 17 - July 15	13.59	11.14	11.12	6.80	8.58	7.13	7.02
July 22 - July 29	13.59	10.29	10.28	6.80	8.58	6.64	6.55
August 5	13.97	11.35	11.28	6.98	8.71	7.27	7.15
August 12 - August 19	13.50	11.36	11.31	6.75	8.42	7.25	7.13
August 26	13.26	11.26	11.21	6.63	8.27	7.18	7.06
September 2 - September 9	12.59	11.18	11.11	6.30	7.85	7.10	6.96
September 16 - September 23	12.59	12.02	11.94	6.30	7.85	7.58	7.42
September 30 - October 21	12.88	12.01	11.94	6.44	8.03	7.59	7.44
October 28	12.70	12.01	11.95	6.35	7.92	7.58	7.43
November 4 - November 18	13.07	12.01	11.94	6.54	8.15	7.60	7.45
November 25 - December 30	13.38	12.17	12.10	6.69	8.34	7.71	7.56
1998:							
January 6	13.63	12.28	12.22	6.82	8.50	7.79	7.64
January 13 - January 27	14.19	12.27	12.22	7.10	8.85	7.81	7.68
February 3 - March 10	14.94	12.42	12.32	7.47	9.41	7.88	7.72
March 17 - March 24	15.18	12.41	12.31	7.59	9.56	7.89	7.73
March 31	15.18	12.17	12.06	7.59	9.56	7.75	7.60
April 7 - April 21	15.56	12.34	12.24	7.78	9.80	7.87	7.72
April 28	15.56	12.64	12.55	7.78	9.80	8.04	7.89
May 5 - May 12	13.99	12.39	12.29	6.99	8.81	7.81	7.63
May 19	13.86	12.39	12.29	6.93	8.73	7.80	7.62
May 26	13.99	12.39	12.29	6.99	8.81	7.81	7.63
June 2 - June 23	14.56	12.51	12.41	7.28	9.17	7.91	7.74
June 30 - July 21	14.69	12.52	12.41	7.34	9.25	7.92	7.75
July 28	14.51	12.52	12.42	7.26	9.14	7.91	7.74
August 4 - August 25	14.07	12.13	12.06	7.03	8.77	7.71	7.56
September 1 - September 15	14.37	12.36	12.28	7.19	8.96	7.86	7.70
September 22	14.23	12.01	11.93	7.11	8.87	7.65	7.50
September 29	14.02	11.91	11.83	7.01	8.74	7.58	7.43
October 6	13.83	11.91	11.84	6.91	8.62	7.57	7.42
October 13 - October 20	13.43	11.91	11.83	6.71	8.37	7.55	7.39
October 27 - November 3	13.33	11.92	11.84	6.67	8.31	7.55	7.39
November 10 - November 17	12.80	11.83	11.77	6.40	7.98	7.47	7.31
November 24 - December 1	12.59	11.75	11.66	6.30	7.85	7.41	7.24
December 8	11.89	11.34	11.26	5.94	7.41	7.14	6.97
December 15 - December 29	12.00	11.35	11.26	6.00	7.48	7.15	6.98

See footnote at end of table.

Continued--

Appendix table 18--World market rice prices, loan rate basis 1/--Continued

Date	Milled kernel rates				Rough rates		
	Long	Medium	Short	Broken	Long	Medium	Short
	---$/cwt---				---$/cwt---		
1999:							
January 5	12.00	11.23	11.15	6.00	7.48	7.08	6.92
January 12	11.81	11.23	11.16	5.90	7.36	7.07	6.91
January 19	12.37	11.23	11.14	6.18	7.71	7.10	6.94
January 26	12.22	11.22	11.14	6.11	7.62	7.09	6.93
February 2 - February 9	11.95	11.14	11.10	5.98	7.40	7.09	7.15
February 16 - February 23	11.73	11.15	11.10	5.86	7.26	7.08	7.14
March 2	11.52	11.15	11.10	5.76	7.13	7.07	7.13
March 9	11.32	10.85	10.81	5.66	7.01	6.89	6.95
March 16	11.10	10.70	10.66	5.55	6.87	6.79	6.85
March 23 - March 30	10.68	10.72	10.66	5.34	6.61	6.78	6.83
April 6 - April 20	10.42	10.60	10.57	5.21	6.45	6.70	6.76
April 27 - May 4	10.32	10.61	10.56	5.16	6.39	6.70	6.75
May 11 - May 18	10.50	10.73	10.68	5.25	6.50	6.78	6.83
May 25 - June 15	10.60	10.73	10.67	5.30	6.56	6.78	6.83
June 22 - July 27	10.60	10.57	10.54	5.30	6.56	6.69	6.75
August 3 - August 17	8.67	8.06	7.98	4.33	5.42	5.09	4.99
August 23 - September 14	8.53	7.88	7.78	4.26	5.33	4.98	4.87
September 21	8.38	7.74	7.66	4.19	5.24	4.89	4.79
September 28 - October 12	8.19	7.51	7.43	4.09	5.12	4.75	4.65
October 19	8.00	7.51	7.43	4.00	5.00	4.74	4.64
October 26	7.74	7.20	7.12	3.87	4.84	4.55	4.45
November 2 - November 23	7.45	6.87	6.77	3.73	4.66	4.34	4.24
November 30	7.45	6.76	6.68	3.73	4.66	4.28	4.19
December 7 - December 21	7.33	6.77	6.68	3.66	4.58	4.28	4.18
2000:							
December 28, 1999 - January 11	7.60	7.03	6.94	3.80	4.75	4.44	4.34
January 18 - January 27	7.42	7.03	6.94	3.71	4.64	4.43	4.33
February 1 - February 29	7.42	6.95	7.00	3.71	4.53	4.34	4.51
March 7 - March 14	7.16	6.75	6.80	3.58	4.37	4.21	4.38
March 27 - April 18	7.01	6.46	6.52	3.51	4.28	4.04	4.21
April 25	7.01	6.20	6.25	3.51	4.28	3.90	4.05
May 2 - May 30	6.70	5.66	5.72	3.35	4.09	3.58	3.72
June 6 - July 5	6.70	5.34	5.40	3.35	4.09	3.40	3.53
July 11	6.70	5.34	5.60	3.35	4.09	3.51	3.65
July 18 - July 25	6.70	5.54	5.59	3.35	4.09	3.51	3.64
August 1 - August 22	6.53	5.38	5.34	3.26	4.06	3.43	3.43
August 29 - September 26	5.93	4.97	4.93	2.97	3.69	3.16	3.16
October 3	5.84	5.19	5.15	2.92	3.63	3.28	3.28
October 10 - October 17	5.73	5.20	5.16	2.86	3.56	3.28	3.28
October 24-November 14	5.60	5.30	5.26	2.80	3.48	3.33	3.33
November 21- November 28	5.47	5.22	5.19	2.73	3.40	3.28	3.28
December 5-December 26	5.47	5.07	5.01	2.73	3.40	3.19	3.18
2001:							
January 2-January 16	5.47	5.07	5.01	2.73	3.40	3.19	3.18
January 23-January 30	5.37	4.97	4.94	2.69	3.40	3.13	3.13
February 6-March 6	5.39	4.94	4.94	2.70	3.34	3.12	3.10
March 13-April 24	4.83	4.16	4.14	2.41	2.99	2.64	2.62
May 1-May 22	4.73	4.01	3.99	2.37	2.93	2.55	2.53
June 5-June 12	4.84	4.14	4.12	2.42	3.00	2.63	2.61
June 18-July 31	4.73	4.01	3.99	2.37	2.93	2.55	2.53
August 7	4.76	3.97	3.97	2.38	2.97	2.52	2.53
August-15-August 29	4.76	4.10	4.09	2.38	2.97	2.59	2.60
September 4-September 18	4.92	4.22	4.20	2.46	3.07	2.67	2.67
September 25-October 16	5.04	4.37	4.36	2.52	3.14	2.76	2.77

See footnote at end of table.

Continued--

Appendix table 18--World market rice prices, loan rate basis 1/--Continued

Date	Milled kernel rates				Rough rates		
	Long	Medium	Short	Broken	Long	Medium	Short
		---$/cwt---				---$/cwt---	
October 23-October 30	5.18	4.53	4.52	2.59	3.23	2.86	2.87
November 6	5.04	4.35	4.34	2.52	3.14	2.75	2.76
November 13-November 27	5.21	4.58	4.57	2.61	3.14	2.75	2.76
December 4-December 26	5.40	4.79	4.57	2.70	3.37	3.02	3.02
2002:							
January 2-January 15	5.40	4.79	4.57	2.70	3.37	3.02	3.02
January 22-January 29	5.53	4.96	4.93	2.77	3.45	3.12	3.12
February 5	5.55	4.94	4.95	2.78	3.45	3.14	3.18
February 12	5.74	5.18	5.19	2.87	3.57	3.29	3.33
February 19-February 26	5.90	5.38	5.39	2.95	3.67	3.41	3.45
March 5-March 19	5.69	5.12	5.13	2.85	3.54	3.25	3.29
March 26-April 16	5.58	4.99	5.00	2.79	3.47	3.17	3.21
April 23-May 14	5.69	5.12	5.13	2.85	3.54	3.25	3.29
May 21-June 11	5.82	5.26	5.27	2.91	3.62	3.34	3.38
June 18	5.98	5.46	5.46	2.99	3.72	3.46	3.50
June 13	6.13	5.60	5.62	3.07	3.81	3.55	3.60
July 2-July 30	5.97	5.44	5.45	2.99	3.71	3.45	3.49
August 6-August 20	5.38	4.80	4.79	2.69	3.36	3.03	3.04
August 27-September 3	5.14	4.56	4.55	2.57	3.21	2.88	2.89
September 10-October 8	5.32	4.74	4.72	2.66	3.32	2.99	3.00
October 15	5.16	4.58	4.56	2.58	3.22	2.89	2.90
October 22-November 5	5.25	4.67	4.66	2.63	3.28	2.95	2.96
November 12-December 3	5.16	4.58	4.56	2.58	3.22	2.89	2.90
December 10-December 26	5.16	4.67	4.65	2.58	3.22	2.94	2.95

1/ Reduced repayment rates for 1985 crop loans were available beginning April 15, 1986. The repayment rate was the lower of the loan rate or the prevailing world market price. For the 1986 through 1995 crops, the repayment rate was the lower of (a) the loan level for the crop, or (b) the higher of the prevailing world market price or the minimum loan repayment level. The minimum loan repayment levels were established at 50 percent of the loan level for the 1986 and 1987 crops; 60 percent of the loan level for the 1988 crop; and 70 percent for the 1989 through 1995 crops. The minimum loan repayment level has been eliminated effective for 1996-crop loans, and loans are repayable at the lower of the loan level or the prevailing world price.

Source: Farm Service Agency, USDA.

Appendix table 19--Rough rice: Average price received by farmers by month and marketing year 1/

Item	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94
					$/cwt				
Month:									
August	7.86	4.02	3.82	7.49	7.41	6.66	7.16	6.60	5.14
September	7.55	3.86	4.34	6.97	7.59	6.21	7.67	6.41	5.16
October	7.73	3.83	6.25	6.85	7.41	6.02	7.65	6.40	6.01
November	7.84	3.90	7.53	6.81	7.03	6.29	7.84	6.40	7.94
December	7.71	3.74	7.64	6.68	7.05	6.13	7.98	6.38	8.78
January	7.90	3.55	7.93	6.58	7.44	6.39	7.84	6.35	8.92
February	7.86	3.84	9.37	6.67	7.57	6.75	7.97	6.06	9.99
March	7.60	3.62	9.22	6.60	7.55	7.07	7.78	5.63	10.10
April	5.32	3.63	8.92	6.74	7.41	7.43	7.46	5.50	9.80
May	4.52	3.71	7.97	6.78	7.28	7.44	7.18	5.23	9.90
June	4.04	3.62	7.69	7.05	7.18	7.43	6.97	5.02	8.76
July	3.86	3.49	7.94	7.45	7.05	7.21	6.99	4.90	7.69
Season average price:									
12 months 1/	6.53	3.75	7.27	6.83	7.35	6.70	7.58	5.89	7.98
5 months 2/	7.73	3.87	5.71	6.84	7.24	6.25	7.64	6.44	6.73
State: 3/									
Arkansas	6.70	3.68	7.60	6.90	7.46	6.75	7.69	5.93	7.97
California	5.33	3.18	6.72	6.15	6.27	5.93	6.65	5.64	8.27
Louisiana	7.24	4.03	7.65	6.90	7.81	6.73	7.67	5.88	7.65
Mississippi	7.10	3.91	7.90	7.02	7.57	6.99	8.48	5.82	8.37
Missouri	7.05	3.57	7.41	7.22	7.54	7.21	7.81	5.91	8.03
Texas	7.38	4.22	8.07	7.24	8.02	7.41	8.15	6.17	7.69
Type:									
Long grain	6.75	3.82	7.77	6.96	7.59	6.94	7.83	5.87	7.93
Medium & short grain	5.87	3.55	6.36	6.47	6.71	6.19	7.00	5.91	8.09

Item	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02 4/	2002/03 5/
					$/cwt				
Month:									
August	6.87	7.77	10.10	9.94	9.01	7.62	5.72	5.10	3.72
September	6.82	8.01	10.00	9.92	9.42	6.88	5.53	4.78	3.94
October	6.52	8.84	9.66	10.00	9.31	6.23	5.57	4.36	3.86 6/
November	6.63	9.21	9.41	9.82	9.02	6.11	5.72	4.08	
December	6.60	9.45	9.82	9.77	9.10	6.19	5.69	4.07	
January	6.83	9.36	9.95	9.57	9.09	6.03	5.86	3.94	
February	6.74	9.19	10.10	9.75	9.02	5.98	5.72	4.10	
March	6.67	9.20	10.20	9.67	8.93	5.82	5.66	3.97	
April	6.75	9.35	10.30	9.40	8.49	5.86	5.68	3.88	
May	6.87	9.73	10.20	9.38	8.21	5.56	5.40	3.96	
June	7.06	9.77	9.90	9.58	8.25	5.59	5.14	3.86	
July	7.19	9.81	10.00	9.58	8.26	5.47	5.32	3.77	
Season average price:									
12 months 1/	6.78	9.15	9.96	9.70	8.89	5.93	5.61	4.17	3.70-4.00
5 months 2/	6.65	8.62	9.74	9.83	NA	NA	NA	NA	NA
State: 3/									
Arkansas	6.52	9.14	10.20	9.87	8.87	5.70	5.60	4.15	NA
California	6.97	8.79	7.91	7.95	9.19	6.97	4.99	3.60	NA
Louisiana	6.71	9.09	10.60	10.20	8.87	5.99	5.82	4.70	NA
Mississippi	7.00	9.25	10.50	10.40	8.99	5.49	5.68	4.85	NA
Missouri	6.72	9.06	10.30	10.00	8.75	5.60	5.40	3.95	NA
Texas	7.12	9.73	10.80	10.90	9.32	6.04	5.82	4.65	NA
Type:									
Long grain	6.87	9.37	10.60	10.20	10.20	5.70	5.84	NA	NA
Medium & short grain	6.70	8.82	8.37	8.52	8.52	6.62	5.15	NA	NA

NA = Not available.

1/ August 1 to July 31 marketing year. 2/ First 5 months of marketing year--August-December. 3/ Marketing year for Arkansas and Mississippi--August-July, California--October-September, Louisiana and Texas--July-June. 4/ State prices are from the July 2002 Annual Agricultural Price Summary. Grain type prices are from the January 31, 2002, Agricultural Prices. 5/ Season-average farm price is from the November 12, 2002, WASDE. 6/ Preliminary.

Source: Agricultural Prices, National Agricultural Statistics Service, USDA.

Appendix table 20--Milled rice: Average price, f.o.b. mills, at selected milling centers 1/

Year and type	Aug.	Sept.	Oct.	Nov.	Dec. 4/	Jan.	Feb.	Mar.	Apr.	May	June	July	Simple average
						$/cwt, bagged							
						Southwest Louisiana							
Long grain 2/:													
1976/77	14.70	13.85	14.00	13.75	13.60	13.25	13.50	13.95	15.65	16.45	16.25	16.25	14.60
1977/78	15.95	16.20	17.75	22.10	24.15	24.00	24.00	23.75	23.50	22.00	21.50	20.40	21.28
1978/79	18.75	15.75	16.15	16.25	16.40	16.30	16.75	18.60	21.50	21.50	21.50	21.50	18.41
1979/80	21.50	21.50	22.05	22.50	21.00	20.60	22.50	24.30	24.00	23.25	21.80	20.90	22.16
1980/81	20.75	22.00	23.40	25.00	26.75	27.00	27.25	27.70	28.25	28.00	27.90	27.50	25.96
1981/82	26.40	24.30	23.25	21.90	20.75	19.80	18.60	18.00	17.55	17.60	17.20	17.00	20.20
1982/83	17.50	17.40	17.50	17.55	18.40	18.35	17.50	17.50	18.50	18.50	18.60	18.75	18.00
1983/84	19.40	19.75	19.35	19.50	19.50	19.50	19.25	19.25	19.25	19.25	19.25	19.25	19.38
1984/85	18.25	18.25	17.60	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	17.75	17.99
1985/86	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	15.50	12.69	12.75	12.25	16.10
1986/87	10.63	10.25	10.25	9.94	10.13	10.13	9.88	9.93	10.38	10.44	10.50	10.50	10.25
1987/88	10.76	12.69	17.94	19.90	19.50	20.38	24.45	24.50	24.00	20.25	18.69	17.88	19.25
1988/89	16.80	16.06	14.50	14.50	14.00	14.00	14.19	13.81	13.69	15.32	15.50	16.45	14.90
1989/90	16.38	15.94	15.56	14.97	14.63	15.33	15.63	15.38	15.73	15.84	15.63	15.30	15.53
1990/91	14.69	13.94	13.75	13.94	14.00	14.15	15.44	15.75	16.25	16.50	17.25	16.95	15.22
1991/92	16.38	16.48	16.56	17.13	17.31	17.31	17.28	16.56	16.44	15.69	15.10	15.19	16.45
1992/93	14.95	14.75	14.69	14.45	14.17	13.38	13.00	12.60	12.13	11.88	11.75	11.75	13.29
1993/94	12.05	12.59	15.71	23.75	26.25	26.25	24.88	23.44	22.75	21.00	17.50	16.13	20.19
1994/95	14.30	14.63	14.15	14.00	13.25	13.35	13.75	13.88	13.88	15.03	17.03	17.28	14.54
1995/96	17.25	17.81	20.25	19.88	19.00	18.55	18.44	18.19	18.60	19.50	19.50	19.70	18.89
1996/97	20.75	20.70	20.13	19.75	19.75	19.88	20.44	20.50	20.50	20.50	20.70	20.50	20.34
1997/98	20.06	19.40	18.94	19.25	19.15	19.00	19.00	18.55	18.38	18.31	18.50	18.50	18.92
1998/99	18.35	17.50	17.50	17.63	17.63	17.50	17.06	16.52	16.13	15.56	15.13	14.91	16.79
1999/00	14.68	14.38	14.00	13.85	13.58	13.00	12.69	12.63	12.31	11.88	11.47	11.43	12.99
2000/01	11.69	11.91	12.38	12.66	12.75	12.75	12.75	12.72	12.60	12.47	12.38	12.38	12.45
2001/02	12.19	10.97	10.59	10.41	10.25	9.97	9.88	9.81	9.25	9.13	9.13	9.13	10.06
2002/03	9.13	9.25	9.25	9.25	9.25								9.23
						Houston, Texas							
Long grain 2/:													
1976/77	15.50	14.50	14.75	14.80	14.10	13.85	13.90	14.00	15.45	16.25	16.25	16.25	14.97
1977/78	16.05	16.50	18.30	22.60	24.15	25.00	25.00	24.10	23.25	22.10	21.75	21.50	21.69
1978/79	19.00	16.50	16.60	16.20	16.35	16.30	16.60	18.20	21.00	21.00	21.00	21.00	18.31
1979/80	21.10	21.25	22.30	22.10	21.10	20.10	22.75	24.80	24.10	23.00	21.00	21.00	22.05
1980/81	21.00	21.70	23.10	24.75	26.55	26.55	25.75	27.10	27.75	28.00	27.40	27.00	25.55
1981/82	25.00	24.85	23.50	22.60	22.00	21.75	20.20	19.20	19.00	19.00	18.75	17.75	21.13
1982/83	18.25	18.75	18.00	18.00	18.00	19.00	19.00	19.00	19.00	19.00	19.10	19.40	18.71
1983/84	19.50	19.67	20.00	20.00	20.00	20.20	20.25	20.25	20.10	19.50	19.50	19.50	19.87
1984/85	19.38	18.69	18.75	18.75	18.75	18.75	18.75	18.75	18.75	18.75	18.75	18.75	18.80
1985/86	18.63	18.25	18.25	18.25	18.25	17.75	17.50	17.30	17.25	13.75	13.60	13.00	16.82
1986/87	13.00	13.00	13.00	13.00	13.00	11.13	10.50	10.50	10.50	10.50	10.50	10.50	11.59
1987/88	10.50	11.90	19.60	21.00	21.00	21.00	23.92	24.06	24.00	21.20	20.50	20.50	19.93
1988/89	18.20	16.00	15.25	15.00	15.00	15.00	15.00	15.00	15.00	15.13	15.50	16.50	15.55
1989/90	16.50	16.50	16.50	16.00	15.67	15.50	15.69	16.25	16.25	16.25	16.25	16.25	16.13
1990/91	15.81	14.50	14.50	14.50	14.50	14.50	16.00	16.00	16.00	16.50	17.00	17.00	15.57
1991/92	17.00	17.00	16.63	17.00	17.67	17.50	17.50	17.50	17.50	17.25	16.70	16.50	17.15
1992/93	16.50	16.50	16.50	16.10	15.75	15.25	14.92	15.00	15.00	14.31	13.60	13.50	15.24
1993/94	13.50	13.50	16.13	23.45	25.50	25.50	25.50	24.88	23.25	21.40	19.25	17.25	20.76
1994/95	15.80	15.50	13.90	13.75	13.75	13.75	13.75	13.75	13.75	14.33	16.38	17.90	14.69
1995/96	17.75	18.13	20.25	20.50	19.50	19.10	18.56	18.25	18.70	19.69	19.75	19.75	19.16
1996/97	20.94	20.75	20.44	19.94	19.75	20.06	21.19	21.75	21.75	21.75	21.75	21.38	20.95
1997/98	21.00	20.55	19.75	19.75	19.75	19.75	19.75	19.05	19.00	19.00	19.00	19.00	19.61
1998/99	18.85	18.63	18.25	18.50	18.50	18.44	18.22	18.07	17.75	17.31	17.05	17.00	18.05
1999/00	16.48	16.00	16.00	15.80	15.75	15.55	15.25	15.00	14.84	14.48	14.38	14.43	15.33
2000/01	14.50	14.56	14.95	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	14.92
2001/02	14.81	14.25	14.00	13.63	12.75	12.75	12.25	11.79	12.32	12.30	11.74	11.93	12.88
2002/03	11.93	12.33	11.17	10.75	10.75								11.39

See footnotes at end of table.

Continued--

Appendix table 20--Milled rice: Average price, f.o.b. mills, at selected milling centers 1/--Continued

Year and type	Aug.	Sept.	Oct.	Nov. 4/	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Simple average
						$/cwt, bagged							
						Arkansas							
Long grain 2/:													
1976/77	16.00	15.25	15.20	15.20	14.50	14.00	14.00	14.25	15.45	16.75	16.75	16.50	15.32
1977/78	16.15	15.95	19.00	23.10	25.00	25.00	25.00	23.50	23.50	23.15	21.60	20.55	21.79
1978/79	19.55	17.10	17.00	17.00	17.00	16.70	16.90	18.75	21.50	21.50	21.50	21.50	18.83
1979/80	21.50	23.50	24.00	23.00	21.35	20.10	22.40	24.00	23.75	22.25	21.50	20.50	22.32
1980/81	20.60	22.00	23.40	24.90	26.10	26.10	25.75	26.70	27.50	28.00	27.90	27.50	25.54
1981/82	26.40	24.30	23.05	22.30	20.85	19.60	19.00	18.20	17.55	17.40	17.20	16.60	20.20
1982/83	17.10	17.00	17.00	17.55	18.40	18.35	17.50	17.50	18.00	18.40	18.50	18.50	17.82
1983/84	18.50	18.50	18.85	19.00	19.00	19.00	18.50	18.50	18.50	18.50	18.50	18.50	18.65
1984/85	18.38	18.25	18.25	18.25	18.13	18.00	18.00	17.94	17.75	17.81	17.94	17.75	18.04
1985/86	17.75	17.50	17.38	17.25	17.25	17.25	17.25	17.25	15.50	13.25	13.10	12.50	16.10
1986/87	12.00	11.55	11.75	11.88	11.88	11.88	11.88	11.88	11.59	11.50	11.75	11.75	11.77
1987/88	11.95	13.56	18.81	20.50	20.17	20.88	24.00	24.06	24.00	22.50	20.81	19.00	20.02
1988/89	18.30	16.88	15.13	15.25	15.08	14.80	14.75	14.75	14.88	15.57	15.80	17.04	15.69
1989/90	17.19	16.63	15.94	15.69	15.75	15.90	16.00	16.00	16.00	16.00	16.00	16.00	16.09
1990/91	15.38	14.75	14.50	14.63	14.75	14.75	15.75	15.75	15.88	16.81	17.25	17.25	15.62
1991/92	16.83	16.55	16.50	17.38	17.29	17.25	17.25	17.00	16.91	16.22	15.70	15.50	16.70
1992/93	15.65	15.41	15.38	15.38	14.92	13.81	13.58	13.50	13.50	12.94	12.75	12.75	14.13
1993/94	13.00	13.25	16.13	23.85	25.00	25.00	24.50	23.63	22.69	20.20	18.00	15.63	20.07
1994/95	14.30	14.25	14.05	13.63	13.50	13.50	13.63	13.50	13.69	14.70	17.00	17.40	14.43
1995/96	17.50	18.13	20.25	19.75	19.50	18.85	18.38	18.13	18.70	19.75	19.75	19.90	19.05
1996/97	21.00	21.00	20.50	19.94	19.75	20.31	21.25	21.50	21.50	21.31	21.20	20.63	20.82
1997/98	20.19	19.60	19.13	19.25	19.25	19.25	19.13	18.52	18.50	18.50	18.70	18.75	19.06
1998/99	18.60	17.75	17.75	17.88	17.88	17.81	17.31	16.48	16.22	15.66	15.15	15.13	16.97
1999/00	14.70	14.38	14.22	13.88	13.50	13.25	12.88	12.33	11.94	11.70	11.13	11.30	12.93
2000/01	11.75	12.22	12.85	12.69	13.13	13.45	13.00	12.88	12.45	11.81	11.88	12.00	12.51
2001/02	11.88	11.16	10.59	10.41	10.25	10.00	9.50	9.31	8.75	8.75	8.56	8.75	9.83
2002/03	8.75	8.84	8.88	8.88	8.88								8.85
						Southwest Louisiana							
Medium grain 2/:													
1976/77	13.70	12.85	13.00	12.30	11.90	11.25	11.70	12.20	14.10	15.60	15.50	15.25	13.28
1977/78	14.60	14.95	16.30	20.75	21.85	21.50	21.50	21.00	20.50	19.00	18.75	18.50	19.10
1978/79	16.90	14.50	14.50	14.50	14.65	14.15	14.00	14.85	16.50	16.50	16.50	17.50	15.42
1979/80	19.40	20.00	20.40	20.50	19.60	20.00	22.60	23.80	24.00	23.60	21.80	20.90	21.38
1980/81	20.50	20.80	21.60	24.40	26.40	27.00	27.10	27.50	27.55	28.00	28.00	27.75	25.55
1981/82	26.40	24.20	22.90	21.15	20.00	18.75	17.75	16.10	15.95	16.40	16.20	16.00	19.32
1982/83	16.50	16.50	16.45	16.65	17.75	17.30	16.50	16.50	16.50	17.10	17.50	17.50	16.90
1983/84	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50
1984/85	16.00	16.00	15.50	15.50	15.50	15.50	15.50	16.00	16.20	16.31	16.50	16.25	15.90
1985/86	16.00	16.00	16.00	16.00	16.00	16.00	15.75	15.50	14.56	11.94	12.00	10.67	14.70
1986/87	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.50	11.25	11.13	11.21	11.18	10.44
1987/88	11.07	12.44	16.75	17.35	16.50	17.75	19.65	20.13	20.04	17.80	17.38	16.69	16.96
1988/89	16.40	16.19	14.50	14.50	14.00	13.90	13.75	13.50	13.44	14.46	14.63	15.67	14.58
1989/90	15.56	15.19	14.80	14.28	14.04	14.78	15.13	15.13	15.55	15.72	15.63	15.30	15.09
1990/91	14.75	13.88	13.56	13.50	13.50	13.65	14.94	15.06	15.88	16.25	16.50	16.35	14.82
1991/92	15.83	16.00	16.00	16.00	16.00	16.00	15.88	15.50	15.50	15.13	14.50	14.50	15.57
1992/93	14.40	14.00	14.50	14.05	13.83	13.38	13.00	12.75	12.38	11.94	12.00	12.00	13.19
1993/94	12.25	12.44	15.63	21.95	24.00	24.00	23.75	23.88	24.00	23.70	22.00	20.00	20.63
1994/95	18.30	15.88	15.00	15.00	14.00	13.80	14.16	14.38	14.38	14.70	14.75	14.55	14.91
1995/96	15.44	17.50	20.25	20.13	20.00	20.00	19.88	19.25	19.13	19.38	19.40	19.50	19.16
1996/97	19.50	19.50	19.25	19.25	19.00	18.81	19.19	19.25	19.25	19.25	18.40	19.00	19.14
1997/98	18.25	18.35	18.63	19.00	19.00	19.00	19.00	18.20	18.00	18.13	18.50	18.50	18.55
1998/99	18.35	18.75	19.00	19.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	19.59
1999/00	18.60	17.50	14.88	14.70	14.67	14.35	14.00	13.83	13.75	13.40	12.50	12.63	14.57
2000/01	13.00	12.34	12.48	12.41	12.38	12.38	12.25	12.00	11.82	11.53	11.25	11.25	12.09
2001/02	11.06	11.50	11.50	11.50	11.08	11.50	11.50	11.44	11.03	11.13	11.13	11.13	11.29
2002/03	11.13	11.50	12.25	12.25	12.25								11.88

See footnotes at end of table.

Continued--

Appendix table 20--Milled rice: Average price, f.o.b. mills, at selected milling centers 1/--Continued

Year and type	Aug.	Sept.	Oct.	Nov. 4/	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Simple average
						$/cwt, bagged							
						Arkansas							
Medium grain 2/:													
1976/77	15.10	14.25	14.20	14.20	13.40	13.25	13.25	13.40	14.40	15.75	15.75	15.75	14.39
1977/78	15.30	15.20	17.75	21.95	23.50	23.50	23.30	22.50	22.25	21.70	20.40	19.50	20.57
1978/79	18.95	16.90	16.00	16.00	15.65	15.20	15.40	16.25	17.00	17.00	16.50	18.70	16.63
1979/80	19.50	22.25	22.50	22.40	21.50	21.40	22.60	24.00	23.90	22.25	21.55	20.50	22.03
1980/81	20.60	21.30	22.50	24.00	25.75	26.10	25.75	26.70	27.40	28.00	28.00	27.50	25.30
1981/82	26.40	24.10	22.95	21.30	19.85	18.60	17.90	17.05	16.50	16.40	15.90	15.60	19.38
1982/83	16.10	16.50	16.10	16.65	17.75	17.10	16.50	16.50	16.60	17.10	17.50	17.50	16.83
1983/84	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.15	17.00	17.00	17.00	17.35
1984/85	16.88	16.69	16.35	16.22	16.13	15.75	16.25	16.44	16.30	16.25	16.25	16.13	16.30
1985/86	16.00	16.00	16.25	16.50	16.50	16.50	16.50	16.27	14.81	12.38	12.50	12.50	15.23
1986/87	12.33	11.60	12.00	12.00	12.00	12.00	12.63	12.63	12.63	12.34	12.25	12.25	12.22
1987/88	12.25	12.88	16.69	18.00	17.83	18.44	20.50	20.50	20.50	19.00	18.88	18.00	17.79
1988/89	17.30	16.25	14.75	15.00	15.00	14.70	14.75	14.75	14.81	15.25	15.44	16.92	15.41
1989/90	17.19	16.63	15.94	15.44	15.25	15.40	15.50	15.50	15.50	15.50	15.50	15.50	15.74
1990/91	15.13	14.75	14.50	14.50	14.75	14.75	15.75	15.75	15.83	16.63	17.00	17.00	15.53
1991/92	16.58	16.10	16.09	16.69	16.63	16.63	16.63	16.34	16.38	15.81	15.35	15.25	16.21
1992/93	15.50	15.41	15.38	15.38	14.92	13.81	13.58	13.70	13.75	13.38	13.25	13.25	14.28
1993/94	13.25	13.50	16.06	23.90	25.00	25.00	24.88	24.63	24.19	23.70	21.50	18.00	21.13
1994/95	15.90	15.44	14.98	14.13	14.00	13.80	13.78	13.75	13.94	14.25	14.69	14.95	14.47
1995/96	15.63	16.94	20.00	19.69	19.50	19.50	19.38	18.75	19.13	20.13	20.13	20.15	19.08
1996/97	20.13	19.95	18.75	18.50	18.50	18.50	18.75	19.50	19.38	19.06	19.00	18.25	19.02
1997/98	18.00	18.20	18.56	18.50	18.50	18.50	18.50	17.70	17.50	17.56	18.05	18.13	18.14
1998/99	18.13	18.69	19.00	19.00	19.38	19.50	19.38	19.00	19.00	19.00	19.25	19.13	19.04
1999/00	18.70	17.50	15.50	15.25	14.75	14.50	14.50	14.50	14.38	13.75	13.38	13.43	15.01
2000/01	13.50	13.06	12.50	12.56	12.33	11.88	11.56	11.50	11.38	10.06	10.13	10.50	11.75
2001/02	10.50	11.50	11.50	11.50	11.50	11.25	11.25	11.25	11.25	11.25	11.19	11.00	11.25
2002/03	11.00	11.50	11.75	11.94	12.25								11.69
						California							
Medium grain 3/:													
1976/77	16.80	16.80	16.60	16.60	16.60	16.60	16.60	16.60	16.60	17.00	17.30	17.40	16.79
1977/78	17.40	17.40	18.10	20.55	23.00	23.60	23.60	23.60	23.60	23.60	23.60	23.60	21.80
1978/79	21.50	20.55	20.10	19.75	19.75	19.75	18.25	18.40	19.50	20.75	21.00	21.00	20.03
1979/80	22.50	23.00	23.00	23.00	23.00	23.00	25.10	24.70	23.00	23.00	23.00	23.00	23.28
1980/81	23.00	23.20	24.75	25.00	26.75	30.00	30.00	30.00	30.00	30.00	30.00	30.00	27.73
1981/82	30.00	27.60	24.50	22.80	21.40	20.50	19.10	18.45	16.90	16.90	16.70	16.40	20.94
1982/83	16.25	16.10	15.55	15.50	15.50	16.50	16.00	16.00	16.00	15.90	15.95	15.75	15.92
1983/84	15.65	15.50	15.70	15.50	15.50	15.50	15.50	15.38	15.25	15.25	15.25	15.25	15.44
1984/85	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25
1985/86	15.25	15.60	16.00	15.94	15.94	16.00	15.81	15.75	15.75	15.50	15.25	15.25	15.67
1986/87	15.00	14.50	13.75	12.63	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.99
1987/88	12.50	13.30	16.13	16.83	17.00	16.90	18.50	18.50	18.50	18.00	18.00	17.97	16.84
1988/89	17.85	17.75	16.95	15.75	15.75	15.50	15.50	16.38	16.25	17.00	17.25	18.08	16.67
1989/90	18.44	18.25	17.60	16.56	16.00	15.75	15.75	15.69	15.45	14.81	14.94	15.25	16.21
1990/91	14.81	14.88	14.35	15.25	15.25	15.42	16.25	16.25	16.25	18.13	18.25	17.92	16.08
1991/92	17.63	17.50	17.00	17.81	18.00	18.00	18.06	18.25	18.25	18.25	18.35	18.50	17.97
1992/93	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.10	17.50	17.50	17.30	17.00	17.93
1993/94	16.80	16.22	16.25	19.00	22.50	22.50	22.75	23.63	26.75	27.50	26.75	24.25	22.08
1994/95	21.10	19.44	18.50	18.31	18.13	17.03	16.75	16.63	16.63	16.63	16.63	16.63	17.70
1995/96	17.06	18.13	20.40	21.00	23.00	23.25	22.44	22.13	21.90	21.50	21.50	20.75	21.09
1996/97	20.75	20.50	20.13	20.00	19.88	19.25	19.00	19.00	19.00	19.00	19.00	19.00	19.54
1997/98	19.00	19.00	19.00	19.00	19.00	18.81	18.75	18.25	18.00	18.00	18.70	19.00	18.71
1998/99	19.80	20.69	21.88	21.20	21.75	21.69	21.50	21.60	26.25	22.25	24.32	25.25	22.35
1999/00	25.10	24.50	22.38	20.60	20.75	20.75	20.75	20.75	20.75	20.75	20.75	20.55	21.53
2000/01	20.25	20.00	17.90	16.25	15.79	15.43	14.81	13.25	12.85	12.50	12.50	12.50	15.34
2001/02	12.13	11.50	14.25	14.25	14.17	14.06	14.00	14.00	13.25	12.75	12.75	12.70	13.32
2002/03	12.75	12.75	12.75	12.75	12.75								12.75

See footnotes at end of table.

Continued--

Appendix table 20--Milled rice: Average price, f.o.b. mills, at selected milling centers 1/--Continued

Year and type	Aug.	Sept.	Oct.	Nov. 4/	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Simple average
						$/cwt, bagged							
						California							
Short grain 3/:													
1976/77	15.15	15.15	14.85	14.75	14.75	14.75	14.75	14.75	14.95	15.50	16.05	16.25	15.14
1977/78	16.25	16.25	16.65	19.20	22.00	22.00	22.00	22.00	22.00	22.00	22.00	22.00	20.36
1978/79	20.25	19.00	18.20	17.40	17.50	17.50	16.75	16.80	18.20	19.00	19.00	19.00	18.22
1979/80	20.50	21.00	21.00	21.00	21.00	21.00	23.00	23.00	23.00	23.00	23.00	23.00	21.96
1980/81	23.00	23.20	24.75	25.00	26.75	30.00	30.00	30.00	30.00	30.00	30.00	30.00	27.73
1981/82	30.00	28.25	25.75	23.90	22.00	22.00	20.25	19.50	18.25	18.25	18.25	18.10	22.04
1982/83	17.20	16.70	15.55	15.50	15.50	16.90	16.00	16.00	16.00	16.00	16.00	16.00	16.11
1983/84	15.80	15.50	15.70	15.50	15.50	15.50	15.50	15.38	15.25	15.25	15.25	15.25	15.45
1984/85	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25
1985/86	15.25	15.60	16.00	15.94	15.94	16.00	15.81	15.75	15.75	15.50	15.25	15.25	15.67
1986/87	15.00	14.50	13.75	12.56	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.98
1987/88	12.50	13.30	16.13	16.83	17.00	16.90	18.50	18.50	18.50	18.00	18.00	18.00	16.85
1988/89	17.85	17.75	16.95	15.75	15.75	15.50	15.50	16.25	16.25	17.00	17.25	18.08	16.66
1989/90	18.19	18.25	17.60	16.56	16.00	15.60	15.75	15.69	15.45	14.81	14.94	15.25	16.17
1990/91	14.81	14.88	14.35	15.25	15.25	15.42	16.25	16.25	16.25	18.13	18.25	17.92	16.08
1991/92	17.63	17.40	17.00	17.81	18.00	18.00	18.06	18.25	18.25	18.25	18.25	18.25	17.93
1992/93	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.10	17.50	17.50	17.30	17.00	17.93
1993/94	16.80	16.22	16.25	19.00	22.50	22.50	22.75	23.63	26.75	27.50	26.75	24.25	22.08
1994/95	21.10	19.44	18.50	18.31	18.13	18.13	18.22	18.25	18.25	18.25	18.25	18.25	18.59
1995/96	18.75	20.13	21.80	23.00	24.17	24.75	24.75	23.63	23.50	23.50	23.50	22.00	22.79
1996/97	22.00	22.00	21.81	21.69	21.50	21.50	21.00	20.75	21.00	20.88	20.75	20.75	21.30
1997/98	20.75	20.75	20.75	20.75	20.75	20.56	20.50	19.80	19.50	19.50	20.20	20.50	20.36
1998/99	21.30	22.19	23.50	22.90	23.25	23.19	23.00	23.10	23.63	23.69	25.70	26.50	23.50
1999/00	26.50	26.00	23.63	21.60	21.75	21.75	21.75	21.75	21.75	21.75	21.75	21.55	22.63
2000/01	21.25	21.25	18.90	17.25	16.79	16.43	15.81	13.44	12.85	12.50	12.50	12.50	15.96
2001/02	12.13	11.81	14.25	14.25	14.25	14.06	14.00	14.00	14.00	14.00	14.00	14.00	13.73
2002/03	14.00	14.00	14.00	14.00	14.00								14.00

1/ Monthly average of the midpoint for reported weekly low and high quotes. 2/ U.S. No. 2--broken not to exceed 4 percent. 3/ U.S. No. 1. 4/ Preliminary.

Source: Rice Market News, Agricultural Marketing Service, USDA.

Appendix table 21--Rice byproducts: Monthly average price, Southwest Louisiana 1/

Year and type	Aug.	Sept.	Oct.	Nov.	Dec. 2/	Jan.	Feb.	Mar.	Apr.	May	June	July	Simple average
						$/cwt, bagged 3/							
Milled second head:													
1977/78	6.75	6.95	7.15	7.95	8.50	8.50	9.00	9.50	9.50	9.25	9.25	9.25	8.45
1978/79	8.90	8.50	8.50	8.50	8.50	8.15	7.90	8.00	8.25	8.25	8.25	8.25	8.35
1979/80	8.25	8.45	9.00	9.50	9.50	10.10	11.00	11.90	12.50	12.50	12.50	12.25	10.60
1980/81	11.05	10.70	11.00	11.15	12.45	12.90	12.75	13.55	13.40	14.45	14.55	14.10	12.65
1981/82	13.00	11.90	11.00	11.00	11.00	10.60	10.00	8.60	9.25	10.00	10.00	10.00	10.55
1982/83	10.00	9.75	9.75	9.75	9.75	9.75	9.75	9.75	9.75	9.75	9.75	9.75	9.75
1983/84	9.75	10.25	10.25	10.25	10.25	10.25	10.25	10.81	10.20	10.00	10.00	10.00	10.20
1984/85	8.50	8.75	8.80	8.00	8.00	8.00	9.00	9.19	9.25	10.00	10.25	10.25	9.00
1985/86	10.25	10.25	10.17	10.00	10.00	10.00	10.25	10.25	8.81	7.75	7.75	7.75	9.45
1986/87	7.75	7.75	7.75	7.63	7.75	7.75	7.75	7.70	7.63	7.63	5.83	5.63	7.40
1987/88	5.73	6.05	7.00	7.54	7.50	7.63	7.65	7.75	7.75	7.75	7.88	8.25	7.40
1988/89	8.15	8.13	8.50	8.00	8.00	8.00	10.06	9.73	10.01	10.70	10.63	10.40	9.15
1989/90	9.94	9.63	9.01	8.09	8.00	8.00	8.25	8.50	8.50	8.50	8.50	8.40	8.65
1990/91	7.75	7.50	7.50	7.50	7.50	7.50	7.88	7.50	8.40	8.63	9.00	9.15	8.00
1991/92	8.75	8.50	9.19	9.50	9.50	9.50	9.13	8.75	8.78	8.75	9.00	9.00	9.00
1992/93	9.00	9.00	8.91	8.88	8.75	8.38	7.38	7.75	7.63	7.43	7.35	7.35	8.15
1993/94	7.35	7.35	7.71	8.05	8.25	8.25	8.13	8.19	9.00	8.70	9.00	9.00	8.25
1994/95	9.30	9.50	9.50	9.50	9.50	9.55	9.88	10.25	10.25	10.25	10.25	10.65	9.85
1995/96	11.00	11.13	11.80	12.00	12.17	13.10	13.44	13.25	13.00	13.00	13.13	13.65	12.55
1996/97	13.75	13.75	14.25	14.33	14.50	15.19	15.25	15.25	15.00	14.75	14.55	14.50	14.59
1997/98	13.94	13.75	13.50	13.00	13.00	13.00	13.00	13.00	13.13	14.25	14.25	14.25	13.51
1998/99	14.25	14.25	14.25	13.50	13.38	13.31	13.13	13.00	12.50	12.06	10.40	10.00	12.84
1999/00	10.00	9.63	8.75	8.75	8.50	8.50	8.50	8.50	8.38	7.55	7.50	7.70	8.52
2000/01	8.00	8.00	8.00	7.63	7.50	6.90	6.50	6.72	7.22	7.31	7.50	7.50	7.40
2001/02	7.50	6.41	6.91	7.44	7.00	7.13	7.25	7.13	7.20	7.25	7.25	7.05	7.13
2002/03	7.00	7.00	7.00	7.00	7.00								7.00
Rice bran, f.o.b. mills:							$/ton 4/						
1977/78	42.10	33.10	31.90	51.90	62.50	58.00	53.25	51.90	38.75	41.50	60.90	61.60	48.95
1978/79	47.60	34.40	38.50	64.50	72.85	67.50	65.60	52.80	38.90	41.60	52.50	62.50	53.25
1979/80	58.00	61.50	79.80	85.90	88.85	94.15	60.75	51.60	52.00	62.75	65.50	66.75	68.95
1980/81	76.90	84.70	86.40	95.50	N.Q.	101.90	73.60	59.10	57.50	60.00	71.60	69.15	76.05
1981/82	51.50	49.60	52.75	59.90	73.65	82.50	64.35	50.40	55.50	57.50	61.10	NQ	59.90
1982/83	52.80	53.00	54.00	77.65	85.00	77.50	52.15	47.25	59.65	70.30	61.25	NQ	62.80
1983/84	62.14	70.00	94.00	108.35	120.85	98.50	57.50	50.00	67.50	60.00	60.00	59.50	75.70
1984/85	69.17	49.50	45.13	53.75	68.75	85.00	67.50	53.25	40.50	45.67	45.00	47.50	55.90
1985/86	43.33	40.00	20.00	42.50	65.00	88.75	65.00	51.67	NQ	25.75	20.00	17.50	43.60
1986/87	16.25	23.80	26.50	34.00	53.13	50.00	35.63	28.38	23.50	20.63	18.80	17.00	29.00
1987/88	20.60	29.25	46.50	54.90	53.33	68.13	49.63	47.25	60.00	40.90	47.25	85.00	50.25
1988/89	64.00	58.13	63.50	63.75	70.67	71.40	52.25	64.13	54.63	45.71	47.00	49.17	58.70
1989/90	55.75	57.38	60.25	69.00	76.17	84.40	51.88	49.63	58.00	72.50	75.25	75.90	65.50
1990/91	72.00	52.38	51.50	51.88	55.67	66.70	51.75	48.63	56.30	46.75	50.25	57.50	55.10
1991/92	42.83	36.80	43.00	54.50	72.00	75.00	56.50	44.63	41.38	40.88	42.20	45.38	49.60
1992/93	42.80	38.25	41.13	60.70	75.50	79.25	52.83	51.50	49.38	31.50	40.00	43.88	50.55
1993/94	37.10	41.88	49.25	62.50	76.00	87.40	93.50	76.71	56.38	59.60	58.88	48.25	62.30
1994/95	52.30	49.13	46.30	49.38	52.00	53.50	41.38	34.13	31.63	31.20	34.88	45.70	43.45
1995/96	60.63	55.75	68.00	86.00	105.67	123.00	103.13	90.75	106.60	111.00	88.63	103.25	91.85
1996/97	95.75	93.00	85.13	82.25	94.00	101.63	80.13	57.70	57.25	64.00	78.50	67.50	79.74
1997/98	50.50	45.80	62.00	80.63	79.50	72.50	71.63	63.10	65.13	38.25	45.60	64.63	61.61
1998/99	53.20	32.50	32.63	32.60	48.00	60.25	45.50	30.40	39.63	37.00	28.40	26.25	38.86
1999/00	27.40	23.13	36.50	47.40	53.33	59.00	49.75	46.83	43.00	42.30	42.25	36.90	42.32
2000/01	25.38	25.88	36.00	38.75	46.50	65.50	61.25	47.50	43.50	45.63	50.00	56.50	45.20
2001/02	32.13	28.25	41.17	46.00	48.67	NQ	57.17	43.88	34.20	24.88	35.88	41.33	39.41
2002/03	33.13	41.13	61.88	65.88	67.50								53.90

See footnotes at end of table.

Continued--

Appendix table 21--Rice byproducts: Monthly average price, Southwest Louisiana 1/--Continued

Year and type	Aug.	Sept.	Oct.	Nov. 2/	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Simple average
							$/ton 4/						
Rice millfeed, f.o.b. mills:													
1975/76	24.65	32.20	30.50	28.25	40.25	48.10	41.25	28.10	17.50	17.85	23.70	33.35	30.50
1976/77	23.90	22.10	22.50	30.90	38.35	25.25	25.25	19.10	14.50	11.25	11.00	9.50	21.15
1977/78	9.85	8.90	7.00	15.50	18.50	15.75	12.40	12.40	9.90	11.70	15.50	15.50	12.75
1978/79	13.25	6.40	8.10	19.50	24.15	24.10	23.00	18.15	8.50	N.Q.	N.Q.	17.15	16.25
1979/80	20.35	19.25	25.90	30.25	40.65	45.65	18.15	13.50	11.00	11.25	11.10	15.25	21.85
1980/81	29.50	37.40	35.00	36.90	48.40	54.00	15.00	11.00	14.95	17.00	27.00	31.40	29.80
1981/82	22.60	10.90	17.75	22.00	30.65	29.75	16.50	13.15	13.40	15.40	19.40	N.Q.	19.25
1982/83	16.00	16.75	15.25	26.15	35.00	45.00	13.50	15.25	19.35	23.60	22.10	23.00	22.60
1983/84	24.00	25.38	33.30	42.13	61.67	66.25	22.50	24.75	31.20	21.25	25.50	27.20	33.75
1984/85	23.50	18.75	18.63	19.50	23.75	31.75	31.50	22.00	17.00	16.88	15.00	14.50	21.05
1985/86	13.00	13.00	8.00	15.38	21.88	35.38	NQ	19.50	20.83	8.50	5.00	4.25	15.00
1986/87	5.13	10.00	10.00	11.25	15.00	13.75	8.00	6.13	4.50	3.50	3.60	4.25	7.95
1987/88	8.50	10.38	22.25	22.90	21.50	28.25	17.38	18.83	22.50	16.00	19.50	40.00	20.70
1988/89	21.50	17.88	18.60	15.75	24.00	23.60	20.00	19.00	19.33	15.50	16.00	16.00	18.95
1989/90	17.13	16.75	14.00	22.63	23.67	27.70	14.50	14.63	16.70	23.63	25.00	25.00	20.10
1990/91	28.63	19.00	19.13	19.50	21.50	24.90	17.00	18.50	17.80	13.75	14.25	16.30	19.20
1991/92	12.17	11.20	13.38	19.88	39.50	37.13	17.50	14.63	14.75	14.13	14.90	16.13	18.80
1992/93	14.15	13.63	14.50	18.00	30.33	37.13	23.83	18.70	17.00	8.88	8.80	8.75	17.80
1993/94	10.50	11.75	12.63	19.70	26.67	44.00	50.63	40.63	27.13	26.20	25.88	21.13	26.40
1994/95	19.60	18.25	17.50	17.75	19.17	20.20	16.38	13.00	13.25	12.40	12.25	13.50	16.10
1995/96	15.63	15.38	20.70	35.13	48.67	66.00	50.50	35.88	42.70	43.50	33.75	41.38	37.45
1996/97	43.50	44.00	43.00	41.13	42.70	45.88	41.00	28.30	20.25	25.63	29.80	22.50	35.64
1997/98	20.75	20.00	24.88	29.50	31.60	32.00	30.50	26.20	24.63	15.00	14.00	18.13	23.93
1998/99	17.60	14.63	10.75	10.50	13.31	20.13	18.25	12.00	16.88	11.63	9.00	8.13	13.57
1999/00	6.30	6.50	8.00	12.00	15.50	15.00	14.13	11.50	10.38	10.10	10.13	8.80	10.70
2000/01	7.00	7.75	9.90	10.50	13.17	25.75	31.50	23.50	21.25	18.83	20.00	21.50	17.55
2001/02	14.63	14.13	14.13	14.00	16.50	23.33	26.50	17.75	11.10	7.88	7.50	7.50	14.58
2002/03	9.00	12.88	18.63	20.00	22.50								16.60

NQ = Not quoted.

1/ Monthly average of the midpoint for reported weekly low and high quotes. 2/ December 2002 data are preliminary. 3/ U.S. No. 4 or better.
4/ Prices quoted as bulk.

Source: Rice Market News, Agricultural Marketing Service, USDA.

Appendix table 22--Brewers' prices: Monthly average price for Arkansas brewers' rice

Year & State	Aug.	Sept.	Oct.	Nov.	Dec. 1/	Jan.	Feb.	Mar.	Apr.	May	June	July	Simple average
							$/cwt						
Arkansas 2/:													
1974/75	8.50	9.10	9.50	9.50	9.50	11.25	9.95	9.40	9.00	8.75	8.00	7.35	9.15
1975/76	7.10	7.40	7.50	6.60	6.20	6.25	5.75	5.80	5.80	5.85	5.85	5.75	6.30
1976/77	5.75	5.75	5.75	5.75	5.65	5.40	5.10	5.10	5.60	6.00	6.00	5.50	5.60
1977/78	5.50	5.50	5.50	5.50	6.50	6.90	8.00	9.55	9.10	9.00	9.00	8.70	7.40
1978/79	7.40	7.10	7.50	7.40	7.10	6.80	6.75	6.60	6.75	6.90	7.00	7.00	7.05
1979/80	7.05	7.30	7.90	8.25	8.50	9.00	9.40	9.65	9.75	9.75	9.75	9.75	8.85
1980/81	9.75	9.75	9.80	10.10	10.00	10.00	10.00	10.00	10.00	10.00	9.60	9.50	9.90
1981/82	9.30	9.00	8.55	8.25	8.25	8.20	7.60	7.40	7.30	7.00	7.00	6.80	7.90
1982/83	6.55	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
1983/84	6.50	6.75	7.00	7.00	6.90	6.76	6.63	6.50	6.62	6.70	6.85	7.10	6.80
1984/85	7.25	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.15	7.00	6.81	6.75	7.15
1985/86	6.75	6.70	6.50	6.50	6.50	6.25	6.00	6.00	5.75	5.50	5.50	5.50	6.10
1986/87	5.19	5.00	4.81	4.75	4.63	4.63	4.20	4.20	4.20	4.20	4.11	3.75	4.45
1987/88	4.00	4.25	6.19	6.28	6.10	6.10	6.97	7.25	7.25	6.93	7.48	8.38	6.45
1988/89	8.50	8.69	8.75	8.75	8.75	8.60	10.43	10.20	10.40	11.00	11.00	10.54	9.65
1989/90	9.64	9.00	8.50	7.97	7.75	7.75	7.75	7.43	6.80	6.60	6.60	7.05	7.75
1990/91	7.01	6.11	6.10	6.45	6.23	6.04	6.65	7.10	7.93	8.00	8.00	8.00	7.00
1991/92	8.00	8.40	8.70	9.00	9.00	8.88	8.50	8.66	8.25	8.25	8.25	8.25	8.50
1992/93	8.25	8.25	8.25	7.70	7.29	7.19	6.96	6.88	6.41	6.25	6.00	6.04	7.10
1993/94	6.00	6.02	6.49	6.73	6.88	6.88	6.98	7.39	7.50	7.20	7.19	7.25	6.90
1994/95	7.35	7.22	7.15	7.25	7.25	7.80	9.59	8.94	8.29	8.16	8.56	9.71	8.10
1995/96	10.22	10.09	9.78	10.25	10.96	12.80	12.66	12.59	12.80	12.66	12.59	12.80	11.70
1996/97	12.88	13.13	13.50	14.56	15.50	15.47	15.19	15.03	14.84	14.41	14.40	14.16	14.40
1997/98	13.91	13.49	11.91	10.88	11.31	11.41	12.01	13.13	13.75	14.25	14.32	14.34	12.89
1998/99	14.18	13.75	13.25	13.10	12.88	12.88	13.00	12.75	11.56	10.84	8.80	8.06	12.09
1999/00	6.84	6.67	6.88	7.03	7.21	7.88	8.25	7.71	6.94	6.20	6.13	6.05	6.98
2000/01	6.00	6.00	5.65	5.38	5.21	5.17	5.69	5.97	6.22	6.41	6.59	6.81	5.93
2001/02	7.13	6.09	6.56	6.63	6.63	6.73	6.88	6.84	6.88	6.85	6.85	6.63	6.73
2002/03	6.46	6.38	6.13	6.00	6.00								

NA = Not available. 1/ December 2002 data are preliminary. 2/ Rice Marketing News, Agricultural Marketing Service, USDA.

Appendix table 23--Thailand milled rice prices, f.o.b. Bangkok 1/

Month	100 percent Grade B	5 percent parboiled	5 percent broken	15 percent broken	35 percent broken	A.1 Special 2/
			$/metric ton			
1985/86:						
August	193	179	NA	NA	NA	NA
September	197	181	NA	NA	NA	NA
October	213	180	NA	NA	NA	NA
November	202	176	NA	NA	NA	NA
December	202	175	NA	NA	NA	NA
January	191	158	NA	NA	NA	98
February	188	142	NA	NA	NA	97
March	186	139	NA	NA	NA	100
April	178	131	NA	NA	NA	97
May	177	135	NA	NA	NA	98
June	179	140	NA	NA	NA	101
July	185	153	NA	NA	NA	107
Average	191	157	NA	NA	NA	NA
1986/87:						
August	191	173	186	173	NA	122
September	179	161	173	161	NA	113
October	180	162	175	161	NA	113
November	180	157	174	159	136	105
December	172	153	167	154	132	100
January	178	153	173	162	137	107
February	193	168	187	176	153	120
March	204	179	198	189	167	131
April	204	183	199	189	167	133
May	202	189	198	187	166	136
June	198	189	196	186	167	142
July	196	187	191	180	164	148
Average	190	171	185	173	154	122
1987/88:						
August	208	207	204	193	181	168
September	255	257	250	240	223	195
October	272	268	267	257	228	210
November	260	247	254	242	224	189
December	261	236	256	242	216	168
January	297	279	292	276	253	207
February	311	295	306	294	262	214
March	299	285	294	282	256	213
April	294	282	288	276	256	220
May	262	252	257	247	235	211
June	273	262	269	259	248	226
July	279	268	274	265	252	232
Average	273	261	267	256	236	204

See footnotes at end of table.

Continued--

Appendix table 23--Thailand milled rice prices, f.o.b. Bangkok 1/--Continued

Month	100 percent Grade B	5 percent parboiled	5 percent broken	15 percent broken	35 percent broken	A.1 Special 2/
			$/metric ton			
1988/89:						
August	274	264	269	260	NA	217
September	279	268	273	261	246	221
October	279	266	273	263	249	226
November	278	265	272	263	248	227
December	265	259	260	251	237	223
January	268	259	264	255	243	231
February	276	353	271	262	251	235
March	282	264	277	267	253	233
April	298	273	293	283	266	239
May	316	294	311	299	281	246
June	337	309	331	314	NA	244
July	359	332	351	329	289	246
Average	292	284	287	275	256	232
1989/90:						
August	337	314	332	309	NA	221
September	328	290	321	302	257	205
October	314	275	304	279	234	183
November	279	248	270	240	207	166
December	279	253	272	252	219	174
January	284	258	276	256	218	170
February	307	266	300	276	229	176
March	297	259	289	271	215	169
April	284	255	276	253	210	164
May	268	231	260	239	196	151
June	264	226	255	234	184	140
July	265	229	256	235	183	142
Average	292	259	284	262	214	172
1990/91:						
August	268	243	260	236	192	149
September	269	251	259	237	192	150
October	290	265	281	256	210	163
November	280	255	272	248	202	153
December	272	243	264	239	194	147
January	311	277	303	273	222	165
February	336	301	326	297	242	186
March	321	285	311	281	232	175
April	295	272	286	263	221	176
May	298	365	288	262	219	231
June	302	280	293	262	212	163
July	313	287	303	275	225	174
Average	296	277	287	261	213	169

See footnotes at end of table.

Continued--

Appendix table 23--Thailand milled rice prices, f.o.b. Bangkok 1/--Continued

Month	100 percent Grade B	5 percent parboiled	5 percent broken	15 percent broken	35 percent broken	A.1 Special 2/
			$/metric ton			
1991/92:						
August	309	286	298	273	228	184
September	300	277	290	271	225	193
October	284	265	277	253	223	191
November	283	262	274	253	218	185
December	276	258	268	250	218	184
January	286	266	277	258	226	188
February	287	267	278	259	224	189
March	286	263	277	258	225	186
April	287	262	279	262	226	186
May	282	251	272	253	217	178
June	278	243	268	249	216	171
July	289	251	279	260	224	173
Average	287	263	278	258	222	184
1992/93:						
August	279	249	270	250	221	182
September	266	244	255	238	212	176
October	260	247	250	233	204	172
November	262	245	253	235	206	172
December	265	240	256	238	207	162
January	270	238	262	240	208	166
February	267	234	254	233	203	172
March	243	229	230	211	189	161
April	216	211	206	191	175	153
May	194	188	185	172	158	145
June	199	190	189	177	162	147
July	209	205	201	186	171	149
Average	244	227	234	217	193	163
1993/94:						
August	218	214	210	196	179	156
September	216	213	206	192	177	158
October	272	222	257	237	207	162
November	337	264	323	288	242	167
December	330	272	315	281	234	156
January	376	272	354	305	241	151
February	390	266	363	313	238	155
March	330	248	274	240	207	155
April	331	238	269	242	205	157
May	259	235	235	213	190	160
June	232	228	216	200	186	165
July	237	251	226	211	197	178
Average	294	244	271	243	209	160

See footnotes at end of table.

Continued--

Appendix table 23--Thailand milled rice prices, f.o.b. Bangkok 1/--Continued

Month	100 percent Grade B	5 percent parboiled	5 percent broken	15 percent broken	35 percent broken	A.1 Special 2/
			$/metric ton			
1994/95:						
August	259	271	250	237	222	200
September	267	265	260	246	233	210
October	272	262	262	249	238	216
November	272	263	264	249	236	215
December	270	259	262	250	237	222
January	282	264	275	265	252	232
February	289	266	282	270	255	226
March	292	269	285	272	253	222
April	290	269	282	271	254	226
May	299	274	291	279	262	239
June	333	305	326	314	297	276
July	353	341	347	335	321	297
Average	290	276	282	270	255	232
1995/96:						
August	346	343	340	327	310	288
September	368	354	360	346	322	285
October	393	373	386	372	340	293
November	354	342	346	334	315	296
December	347	337	340	326	307	278
January	372	355	364	350	321	271
February	377	357	367	348	307	256
March	373	350	360	344	301	260
April	342	316	328	310	272	245
May	347	318	331	312	272	244
June	360	339	342	322	275	240
July	370	347	358	335	281	229
Average	362	344	352	335	302	265
1996/97:						
August	346	330	336	314	265	213
September	341	331	332	311	264	216
October	324	330	313	293	250	208
November	325	327	315	293	248	206
December	330	325	320	298	253	205
January	367	334	356	332	277	218
February	359	321	347	320	270	226
March	341	315	328	302	261	231
April	319	301	306	285	252	220
May	335	315	324	300	257	215
June	335	324	323	299	256	221
July	332	327	321	296	256	215
Average	338	323	327	304	259	216

See footnotes at end of table.

Continued--

Appendix table 23--Thailand milled rice prices, f.o.b. Bangkok 1/--Continued

Month	100 percent Grade B	5 percent parboiled	5 percent broken	15 percent broken	35 percent broken	A.1 Special 2/
			$/metric ton			
1997/98:						
August	296	314	285	265	237	209
September	280	304	271	254	231	203
October	275	280	266	249	224	192
November	261	261	252	237	213	181
December	274	269	267	255	228	193
January	299	279	294	278	236	186
February	307	290	297	279	235	187
March	306	284	296	278	235	193
April	326	296	316	296	249	199
May	328	299	318	299	248	197
June	338	315	330	311	256	209
July	337	315	324	304	255	211
Average	302	292	293	275	237	197
1998/99:						
August	334	318	323	305	264	229
September	332	317	322	304	269	241
October	306	298	298	282	264	252
November	278	275	271	260	248	234
December	282	281	275	261	245	232
January	308	303	300	283	252	234
February	287	279	280	263	234	212
March	263	254	256	239	213	197
April	242	240	236	221	199	184
May	252	249	244	229	202	184
June	262	251	254	240	217	200
July	259	248	253	241	220	209
Average	284	276	276	261	236	217
1999/00:						
August	253	249	246	237	216	204
September	235	256	229	217	198	186
October	223	257	217	205	186	170
November	236	268	229	216	194	172
December	240	252	234	221	192	155
January	248	248	241	220	194	158
February	252	248	242	225	191	158
March	235	238	225	209	180	152
April	225	229	214	200	173	148
May	211	219	199	186	164	144
June	210	218	196	183	161	140
July	199	216	190	178	161	142
Average	231	242	222	208	184	161
2000/01:						
August	193	208	187	175	160	144
September	185	189	179	169	158	143
October	192	199	187	175	156	136
November	191	189	185	173	153	128
December	190	188	184	173	153	129
January	190	189	184	174	153	135
February	190	184	185	174	152	134
March	182	174	175	165	142	126
April	170	164	163	154	135	151
May	172	171	164	154	138	123

See footnotes at end of table.

Continued--

Appendix table 23--Thailand milled rice prices, f.o.b. Bangkok 1/--Continued

Month	100 percent Grade B	5 percent parboiled	5 percent broken	15 percent broken	35 percent broken	A.1 Special 2/
			$/metric ton			
June	177	180	168	158	144	130
July	177	198	169	160	148	137
Average	184	186	178	167	149	132
2001/02:						
August	174	202	168	160	149	141
September	178	214	173	167	157	148
October	174	213	171	165	155	146
November	178	197	175	168	156	135
December	184	197	179	173	160	134
January	197	193	192	184	170	143
February	201	195	195	187	168	144
March	198	190	189	182	166	146
April	196	188	191	183	167	149
May	207	192	201	192	172	150
June	208	195	201	192	177	148
July	205	194	200	190	175	152
Average	192	198	186	179	164	145
2002/03						
August	197	195	191	183	171	148
September	192	194	186	179	169	149
October	192	195	186	179	171	157
November	193	196	187	180	173	158
December	186	190	184	177	169	156
Average 3/	192	194	187	180	170	154

NA=Not available. 1/ Simple average of weekly price quotes. Includes cost of bags. 2/ 100-percent brokens. 3/ Preliminary.

Source: Weekly price reports, U.S. Embassy, Bangkok.

Appendix table 24--Milled rice export prices, major exporters 1/

Country/month	5 percent brokens	10 percent brokens	15 percent brokens	20 percent brokens	25 percent brokens	35 percent brokens	5 percent parboiled
				$/metric ton			
Vietnam:							
1997/98:							
August	253	241	231	NQ	223	NQ	NQ
September	253	245	233	NQ	225	NQ	NQ
October	237	233	224	NQ	211	203	NQ
November	241	236	231	NQ	218	211	NQ
December	270	260	255	NQ	243	235	NQ
January	262	256	248	NQ	236	231	NQ
February	255	250	245	NQ	233	225	NQ
March	280	271	262	NQ	249	242	NQ
April	295	290	280	NQ	270	260	NQ
May	NQ	NQ	NQ	NQ	NQ	NQ	NQ
June	304	299	294	NQ	259	254	NQ
July	305	298	291	NQ	258	250	NQ
Average 2/	269	262	254	NQ	239	235	NQ
1998/99:							
August	315	305	295	NQ	270	NQ	NQ
September	311	301	291	NQ	279	NQ	NQ
October	295	288	281	NQ	271	NQ	NQ
November	278	273	265	NQ	126	NQ	NQ
December	258	253	245	NQ	238	NQ	NQ
January	245	240	230	NQ	220	NQ	NQ
February	239	233	228	NQ	215	NQ	NQ
March	228	223	217	NQ	204	NQ	NQ
April	221	216	211	NQ	196	NQ	NQ
May	229	224	219	NQ	204	NQ	NQ
June	238	231	226	NQ	215	NQ	NQ
July	230	225	220	NQ	214	NQ	NQ
Average 2/	257	251	244	NQ	221	NQ	NQ
1999/00:							
August	230	225	220	NQ	215	NQ	NQ
September	218	211	206	NQ	198	NQ	NQ
October	201	196	191	NQ	186	NQ	NQ
November	217	212	207	NQ	195	NQ	NQ
December	227	222	213	NQ	198	NQ	NQ
January	229	224	219	NQ	199	NQ	NQ
February	210	205	200	NQ	188	NQ	NQ
March	194	189	183	NQ	173	NQ	NQ
April	175	170	164	NQ	159	NQ	NQ
May	173	167	159	NQ	149	NQ	NQ
June	175	170	162	NQ	148	NQ	NQ
July	183	178	173	NQ	155	NQ	NQ
Average 2/	203	197	191	NQ	180	NQ	NQ
2000/01:							
August	183	178	173	NQ	158	NQ	NQ
September	176	171	165	NQ	152	NQ	NQ
October	179	174	168	NQ	158	NQ	NQ
November	176	171	164	NQ	154	NQ	NQ
December	170	165	160	NQ	149	NQ	NQ
January	168	164	160	NQ	149	NQ	NQ
February	163	160	155	NQ	144	NQ	NQ
March	151	147	141	NQ	134	NQ	NQ
April	148	145	140	NQ	131	NQ	NQ
May	151	147	142	NQ	134	NQ	NQ

See footnotes at end of table.

Continued--

Appendix table 24--Milled rice export prices, major exporters 1/--Continued

Country/month	5 percent brokens	10 percent brokens	15 percent brokens	20 percent brokens	25 percent brokens	35 percent brokens	5 percent parboiled
				$/metric ton			
Vietnam:							
2000/01:							
May	151	147	142	NQ	134	NQ	NQ
June	154	150	145	NQ	136	NQ	NQ
July	159	156	151	NQ	142	NQ	NQ
Average 2/	165	160	155	NQ	145	NQ	NQ
2001/02:							
August	176	170	165	NQ	154	NQ	NQ
September	173	167	163	NQ	153	NQ	NQ
October	176	172	168	NQ	159	NQ	NQ
November	191	186	181	NQ	170	NQ	NQ
December	192	188	182	NQ	170	NQ	NQ
January	192	188	182	NQ	170	NQ	NQ
February	185	180	175	NQ	166	NQ	NQ
March	172	169	165	NQ	158	NQ	NQ
April	185	180	176	NQ	166	NQ	NQ
May	188	185	180	NQ	170	NQ	NQ
June	196	190	185	NQ	175	NQ	NQ
July	189	185	174	NQ	167	NQ	NQ
Average 2/	185	181	175	NQ	166	NQ	NQ
2002/03:							
August	190	186	178	NQ	170	NQ	NQ
September	191	187	180	NQ	174	NQ	NQ
October	188	181	175	NQ	170	NQ	NQ
November	186	181	176	NQ	171	NQ	NQ
December	182	176	172	NQ	166	NQ	NQ
Average 2/	187	182	176	NQ	170	NQ	NQ

See footnotes at end of table.

Continued--

Appendix table 24--Milled rice export prices, major exporters 1/--Continued

Country/month	5 percent brokens	10 percent brokens	15 percent brokens	20 percent brokens	25 percent brokens	35 percent brokens	5 percent parboiled
				$/metric ton			
India:							
1997/98:							
August	300	283	271	NQ	255	NQ	315
September	300	280	270	NQ	255	NQ	315
October	290	274	248	NQ	233	NQ	308
November	280	270	250	NQ	235	NQ	290
December	278	268	250	NQ	238	NQ	290
January	273	263	250	NQ	238	NQ	285
February	270	260	250	NQ	235	NQ	280
March	277	272	257	NQ	242	NQ	280
April	280	275	260	NQ	245	NQ	268
May	280	275	260	NQ	245	NQ	280
June	283	274	260	NQ	249	NQ	280
July	288	278	265	NQ	254	NQ	283
Average 2/	286	276	263	NQ	252	NQ	282
1998/99:							
August	290	280	265	NQ	250	NQ	285
September	290	280	265	NQ	250	NQ	285
October	290	280	265	NQ	250	NQ	285
November	281	271	255	NQ	244	NQ	283
December	268	260	246	NQ	231	NQ	274
January	264	253	244	NQ	228	NQ	280
February	276	263	255	NQ	238	NQ	290
March	283	270	258	NQ	243	NQ	287
April	274	263	250	NQ	236	NQ	278
May	268	260	250	NQ	240	NQ	270
June	263	256	243	NQ	231	NQ	263
July	260	255	240	NQ	230	NQ	260
Average 2/	276	266	253	NQ	239	NQ	278
1999/00:							
August	261	255	240	NQ	230	NQ	260
September	265	255	240	NQ	230	NQ	260
October	265	255	240	NQ	230	NQ	265
November	269	259	248	NQ	238	NQ	270
December	270	260	250	NQ	240	NQ	270
January	270	260	250	NQ	240	NQ	270
February	270	260	250	NQ	240	NQ	270
March	270	260	250	NQ	240	NQ	270
April	270	260	250	NQ	240	NQ	270
May	268	258	248	NQ	238	NQ	252
June	270	260	250	NQ	240	NQ	250
July	270	260	250	NQ	240	NQ	250
Average 2/	268	259	247	NQ	237	NQ	263
2000/01:							
August	264	257	249	NQ	237	NQ	246
September	265	255	245	NQ	225	NQ	240
October	260	250	240	NQ	222	NQ	240
November	243	233	223	NQ	213	NQ	233
December	240	230	220	NQ	210	NQ	233
January	240	230	220	NQ	210	NQ	233
February	240	230	220	NQ	210	NQ	233
March	240	230	220	NQ	210	NQ	230
April	240	230	220	NQ	210	NQ	230

See footnotes at end of table.

Continued--

Appendix table 24--Milled rice export prices, major exporters 1/--Continued

Country/month	5 percent brokens	10 percent brokens	15 percent brokens	20 percent brokens	25 percent brokens	35 percent brokens	5 percent parboiled
				$/metric ton			
India:							
2000/01:							
May	192	184	176	NQ	196	NQ	220
June	NQ	NQ	NQ	NQ	140	NQ	180
July	NQ	NQ	NQ	NQ	135	NQ	170
Average 2/	202	194	186	NQ	201	NQ	223
2001/02	NQ	NQ	NQ	NQ			
August	NQ	NQ	NQ	NQ	136	NQ	171
September	NQ	NQ	NQ	NQ	139	NQ	170
October	NQ	NQ	NQ	NQ	138	NQ	168
November	NQ	NQ	NQ	NQ	135	NQ	167
December	NQ	NQ	NQ	NQ	132	NQ	165
January	NQ	NQ	NQ	NQ	132	NQ	165
February	NQ	NQ	NQ	NQ	131	NQ	165
March	NQ	NQ	NQ	NQ	130	NQ	165
April	168	145	140	NQ	130	NQ	165
May	168	145	140	NQ	130	NQ	165
June	170	160	145	NQ	134	NQ	168
July	177	165	150	NQ	137	NQ	169
Average 2/	171	154	144	NQ	134	NQ	167
2002/03							
August	180	170	153	NQ	139	NQ	171
September	180	170	153	NQ	138	NQ	178
October	180	170	153	NQ	138	NQ	178
November	179	170	153	NQ	142	NQ	179
December	175	170	153	NQ	144	NQ	180
Average 2/	179	170	153	NQ	140	NQ	177

See footnotes at end of table.

Continued--

Appendix table 24--Milled rice export prices, major exporters, 1997/98-2001/02 1/--Continued

Country/month	5 percent brokens	10 percent brokens	15 percent brokens	20 percent brokens	25 percent brokens	35 percent brokens	5 percent parboiled
				$/metric ton			
Pakistan:							
1997/98:							
August	NQ	NQ	NQ	NQ	NQ	NQ	NQ
September	240	NQ	NQ	220	NQ	NQ	NQ
October	234	228	NQ	NQ	210	NQ	NQ
November	NQ	230	224	219	214	NQ	NQ
December	265	255	245	240	233	NQ	NQ
January	265	256	243	238	231	NQ	NQ
February	NQ	256	243	240	234	NQ	NQ
March	272	272	254	254	246	NQ	NQ
April	NQ	285	260	260	255	NQ	NQ
May	NQ	NQ	NQ	NQ	NQ	NQ	NQ
June	NQ	NQ	NQ	NQ	NQ	NQ	NQ
July	NQ	NQ	NQ	NQ	NQ	NQ	NQ
Average 2/	255	255	245	239	232	NQ	NQ
1998/99:							
August	NQ	NQ	NQ	NQ	NQ	NQ	NQ
September	NQ	255	NQ	252	245	NQ	NQ
October	NQ	273	258	258	250	NQ	NQ
November	NQ	255	239	239	230	NQ	NQ
December	NQ	246	229	229	223	NQ	NQ
January	NQ	240	215	215	210	NQ	NQ
February	NQ	NQ	220	220	215	NQ	NQ
March	NQ	NQ	222	216	208	NQ	NQ
April	NQ	NQ	213	208	203	NQ	NQ
May	NQ	NQ	223	219	211	NQ	NQ
June	NQ	248	238	225	221	NQ	NQ
July	NQ	250	240	230	225	NQ	NQ
Average 2/	NQ	252	230	228	222	NQ	NQ
1999/00:							
August	NQ	250	240	230	225	NQ	NQ
September	NQ	241	231	221	213	NQ	NQ
October	220	209	198	194	188	NQ	NQ
November	205	195	190	185	180	NQ	NQ
December	205	200	182	177	172	NQ	NQ
January	206	201	181	176	171	NQ	NQ
February	210	202	185	179	174	NQ	NQ
March	NQ	198	180	176	171	NQ	NQ
April	NQ	187	177	167	161	NQ	NQ
May	NQ	186	176	166	158	NQ	NQ
June	NQ	191	180	172	162	NQ	NQ
July	NQ	198	188	183	178	NQ	NQ
Average 2/	209	205	192	186	179	NQ	NQ
2000/01:							
August	NQ	202	188	182	176	NQ	NQ
September	NQ	194	176	169	162	NQ	NQ
October	NQ	190	176	166	156	NQ	NQ
November	NQ	166	160	154	148	NQ	NQ
December	NQ	163	155	150	147	NQ	NQ
January	NQ	161	155	150	146	NQ	NQ
February	NQ	162	155	150	144	NQ	NQ
March	NQ	160	151	146	141	NQ	NQ
April	NQ	156	146	141	136	NQ	NQ

See footnotes at end of table.

Continued--

Appendix table 24--Milled rice export prices, major exporters, 1997/98-2001/02 1/--Continued

Country/month	5 percent brokens	10 percent brokens	15 percent brokens	20 percent brokens	25 percent brokens	35 percent brokens	5 percent parboiled
				$/metric ton			
Pakistan:							
2000/01:							
May	NQ	158	150	145	140	NQ	NQ
June	NQ	165	160	155	151	NQ	NQ
July	NQ	175	166	156	151	NQ	NQ
Average 2/	NQ	171	162	155	150	NQ	NQ
2001/02							
August	NQ	173	165	160	155	NQ	NQ
September	NQ	173	168	158	150	NQ	NQ
October	NQ	164	159	155	152	NQ	NQ
November	NQ	159	151	148	145	NQ	NQ
December	NQ	160	155	150	145	NQ	NQ
January	NQ	160	155	150	145	NQ	NQ
February	NQ	162	159	154	147	NQ	NQ
March	NQ	160	155	155	147	NQ	NQ
April	NQ	163	158	154	151	NQ	NQ
May	NQ	165	160	157	155	NQ	NQ
June	NQ	180	175	170	165	NQ	NQ
July	198	195	190	184	179	NQ	NQ
Average 2/	198	168	163	158	153	NQ	NQ
2002/03							
August	193	184	178	174	170	NQ	NQ
September	185	170	165	162	160	NQ	NQ
October	184	179	172	162	158	NQ	NQ
November	177	172	163	161	158	NQ	NQ
December	170	166	159	156	153	NQ	NQ
Average 2/	186	175	169	165	161	NQ	NQ

NQ = No quote.

1/ Simple average of weekly price quotes. 2/ Simple average of monthly prices. All prices F.O.B. vessel, corresponding home port.

Source: All weekly prices reported in the Creed Rice Market Report, Creed Rice Co., Inc., Houston, Texas.

Appendix table 25--ARAG price quotes 1/

Monthly/ marketing year	Milled white rice: U.S. no. 2 4 percent container, FAS 2/	Milled white rice: Thai 100 percent Grade B, bulk 3/	Brown rice: U.S. no. 2 brown, 4/73	Parboiled: U.S. no. 1 brown, 4/88	Parboiled: Thai milled premium quality 3/
			$/metric ton		
1984/85:					
August	500	333	348	NA	NA
September	485	317	344	NA	NA
October	493	301	343	NA	NA
November	496	272	344	NA	NA
December	496	265	344	NA	NA
January	NA	NA	NA	NA	NA
February	496	255	338	NA	NA
March	496	253	338	NA	NA
April	496	241	339	NA	NA
May	496	244	342	NA	NA
June	495	244	340	NA	NA
July	490	228	338	NA	NA
Average	495	268	341	NA	NA
1985/86:					
August	478	237	328	NA	NA
September	475	240	323	NA	NA
October	475	245	320	NA	NA
November	473	253	318	NA	NA
December	463	243	315	NA	NA
January	450	238	315	NA	NA
February	455	235	323	NA	NA
March	455	234	325	NA	NA
April	383	223	236	259	NA
May	325	222	212	254	NA
June	291	229	186	218	NA
July	286	230	190	215	NA
Average	417	236	282	236	NA
1986/87:					
August	296	241	193	215	NA
September	285	230	192	215	NA
October	300	226	192	219	NA
November	303	219	191	220	NA
December	249	215	183	211	NA
January	224	221	179	205	NA
February	224	233	176	203	NA
March	224	244	172	201	NA
April	224	246	176	203	243
May	255	241	191	210	255
June	270	238	198	220	245
July	277	235	195	220	240
Average	261	232	186	212	246
1987/88:					
August	327	251	215	231	280
September	NA	294	266	290	325
October	441	315	361	386	365
November	417	299	368	405	371
December	411	309	364	391	355
January	446	340	397	424	NA
February	496	360	499	521	420
March	450	340	474	507	NA
April	417	339	443	476	365
May	331	312	343	387	353
June	339	317	338	381	NA
July	353	328	347	372	383
Average	402	317	368	398	357

See footnotes at end of table.

Continued--

Appendix table 25--ARAG quotes--Continued

Monthly/ marketing year	Milled white rice		Brown rice	Parboiled	
	U.S. no. 2 4 percent container, FAS 2/	Thai 100 percent grade B, bulk 3/	U.S. no. 2 brown, 4/73	U.S. no. 1 brown, 4/88	Thai milled premium quality 3/
			$/metric ton		
1988/89:					
August	313	319	313	336	360
September	299	326	298	319	290
October	309	321	292	305	NA
November	310	320	287	299	NA
December	288	310	283	291	NA
January	289	321	278	282	NA
February	292	326	281	286	NA
March	294	329	283	291	NA
April	312	349	299	320	NA
May	328	357	324	346	NA
June	356	389	341	367	NA
July	360	403	364	387	NA
Average	313	339	303	319	325
1989/90:					
August	351	381	343	380	NA
September	363	370	325	369	NA
October	324	359	307	369	NA
November	314	331	284	346	NA
December	312	322	283	338	NA
January	338	328	313	336	NA
February	356	350	336	352	NA
March	348	343	327	346	NA
April	341	325	315	338	NA
May	338	309	309	331	318
June	336	313	309	331	314
July	333	307	303	325	308
Average	338	336	313	347	313
1990/91:					
August	306	311	295	317	320
September	289	310	276	300	325
October	287	330	271	294	325
November	318	321	280	300	319
December	317	304	282	314	315
January	331	358	305	327	400
February	350	384	334	384	401
March	364	363	325	397	383
April	373	335	321	397	360
May	380	344	333	400	359
June	389	347	345	397	370
July	378	350	344	397	373
Average	340	338	309	352	354
1991/92:					
August	364	357	338	395	382
September	373	341	333	391	369
October	379	323	335	395	350
November	381	322	354	401	346
December	380	319	347	397	345
January	379	322	342	394	350
February	378	325	325	375	344
March	363	326	321	362	342
April	343	324	308	350	336
May	333	327	325	331	342
June	313	320	278	317	319
July	328	329	274	314	335
Average	359	328	323	369	347

See footnotes at end of table.

Continued--

Appendix table 25--ARAG quotes--Continued

Monthly/ marketing year	Milled white rice: U.S. no. 2 4 percent container, FAS 2/	Milled white rice: Thai 100 percent grade B, bulk 3/	Brown rice: U.S. no. 2 brown, 4/73	Parboiled: U.S. no. 1 brown, 4/88	Parboiled: Thai milled premium quality 3/
			$/metric ton		
1992/93:					
August	332	328	279	318	330
September	336	319	301	320	321
October	333	307	277	321	315
November	316	302	287	319	315
December	305	304	275	317	307
January	288	307	264	313	315
February	276	313	252	306	314
March	263	289	239	298	305
April	248	269	230	284	288
May	243	246	240	277	266
June	245	242	219	273	268
July	261	250	253	281	280
Average	287	290	260	302	302
1993/94:					
August	272	255	289	283	280
September	290	258	265	292	285
October	375	311	335	378	NA
November	525	375	446	492	390
December	551	365	463	518	395
January	506	417	442	506	384
February	503	426	437	498	394
March	476	389	401	485	365
April	416	360	354	446	375
May	380	322	329	409	329
June	355	272	282	366	303
July	312	272	270	318	318
Average	413	335	359	416	347
1994/95:					
August	299	298	261	288	338
September	325	306	287	311	343
October	312	308	278	305	343
November	312	315	279	303	345
December	313	317	280	305	345
January	310	315	279	300	342
February	310	328	274	323	345
March	303	338	268	298	346
April	306	331	273	296	345
May	336	338	300	304	345
June	395	378	335	350	NA
July	380	402	340	364	NA
Average	325	331	288	312	344
1995/96:					
August	375	406	339	358	NA
September	382	407	358	379	NA
October	442	439	399	421	NA
November	419	418	378	402	NA
December	398	393	353	389	NA
January	391	414	357	382	NA
February	386	417	353	378	NA
March	393	415	357	384	NA
April	400	385	371	400	NA
May	408	384	378	413	NA
June	420	401	386	423	NA
July	432	412	390	434	NA
Average	404	407	368	397	NA

See footnotes at end of table.

Continued--

Appendix table 25--ARAG quotes--Continued

Monthly/ marketing year	Milled white rice: U.S. no. 2 4 percent container, FAS 2/	Milled white rice: Thai 100 percent grade B, bulk 3/	Brown rice: U.S. no. 2 brown, 4/73	Parboiled: U.S. no. 1 brown, 4/88	Parboiled: Thai milled premium quality 3/
			$/metric ton		
1996/97:					
August	440	391	402	440	NA
September	427	383	374	435	NA
October	414	367	387	430	NA
November	408	363	383	424	NA
December	412	360	382	388	NA
January	419	397	389	437	NA
February	438	405	419	460	NA
March	435	391	419	457	NA
April	435	363	416	455	395
May	435	378	410	452	NA
June	441	386	405	448	NA
July	431	379	393	439	NA
Average	428	380	398	439	395
1997/98:					
August	411	346	380	430	375
September	409	316	366	419	NA
October	422	321	375	406	NA
November	424	306	384	406	NA
December	429	325	376	412	NA
January	424	346	384	413	NA
February	NA	NA	NA	NA	NA
March	410	NA	361	395	NA
April	408	NA	357	391	NA
May	415	373	368	397	385
June	419	382	377	395	395
July	412	389	360	382	391
Average	417	345	372	404	387
1998/99:					
August	389	385	353	375	383
September	397	385	350	371	385
October	397	356	347	370	374
November	395	316	347	374	333
December	396	329	347	380	336
January	389	348	346	379	345
February	375	347	342	375	343
March	361	325	323	365	330
April	346	292	314	364	314
May	329	296	309	363	312
June	321	309	305	356	317
July	321	310	293	354	310
Average	368	333	331	369	340

See footnotes at end of table.

Continued--

Appendix table 25--ARAG quotes--Continued

Monthly/ marketing year	Milled white rice: U.S. no. 2 4 percent container, FAS 2/	Milled white rice: Thai 100 percent grade B, bulk 3/	Brown rice: U.S. no. 2 brown, 4/73	Parboiled: U.S. no. 1 brown, 4/88	Parboiled: Thai milled premium quality 3/
			$/metric ton		
1999/00:					
August	317	301	279	358	312
September	309	287	266	359	326
October	296	269	269	359	324
November	288	282	262	358	331
December	276	283	256	358	328
January	267	288	249	358	325
February	265	305	241	355	330
March	262	288	236	355	328
April	254	273	222	353	324
May	245	259	216	351	321
June	237	260	207	336	322
July	247	246	211	313	295
Average	272	278	243	351	322
2000/01:					
August	254	242	239	300	288
September	256	234	241	281	281
October	278	242	247	276	261
November	282	242	253	278	248
December	287	239	258	287	245
January	287	240	255	285	233
February	281	241	251	285	233
March	275	234	254	288	237
April	272	220	248	287	237
May	276	221	247	287	238
June	276	226	247	284	246
July	270	229	241	273	259
Average	274	234	248	284	250
2001/02:					
August	254	226	237	266	260
September	235	230	222	256	275
October	222	228	213	241	269
November	212	223	202	231	239
December	209	224	199	224	250
January	206	218	198	221	249
February	197	NA	195	218	243
March	190	NA	190	212	240
April	188	NA	186	207	235
May	192	NA	179	202	239
June	195	NA	176	201	244
July	198	NA	177	198	244
Average	208	225	198	223	249
2002/03					
August	200	NA	185	205	240
September	195	NA	187	212	245
October	213	NA	187	210	247
November	208	NA	187	209	244
December	192	NA	187	204	245
Average 4/	202	NA	187	208	244

NA = Not available.

1/ ARAG = composite of ports near Rotterdam. 2/ FAS, container, Gulf port quote. All other prices are C & F ARAG. 3/ Thailand prices changed to bulk quote on May 15, 1985. Prior to this date Thai prices were quoted by the bag. 4/ Preliminary.

Source: Rice Market News, Agricultural Marketing Service, USDA.

Appendix table 26--World rice supply and utilization

Year	Area harvested	Yield 1/	Production 2/		Exports 3/	Total use 4/	Ending stocks 5/	Stocks-to-use ratio 6/
			Rough	Milled				
	Million hectares	Mt/ha	---Million metric tons---					
1961/62	115.8	1.86	215.6	147.3	6.3	149.3	8.5	5.7
1962/63	119.7	1.91	228.1	155.1	7.3	151.1	12.5	8.3
1963/64	121.6	2.04	248.3	169.0	7.7	165.3	16.3	9.8
1964/65	125.4	2.12	265.5	180.7	8.2	179.8	17.2	9.6
1965/66	124.0	2.05	253.5	172.9	7.9	172.0	18.1	10.5
1966/67	125.7	2.09	262.1	179.0	7.8	178.5	18.6	10.4
1967/68	127.0	2.18	276.9	188.9	7.2	186.1	21.3	11.4
1968/69	128.6	2.22	285.8	194.9	7.5	191.6	24.5	12.8
1969/70	131.4	2.25	295.2	201.1	8.2	199.2	26.4	13.3
1970/71	132.7	2.36	312.5	213.0	8.6	210.6	28.8	13.7
1971/72	134.8	2.35	316.6	215.8	8.7	216.5	28.0	12.9
1972/73	132.7	2.31	306.2	208.9	8.4	213.2	23.8	11.2
1973/74	136.3	2.45	333.8	227.5	7.7	222.4	29.3	13.2
1974/75	137.8	2.40	331.0	225.6	7.3	226.2	28.7	12.7
1975/76	142.9	2.50	357.4	243.1	8.4	232.5	39.4	16.9
1976/77	141.4	2.50	346.5	235.8	10.6	236.4	38.8	16.4
1977/78	143.4	2.57	368.7	250.6	9.6	244.6	44.8	18.3
1978/79	143.6	2.68	385.4	262.3	11.9	252.3	54.8	21.7
1979/80	141.2	2.67	376.5	256.8	12.5	257.6	54.0	21.0
1980/81	144.4	2.75	397.0	269.9	12.7	271.3	52.6	19.4
1981/82	144.4	2.83	408.3	277.9	11.3	279.9	50.5	18.0
1982/83	140.7	2.97	418.2	285.0	11.2	278.7	56.8	20.4
1983/84	144.6	3.12	450.9	306.9	11.9	294.3	69.3	23.5
1984/85	144.1	3.23	464.9	316.7	11.0	298.4	87.7	29.4
1985/86	144.8	3.23	467.2	318.0	11.8	307.9	97.7	31.7
1986/87	144.8	3.33	481.9	316.0	12.9	310.4	103.3	33.3
1987/88	141.6	3.28	464.0	314.6	11.4	313.3	104.6	33.4
1988/89	146.1	3.35	489.7	331.4	14.0	325.2	110.9	34.1
1989/90	146.6	3.46	508.0	343.9	11.7	335.5	119.3	35.5
1990/91	146.7	3.55	520.5	352.0	12.3	344.9	126.3	36.6
1991/92	147.2	3.57	525.1	354.6	14.4	354.0	126.9	35.8
1992/93	146.4	3.60	526.9	355.7	14.9	358.6	123.9	34.6
1993/94	144.9	3.64	526.8	355.3	16.5	359.2	120.0	33.4
1994/95	147.4	3.67	540.2	364.5	20.7	366.0	118.5	32.4
1995/96	148.0	3.72	551.3	371.4	19.7	372.0	117.9	31.7
1996/97	149.9	3.76	563.7	380.4	18.9	379.1	119.3	31.5
1997/98	151.1	3.80	574.2	386.8	27.6	379.5	126.5	33.3
1998/99	152.4	3.84	585.6	394.1	24.9	387.3	133.3	34.4
1999/00	155.0	3.93	608.9	409.3	22.9	398.4	144.2	36.2
2000/01	151.5	3.91	592.1	397.6	24.4	396.4	145.4	36.7
2001/02 7/	151.0	3.92	591.3	396.7	26.6	410.2	132.0	32.2
2002/03 8/	144.7	3.93	569.0	381.8	26.6	407.6	106.1	26.0

1/ Yields are based on rough production. 2/ Production is expressed on both rough and milled basis; stocks, exports, and utilization are on a milled basis. 3/ Exports quoted on calendar year basis. Trade data have been adjusted since July 1993 to exclude Intra-EC trade for the years 1980 to the present. 4/ For countries for which stock data are not available, utilization estimates represent apparent utilization, i.e., they include annual stock level adjustments. 5/ Stocks data are based on an aggregate of different market years and should not be construed as representing world stock levels at a fixed point in time. Stocks data are not available for all countries and exclude the former USSR, North Korea, parts of Eastern Europe, and Vietnam. China's reported rice stocks are government-held stocks only and exclude privately-held stocks. 6/ Stocks-to-use represents the ratio of marketing year ending stocks to total utilization. 7/ Preliminary. 8/ Forecast as of November 2002.

Source: World Grain Situation and Outlook, Foreign Agricultural Service, USDA.

Appendix table 27--World rice trade (milled basis): Exports and imports of selected countries or regions

Country or region	Calendar year											
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002 1/	2003 1/
	Million tons											
Exports:												
Argentina	207	276	203	327	365	530	599	674	332	363	350	350
Australia	511	540	570	519	562	641	547	667	617	618	400	500
Burma	185	222	587	645	265	15	94	57	159	670	1,000	1,500
China	933	1,374	1,519	32	265	938	3,734	2,708	2,951	1,847	1,750	2,250
Egypt	209	135	268	160	328	201	426	320	500	705	500	500
European Union	376	153	185	323	318	372	346	348	308	264	275	325
Guyana	115	124	182	201	262	286	249	252	167	175	150	175
India	577	609	615	4,179	3,549	1,954	4,666	2,752	1,449	1,936	6,500	4,000
Pakistan	1,358	937	1,399	1,592	1,677	1,982	1,994	1,838	2,026	2,417	1,500	1,100
Thailand	4,876	4,971	4,720	5,891	5,281	5,216	6,367	6,679	6,549	7,521	6,500	7,500
United States	2,112	2,725	2,793	2,993	2,625	2,304	3,156	2,644	2,847	2,541	3,100	3,200
Uruguay	351	451	410	451	597	640	628	681	642	806	600	650
Vietnam	1,914	1,594	2,222	2,315	3,040	3,327	3,776	4,555	3,370	3,528	3,100	4,000
Other	576	889	627	1,172	566	412	1,088	766	929	1,051	864	564
World total	14,300	15,000	16,300	20,800	19,700	18,818	27,670	24,941	22,846	24,442	26,589	26,614
Imports:												
Bangladesh	34	0	159	1,567	655	44	2,520	1,220	638	402	275	500
Brazil	456	831	1,098	987	786	845	1,555	781	700	673	600	550
Canada	175	182	190	214	225	239	245	248	250	262	265	270
China	93	112	959	1,964	832	326	261	178	278	267	225	300
Cuba	198	397	252	318	389	267	336	431	415	481	550	550
Eastern Europe	238	230	187	224	218	245	334	361	343	381	357	358
European Union 2/	480	444	725	762	952	844	787	784	852	923	700	850
Indonesia	534	22	1,120	3,011	1,029	808	5,765	3,729	1,500	1,500	3,500	3,250
Iran	1,122	1,161	584	1,583	1,344	973	844	1,313	1,100	735	1,000	1,500
Iraq	548	647	64	96	234	744	630	779	1,274	959	1,250	1,100
Ivory Coast	309	386	187	341	291	470	520	600	450	654	625	650
Japan	17	229	2,264	29	446	546	468	633	656	680	650	650
Malaysia	569	385	317	402	573	645	630	617	596	633	600	600
Mexico	377	275	269	239	307	289	295	342	415	388	500	500
Nigeria	440	382	300	450	350	731	900	950	1,250	1,738	1,700	1,700
North Korea	10	112	53	683	195	272	250	159	400	537	400	450
Peru	360	337	220	287	437	208	236	116	86	62	40	40
Philippines	6	215	0	277	768	814	2,185	1,000	900	1,175	1,200	1,200
Russia	500	128	50	129	405	284	224	580	400	247	275	350
Saudi Arabia	783	877	724	638	814	660	775	750	992	1,053	900	1,000
Senegal	333	399	252	406	604	575	600	700	502	863	900	750
South Africa	360	431	415	448	481	573	529	514	523	572	650	650
Sri Lanka	338	267	39	25	394	349	168	205	18	35	80	100
Syria	86	141	140	236	158	228	160	200	150	172	150	150
Turkey	314	314	268	416	341	274	276	321	309	231	275	250
U.A. Emirates	67	72	73	87	75	75	75	75	75	75	80	80
United States	177	206	265	228	279	317	300	358	308	413	400	415
Yemen	169	145	183	78	157	185	111	217	210	202	200	250
Other	3,931	3,734	3,352	3,749	4,178	4,367	4,387	5,127	5,488	6,292	6,440	6,365
Unaccounted 3/	1,276	1,939	1,591	926	1,783	1,621	1,304	1,653	1,768	1,837	1,802	1,236
World total	14,300	15,000	16,300	20,800	19,700	18,818	27,670	24,941	22,846	24,442	26,589	26,614

NA = Not available. 1/ Projected as of November 2002. 2/ EU rice trade has been adjusted since July 1993 to exclude intra-EU trade for the years 1980 to the present. 3/ This represents exports not accounted for in reports from importing countries. Because this is recurring, it is taken into account in the assessment of the year ahead.

Source: World Grain Situation and Outlook, Foreign Agricultural Service, USDA.

Appendix table 28--U.S. rice exports by type 1/

Crop year	Regular milled 2/	Brown	Par-boiled	Brokens	Rough	Products 2/	Total 3/
				1,000 metric tons			
1977/78	1,315.2	264.5	502.5	87.1	184.1	NA	2,353.4
1978/79	1,416.6	313.7	627.1	20.8	125.8	NA	2,504.0
1979/80	1,537.4	540.3	598.4	40.1	75.8	NA	2,792.0
1980/81	1,011.7	1,366.7	781.7	18.0	18.8	NA	3,196.9
1981/82	976.9	571.1	1,000.9	12.7	262.4	NA	2,823.9
1982/83	993.2	402.7	846.5	5.9	26.0	NA	2,274.3
1983/84	972.7	379.4	821.8	37.6	146.8	NA	2,358.4
1984/85	1,010.0	192.0	630.8	46.8	145.3	NA	2,024.9
1985/86	950.7	308.8	523.8	80.1	75.2	NA	1,938.6
1986/87	1,541.9	277.9	659.7	5.7	371.9	NA	2,857.1
1987/88	1,280.4	201.6	642.9	152.9	52.6	NA	2,330.4
1988/89	1,424.1	356.2	834.4	81.4	179.3	1.4	2,876.8
1989/90	1,164.6	353.9	943.9	65.3	72.3	0.8	2,600.8
1990/91	872.5	480.9	823.3	42.7	218.5	1.5	2,439.3
1991/92	751.9	357.2	776.5	74.4	287.2	2.4	2,249.7
1992/93	924.3	375.8	937.8	147.2	248.2	3.0	2,636.4
1993/94	1,047.1	482.9	816.7	127.7	165.7	3.4	2,643.5
1994/95	1,415.1	307.2	924.1	73.0	839.1	3.8	3,562.2
1995/96	1,203.5	412.7	725.2	46.8	484.6	4.9	2,877.8
1996/97	936.9	420.4	723.5	51.1	577.5	4.2	2,713.6
1997/98	848.7	491.3	594.1	61.7	1,184.4	4.4	3,184.5
1998/99	817.5	600.0	519.1	54.3	1,168.1	9.4	3,168.5
1999/00	957.7	468.2	496.2	137.5	1,144.0	8.7	3,213.1
2000/01	890.0	447.3	519.4	79.7	1,033.9	8.5	2,978.2
2001/02	1,053.9	363.9	501.2	76.5	1,438.8	6.3	3,440.5

1/ Shipments reported on a product-weight basis. 2/ Not reported separately until 1988/89. 3/ Categories may not sum to totals due to overlapping classifications.

Source: Foreign Agricultural Service, USDA.

Appendix table 29--U.S. rice exports by program 1/

Fiscal year	PL 480 2/	Section 416(b)	Global Food for Education	Food for Progress	CCC African relief exports	Total food aid shipments	EEP 3/	Export programs 4/	Exports outside specified export programs	Total U.S. rice exports	Export programs as a share of total exports
					---1,000 metric tons---						Percent
1975	747.0	0.0	0.0	0.0	0.0	747.0	0.0	747.0	1,467	2,214.0	33.7
1976	509.0	0.0	0.0	0.0	0.0	509.0	0.0	509.0	1,374	1,883.4	27.0
1977	676.0	0.0	0.0	0.0	0.0	676.0	0.0	676.0	1,585	2,260.8	29.9
1978	502.0	0.0	0.0	0.0	0.0	502.0	0.0	502.0	1,695	2,197.4	22.8
1979	442.0	0.0	0.0	0.0	0.0	442.0	0.0	442.0	1,891	2,333.0	18.9
1980	500.0	0.0	0.0	0.0	0.0	500.0	0.0	500.0	2,359	2,859.0	17.5
1981	320.0	0.0	0.0	0.0	0.0	320.0	0.0	320.0	2,677	2,997.0	10.7
1982	332.0	0.0	0.0	0.0	0.0	332.0	0.0	332.0	2,444	2,776.0	12.0
1983	429.0	0.0	0.0	0.0	0.0	429.0	0.0	429.0	1,780	2,209.0	19.4
1984	366.0	0.0	0.0	0.0	49.0	415.0	0.0	415.0	1,797	2,212.4	18.8
1985	500.0	0.0	0.0	0.0	180.0	680.0	0.0	680.0	1,228	1,908.0	35.6
1986	411.0	0.0	0.0	0.0	0.0	411.0	22.7	433.7	1,803	2,237.0	19.4
1987	370.0	59.6	0.0	0.0	0.0	429.6	28.0	457.6	1,954	2,412.0	19.0
1988	338.0	29.2	0.0	0.0	0.0	367.2	120.5	487.7	1,637	2,125.0	23.0
1989	355.0	0.0	0.0	0.0	0.0	355.0	20.0	375.0	1,875	2,250.0	16.7
1990	276.0	0.0	0.0	0.0	0.0	276.0	0.0	276.0	2,225	2,501.0	11.0
1991	210.0	4.0	0.0	0.0	0.0	214.0	75.6	289.6	2,126	2,416.0	12.0
1992	228.5	0.0	0.0	16.1	0.0	244.6	358.1	602.7	1,676	2,279.0	26.4
1993	198.8	0.0	0.0	137.0	0.0	335.8	278.5	614.3	2,096	2,710.0	22.7
1994	222.0	0.0	0.0	10.2	0.0	232.2	46.4	278.6	2,155	2,434.0	11.4
1995	195.8	0.0	0.0	13.5	0.0	209.3	112.7	322.0	3,441	3,763.0	8.6
1996	178.5	0.0	0.0	12.0	0.0	190.5	23.0	213.5	2,613	2,826.0	7.6
1997	114.9	0.0	0.0	14.4	0.0	129.3	0.0	129.3	2,431	2,560.0	5.1
1998	182.7	0.0	0.0	11.0	0.0	193.7	0.0	193.7	3,116	3,310.0	5.9
1999	515.3	0.0	0.0	45.4	0.0	560.7	0.0	560.7	2,505	3,066.0	18.3
2000	215.5	147.2	0.0	31.4	0.0	394.1	0.0	394.1	2,913	3,307.0	11.9
2001	144.3	30.7	26.7	29.1	0.0	230.8	0.0	230.8	2,827	3,058.0	7.5
2002 5/	252.6	64.2	24.6	38.9	0.0	380.3	0.0	380.3	3,129	3,509.0	10.8

1/ Exports (program and non-program) reported on a product-weight basis. Program shipments are based on information supplied by the export trade and may not completely reflect actual exports made under these programs. 2/ Titles I, II, and III. 3/ Sales, not actual shipments.
4/ Adjusted for estimated overlap between CCC export credits and EEP shipments. 5/ Estimated. Based on purchases through November 2002.

Sources: Food aid data for fiscal years 1975 through 1991 are from the Economic Research Service "Data Base". Food aid data from fiscal 1992 through 2001 are from the Foreign Agricultural Service and the Farm Services Agency, both with USDA.

Appendix table 30--Top 10 U.S. rice export markets 1/

	2001/02		2000/01		1999/00		1998/99		1997/98		1996/97	
Rank	Country	Exports	Country	Exports	Country	Exports	Country	Exports	Country	Exports	Country	Exports
						Metric tons						
1	Mexico	465.6	Mexico	397.5	Mexico	368.3	Brazil	392.6	Mexico	315.0	Mexico	263.8
2	Japan	359.2	Japan	289.3	Japan	280.5	Japan	298.2	Japan	249.7	Turkey	226.9
3	Haiti	258.1	Canada	177.7	Turkey	210.2	Mexico	246.7	Colombia	207.1	Japan	220.2
4	Canada	171.4	Haiti	174.6	Haiti	200.9	Haiti	221.4	Haiti	178.5	Canada	161.8
5	Nicaragua	129.3	Saudi Arabia	146.3	Canada	175.3	Canada	167.1	Canada	171.2	Saudi Arabia	160.3
6	Saudi Arabia	114.5	Turkey	107.0	Saudi Arabia	154.3	Peru	119.2	Saudi Arabia	121.3	Haiti	146.4
7	Turkey	112.7	United Kingdom	103.8	United Kingdom	125.6	Saudi Arabia	106.4	Peru	119.8	Republic of South Africa	119.1
8	Honduras	111.9	Philippines	104.7	Ghana	81.3	United Kingdom	102.3	Ecuador	111.2	United Kingdom	101.8
9	El Salvador	108.0	Ghana	80.8	Republic of South Africa	75.0	Turkey	88.5	Dominican Republic	108.4	Jordan	87.9
10	United Kingdom	94.3	Honduras	68.7	Philippines	72.2	Republic of South Africa	81.2	Turkey	101.1	Switzerland	79.6
	Sub-total	1,925.0	Sub-total	1,650.4	Sub-total	1,743.6	Sub-total	1,823.6	Sub-total	1,683.3	Sub-total	1,567.8
	Total exports	2,959.0	Total exports	2,514.9	Total exports	2,801.5	Total exports	2,735.9	Total exports	2,767.6	Total exports	2,485.0

1/ August-July crop year. Exports are reported on a milled basis. Note: Major revisions on historical data.

Source: Foreign Agricultural Service, USDA.

Appendix table 31--U.S. rice imports by origin, market years

Country of origin	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02
						Metric tons				
Thailand	167,549	179,979	190,466	204,356	234,795	215,355	238,788	235,202	259,591	282,019
India	19,419	16,265	18,468	24,354	25,165	33,367	33,428	40,387	47,769	47,156
Pakistan	3,903	5,011	6,934	5,167	5,090	9,378	9,340	9,973	10,815	11,362
Vietnam	0	3,032	16,204	40	44,577	20,116	1,324	36	125	236
China	13	7,460	103	1,654	668	94	12,938	24,984	1,192	486
Italy	1,167	2,445	3,752	3,365	3,516	3,842	4,131	4,627	3,903	3,788
Argentina	0	0	0	0	10,409	41	0	137	20	59
Uruguay	0	0	0	0	1,830	5,489	0	0	0	0
Egypt	0	0	0	0	6	0	5,294	54	63	127
Australia	27	0	0	0	0	0	11,576	103	10,900	62,238
Other 1/	2,444	3,847	1,453	2,158	3,795	9,236	22,850	9,193	13,858	14,446
Total	194,522	218,039	237,380	241,094	329,850	296,918	339,669	324,696	348,236	421,917

Product-weight basis.

1/ Primarily Spain, Guyana, Singapore, and Hong Kong. May include some transshipments.

Source: Bureau of the Census, Department of Commerce.

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