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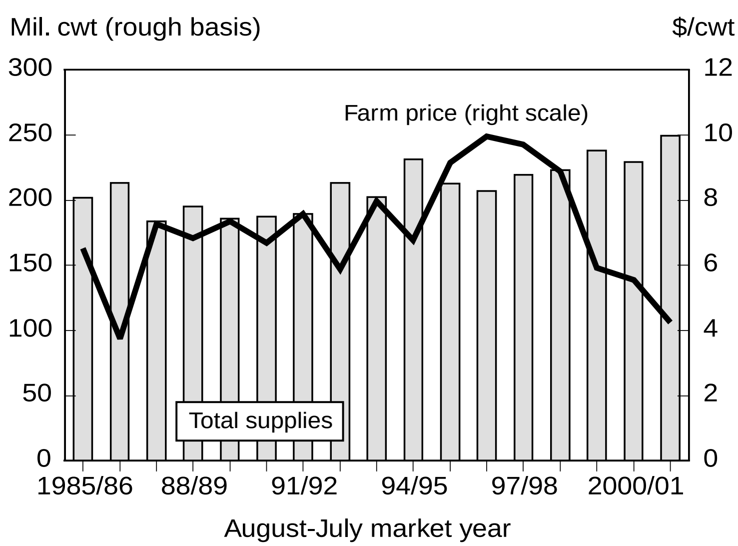
November 2001

USDA

Rice

Situation and Outlook Yearbook

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



2001/02 is mid-point of projected range.

Source: ERS, USDA.

Rice Situation and Outlook Yearbook. Market and Trade Economics Division, Economic Research Service, U.S. Department of Agriculture, November 2001, RCS-2001.

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Summary

Record Supplies, Lower Prices Projected for 2001/02 U.S. Rice Market

Total U.S. rice supplies for 2001/02 (August-July) are projected at 249.2 million hundredweight (cwt) (rough basis), up almost 9 percent from a year earlier and the largest on record. A 10-percent increase in production to a record 209.7 million cwt and an almost 4-percent increase in beginning stocks to 28.5 million cwt account for the bulk of the supply increase. In addition, imports are projected up 1 percent to a record 11 million cwt.

U.S. rice plantings for 2001/02 are estimated at more than 3.3 million acres, up more than 8 percent from a year earlier. Higher total returns to rice than alternative crops—primarily soybeans in the South—were behind the rice acreage expansion. The average yield is projected to be a record 6,374 pounds per acre, up 93 pounds from a year earlier. Extremely good weather during the growing season across much of the South—where the bulk of the U.S. crop is grown—and increased plantings of new, higher yielding southern long grain varieties are behind this year's second consecutive record yield.

Long grain accounts for all of the increase in production. Long grain production in 2001/02 is projected at a record 162.3 million cwt, up 26 percent from a year earlier. At planting, long grain prices were slightly higher than a year earlier and stronger than prices for medium grain, major factors behind increased long grain acreage this year. Nearly all U.S. long grain rice is produced in the South. In contrast, combined medium/short grain production is projected to decline nearly 24 percent to 47.5 million cwt, a result of a 26-percent drop in plantings. Extremely low prices at planting—the result of a record 2000 California crop—were behind the decline in medium/short grain plantings. California accounts for more than two-thirds of the U.S. medium/short grain crop. In parts of the South, acreage is typically shifted among classes of rice—i.e., long, medium, and short—based on expected returns.

Total use is projected at 207 million cwt in 2001/02, up 3 percent from a year earlier but almost 2 percent below the 1999/2000 record. Both domestic use and exports are projected higher in 2001/02. Total domestic use is projected at 121 million cwt, up 3 percent from a year earlier but fractionally below the 1999/2000 record. U.S. rice exports are projected to increase 3 percent to 86 million cwt, primarily due to more competitive U.S. prices. Milled and brown rice exports (on a rough basis) account for nearly all of the increase. Combined U.S. milled and brown rice exports are projected at 63 million cwt, up almost 4 percent from a year earlier. Rough rice exports are projected to increase fractionally to 23 million cwt, nearly 12 percent below the 1997/98 record. By class, long grain rice is projected to increase 7 percent, accounting for all of the export expansion. Combined medium/short grain exports are projected to decline 11 percent.

Total ending stocks are projected at 42.2 million cwt, up more than 48 percent from a year earlier and the largest since 1986/87. The higher stocks are the result of a 9-percent increase in total supplies, more than offsetting a 3-percent increase in total use. The stocks-to-use ratio is projected at 20.4 percent, well above a year earlier's 14.2 percent and the largest since 1992/93. Long grain accounts for all of the expected increase in ending stocks. Medium/short grain stocks are projected to decline.

U.S. Long Grain Supplies Projected To Rise 19 Percent to Record

U.S. long grain supplies are projected at nearly 183 million cwt, a record and up more than 19 percent from a year earlier. A 26-percent increase in production and slightly higher imports account for the record U.S. supplies. In contrast, long grain beginning stocks are almost 26 percent below a year earlier. Total long grain use is projected to increase more than 10 percent to more than 156 million cwt, just 1 percent below the 1999/2000 record. Both domestic use and exports of long grain rice are projected to be higher than a year earlier, a result of lower prices and record supplies.

Long grain ending stocks are projected to increase 130 percent to 26.8 million cwt in 2001/02, the largest since 1986/87. The resulting stocks-to-use ratio is 17.2 percent, more than double a year earlier and the highest since 1992/93. U.S. long grain prices will be under substantial price pressure throughout the 2001/02 market year.

The medium/short grain market faces a somewhat different outlook in 2001/02. Total medium/short grain supplies are projected to drop almost 14 percent to 65 million cwt. A 24-percent drop in production to 47.5 million cwt more than offset an almost 50-percent increase in beginning stocks to 15.6 million cwt. Imports, projected at 2 million cwt, are virtually unchanged from a year earlier.

Total medium/short grain use is projected to drop 14 percent to 50.9 million cwt, the smallest since 1992/93. Both domestic use and exports are projected to decline in 2001/02. Medium/short grain domestic use is projected to drop more than 15 percent to 34.9 million cwt. Exports are projected to decline nearly 11 percent to 16 million cwt. The net result is a 9-percent drop in ending stocks to 14.1 million cwt. The stocks-to-use ratio is projected to rise slightly to 27.8 percent, the largest since 1992/93.

The 2001/02 season-average farm price (SAFP) is projected at $4.00 to $4.50 per cwt, down from a year earlier's $5.56 and the lowest since 1986/87. This is the fifth consecutive year of declining SAFP in the United States. The price situation by grain type is expected to be different. Long grain prices have already declined from prices quoted at the start of the 2001/02 market year and are currently the lowest since 1986/87. For medium/short grain rice, U.S. prices began to strengthen late last spring in anticipation of a substantial drop in U.S. supplies this year. However, despite the recent strengthening, U.S. medium/short grain prices are only slightly higher than a year earlier and are quite low by historic comparison.

U.S. prices for long grain milled rice are well below a year earlier. In late-November, prices for high quality southern long grain (U.S. No. 2, 4-percent brokens, fob mill in Houston) were quoted at $220 per ton, down $56 from August and the lowest since 1987. Prices for California medium grain milled rice (U.S. No. 1, 4-percent brokens, f.o.b. Sacramento) were quoted at $287 per ton in late-November, up $67 from mid-September.

Global Trade Projected Flat in 2002; Prices Remain Near 15-Year Low

From late March through the first half of November, global trading prices were the lowest in 15 years, 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. After mid-November prices increased slightly, primarily due to a temporary tight supply situation in Vietnam. For 2002, global rice trade is projected at 23 million tons (milled basis), virtually the same as a year earlier and 17 percent below the 1998 record. Global rice production in 2001/02 is projected at 393.3 million tons (milled basis) down fractionally from a year earlier and almost 4 percent below the 1999/2000 record of 408.5 million tons. Despite the smaller crop there is little expectation of any price strengthening in 2001/02. This forecast assumes normal weather for the remainder of the 2001/02 market year. A major weather problem could alter this projection.

Global rice prices remained relatively flat from late March through early November, with quoted prices for Thai 100-percent Grade B averaging $175 per ton. This is the longest period of time that prices remained at this low of a level since the early 1970s. Since mid-November international prices have risen, primarily due to higher prices for Vietnam's rice. Prices for Vietnam's 5-percent brokens averaged $193 per ton during the last 2 weeks of November, up more than $40 since early July due to a tight supply situation.

China accounts for the bulk of this year's expected reduction in global rice production. However, China is expected to have plenty of supplies for both its domestic market and to expand exports next year. Other major exporters—Thailand, Vietnam, India, and the United States—are expected to produce record- or near-record crops in 2001/02. Drought reduced Pakistan's crop in 2001/02. With the exception of a severe drought in parts of the Middle East that has significantly reduced crops in Iran and Iraq, most major importers are expecting to harvest bumper crops in 2001/02.

Global rice trade has essentially been flat at 23 million tons annually since 2000. For 2002, higher imports by Indonesia, Iran, Turkey, and Bangladesh are offset by weaker imports by Nigeria, the Philippines, and Saudi

Arabia. For other major importers, such as Iraq, Japan, Brazil, and South Africa, trade is projected flat in 2002. For many importers, especially Indonesia, the Philippines, and Brazil, trade remains well below the 1998 record, a result of strong production recovery from the 1997/98 El Niño and large stocks accumulated in the late 1990s.

On the export side, Vietnam, China, Australia, Egypt, and the United States are expected to ship more rice in 2002 than this year. In contrast, India, Argentina, Guyana, and Uruguay are expected to export less rice. For Pakistan and Thailand, exports are projected flat. With Australia and Egypt—top japonica exporters—projected to ship record or near-record levels of rice in 2002, the United States will likely face intense competition in the Eastern Mediterranean.

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 Pushes U.S. Supplies to Record

U.S. rice supplies are projected to increase almost 9 percent to 249.2 million cwt in 2001/02, the result of a record crop, a larger carry-in, and slightly higher imports. The record crop—up 10 percent from a year earlier—is the result of an 8-percent increase in plantings and a record yield. Long grain supplies, projected at a record 182.9 million cwt, account for all of the increase. Combined medium/short grain supplies are projected to drop 13 percent to 65 million cwt.

U.S. Rice Crop Up 10 Percent On Larger Plantings, Record Yield

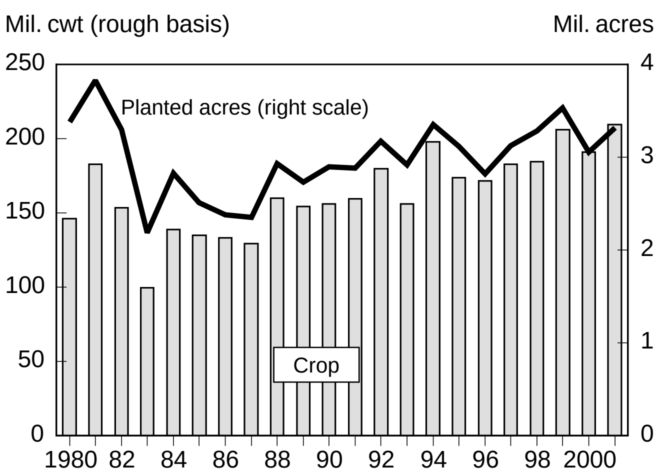
Based on estimates by the U.S. Department of Agriculture's (USDA) National Agricultural Statistics Service (NASS) in early November, the 2001/02 U.S. rice crop is forecast at a record 209.7 million cwt (rough basis), up 10 percent from a year earlier. The record crop is the result of a more than 8-percent increase in plantings to almost 3.32 million acres and a record yield. The average yield, projected at 6,374 pounds per acre, is up 93 pounds from a year earlier. This is the second consecutive year of a record U.S. average yield.

NASS reports annual rice production grown in six States: Arkansas, California, Louisiana, Mississippi, Missouri, and Texas. These 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.

Long grain accounts for all of this year's increase in rice production. U.S. long grain production is projected at a record 162.3 million cwt, up 26 percent from a year earlier. In contrast, medium grain production is projected at 45.6 million cwt, down more than 23 percent from a year earlier. Short grain production, accounting for less than 1 percent of the total U.S. crop, is projected at almost 1.9 million cwt, down 28 percent from 2000/01. California accounts for nearly

Figure 1

U.S. 2001 rice crop projected at record 209.7 million cwt

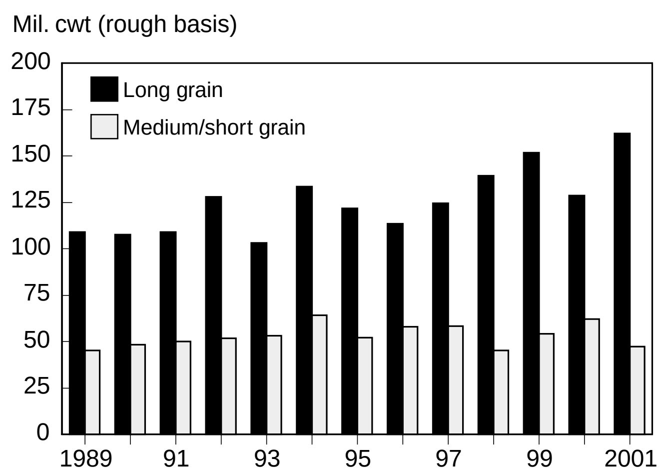


2001 projected.

Source: NASS, USDA.

Figure 2

U.S. long grain crop projected to rise 26 percent to record 162 million cwt



2001 projected.

Source: NASS, USDA.

all of the reduction. The bulk of California's short grain crop is exported to Japan.

Expectations of tight supplies of long grain rice by season-end boosted prices at planting, a major factor behind expanding long grain acreage this year. In 2000/01 U.S. long grain supplies declined almost 12 percent, a result of a much smaller crop. In contrast, at planting medium grain prices were the lowest in nearly 15 years, a major reason for both smaller plantings in California—which grows mostly medium grain—and shifts to long grain acreage from medium grain in the South.

U.S. Average Yield Estimated at Record 6,374 Pounds Per Acre

In early November, NASS forecasted average field yields for 2001/02 at a record 6,374 pounds per acre, up more than 1 percent from a year earlier. Generally favorable weather across most of the South and greater plantings of newer, higher yielding long grain varieties are behind the record yield. The 2001 yield is projected to be the highest on record despite a significant shift in acreage to the lower yielding southern long grain rice from the higher yielding California medium grain. This is the second consecutive year of a record average yield and only the third time the U.S. average yield exceeded 6,000 pounds per acre.

Field yields are reported higher this year in all rice growing States except Texas, with record yields projected for Arkansas, Louisiana, Mississippi, and Missouri. The Arkansas yield is projected at 6,200 pounds per acre, up 90 pounds from last year; California at 8,200 pounds, up 260; Louisiana, at 5,400 pounds, up 320; Mississippi at 6,500 pounds, up 600; and Missouri at 5,850 pounds, up 150. In contrast, average yields in Texas are projected at 6,500 pounds, down 200 from a year earlier's record but the second largest on record.

Despite an increase of more than 3 percent this year, rice yields in California remain well below the 8,500 pounds per acre record achieved in 1991, 1992, and 1994. In fact, except for 1997 and 2001, 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.

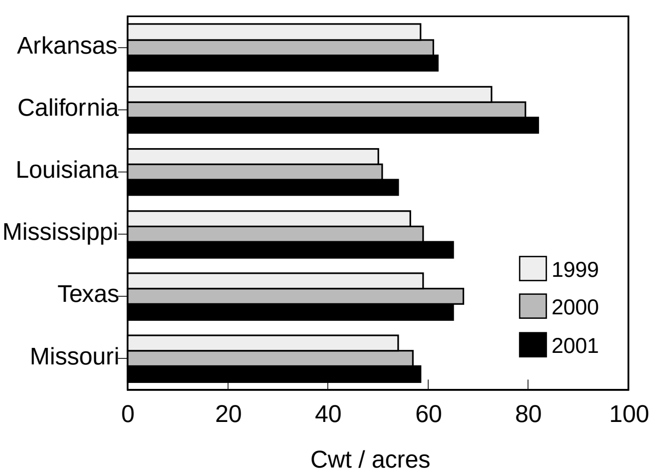
South Accounts for this Year's Expanded Rice Acreage

In November, NASS reported total harvested area at 3.29 million acres, up 251,000 acres from a year earlier. Rice acreage is higher this year in all States except Texas, where rice acreage is unchanged from 2000 and in California where plantings are down.

Arkansas, the largest rice producing State, accounted for the bulk of the acreage increase. Harvested area rose 197,000 acres to 1.61 million, just fractionally below the 1999 record. Louisiana's rice acreage is esti-

Figure 3

Farm yields are higher in 2001 in every State except Texas

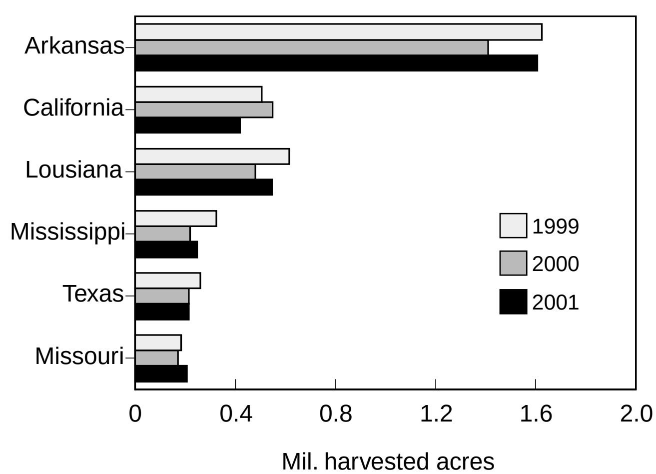


2001 estimated.

Source: NASS, USDA.

Figure 4

Rice acreage expanded in 2001 in every State except California and Texas



2001 estimated.

Source: NASS, USDA.

mated at 545,000 acres, a 65,000-acre increase from a year earlier. Rice acreage in Louisiana remains well below the record 679,000 acres harvested in 1969. Missouri's rice plantings rose 36,000 acres to a record 205,000. Missouri has substantially increased rice acreage over the past decade. Mississippi's rice acreage is estimated at 248,000 acres, up 30,000 from a year earlier but well below the 1981 record of 337,000 harvested acres.

In Texas, rice area is estimated at 214,000 acres, unchanged from a year earlier but well below the 1968 record of 597,000 harvested acres. This is the smallest rice acreage since the mid-1930s. Rice acreage in Texas has declined sharply since the early 1980s. Higher production costs, lack of an economically viable rotation crop for many producers, and weather problems such as hurricanes and flooding account for the long-term decline in rice plantings in Texas. Harvested area in California is estimated at 471,000 acres, a drop of more than 14 percent from a year earlier, and well below the 1981 record of 593,000 acres. This year at planting, prices for California rice were the lowest since 1986/87, a major factor behind the area decline.

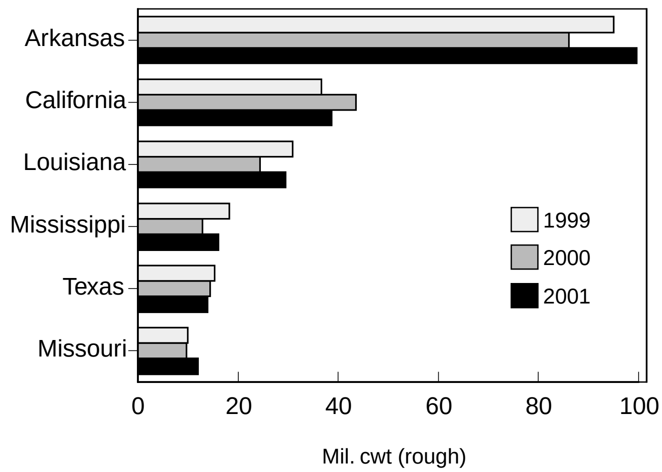
Record Crops Projected for Arkansas and Missouri in 2001

Rice production in 2001 is projected higher than a year earlier in every State except California and Texas, with record crops projected for Arkansas and Missouri. Arkansas is expected to account for the bulk of the 18.8-million-cwt increase in total U.S. rice production in 2001. Rice production in Arkansas this year is estimated at 99.6 million cwt, up almost 16 percent from a year earlier, a result of greater plantings and a slightly higher yield.

Several States are projected to increase rice production more than 20 percent this year. Louisiana's crop is projected at 29.4 million cwt, an increase of more than 20 percent from a year earlier, with greater plantings accounting for the bulk of the larger crop. Drought and salt water intrusion were major factors behind a 21-percent reduction in Louisiana's 2000 rice crop. In Mississippi, rice production is estimated at 16.1 million cwt, up more than 25 percent from 2000, a result of both greater plantings and a higher yield. Missouri's record crop of 12 million cwt is up almost 25 percent from a year earlier, primarily due to a more than 21-percent increase in area.

Figure 5

Arkansas produced almost 100 million cwt of rice in 2001



2001 estimated.

Source: NASS, USDA.

In contrast, California's 2001 rice crop is estimated at 38.6 million cwt, a drop of more than 11 percent from a year earlier. Weaker plantings accounted for all of the decline; the average yield is up slightly. Texas rice production is estimated at 13.9 million cwt, a decline of 3 percent from 2000 and the smallest since 1983. The smaller crop is the result of a slight decline in average yield; area is unchanged.

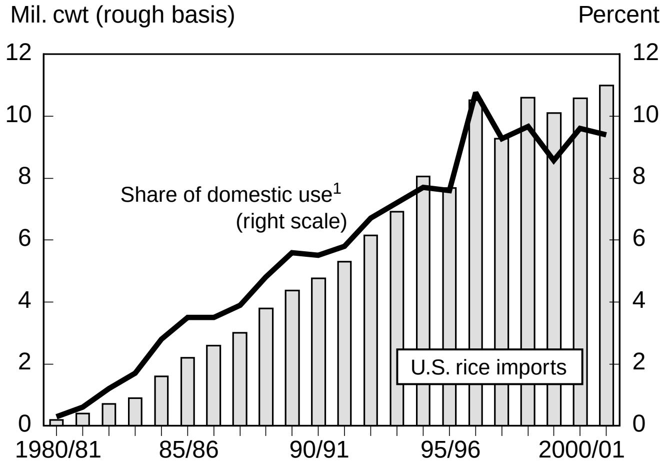
Total U.S. Supplies Projected at Record 249.2 Million Cwt

Total U.S. rice supplies in 2001/02 are projected at a record 249.2 million cwt, up almost 9 percent from a year earlier. Beginning stocks, production, and imports are all larger than in 2000/01. Based on data from the NASS August *Rice Stocks* report, beginning stocks for 2001/02 are estimated at 28.5 million cwt, up 1 million cwt from a year earlier and the largest since 1995/96.

U.S. rice imports are projected at a record 11 million cwt, up fractionally from a year earlier. Nearly all U.S. rice imports are aromatic varieties not currently grown in the United States. Most are long grain varieties. U.S. rice imports have increased sharply over the past two decades. However, the rate of growth has slowed slightly since 1995/96. About 80 percent of U.S. rice imports 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, and smaller quantities of rice are imported from Vietnam, China, and Egypt.

Figure 6

U.S. rice import growth has slowed since the mid-1990s



[1]Does not include seed use.
2001/02 projected.

Source: ERS, USDA.

The supply situation is very different when examined by grain type. For long grain rice, total supplies are projected at a record 183 million cwt, up more than 19 percent from a year earlier. The larger supplies are the result of a 26-percent increase in production and a 3-percent increase in imports to a near-record 9 million cwt. In contrast, data from the August 2001 *Rice Stocks* report indicate long grain stocks at the beginning of the 2001/02 market year at 11.6 million cwt, an almost 26-percent drop from a year earlier and the lowest since 1996/97.

The supply situation in the medium/short grain market is quite different. Total medium/short grain supplies are projected at 65 million cwt, down 13 percent from a year earlier. Despite this year's reduction, medium/short grain supplies are still almost 3 percent larger than 1998/99 and more than 9 percent higher than 1997/98. This year, a 24-percent drop in production and weaker imports more than offset an almost 50-percent increase in beginning stocks. This year's combined medium/short grain crop is almost 15 million below a year earlier. And imports, projected at 2 million cwt, are down almost 5 percent from a year earlier. In contrast, data from the August *Rice Stocks* report indicate beginning stocks of medium/short grain rice at 15.6 million cwt, nearly double a year earlier's level and the largest since 1995/96. A record California crop in 2000/01 was a main factor behind the huge increase in medium/short grain stocks.

Domestic Use, Exports Projected Higher in 2001/02

Total rice use in 2001/02 is projected to increase more than 3 percent from a year earlier, with both domestic use and exports higher. Total domestic use is projected to increase more than 3 percent to 121 million cwt, while U.S. exports are expected to increase 3 percent to 86 million. Total long grain use, projected at a record 182.9 million cwt, accounts for all of the expected increase in both domestic use and exports. In contrast, combined medium/short grain total use is projected to decline in 2001/02. Ending stocks of total rice are projected to increase 48 percent to 42.2 million cwt, the largest since 1986/87.

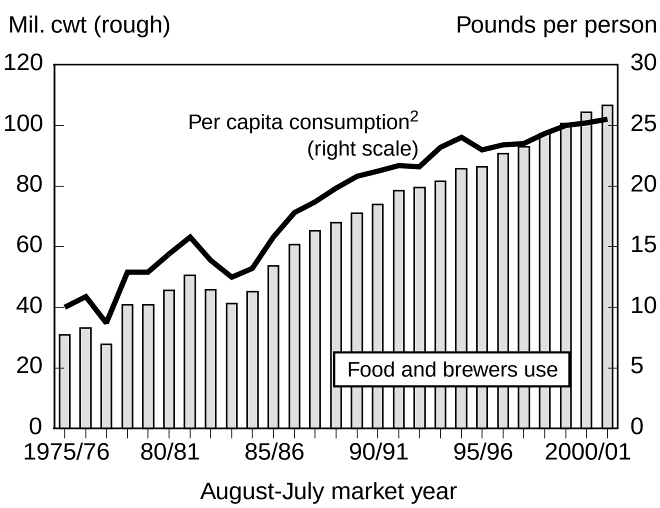
Stronger Exports and Domestic Use Push Total Rice Use to Near-Record

Total rice use—*domestic and residual* plus *exports*—in 2001/02 is projected at 207 million cwt, up more than 3 percent from a year earlier but nearly 2 percent below the 1999/2000 record. Both domestic use—including residual, or unreported losses in transporting and marketing—and exports are projected higher in 2001/02.

Total domestic utilization (*food, industrial, and residual* plus *seed use*) is projected at 121 million cwt, up more than 3 percent from 2000/01 and just fractionally below the 1999/2000 record. Food, industrial, and residual—projected to increase more than 3 percent to 117 million cwt—accounts for all of the expected growth in domestic use in 2001/02. Seed use is projected to drop fractionally to 4.0 million cwt.

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 Bureau of Economic Analysis estimates that smoothed in data from the 2000 Census of Population.

2001/02 projected.

Source: FAS, USDA.

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 averaged 5 percent a year. This year, USDA's long-term baseline projection forecasts a growth rate of more than 2 percent a year for the next decade. While only about half the rate achieved a decade ago, growth is still more than double the rate of population growth. Fewer meals fixed at home and a premium on meal preparation time have contributed to a slowing of the growth in U.S. rice consumption. Despite the slower expansion in total food use of rice, per capita U.S. rice consumption—including brewers' use and pet food—continues to rise every year.

Food use accounts for most of the expansion in U.S. rice consumption over the past two 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.

Processed foods have increased at a faster rate than direct food use (or table rice) and now account for 23 percent of total domestic rice consumption, not counting seed and residual. Pet food is the fastest growing processed food use of rice. Pet food accounted for almost 41 percent of reported use of rice in processed foods in 1999/2000, the last year in which survey data have been reported. Data on rice use in the United

States by category and product are derived from an annual milled rice distribution survey funded by the USA Rice Federation.

In contrast, beer use has essentially been flat since the late 1980s. Greater popularity of “lite” beers which use less rice than regular beers, increased beer imports, and fractional growth in per capita consumption account for the lack of growth in rice use in beer.

Per capita rice consumption—including direct food use, processed foods, pet foods, and beer—has nearly doubled since the mid-1980s and currently exceeds 27 pounds. Since the mid-1990s, per capita consumption has grown about a half-pound a year, down from a pound a year in the 1980s and early 1990s. Per capita rice consumption is projected to continue rising over the next decade.

U.S. Rice Exports Projected To Reach 86 Million Cwt

U.S. rice exports in 2001/02 are projected to increase 3 percent to 86 million cwt (rough basis). A smaller price difference over major Asian competitors—primarily Thailand—and record domestic supplies are behind the expected expansion in U.S. exports. Milled rice, including brown rice, is expected to account for the bulk of the export expansion. By class, long grain rice is projected to account for all of the export expansion this year. In contrast, combined medium/short grain exports are projected to decline in 2001/02.

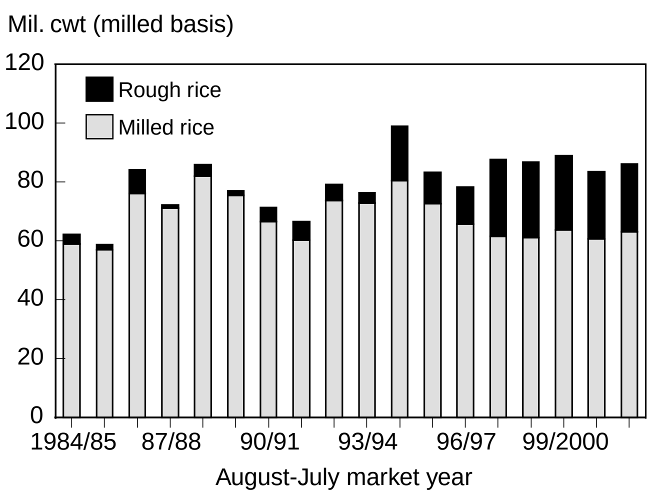
Combined milled and brown rice exports are projected at 63 million cwt in 2000/01, up nearly 4 percent from a year earlier. A decline in the price difference over similar grades of Thai rice is behind the expected expansion. Since last spring this difference has declined from more than $100 per ton to less than $40 by late November. However, despite the smaller difference, U.S. milled rice exports are behind a year earlier to several top markets, including the European Union (EU) and South Africa.

U.S. rough rice exports are projected at 23 million cwt in 2001/02, up fractionally from a year earlier but still more than 3 million cwt below the 1997/98 record. Mexico and Central America are the largest markets for U.S. rough rice, taking almost exclusively long grain. Turkey, primarily a medium grain market, is the only other regular large market for U.S. rough rice. In addition, the EU typically imports small amounts of U.S. rough rice, mostly long grain. While not typically a market for U.S. rough rice, South America often imports huge amounts when regional supplies are tight, typically due to crop shortfalls in the region. As recently as 1998, Brazil, Colombia, and Ecuador have all purchased substantial amounts of U.S. rough rice—mostly long grain.

In 2001/02, Mexico and Central America are projected to remain top markets for U.S. rough rice. As of mid-November U.S. exports of rough rice to these markets were well ahead of a year earlier’s pace. In contrast, U.S. shipments to Turkey are substantially behind a year

Figure 8

U.S. milled rice exports projected to rise 4 percent in 2001/02

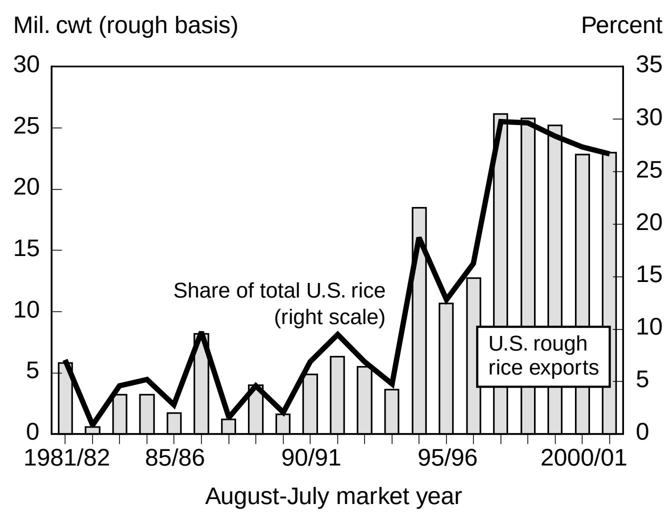


2001/02 projected.

Source: ERS, USDA.

Figure 9

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



2001/02 projected.

Source: ERS, USDA.

earlier. In late August the Government of Turkey placed a temporary ban on rough (or paddy) rice imports.

The United States is the only major exporter of rough rice, and rough rice has become a larger share of U.S. exports, accounting for 25 to 30 percent in recent years. U.S. rough rice exports have expanded substantially since 1990/91. And while the 1997/98 El Niño pushed U.S. shipments to record and near-record levels in 1997/98 and 1998/99, shipments to regular buyers have risen over the past decade as well. While none of the major Asian exporters ships rough rice, Argentina, Uruguay, and Guyana ship some rough rice within Latin America, and Australia has shipped rough rice to Turkey.

Long Grain Accounts for All of the Rise in Domestic Use and Exports

Long grain accounts for all of the projected increase in total rice use in 2001/02. Total long grain use is projected at 156.1 million cwt, up 10 percent from a year earlier and just 1 percent below the 1999/2000 record. Both domestic use and exports are projected higher this year.

Total domestic use (including residual) of long grain rice is projected at 86.1 million cwt, up more than 13 percent from a year earlier but about 1 percent below the 1999/2000 record. Expectations of some shift by brewers and food processors to long grain from medium grain rice is behind much of the projected increase in domestic use of long grain rice. Last year, smaller supplies of long grain rice caused some shift to the more abundant and lower priced medium grain rice.

Long grain exports are projected to increase 7 percent to 70 million cwt, slightly below levels achieved from 1997/98 through 1999/2000. Milled rice is expected to account for most of the increase in long grain exports. A declining price difference over Thailand—the primary U.S. competitor in the Middle East and South Africa—as well as record supplies are behind expectations of increased U.S. long grain exports in 2001/02.

U.S. Medium/Short Grain Exports Projected To Decline in 2001/02

In contrast to the U.S. long grain market, total use of combined medium/short grain rice is projected to decline 14 percent to 50.9 million cwt, the smallest since 1992/93. Both domestic use, including residual, and exports are projected to decline in 2001/02. Medium/short grain domestic use is projected at 34.9 million cwt, a decline of more than 15 percent from a year earlier. Expectations of shifts to lower priced long grain rice for use in processed foods and beer account for most of the reduction in medium/short grain use.

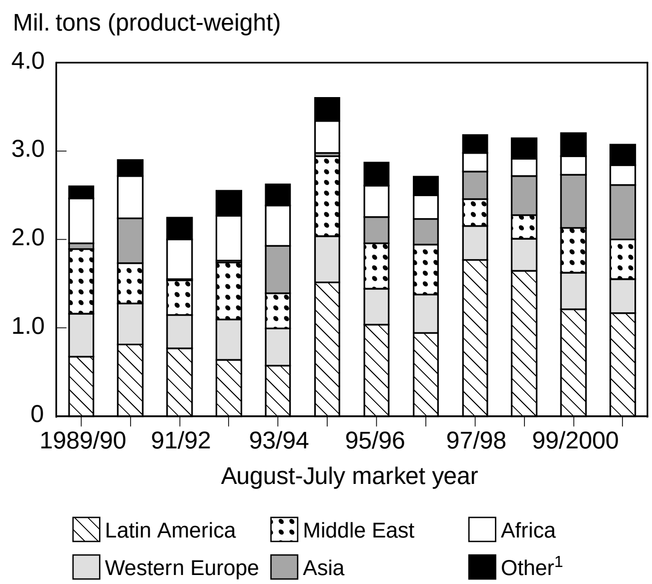
Medium/short grain exports in 2001/02 are projected to decline 11 percent to 16 million cwt. Despite the decline, exports are about 600,000 cwt higher than in 1997/98 and 1998/99. Japan, Turkey, and Jordan are typically the top markets for U.S. medium/short grain rice. In addition, this year the United States has shipped medium/short grain rice to Uzbekistan and South Korea.

Several factors account for the projected decline in U.S. medium/short grain exports this year. First, both Australia and Egypt—major competitors of the United States in the global medium/short grain market—are projected to harvest bumper crops in 2001/02. Second, Turkey's recent ban on paddy rice imports is a major hindrance to U.S. trade. Rough rice has accounted for the bulk of U.S. rice exports to Turkey in recent years.

And finally, Japan's World Trade Organization (WTO) imports are not scheduled to increase until another WTO agreement is reached. Japan is the largest global importer of medium/short grain rice and the largest market for U.S. medium/short grain rice. In fact, more than half of California's annual rice exports typically go to Japan. The United States supplies about half of

Figure 10

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



[1]Primarily Eastern Europe, the former Soviet Union, and Oceania.

Source: Bureau of the Census, USDC.

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 WTO's minimum access requirements. Extremely high tariffs on any over-quota rice imports virtually preclude purchases beyond the minimum access requirements.

U.S. Ending Stocks Projected To Be Largest Since 1986/87

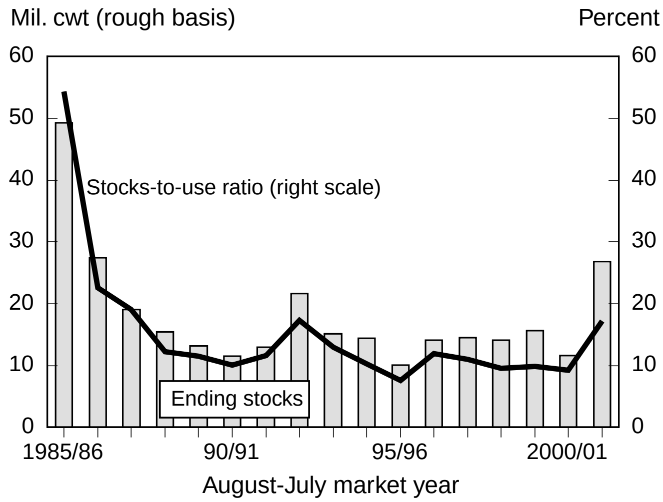
U.S. ending stocks of all rice for 2001/02 are projected at 42.2 million cwt, up 48 percent from a year earlier and the largest since 1986/87. An almost 9-percent increase in total supplies more than offset a 3-percent increase in total use, resulting in the 13.7-million-cwt increase in ending stocks. The resulting stocks-to-use ratio is projected at 20.4 percent, well above a year earlier's 14.2 percent and the largest since 1992/93.

The ending stocks situation is expected to be somewhat different by class of rice. For long grain rice, ending stocks are projected to jump 130 percent to 26.8 million cwt, the largest since 1986/87. The long grain stocks-to-use ratio is projected at 17.2 percent, more than double a year earlier's and the largest since 1992/93. Assuming normal weather worldwide, U.S. long grain prices are expected to remain under severe price pressure for at least the remainder of the 2001/02 market year.

In contrast, medium/short grain ending stocks for 2001/02 are projected to drop 9 percent to 14.1 million cwt. A 13-percent drop in medium/short grain supplies was more than offset by a 14-percent reduction in total use. Despite the expected 1.5-million-cwt decline, 2001/02 ending stocks are still more than 20 percent above the 1996/97 to 2000/01 average. The resulting medium/short grain stocks-to-use ratio is projected at 27.8 percent, up from 26.3 percent a year earlier and the largest since 1992/93. While some price strengthening is expected for medium/short grain rice this year—a result of smaller supplies, ending stocks of this level will limit any price increase.

Figure 12

Long grain ending stocks projected to climb more than 130 percent in 2001/02

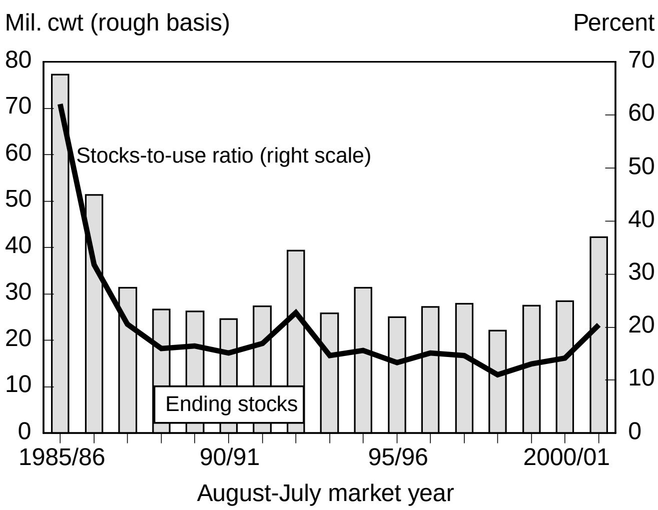


2001/02 projected.

Source: ERS, USDA.

Figure 11

U.S. ending stocks projected to be highest since 1986/87

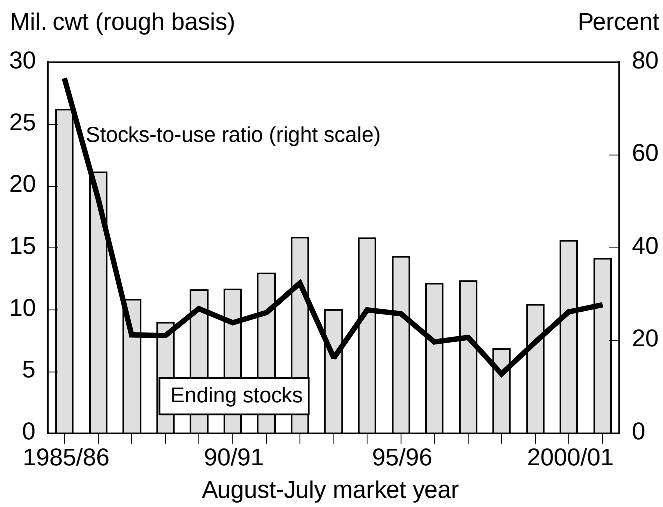


2001/02 projected.

Source: ERS, USDA.

Figure 13

Combined medium/short grain ending stocks projected to drop slightly in 2001/02



2001/02 projected.

Source: ERS, USDA.

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

The U.S. season-average farm price for 2001/02 is projected at $4.00 to $4.50 per cwt, down from $5.56 a year earlier and the lowest in 15 years. Record supplies of rice at home and extremely low international prices are behind the bearish price outlook. Without a major weather disturbance there is little reason to expect any strengthening of world prices. Thus U.S. producers are expected to realize marketing loan benefits for the remainder of the 2001/02 market year. Total U.S. food aid shipments in fiscal 2001 are estimated to be 205,400 tons, down almost 189,000 tons from a year earlier.

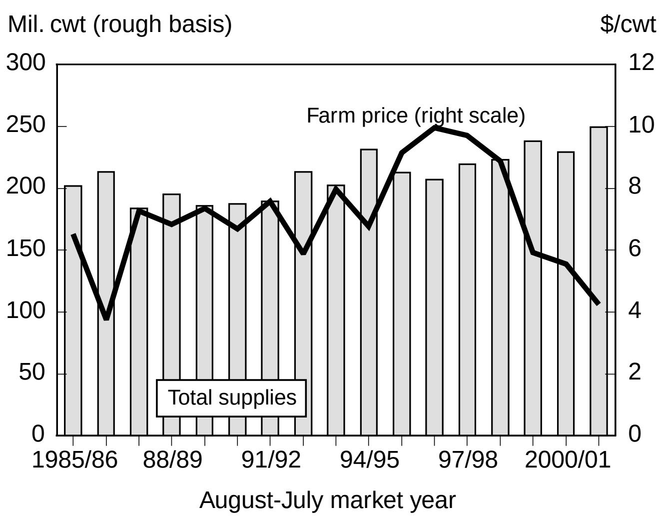
Season-Average Farm Price Projected At $4.00 to $4.50 Per Cwt

The 2001/02 season-average farm price is projected at $4.00 to $4.50 per cwt, down from $5.56 a year earlier and the lowest since 1986/87. This is the fifth year of declining season-average farm prices for U.S. rice. Record supplies of rice at home and extremely low prices in the international rice market are behind the bearish price outlook.

Average U.S. monthly cash prices for rough rice have declined since the start of the 2001/02 market year. In November, USDA estimated November's mid-month price at $4.23 per cwt and revised October's to $4.36. These are the lowest monthly prices since September 1987. U.S. monthly cash prices have dropped every month since August when harvest of this year's record crop began in Texas and Southwest Louisiana. Prices declined further in September when harvest peaked in the Delta—the largest rice-growing region in the United States. Currently, the price drop is being cushioned by some farmer-holding of rice. However, without a major weather disturbance somewhere in the world, U.S. prices are expected to decline even further in 2001/02.

Figure 14

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



2001/02 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 on expectations of a record long grain crop this year and, since April, extremely low international prices. In mid-November, long grain rough rice prices were quoted at around $3.75 per cwt across the South, the lowest in at least 15 years. Prices were around $6 per cwt at the end of the 2000/01 market year in July, but steadily declined as the record-long grain crop was harvested. In 2000/01, U.S. long-grain prices were supported by a 12-percent decline in supplies.

In contrast, medium grain farm prices have increased since June due to a much smaller crop in both California and the South this year. Prices for California medium grain rice in mid-November were calculated at about $5.00 per cwt, up from $3.20 to $3.30 in June. 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. A record 2000 California crop pushed medium grain prices to near-record lows in 2000/01. In the South, medium grain prices were quoted at $4.44 per cwt in mid-November, up from less than $4.00 in August.

Marketing Loan Gains Exceed $3.35 Per Cwt

U.S. producers are eligible for marketing loan benefits when foreign prices (represented by USDA's weekly announced 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 the start of the 1995/96 market year until late March 1999, the announced 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, exceeded $2 per cwt for all three classes of rice—long, medium, and short. Payment rates continued to rise in 2000/01 as the announced world price declined.

From May through July 2001, the announced 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 were $3.69 for long grain, $3.67 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 announced world price this fall reduced the payment rate 20 to 25 cents for all three classes of rice. However, the average payment rate was almost $3.40 per cwt in November. 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 2001/02 market year.

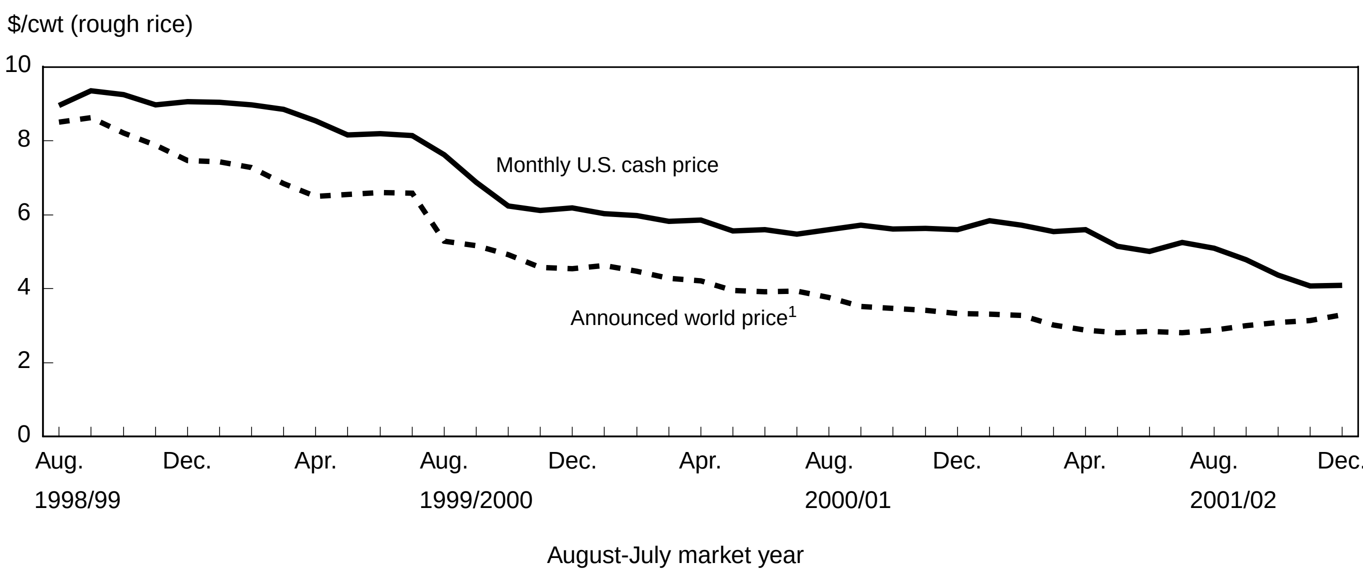
U.S. Food Aid Shipments Dropped in FY 2000 and FY 2001

Food aid and credit guarantees account for the bulk of government assistance available for U.S. rice exports. Total food aid shipments in fiscal 2001 (October 2000 to September 2001) are estimated at 205,400 tons, down almost 189,000 from a year earlier. Food aid accounted for less than 7 percent of total U.S. rice exports in fiscal 2001, down from almost 12 percent a year earlier. In both the text and tables of this report, U.S. food aid shipments are assigned appropriate October-September fiscal years based on date of purchase.

In fiscal 2000, total U.S. food aid shipments totaled 394,200 tons, down 167,500 from a year earlier. Food aid shipments in fiscal 1999—estimated at nearly 561,000 tons—were the largest since 1985. In fiscal 1999, PL-480 accounted for the bulk of U.S. food aid shipments.

Figure 15

U.S. rough rice prices continue to drop; world price up slightly



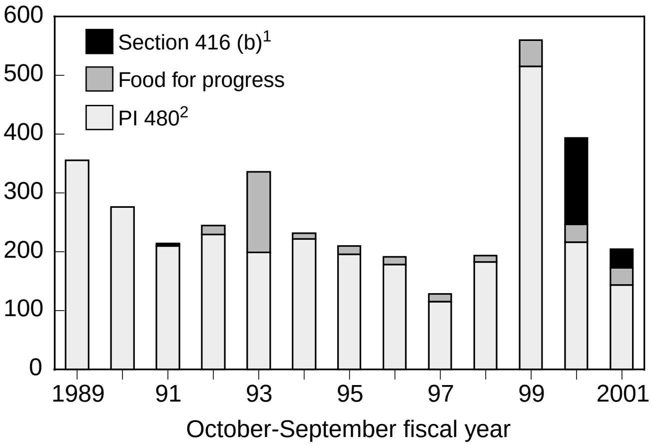
[1]Simple average of weekly prices.

Sources: Monthly farm prices, USDA/NASS. Announced World Price, FSA, USDA.

Figure 16

U.S. rice food aid shipments have declined since 1999

1,000 tons (product-weight)



[1]Includes shipments under the Global Food for Education program. [2]Title I, II, and III.

Source: FAS, USDA.

U.S. rice is shipped under four food aid programs: PL 480 (Title I and Title II), Section 416 (b) surplus removal, Food for Progress, and Global Food for Education. In fiscal 2001, shipments under PL 480 Title I (concessional sales) totaled 86,280 tons, down 55,650 from a year earlier. Uzbekistan accounted for the bulk of the Title I shipments in 2001, taking 51,350 tons. The Philippines accounted for the remainder, purchasing 34,930 tons. Purchases under PL 480 Title II, or food donations, accounted for more than 58,000 tons in fiscal 2001. Major recipients of Title II donations were: Indonesia, Guatemala, Benin, Cambodia, and Niger.

In addition, nearly 32,000 tons of rice were purchased in fiscal 2001 under the recently created Global Food for Education program. Major recipients were Cambodia, Congo Brazzaville, El Salvador, Gambia, Moldova, and Mozambique. Exports under the Food for Progress program totaled 29,200 in 2001, down 2,240 tons from a year earlier. Russia accounted for the bulk of the shipments, purchasing more than 11,000 tons in fiscal 2001. Haiti, Togo, Azerbaijan, and Central Asian Republics accounted for most of the remainder.

In fiscal 2000, Title I agreements for rice totaled almost 142,000 tons, down 174,000 from a year earlier. The Philippines was the largest recipient, purchasing more than 104,000 tons. Jamaica purchased almost 21,000 tons and Angola more than 17,000 tons. In addition, about 73,600 tons of rice was purchased in fiscal 2000 under PL 480 Title II, down 126,000 from a year earlier. Indonesia was the largest recipient, taking almost 32,000 tons. Angola, Cambodia, Mozambique, East Timor, Burkina-Faso, and Guatemala were other major recipients.

Fiscal 2000 was the first time since 1991 that U.S. rice was donated under the Section 416 (b) program. More than 147,000 tons of rice was purchased for export under Section 416 (b) in fiscal 2000. Indonesia was the largest recipient, taking 100,000 tons. Haiti, Bulgaria, Congo Brazzaville, and Yemen were other major recipients. U.S. rice exports purchased under the Food for Progress program totaled 31,400 tons in fiscal 2000, down almost 14,000 tons from a year earlier. Russia was the largest recipient, taking more than 19,000 tons. Azerbaijan, Georgia, and Cote d'Ivoire accounted for the remainder.

Credit guarantees also assist U.S. rice exports. The Foreign Agricultural Service and other government agencies offer a number of programs that help U.S. agricultural exporters finance the marketing and distribution of their products abroad. The Commodity Credit Corporation administers export credit guarantee programs for commercial financing of U.S. agricultural exports. The programs encourage exports to buyers in countries where credit is necessary to maintain or increase U.S. sales, but where financing may not be available without CCC guarantees.

The two largest programs—GSM-102 and GSM-103—underwrite credit extended by the private banking sector in the United States (or, less commonly, by the U.S. exporter) to approved foreign banks using dollar-denominated, irrevocable letters of credit to pay for food and agricultural products sold to foreign buyers. These programs promote exports by providing exporters greater access to credit and credit risk protection. The Export Credit Guarantee Program (GSM-102) covers credit terms for up to 3 years. The Intermediate Export Credit Guarantee Program (GSM-103) covers longer credit terms for up to 10.

In fiscal 2000 and 2001, West Africa, Turkey, and Central America accounted for the bulk of U.S. rice exported under credit guarantees. In the past 2 years the Caribbean, South America, Mexico, and the Andean Region have imported smaller quantities of U.S. rice using credit guarantees.

U.S. Rice Prices Decline Despite Smaller Supplies

A more than 7-percent drop in production cut total U.S. rice supplies nearly 4 percent in 2000/01. Long grain accounted for all of the supply contraction, combined medium/short grain supplies were up more than 18 percent, primarily due to a record California harvest. Both domestic use and exports declined from a year earlier. Ending stocks rose almost 4 percent to nearly 28.4 million cwt, the largest since 1994/95. Despite smaller total supplies, the season-average farm price for rice dropped more than 6 percent to $5.56 per cwt, the lowest since 1986/87.

U.S. Rice Crop Drops 7 Percent On Smaller Plantings

The 2000/01 U.S. rice crop is estimated at 190.9 million cwt, down more than 7 percent from a year earlier's record. The smaller crop is the result of a 13-percent decrease in plantings to 3.06 million acres. The yield, estimated at a record 6,281 pounds per acre, was up 7 percent from a year earlier. This was only the second time the U.S. average yield exceeded 6,000 pounds per acre.

Long grain accounted for the bulk of the area contraction. Long grain rice plantings dropped more than 19 percent to 2.2 million acres, the smallest since 1996/97. Plantings of short grain rice, which accounts for about 1 percent of total U.S. rice acreage, dropped 30 percent to 36,000 acres. In contrast, total medium grain plantings rose more than 9 percent to 818,000 acres, the largest since 1996/97. Medium grain plantings were up in both California—where more than two-thirds of the U.S. medium grain crop is grown—and in the South.

The area decline was primarily due to expectations of low prices—especially for long grain rice—at harvest and, in Louisiana, severe problems stemming from drought and salt-water intrusion. Plantings declined in every rice-growing State except California where rice acreage increased almost 8 percent to 550,000 acres.

In Arkansas, 2000 rice plantings are estimated at 1.42 million acres, down 13 percent from a year earlier's record. At 485,000 acres, Louisiana's rice acreage is down 22 percent from a year earlier. Mississippi's rice plantings, estimated at 220,000 acres, were down almost a third from 1999. Missouri's rice area was lowered nearly 9 percent from a year earlier's record to 170,000 acres. Rice plantings in Texas declined more than 17 percent to 215,000 acres, the smallest rice acreage since 1936. 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.

The national average yield for 2000 is estimated to have been a record 6,281 pounds per acre, up 415 pounds from 1999. Yields were higher than a year earlier in all rice growing States, with record yields reported in Louisiana, 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 2000.

Louisiana's yield of 5,080 pounds per acre was up almost 2 percent from a year earlier. In Missouri, average yields were estimated at 5,700 pounds per acre, an increase of nearly 6 percent. The Texas yield is estimated to have been 6,700 pounds per acre, up nearly 14 percent from a year earlier and the highest average yield ever achieved by a southern State. Arkansas' yield is estimated at 6,110 pounds per acre, up more than 4 percent from a year earlier. At 5,900 pounds per acre, Mississippi's 2000 yield was up more than 4 percent from a year earlier.

California's yield is estimated at 7,940 pounds per acre, an increase of more than 9 percent from 1999 but well below the 1991, 1992, and 1994 records of 8,500 pounds per acre. In fact, California's average yield has exceeded 8,000 pounds only once—in 1997—since 1995. Adverse weather problems, environmental regulations, and unique characteristics of the varieties have, at times, contributed to California's weaker yields in recent years.

In 2000, year-to-year changes in rice production varied by class. Long grain production is estimated to have been 128.8 million cwt, down 15 percent from the 1999 record. A 19-percent decline in long grain area accounted for all of the production decline, the average yield was the highest on record. In contrast, medium grain production rose nearly 18 percent from a year earlier, a result of both a higher yield and larger plantings. The short grain crop—grown mostly in California and typically accounting for 1 to 2 percent of total U.S. rice production—is estimated to have declined more than 28 percent in 2000, a result of smaller plantings.

Rice production declined in 2000 in every State except California, with Arkansas accounting for the bulk of the total decline. Arkansas' 2000 crop is estimated at 86.1 million cwt, down more than 9 percent from a year earlier's record. Despite the smaller crop, Arkansas remains the largest rice growing State, accounting for more than 45 percent of total U.S. rice production.

Louisiana's 2000 rice crop was down 21 percent—and at 24.4 million cwt—the smallest since 1993. Rice production in Mississippi is estimated at 12.9 million cwt, a drop of nearly 30 percent from the 1999 near-record. In Missouri, the 2000 rice production is estimated at slightly more than 9.6 million cwt, down 3 percent from a year earlier's record. Rice production in Texas is estimated at 14.3 million cwt, a drop of 6 percent from 1999. In contrast to the southern rice growing States, California's 2000 rice crop was up nearly 19 percent to a record 43.5 million cwt, a result of both larger plantings and a higher yield.

U.S. Long Grain Supplies Dropped 11 Percent in 2000/01

U.S. rice supplies in 2000/01 are estimated to have been 229 million cwt, down almost 4 percent from a year earlier's record but still the third highest to date. A 15.2-million-cwt drop in production more than offset larger beginning stocks and higher imports. U.S. rice imports in 2000/01 totaled nearly 10.9 million cwt, a record and up more than 7 percent from a year earlier.

Beginning stocks of rice on August 1, 2000, are estimated at 27.5 (rough-equivalent) million cwt, up nearly 25 percent from a year earlier. Stocks were higher than a year earlier in every State except Texas, with Arkansas and California accounting for the bulk of the year-to-year increase in stocks. In contrast, beginning stocks in Texas were 55 percent below a year earlier.

The supply situation varied somewhat by grain type. Total long grain supplies dropped nearly 11 percent to 153 million cwt, the smallest since 1997/98. A 15-percent decline in production to 128.8 million cwt more than offset larger beginning stocks and higher imports. Long grain rice stocks entering the 2000/01 marketing year were estimated at 15.6 million cwt, up 11 percent from a year earlier, primarily the result of a 1999 record long grain crop. Imports of long grain rice are estimated at a near-record 8.8 million cwt, up 16 percent from a year earlier.

For medium/short grain rice, total supplies rose almost 12 percent in 2000/01 to 74.8 million cwt, the largest since 1994/95. An almost 15-percent increase in production to 62.1 million cwt plus larger beginning stocks more than offset a decline in imports.

Combined medium/short grain stocks totaled 10.4 million cwt on August 1, 2000, up 53 percent from a year earlier's extremely tight level. The huge increase was primarily due to a 20-percent increase in medium/short grain production in 1999/2000, with Arkansas and California accounting for most of the larger medium/short grain crop. Medium/short grain imports were estimated at 2.1 million cwt, up 17 percent from a year earlier. Long grain accounts for the bulk of U.S. rice imports.

U.S. Rice Exports Dropped 6 Percent in 2000/01

Total U.S. rice use, including exports, domestic consumption, and residual (unreported losses in processing, transporting, and marketing), was 200.7 million cwt in 2000/01, down almost 5 percent from a year earlier's record. Both exports and domestic use declined from 1999/2000.

Total domestic disappearance (domestic use plus residual) was 117.2 million cwt, down nearly 4 percent from a year earlier's record. Food, industrial, and residual—estimated at 113.1 million cwt—is down 4 percent from the 1999/2000 record. Seed use, at 4.1 million cwt, is up fractionally from a year earlier.

Long grain accounted for all of the decline in total domestic and residual use in 2000/01. Domestic and residual use of long grain rice is estimated at 76 million cwt, down 11 percent from a year earlier's record. Some of the decline was due to a shift to medium/short grain from long grain by brewers and food processors. In contrast, domestic and residual use for medium/short grain rice is estimated at 41.2 million cwt, up almost 19 percent from a year earlier. Large supplies and relatively low prices—compared with long grain rice—accounted for the stronger medium/short grain domestic use.

Both milled and rough rice exports declined in 2000/01. Rough rice exports, estimated at 22.8 million cwt, were down nearly 10 percent from a year earlier's near-record. Turkey accounted for most of the decline in rough rice exports in 2000/01. Milled rice exports are reported at 60.7 million cwt, a decline of nearly 5 percent from a year earlier and the smallest since 1991. The European Union, the former Soviet Union, South Africa, Jordan, and Saudi Arabia accounted for the bulk of the decline in U.S. milled rice exports in 2000/01.

Despite Smaller 2000/01 Supplies, Ending Stocks Rose Almost 4 Percent

Ending stocks for all U.S. rice rose 1 million cwt in 2000/01 to 28.5 million cwt, the largest since 1994/95. The resulting stocks-to-use ratio rose to 14.2 percent from 13 percent a year earlier. Combined medium/short grain rice accounted for all of the increase.

Ending stocks of medium/short grain rice rose 50 percent to 16 million cwt, the largest since 1995/96. The resulting stocks-to-use ratio climbed to 26.3 percent from 19.7 percent a year earlier. In contrast, long grain ending stocks declined nearly 26 percent to 11.6 million cwt. The stocks-to-use ratio dropped to 8.2 percent from 9.9 percent in 1999/2000. Both ending stocks and the stocks-to-use ratio for long grain rice were the lowest since 1995/96.

The 2000/01 season-average price was reported at $5.56 per cwt, down nearly 7 percent from a year earlier and the lowest since 1986/87. A substantial decline in international trading prices—which reduced U.S. competitiveness in some markets—was the primary factor behind a weaker U.S. average rice price in 2000/01. In 2000/01, long grain prices were boosted slightly due to a tighter supply situation than a year earlier. Medium/short grain prices declined in 2000/01, primarily a result of larger supplies, especially in California, where the bulk of the U.S. medium grain rice is grown.

Global Trade Stagnant; Prices Near 15-Year Low

From late March through mid-November, international prices remained the lowest in almost 15 years, despite smaller global production and declining world stocks. Stagnant import demand, coupled with abundant supplies in major exporting countries account for the bearish price situation. Prices have risen slightly since mid-November, primarily due to a temporary tight supply situation in Vietnam. Prices are expected to be under downward pressure when Thailand's and Vietnam's main crops are available for export in early 2002. Although global production is projected to drop about 1 percent in 2001/02, major exporting countries are projected to harvest bumper crops. Except for parts of the Middle East, no major importing region is currently suffering a significant weather problem.

Despite Smaller Global Production, Export Supplies Remain Abundant

In mid-November 2001, global trading prices were the lowest in 15 years and had remained at these levels since late March. The low prices and lack of any sustained price strength were the result of large supplies in nearly all major exporting countries and, except for parts of the Middle East, no significant production problem in a major importing country. Global trading prices steadily declined from early 1999 through late March 2001 and showed no sustained strength through mid-November. In late November, global prices began to rise due to a temporary supply shortage in Vietnam, a pick-up in export sales, and government intervention purchases by Thailand.

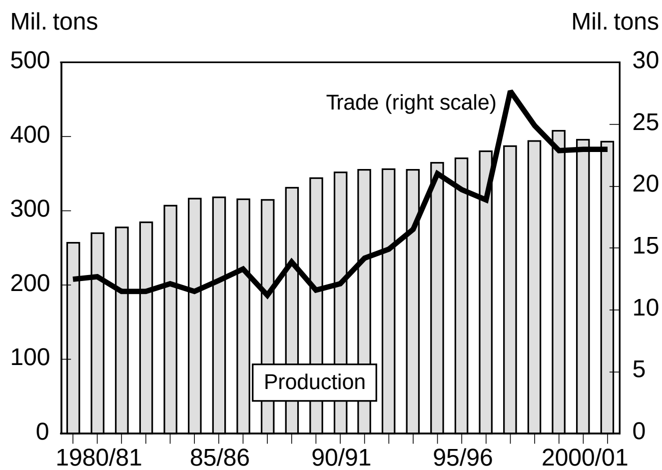
Despite the recent price strength, without a major weather disturbance somewhere in the world there is little expectation for any significant price strength for the remainder of the 2001/02 market year. In fact, global prices will likely be under downward pressure early in 2002 as the Thai main crop is available for export and when harvest of Vietnam's main winter-spring crop begins in late February or March.

World rice production is projected at 393.3 million tons (milled basis) in 2001/02, down almost 1 percent from a year earlier and almost 4 percent below the 1999/2000 record. This is the second consecutive year of declining global rice production. China accounts for the bulk of the drop in production in both years. However, despite smaller crops, China has plenty of rice for both its domestic market and to expand exports in 2002. Pakistan, also a major exporter, is projected to produce a smaller crop this year due to severe drought in the region. Except for China and Pakistan, the other major Asian exporters—Thailand, Vietnam, and India—are projected to produce record- or near-record rice crops in 2001/02.

Among the top importers, only Iran and Iraq are having major production problems this year. Severe drought has cut crops in Iran and Iraq since 1999/2000. Despite a small increase in North Korea's rice production this year, total food supplies remain extremely low, a result of several years of declining

Figure 17

Global rice production is projected to drop in 2001/02; global trade flat



Production is aggregate of local marketing years. Trade is reported on a calendar year basis. All data are reported on a milled basis. 2001/02 projected.

Source: FAS, USDA.

food production. In contrast, bumper crops are projected for Indonesia, the Philippines, and Bangladesh. And while Brazil's rice production is projected to drop for the third consecutive year, imports are projected to increase only slightly as per capita consumption continues to decline and Brazil draws down stocks.

World consumption is projected at a record 404.6 million tons, up almost 1 percent from a year earlier. India and Indonesia account for most of the increase. In contrast, rice consumption in China, Japan, and Brazil is projected to be virtually unchanged from 2000/01.

With consumption exceeding production by more than 11 million tons, ending stocks are projected to drop more than 8 percent from a year earlier to 126.3 million tons. This is the second consecutive year of declining global stocks. In 1999/2000, global ending stocks were a record 142.8 million cwt. In May 2000, USDA made substantial revisions to China's domestic use and ending stocks for market years 1980/81 through 2000/01. The revisions significantly boosted global ending stocks from prior estimates.

China accounts for 85 percent of this year's expected reduction in global ending stocks, with stocks expected to decline in Indonesia, Vietnam, Thailand, and Brazil as well. While global ending stocks are projected to decline 8 percent in 2001/02, global stocks excluding China are projected to drop less than 4 percent. And even with a projected 10-percent decline in ending stocks, China will have more than enough rice to satisfy domestic demand and remain a major exporter.

In contrast, India's stocks are projected to be the largest on record, exceeding 21.4 million tons, a result of a near-record crop this year and bumper crops since 1998/99. The global stocks-to-use ratio is projected at 31.2 percent, down almost 3 percentage points from a year earlier and the smallest since 1984/85. However, even with smaller stocks and a tighter stocks-to-use ratio, unless there is a major weather problem in a major growing area, there is little expectation of any price strength in 2001/02 due to abundant supplies in major exporting countries.

World trade is projected at almost 23 million tons in calendar year 2002, virtually unchanged from 2000 and 2001, but 17 percent smaller than the 1998 record of 27.7 million. In 2002, declining imports by Latin America and Africa are nearly offset by larger imports by the Middle East and the former Soviet Union. Asia's imports are projected to be fractionally higher. Little change is projected for imports by North America, the European Union, and Eastern Europe in 2002.

In 2001, global trade rose fractionally to slightly more than 23 million tons. A major expansion in Nigeria's imports to a record 1.6 million tons was nearly offset by declining imports by Indonesia, Iraq, Iran, Brazil, and Bangladesh. Imports by Asia and Latin America were nearly steady in 2001, while imports by the Middle East dropped substantially, and Africa's rice imports were record-high.

International Trading Prices Dropped to Lowest in 15 Years

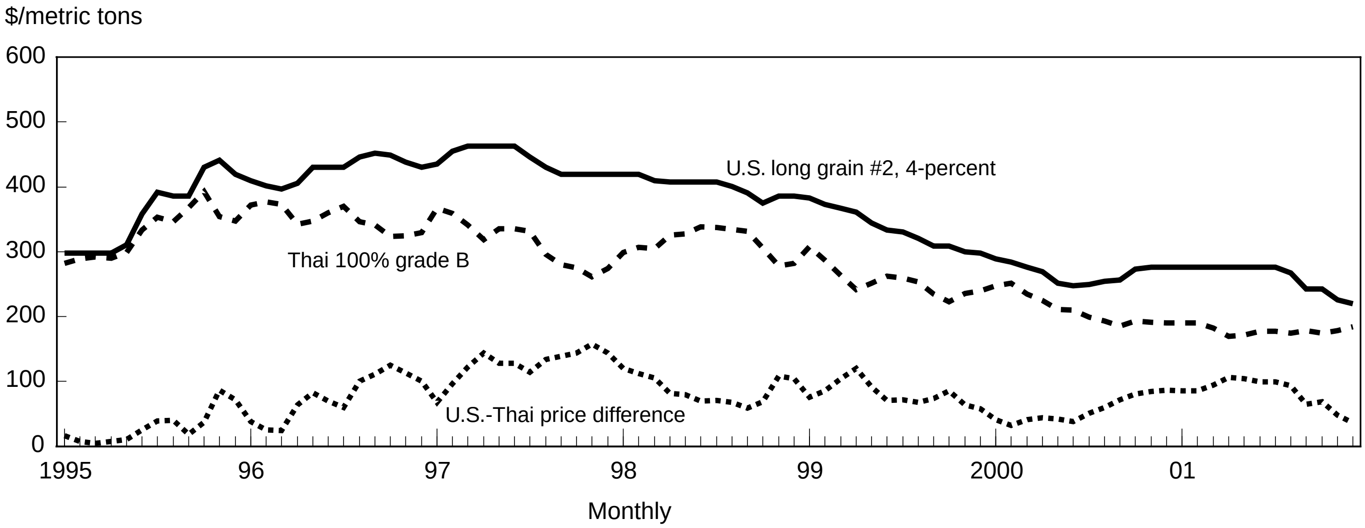
From late March through mid-November, international trading prices were the lowest in 15 years. In addition, international prices had not remained at this low of a level for such a sustained period since the early 1970s. From early 1999, when the record El Niño-driven purchases by Indonesia, the Philippines, and Brazil were completed, through late March 2001, international rice prices declined sharply. From late March 2001 through mid-November 2001, prices for Thailand's 100-percent Grade B averaged just $175 per ton, with prices trading within a very narrow range. By the end of November, prices were reported at $182 per ton, the highest in more than 8 months. Despite the recent increase, prices are still $10 to $15 per ton lower than a year earlier and well below the 1999/2000 season-average of $231.

The weak prices are due to abundant export supplies worldwide and, except for the Middle East, no significant production problems were reported in a major importing country. Prices for Vietnamese 5-percent broken rice averaged $193 per ton during the last 2 weeks of November, up $18 to $19 from mid-October and more than $25 per ton higher than the 2000/01 average. Severe flooding in the Mekong River Delta last summer caused transportation problems, reduced plantings of the 10-month crop, and delayed planting of the country's main winter-spring crop. Vietnam is currently selling very little rice. Vietnam's prices are $15 to $20 per ton higher than comparable grades of Thai rice. Typically, Vietnam's rice is priced $20 to $30 per ton lower than Thai rice due to quality factors. Vietnam's prices are expected to decline after March when supplies from its winter-spring crop hit the market.

Prices for similar type and quality of U.S. long grain rice—No. 2, 4-percent brokens, f.o.b. Houston—have

Figure 18

U.S. price difference over Thailand has narrowed



Sources: Thai prices, U.S. Embassy in Bangkok; U.S. prices, AMS, USDA.

declined since the start of the 2001/02 market year. Prices were quoted at $220 per ton for the week ending November 19, down from $243 a week earlier and $276 in early August. Prices for U.S. long grain rice are the lowest since the summer of 1987. Harvest of a record U.S. total and long grain crop this year and extremely low international prices are behind the bearish U.S. price situation.

In 2000/01, prices for U.S. long grain milled rice rose from less than $250 per ton in July to $276 by mid-October. The price increase was largely due to a 12-percent drop in U.S. long grain supplies in 2000/01.

Vietnam and China Projected To Ship More Rice in 2002

Of the six largest rice exporters—Thailand, Vietnam, the United States, China, Pakistan, and India—only India is projected to ship less rice in 2002. Vietnam, the United States, and China are projected to export greater quantities of rice, while Thailand's and Pakistan's exports are projected to be unchanged from 2001. Among the smaller exporters, both Argentina and Uruguay are projected to reduce shipments in 2002, a result of smaller supplies and weaker regional demand. Australia and Egypt are projected to expand exports.

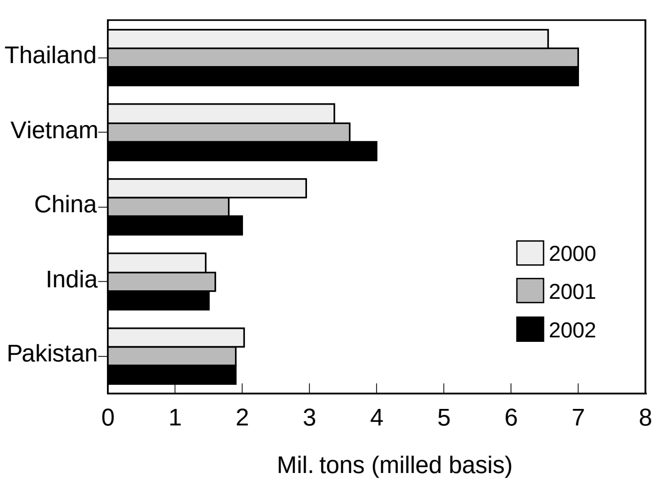
Major Exporters

Thailand: Thailand is expected to remain the world's largest rice exporter, shipping 7 million tons in 2002, unchanged from a year earlier's record. Expectations of sustained record exports are the result of two consecutive years of record production, large stocks, and greater price competitiveness with Vietnam. Thailand's 2001/02 crop is projected at a record 16.8 million tons (milled), unchanged from a year earlier. Both area and yield are projected to be virtually unchanged from 2000/01.

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, and Pakistan in various intermediate- and low-quality long grain markets. Thailand exports mostly indica rice and smaller quantities of premium jasmine rice, an aromatic. About 20 percent of Thailand's exports are jasmine rice, with the United States a major market.

Figure 19

Asian rice exports projected to remain robust in 2002



2001 estimated. 2002 forecasted.

Source: FAS, USDA.

Vietnam: Vietnam is the world's second largest rice exporter and is projected to export 4 million tons in 2002, up 400,000 tons from this year but 555,000 tons below the 1999 record. Vietnam is projected to produce a near-record 20.6 million tons of rice in 2001/02, up fractionally from a year earlier but 326,000 tons below the 1999/2000 record. A slightly higher yield is expected to more than offset a fractional drop in area this year. Severe flooding in late summer and early fall is estimated to have reduced plantings of Vietnam's 2001/02 10-month crop and will likely delay planting of the country's main winter-spring crop as well. All of Vietnam's rice exports are indica rice, mostly intermediate and low quality.

Vietnam produces three major rice crops a year. The *10-month* crop accounts for nearly 30 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 more than 45 percent of total production and is harvested in February-March.[1] The winter-spring crop has expanded more than 75 percent since 1988/89 and has the highest yield of the three crops. The winter-spring crop accounts for the bulk of Vietnam's exports. The *summer-autumn* crop accounts for more than 24 percent of annual production and is harvested July through September.

China: China's 2002 rice exports are projected at 2 million tons, up 200,000 from this year but well below

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

the 1998 record of more than 3.7 million tons. This projection assumes China has not yet joined the WTO. Although China's 2001/02 crop is projected to drop nearly 4 percent to 126.7 million tons—a result of smaller plantings and a slightly weaker yield, China has more than enough supplies to meet domestic demand and increase exports. From 1996/97 through 1999/2000, China harvested record- or near-record crops each year, leading to a large accumulation of stocks. This year's rice production is the smallest since 1994/95.

China's 2001/02 rice area is estimated at 29.2 million hectares, down 562,000 from a year earlier and the smallest since 1963/64. China's rice plantings have declined nearly 7 percent since 1999/2000, 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. It is too early to know what the long-term impact of this policy will be on China's rice production and available exports. 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 2.7 million tons of rice in 2002, up 50,000 from 2001 but more than 14 percent below the 1998 record. Record U.S. supplies and lower prices are behind the higher trade forecast. The U.S. share of world trade is projected at almost 12 percent, up fractionally from a year earlier but nearly identical to the 2000 share.

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 Latin America, the EU, Saudi Arabia, Canada, and South Africa the largest markets. The United States also typically exports smaller quantities of japonica rice, mostly to Japan, Turkey, and Jordan. This year the United States also exported japonica rice to Uzbekistan and South Korea as well. California supplies most of U.S. japonica exports.

India: For 2002, India is projected to export 1.5 million tons, down 100,000 from 2001 and well below the country's 1998 record of nearly 4.7 million. A big decline in imports by Bangladesh since 2000 and an internal pricing policy that prices most of India's rice out of the international market account for India's weak export performance since 2000. However, since May, India has subsidized exports of its parboiled rice and certain grades of its low quality indica rice, allowing India to substantially expand exports, mostly parboiled rice to West Africa.

India's 2001/02 crop is projected at 89 million tons, up 3 percent from a year earlier and second only to its 1999/2000 record 89.5-million-ton crop. This year's bumper crop is the result of a higher yield. Area is fractionally lower. Rice production has increased substantially in India since the mid-1990s, primarily due to expanding area. India has accounted for the bulk of increased global rice area since 1996/97. India's yields have risen as well.

India's record crops have resulted in a huge increase in stocks. In 2001/02, ending stocks are projected at a record 21.4 million tons, more than double 1997/98 ending stocks. Stocks of this level are burdensome to the Government of India.

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 rice 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 1.9 million tons of rice in 2002, unchanged from this year but 126,000 tons below the country's 2000 record. Two consecutive years of smaller production account for the decline in exports. Pakistan's 2001/02 crop is projected at 4.5 million tons, down nearly 200,000 from a year earlier and more than 650,000 tons below the 1999/2000 record. Weaker plantings in 2000 and

2001—due to severe drought in the region—account for the bulk of the production decline. Yields remain below the 1999 record. The same drought that has affected Iraq and Iran has reduced water-availability in Pakistan as well.

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 rice to developing countries, many in Africa, where it competes with Thailand and Vietnam. Around a third of Pakistan's rice production is basmati. Africa, Afghanistan, Bangladesh, Indonesia, the Middle East, and the EU were leading export markets for Pakistan in 2000/01. The Government of Pakistan is actively trying to increase rice production through price incentives, timely availability of inputs, and technical assistance.

Australia: Australia's rice exports in 2002 are projected to increase 100,000 tons to a record 700,000. The substantial increase in exports is the result of a bumper 1.5-million-ton crop—second only to the 2000/01 record—and large beginning stocks. Last year's record 1.76-million-ton crop was the result of record area and yield. There has been adequate water for irrigation available in both 2000/01 and 2001/02.

Australia's rice farmers plant in October and harvest in April-May. The rice crop is grown primarily 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-required imports were first purchased in 1995/96. Papua New Guinea and certain countries in the Middle East 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 650,000 tons of rice in 2002, up 100,000 from a year earlier and the largest in more than 30 years. Virtually all of Egypt's rice exports are japonica rice, with the eastern Mediterranean a major market. The higher exports are a result of a record 2000/01 crop and a huge accumulation of stocks. In addition, the Government of Egypt provided some subsidy to exports in 2001.

With the exception of 1998/99, Egypt has harvested record- or near-record crops from 1996/97 to 2000/01, a major factor behind the steady growth in exports in recent years. While Egypt's 2001/02 rice production is projected to drop 12 percent from a year earlier's record to 3.4 million tons, total supplies of 4.5 million tons are the largest on record. Much of Egypt's rice production receives government subsidy.

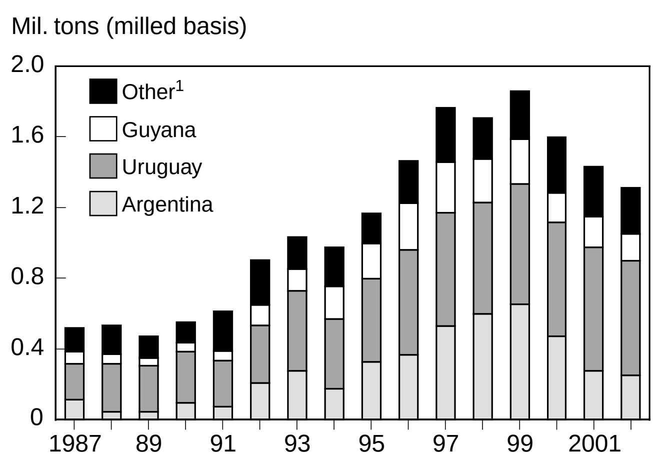
Argentina: Argentina and Uruguay are the two largest rice exporters in South America, growing and shipping mostly indica rice. In 2002, Argentina's rice exports are projected to drop 25,000 tons to 250,000 tons, the smallest since 1994 and the third consecutive year of declining exports. Smaller production is behind the bearish export forecast.

Argentina's 2001/02 rice crop—harvested in spring 2002—is forecast at 450,000 tons, down nearly 8 percent from a year earlier and more than 58 percent below the 1998/99 record. The smaller crop is a result of a lower average yield and a slight drop in plantings. In 2000/01, rice plantings in Argentina dropped 30 percent from a year earlier to 133,000 hectares, the lowest since 1990. Low prices and declining imports by Brazil—Argentina's largest export market—account for the 55-percent drop in harvested area for rice since the 1998/99 record of 289,000 hectares.

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 2001/02, Uruguay's rice production is projected at 650,000 tons, down more than 7 percent from a year earlier. Smaller plantings account for the bulk of the decline. At 140,000 hectares, Uruguay's

Figure 20

South American rice exports continue to decline



[1]Primarily Ecuador, Surinam, and Venezuela.
2001 estimate. 2002 projection.

Source: FAS, USDA.

2001/02 rice area is down nearly 7 percent from a year earlier and 32 percent below the 1998/99 record of 205,000 hectares. This year's yield is projected to be fractionally below a year earlier's record.

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). In 2001, Uruguay exported a record 700,000 tons of rice, despite weaker imports by Brazil. With Brazil's market less than a third of its 1998 record, in 2001 both Uruguay and Australia began shipping rice outside South America, primarily to the Middle East.

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 2002, the EU is projected to export 350,000 tons, unchanged from a year earlier and slightly higher than 2000. Italy accounts for the bulk of 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.

Despite an almost 11-percent decline in rice production since the 1997/98 record crop of 1.8 million tons, ending stocks continue to rise and are projected at a record 900,000 tons in 2001/02. Rice consumption in the EU is expanding at a very slow pace. The bulk of the EU's rice production is japonica, although indica's share has increased since the late 1980s.

Burma: While typically the world's largest rice exporter prior to World War II, Burma exported less than 100,000 tons a year from 1997 through 1999. However, exports have picked up in recent years. For 2002, Burma is projected to export 500,000 tons, unchanged from this year and the largest since 1995. Larger production since 1998/99 is the main factor behind the greater exports. Burma's 2001/02 rice crop is projected at almost 9.9 million tons, unchanged from a year earlier and even with its 1995/96 record.

Burma was the largest rice exporting country before World War II and typically ranked first or second until the mid-1960s. While Burma's exports averaged almost 1.5 million tons a year in the early and mid-1960s, they declined to an average of only 542,000 tons from 1967 to 1989. Exports continued to decline during most of the 1990s. Trade is strictly controlled by the Government of Burma.

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.

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. In 2002, Japan is projected to export 150,000 tons of rice, with North Korea accounting for the bulk of the shipments. In 2001, Japan is estimated to have exported 550,000 tons, also 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 international trading prices, a major factor behind its large supplies and high ending stocks.

Taiwan: 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. In 2002, Taiwan is projected to export 90,000 tons of rice, unchanged from 2001 but 30,000 tons below 2000. These projections were made under the assumption that Taiwan was not a member of the WTO.

Guyana: Guyana is typically the third largest rice exporting country in South America. In 2002, Guyana is projected to export 150,000 tons of rice, down 25,000 from a year earlier and more than 47 percent below the 1997 record of 285,000 tons. Guyana's rice area and production have fluctuated substantially over the past four decades. Since the early 1990s, rice area has expanded substantially, reaching a record 150,000 hectares in 2000/01, double 1992/93 rice area. For 2001/02, rice production is projected at a record 370,000 tons, up 5,000 from a year earlier and double 1993/94 production.

Despite larger crops and only modest expansion in domestic use, Guyana's exports have substantially declined since 1996/97, primarily due to a lack of competitiveness in world markets. The EU is the primary market for Guyana's rice.

Other South America: Ecuador is projected to export 100,000 tons in 2002, unchanged from a year earlier but 30,000 tons below levels exported in 1999 and 2000. Weaker production is the main factor behind smaller trade. Venezuela is projected to export 75,000 tons in 2002, fractionally down from a year earlier. Venezuela became a regular rice exporter in the early 1990s, a result of larger crops. Both Ecuador and Venezuela export almost exclusively within the Andean Region. Surinam is also a regular exporter of rice, with shipments projected at 20,000 tons in 2002, down 5,000 from a year earlier. Surinam's exports are well below levels shipped in the late 1980s and early 1990s. Surinam's rice production has declined sharply since the late 1980s, with both area and yield well below levels reported in the mid-1980s. The EU is a major market for Surinam's rice exports.

Global Import Demand Flat Since 2000

Global rice imports have remained at 23 million tons since 2000, down almost 8 percent from 1999 and nearly 17 percent below the 1998 record. In 2002, higher imports by the Middle East are projected to be more than offset by weaker imports by Sub-Saharan Africa. Strong crop recoveries since the 1997/98 El Niño, plus a large stocks build-up in many large rice importing countries account for the stagnant level of global imports since 1998. Indonesia, Iran, Iraq, and Nigeria are projected to be the largest importers in 2002.

Major Importers

Asia

Asia is the largest import market for rice in the world. Asia is projected to import nearly 6.1 million tons of rice in 2002, up 2 percent from a year earlier. However, the region's imports remain well below the 1998 record of more than 13.3 million tons. The huge expansion in imports in 1998 was largely driven by El Niño crop damage in the region, primarily in Southeast Asia.

Indonesia: Indonesia is projected to remain one of the world's largest rice importers, taking 1.6 million tons in 2002, up 300,000 from this year but well below its record of almost 5.8 million in 1998. Declining stocks and rising demand are behind the projected strong import growth. Indonesia's 2001/02 crop is projected at 32.5 million tons, up 500,000 from a year earlier but nearly 3 percent below the 1999/2000 record.

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 but 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.

The Philippines: The Philippines are projected to import 800,000 tons of rice in 2002, down 150,000 from this year and nearly 1.4 million tons below the 1998 record. The decline in exports in 2002 is based on expectations of a record 2001/02 crop. The Philippines is projected to produce 8.25 million tons of rice in 2001/02, up more than 1 percent from a year earlier. Area is projected to be record-high in 2001/02; the yield fractionally below a year earlier's record. The Philippines has produced record crops each year since 1999/2000, a result of larger plantings and higher yields.

Despite growing domestic rice consumption, ending stocks have risen every year since 1998/99 and are projected at a record 2.6 million tons in 2001/02, a major factor behind smaller imports. Consumption, projected at a record 8.9 million tons (milled), is expected to exceed milled rice production by 650,000 tons. This marks the 11th 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 2002, Bangladesh is projected to import 500,000 tons of rice, up 5 percent from a year earlier and the first increase since 1998. A 6-percent drop in production to 23 million tons and a huge decline in ending stocks are behind the higher import forecast.

From 1998/99 through 2000/01, Bangladesh produced record crops each year. This was a major factor behind the decline in Bangladesh's rice imports each year from 1999 through 2001. Imports declined from a record 2.5 million tons in 1998 to just 475,000 tons in 2001. Bangladesh has substantially increased both area and yield since the late 1990s. In addition, Bangladesh's ending stocks rose substantially in the late 1990s and early 2000s, also contributing to weaker imports.

Bangladesh's constant population pressure drives an upward trend in consumption and leaves little room for error. 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. In recent years India has supplied the bulk of the country's rice import needs. However, Burma has supplied much of this rice this year due to more competitive prices. Despite expanding production, Bangladesh is projected to remain a major importer of rice over the next decade.

China: In 2002, China is forecast to import 310,000 tons of rice, up 10,000 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 2002, China's 2-million tons of exports will exceed imports by almost 1.7 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 halve 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 700,000 tons (milled basis) of rice in 2002, 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 have been virtually no over-quota rice imports. Japan is estimated to have produced 8.25 million tons of rice in 2001/02, down more than 4 percent from a year earlier, with both area and average yield below 2000/01. Declining rice area is the result of the government's rice area diversion program.

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 2001/02 crop is estimated at 5.5 million tons, up nearly 4 percent from a year earlier, a result of a higher yield. Area remains unchanged from 2000/01. Rice area in South Korea had been declining for a decade prior to 1997 but increased every year from 1997 to 2000. South Korea's rice consumption had declined from 1979/80 through 1999/2000, but has risen in recent years. At 5.2 million tons in 2001/02, consumption will be the largest since 1995/96. Ending stocks have increased every year since 1995/96 and are projected to rise sharply in 2001/02.

South Korea imported about 142,520 tons (brown rice basis) of rice under the WTO in 2001/02. China supplied 70,000 tons and the United States 30,000 tons. Australia and Thailand supplied the remainder. This was the first time the United States sold any rice to South Korea as part of its WTO Minimum Access Agreement. South Korea is projected to import 150,000 tons (milled basis) in 2002, up 15,000 from a year earlier.

North Korea: North Korea is projected to import 450,000 tons in 2002, down 100,000 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. Both Korea's have discussed South Korea providing up to 300,000 tons of rice in 2002.

North Korea's food situation is slightly better this year, with rice production expected to climb almost 4 percent to 1.35 million tons, a result of a slightly 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, which is essentially self-sufficient in rice, typically imports 3,000 to 5,000 tons of rice a 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. Taiwan's 2002 rice imports are projected at 4,000 tons, up 1,000 from a year earlier. These projections do not assume Taiwan's accession to the WTO.

Like Japan, Taiwan has experienced both declining total and per capita rice consumption for decades, a result of higher incomes. By the late 1970s, ending stocks on Taiwan were 2 to 3 times levels of just a few years earlier and expanded even more in the early 1980s. In an attempt to correct this imbalance, the Government of Taiwan implemented area diversion programs to reduce the rice production. When Taiwan joins the WTO it will be required to import 144,720 tons (brown rice basis) annually under a minimum access requirement.

The Middle East

Rice imports in 2002 by the Middle East are projected at 4.3 million tons, up 11 percent from a year earlier but 200,000 tons below the 2000 record. Rice production is projected to drop more than 5 percent to 1.43 million tons in 2001/02, the third consecutive year of declining production. Production in 2001/02 is nearly 35 percent below the 1998/99 record of more than 2.2 million tons and the smallest since 1988/89.

The Middle East relies on imports to supply three-fourths 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—led by Iran, Iraq, and Saudi Arabia. Turkey and Jordan import smaller amounts of japonica rice.

Iran: A 450,000-ton increase in Iran's 2002 imports to 1.25 million tons accounts for most of the region's higher imports. Iran's 2001/02 crop is projected to drop nearly 6 percent to 1.1 million tons—the smallest since 1988/89—on weaker plantings. This is the third year of declining rice production in Iran, a result of a severe drought. Rice production is 42 percent below the 1998/99 pre-drought level. 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 million tons in 2002, unchanged from a year earlier's record. 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 2000/01 crop is projected at 137,000 tons, down 9 percent from a year earlier. Like Iran, Iraq's production has declined each year after 1998/99 due to severe drought. Production is more than 31 percent below 1998/99.

Saudi Arabia: In 2002, Saudi Arabia is projected to import 875,000 tons, down 75,000 from this year and the smallest since 1999. 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 350,000 tons, up 50,000 from this year and about the same as in 2000. Production is projected to be unchanged from a year earlier but more than 11 percent below the 1996/97 record. Despite an economic downturn, consumption continues to rise, a major factor behind growth in Turkey's imports. Turkey is the second largest market for japonica rice—after Japan—with the United States, Egypt, Australia, and the European Union (EU) its major suppliers. Turkey only became a significant import market in the mid-1980s when production declined. Jordan's imports are projected to remain unchanged at 90,000 tons. The United States typically supplies 30 to 40 percent of Jordan's rice imports. Jordan does not grow rice.

Sub-Saharan Africa

Imports by Sub-Saharan Africa (including the Republic of South Africa) are projected at nearly 5.3 million tons in 2002, down nearly 8 percent from a year earlier's record 5.75 million tons. A 4-percent increase in production to 7.5 million tons accounts 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 accounts for the bulk of the decline in the region's imports. Nigeria's 2002 rice imports are projected at 1.2 million tons, down 400,000 from a year earlier's record. Nigeria's production is projected at 2.1 million tons, up 5 percent from a year earlier.

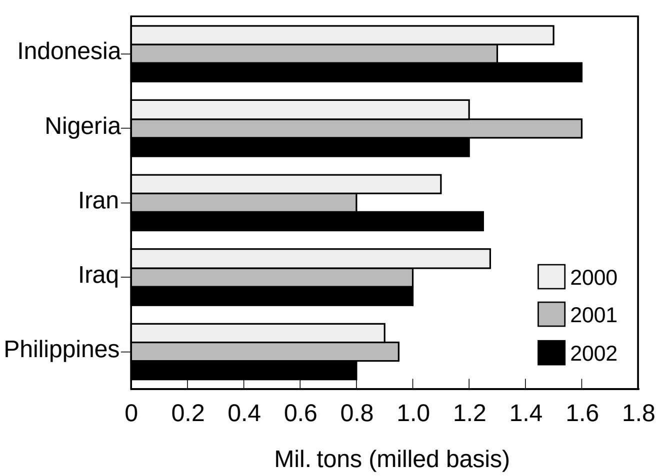
Nigeria is the largest market for rice in Sub-Saharan Africa. Nigeria purchases mostly parboiled rice, with Thailand supplying the bulk. In 2001, India also shipped parboiled rice to Nigeria. Despite this year's larger crop, Nigeria's rice production remains substantially below levels achieved in the early 1990s, a result of lower yields.

South Africa: The Republic of South Africa is projected to import 550,000 tons in 2002, unchanged from this year. India, Thailand, and the United States supply most of South Africa's rice imports, mostly parboiled. 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 2002, Senegal is projected to import 750,000 tons of rice, unchanged from a year earlier. Imports by Senegal have risen substantially since 1995, as consumption growth has outpaced production. The Ivory Coast is projected to import 650,000 tons of rice in 2002, also unchanged from a year earlier's record. Strong growth in consumption drives import expansion by the Ivory Coast, despite record production in 2000/01 and 2001/02. Ghana is projected to import 210,000 tons in 2002, down 10,000 from a year earlier's record. Ghana's imports have increased substantially since the late 1980s. Guinea is projected to import 310,000 tons of rice in 2002, down 15,000 from a year earlier's record. Production cannot keep up with Guinea's rising rice consumption.

Figure 21

Nigerian rice imports are projected to drop substantially in 2002



2001 estimated. 2002 forecasted.

Source: FAS, USDA.

Latin America

Imports by Latin America (Mexico, the Caribbean, Central America, and South America) are projected at slightly less than 2.5 million tons in 2002, down about 50,000 from this year. Imports remain well below the 1998 record of 3.65 million tons that were largely driven by El Niño crop damage to the region. Total production in the region is projected to increase 2 percent to almost 14 million tons, with both area and yield up slightly.

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 425,000 tons in 2002, unchanged from a year earlier's record. Declining production and a steady rise in use account for the continued growth in imports. The United States supplies the bulk 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 face extremely low 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 875,000 tons in 2002, up 25,000 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 2001/02 is forecast at 510,000 tons, up from 485,000 a year earlier and well below the 1984/85 record of 809,000. 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 455,000 tons in 2002, up

5,000 from a year earlier. Rice production is projected to increase almost 4 percent in 2001/02, a result of a higher yield. Despite this year's projected increase, rice production in Cuba has declined substantially since the mid-1980s, with both plantings and yield well below earlier levels.

In 2002, Haiti is projected to import a record 260,000 tons, up 10,000 from a year earlier. Rising consumption and stagnant production are behind the steady rise in imports. The Dominican Republic is projected to import 40,000 tons in 2002, up 5,000 from a year earlier but 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 is well below levels achieved in the early 1990s. Both Haiti and the Dominican Republic are important markets for U.S. rice, with U.S. food aid accounting for some of both countries' imports.

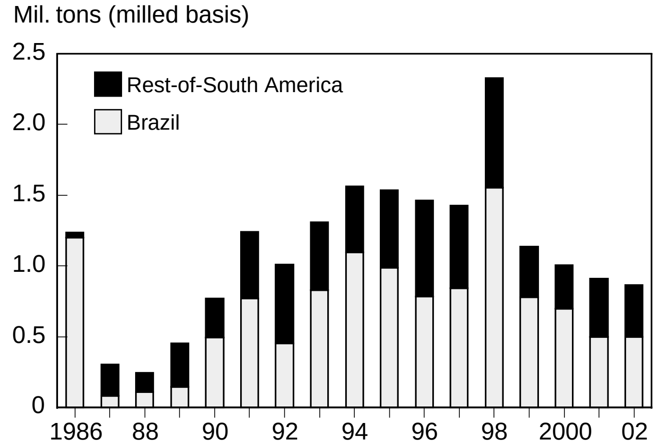
Brazil: Brazil is Latin America's largest rice importer. Brazil is projected to import 500,000 tons in 2002, unchanged from this year but well below the 1998 record of nearly 1.6 million tons. Brazil's 2001/02 crop is projected at 7.4 million tons, up more than 5 percent from the 2000/01 crop, a result of expanded plantings and a higher yield. Despite a larger crop, ending stocks are projected to decline for a second consecutive year.

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. Rice consumption in Brazil appears to have virtually leveled-off since the late-1990s at 8 million tons. Declining per capita consumption is being virtually offset by a rising population.

Central America: The region is projected to import 285,000 tons in 2002, down 25,000 from a year earlier's record. Production is expected to increase about 5 percent to 523,000 in 2001/02, about 10 percent below the 1997/98 record. Nicaragua accounts for most of the higher production and smaller projected imports. Rice consumption in the region has steadily increased and is outstripping any growth in production. The United States is the largest supplier 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.

Figure 22

South American rice imports have declined each year since 1999



2001 and 2002 projected.

Source: FAS, USDA.

Other regions

The EU: The EU is projected to import 800,000 tons in 2002, unchanged from this year but below imports in the mid-1990s. 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 produced bumper crops every year from 1996/97 to 1999/2000, a result of larger plantings and several years of record yields. With consumption growing at a very slow rate, these bumper crops led to a very large increase in stocks in the EU. The 2001/02 EU harvest is projected at almost 1.6 million tons, fractionally below a year earlier, a result of smaller area. Both Italy and Spain are the two largest rice-producing countries in the EU. Despite smaller crops, EU ending stocks are projected to be record-high in 2001/02.

The former Soviet Union: The countries of the former Soviet Union are projected to import 638,000 tons of rice in 2002, up 48,000 from a year earlier and the largest since 1999. An almost 10-percent drop in production in 2001/02 to 622,000 tons is a major factor behind the larger imports.

Russia is the largest market for rice in the former Soviet Union, with imports projected at 350,000 tons in 2001 and 2002. Uzbekistan is projected to be the second largest import market in the region in 2002, taking 175,000 tons, up 33,000 from a year earlier. Rice production in Uzbekistan has collapsed since 1999/2000, a result of a severe drought in the region. Production in 2001/02 is projected at just 55,000 tons, about half a year earlier's crop and well below the 269,000 tons in 1999/2000.

United States: Imports by the United States are projected at 325,000 tons in 2002, up about 10,000 from a year earlier, and the second highest on record. 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.

Taiwan's Rice Import Market To Open With WTO Accession

Sophia Huang[1]

Abstract: Taiwan, under the recently negotiated provisions of its membership in the World Trade Organization (WTO), has committed to market access terms including the lifting of its ban on rice imports. Rice, a symbol of Taiwan agriculture, was the most controversial issue for Taiwan during its lengthy WTO membership negotiations, which began in 1992. With the partial opening of this once closed and highly protected sector, Taiwan has adjusted its rice policy to respond to this coming new reality.

Keywords: WTO, Minimum Access Quota, Riceland Diversion Program, rice policy, rice procurement, guaranteed price.

On November 11, 2001, the 142-member governments of the WTO formally endorsed the accession package for Chinese Taipei (the WTO's working name for Taiwan). The Taiwan legislature had already passed all WTO-related laws and on November 16 ratified its WTO accession. Taiwan is expected to formally become the WTO's 144th member on January 1, 2002.

Upon WTO accession on January 1, Taiwan will allow rice imports through a minimum market access quota set at 144,720 tons (brown rice basis), about 8 percent of domestic consumption during the base period 1990-92. Taiwan authorities will control 65 percent of the import trade, with private traders accounting for 35 percent. While the tariff rate for minimum access rice imports is zero, Taiwan is allowed to add a markup on the imported rice of up to NT$23.26/kg (about US$.74 per kilogram or US$740 per ton) when it enters Taiwan. Taiwan has committed to reducing the markup every two weeks to market clearing levels. In addition, the imported rice cannot be re-exported, given away as food aid, or used as livestock feed. Restrictions which currently limit the release of the authorities' central rice stocks into retail and food processing channels will be eliminated, and rice imported by the authorities and placed in central stocks will be sold in the retail market in a timely fashion.

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Taiwan has maintained an effective ban on most rice imports through the absolute control of trade in rice by the Council of Agriculture (COA), Taiwan's equivalent of the United States Department of Agriculture. When Taiwan reached an agreement over WTO entry with the United States in February 1998, Taiwan agreed to a minimum access level for rice, in the form of progressively increasing import quotas, roughly parallel to those of Japan. In essence, the schedule for Taiwan's rice minimum access quota starts in 1995 at 4 percent of domestic consumption, rising to 8 percent in 2000. Because of the delay in Taiwan's WTO accession, the minimum access quota for rice imports in 2000 (144,720 tons, brown rice basis) is the minimum access quota for rice imports upon Taiwan's WTO accession. Although Japan changed its rice imports into a tariff-rate quota system in 1999, Taiwan has not followed suit, and the final terms of rice imports will depend on the outcome of future WTO negotiations.

Evolving Rice Policy

Rice, a traditional crop with great political and social significance, has received the strongest policy intervention since the Nationalists fled to Taiwan after the Communists took power over the Mainland in 1949. Over the next several decades, Taiwan's agricultural authorities have tightly controlled every aspect of the rice economy from production through trade. Taiwan's rice policy—fairly constant over the decades in its stated goals—stressed self-sufficiency, at least until recently. This rice policy, however, has been adjusted from time to time as new issues and problems emerged in the course of Taiwan's rapid economic development.

Subsidization Leads to Riceland Diversion Programs

The most fundamental shift in the evolution of rice policy came in the early 1970s when Taiwan reoriented its rice policy from taxing to subsidizing farmers. Specifically, Taiwan established the Food Stabilization Fund with a budget of NT$3 billion ($94 million) in 1974 to purchase rice from farmers at prices exceeding world market prices. Because Taiwan's rice prices were much higher than required for self-sufficiency, a persistent rice surplus resulted. To dispose of its burdensome stocks, Taiwan used exporting as the main strategy. Eventually, the exports were effectively restricted by the signing of the 5-year (1984-88) U.S.-Taiwan rice agreement, which limited the volume and destination of Taiwan's rice exports.

As a result of this restriction, Taiwan modified its previous "more is better" policy by adopting its first full-scale Riceland Diversion Program (1984-89) to encourage farmers to divert their rice land to other crops, particularly soybeans and coarse grains which Taiwan has a low self-sufficiency ratio. In addition, in 1984 Taiwan started using large quantities of rice as feed—about 300,000 to 400,000 tons initially—by selling old rice to feed mills at prices equivalent to imported feed corn. By the time the first diversion program ended in 1989, Taiwan's rice production had decreased 26 percent, and government stocks had been substantially reduced. To prevent further oversupply in rice production, Taiwan then decided to launch its second diversion program in 1990, which lasted until July 1997. This time its focus was less on reducing rice supplies than on maintaining a supply and demand balance for rice.

Meanwhile, as negotiations for WTO membership intensified, Taiwan's agricultural policy increasingly came under pressure because of trade liberalization demands from its trading partners. In particular, Taiwan's ban on rice imports lost the political cover of Japan and South Korea when these countries agreed to a minimum access for rice imports in the Uruguay Round of the Agreement on Agriculture and partially opened their rice import market beginning in 1995. Since then, Taiwan authorities have been quietly preparing for a partial opening of its domestic market as the process moved forward.

Adjusting Rice Policy as WTO Accession Draws Near

Taiwan's implementation of the 4-year Rice Paddy Utilization Adjustment Program (RPUAP) in July 1997, which replaced the second Riceland Diversion Program, was the main measure used to address compliance with WTO accession commitments, including the reduction of domestic production subsidies. Although Taiwan was not yet a WTO member, Taiwan followed its previously scheduled pace to annually reduce its domestic production subsidies. Under this program, farmers were paid to set rice land aside to fallow, to plant green manure crops, or to rotate the rice crop to other crops. In addition, the program's guaranteed purchase of sorghum, corn, and soybeans diverted from rice production was adjusted from two- or three-crops-a-year coverage to only one-crop-a-year coverage.

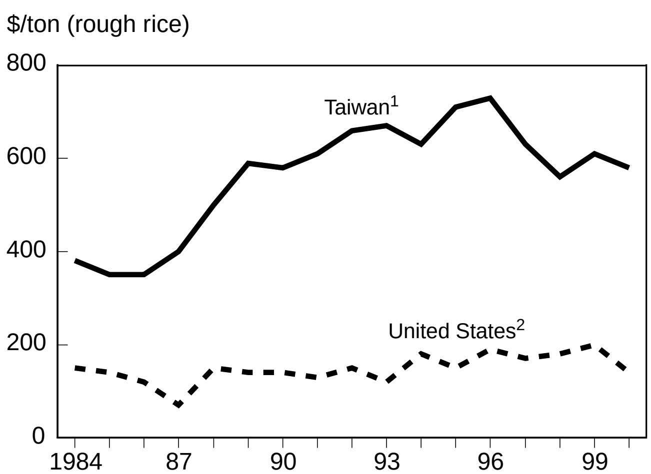
Currently, a new 4-year program is in place after the RPUAP ended. The new program is a continuation of the RPUAP with some variations. One special feature in this new program is to enlarge the fallow area to match Taiwan's minimum access quota to avoid an oversupply of rice on the domestic market. For example, Taiwan is preparing to enlarge the fallow area to at least 32,000 hectares in the first year of its WTO accession. The 32,000-hectares are equivalent to the area required to produce 144,720 metric tons of brown rice, which is the amount Taiwan has agreed to import under the minimum access quota in the year of its WTO accession.

Taiwan's rice procurement policy also underwent adjustments over the years. The unlimited rice procurements in the early years were replaced by limited quantities per hectare in 1977, while nominal purchase prices were changed only twice. Currently, if a farmer were to sell the maximum per-hectare quantities allowable under the authorities' two rice procurement programs—the guaranteed purchase program and the price guidance program—the quantity sold would equal about half of total production. From 1996 to 2000, authorities purchased about 22 percent of Taiwan's total rice production. The rice from these purchases was put into the central stocks maintained for food security purposes in accordance with Taiwan's Food Administration Law. Central stocks of new-crop rice can be auctioned and then released in the domestic market when retail prices exceed preset limits. In addition, stocks are managed by selling new crop rice to schools, the army, and prisons, while old-crop rice is sold to food processors, feed mills, or exported. Food aid is also an option.

The nominal pre-established prices under these two purchase programs have been revised only two times since 1982—in 1989 and in 1995. The nominal prices paid under the guaranteed purchase program were frozen from 1982 to 1988, and frozen again from 1990 to 1994 after a 1-percent increase in 1989. The 9-percent price increase in 1995 was the last price increase.

Despite policy adjustments, Taiwan authorities have paid a substantial price to protect the rice sector. After more than a quarter century of operation, the Food Stabilization Fund had accumulated a debt of NT$201.47 billion ($6.28 billion) as of June 1999. These rice operation programs, in general, required authorities to buy high and sell low. In particular, rice for export or feed costs the authorities the difference between the farm procurement price and the world market price. For example, the guaranteed price for rice was $981 per ton (japonica rice, milled basis, using a conversion factor of 0.69 to convert from paddy to milled rice) in 2000, while the average f.o.b. price for Taiwan's rice exports was $144 per ton. Taiwan has exported an average of 100,000 tons of old crop rice from the authorities' central stocks annually over the past 3 years, mostly to African countries that have diplomatic ties with Taiwan.

Figure A-1
Producer prices for rice: Taiwan and United States



[1]Japonica rice only. [2]Season-average farm price for California rice.

Source: Taiwan prices, *Agricultural Statistics Yearbook*, Council of Agriculture, U.S. prices, NASS, USDA.

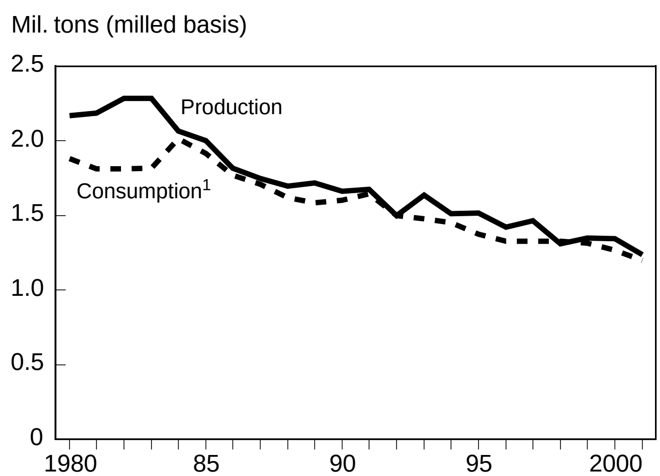
Rice—Still the Dominant Crop

Taiwan's rice economy changed dramatically during the past five decades. The rice sector, once a major tool for the authorities to achieve the multiple policy objectives of tax revenue, self-sufficiency, foreign exchange, and price stabilization, has increasingly depended for its survival on protective policy intervention. By Taiwan's estimates, the support for rice amounts to 30 to 40 percent of Taiwan's total Aggregate Measure of Support to agriculture. Due to its high level of protection, rice remains the dominant crop; it is grown on the largest number of farms and occupies a large share of farmland.

Over the past 25 years, Taiwan's rice sector has declined substantially. Rice production, after reaching its peak of 2.7 million tons (brown rice basis) in 1976, decreased almost continuously to 1.5 million tons in 2000. The termination of unlimited purchases in 1977 was a major factor behind declining acreage prior to the adoption of the first Riceland Diversion Program in 1984.

Although rice remains the most important crop in Taiwan, it has been knocked from the number one position in farm production since 1986 due to rapid growth in certain high-value products, notably hogs. Meanwhile, rice consumption, the staple food of Taiwan, has declined over the decades, a result of a strong economic growth and resulting diet diversification. Average per capita rice consumption in 1999,

Figure A-2
Rice production and consumption in Taiwan



[1]Direct food use, processed foods, industrial use, seed, and residual.

Source: FAS, USDA.

estimated at 54.9 kilograms (mainly short grain rice), was about half of the level of two decades earlier. The role of rice exports has long switched from earning foreign exchange to that of stock reductions with heavy financial costs. Rice exports have been relatively small since the signing of the rice agreement with the United States in 1984 due to uncompetitive prices and concern over the reaction from the U.S. rice industry, even though the agreement was not renewed after expiration in December 1988.

In fact, rice farming has become less attractive because of the lack of new incentives to growers. And the average age of rice farmers is rising. In addition, production costs have increased rapidly as land prices and labor costs have risen. Taiwan has lost the competitive advantages it once held in rice production, including low labor costs, land availability, and easy accessibility of water. Currently, producer prices on Taiwan are about three times that of U.S. prices.

However, farmers can still produce two crops of rice a year even in the northern-most regions of Taiwan. Many farmers are reluctant to give up rice production—the basis of Taiwan's agriculture. Taiwan's farmers have grown rice for centuries, and their irrigation systems are designed for rice production. Rice in Taiwan is much less affected than other crops by natural disasters such as typhoons. In addition, insects and diseases are effectively controlled, and machinery and equipment for rice production are well developed. And most important of all, without import competition, guaranteed purchase prices ensure rice farmers of at least some viable income level. As a result, rice area as a percentage of total crop area has declined only modestly. It accounted for 38 percent of total crop area during 1998-2000, down from 49 percent from 1960 to 1962. Rice farms still account for more than 40 percent of Taiwan's farms, although most of them are operated by part-time farmers. Rice production is still the dominant crop, accounting for more than 20 percent of the total value of crop production.

The Prospects

In general, Taiwan's agricultural policy has been cast in anticipation of membership in the WTO, and rice policy is no exception. Taiwan's rice policy, however, undoubtedly will enter a new phase after its WTO accession. So far, Taiwan's protective rice policy, in addition to causing costly budgetary expenditures, has in fact benefited mostly part-time farmers who use rice as a cash crop that fits their needs for adequate returns with low labor requirements. Because of high labor costs, mechanized rice production in Taiwan makes rice farming easier for part-time farmers. This is ironic given the authorities' stated policy of promoting the full-time entrepreneurial type of farmers.

To chart a new course for the rice sector in the 21^{st} century, the authorities have focused on evaluating the potential impacts of trade liberalization and structural adjustments to improve the sector's long-term competitiveness and to better utilize resources. The scope of policy options for the rice sector, however, is narrow. The old measures for reducing stocks by exporting or feed use are no longer options not only because of their financial costs but also because of restrictions under the terms of Taiwan's WTO accession. Riceland diversion to other crops is not a viable option due to high costs and concern over the WTO restriction on production subsidies. In fact, there are few crops in Taiwan that could be planted to compete with imported products under trade liberalization.

Taiwan's authorities are well aware that their rice production costs are high, which makes Taiwan vulnerable to import competition. Rice production as well as rice purchases under the current guaranteed price and guidance price purchase programs are expected to decrease. Low yielding farmland will be released for non-farm uses. The authorities estimate that up to 50,000 hectares of paddy fields will no longer be worked in the next few years. Final rice policy, including import relaxation, is still pending the outcome of future WTO consultations. For the United States, the opening of Taiwan's rice market provides a potential export market for high-quality japonica rice.

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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	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01 2/	2001/02 3/
Total rice:									
Area planted	Mil. acres	3.35	3.12	2.82	3.13	3.29	3.53	3.06	3.32
Area harvested	"	3.32	3.09	2.80	3.10	3.26	3.51	3.04	3.29
Yield	Pounds/acre	5,964	5,621	6,120	5,897	5,663	5,866	6,281	6,374
Beginning stocks 4/	Mil. cwt	25.77	31.28	25.04	27.24	27.91	22.08	27.48	28.48
Production	"	197.78	173.87	171.60	182.99	184.44	206.03	190.87	209.71
Imports	"	8.08	7.70	10.52	9.26	10.59	10.10	10.86	11.00
Total supply 4/	"	231.62	212.85	207.16	219.50	222.95	238.20	229.21	249.19
Domestic & residual 5/	"	101.50	104.58	101.61	103.92	114.04	121.87	117.23	121.01
Exports	"	98.84	83.24	78.31	87.67	86.84	88.86	83.49	86.00
Total use	"	200.34	187.82	179.91	191.59	200.87	210.73	200.72	207.01
Ending stocks 6/	"	31.28	25.04	27.24	27.91	22.08	27.48	28.48	42.18
CCC	"	0.10	0.00	0.00	0.00	0.00	0.00	0.00	NA
Free	"	31.18	25.04	27.24	27.91	22.08	27.48	28.48	NA
Average market price 7/	$/cwt	6.78	9.15	9.96	9.70	8.89	5.93	5.56	4.00-4.50
Long grain:									
Area harvested	Mil. acres	2.38	2.31	1.97	2.31	2.57	2.72	2.19	NA
Yield	Pounds/acre	5,609	5,265	5,777	5,391	5,426	5,587	5,882	NA
Beginning stocks	Mil. cwt	15.06	14.41	10.12	14.14	14.52	14.06	15.62	11.64
Production	"	133.45	121.73	113.63	124.49	139.33	151.86	128.76	162.26
Total supply 8/	"	155.39	142.52	132.86	146.49	162.21	173.49	153.13	182.90
Domestic & residual 5/	"	59.59	66.90	61.35	59.71	76.70	87.08	75.98	86.11
Exports	"	81.39	65.51	57.37	72.25	71.45	70.80	65.51	70.00
Total use	"	140.98	132.40	118.72	131.97	148.15	157.87	141.49	156.11
Ending stocks	"	14.41	10.12	14.14	14.52	14.06	15.62	11.64	26.79
Average market price 7/	$/cwt	6.87	9.37	10.60	10.20	8.79	5.70	NA	NA
Medium/short grain:									
Area harvested	Mil. acres	0.94	0.78	0.84	0.79	0.69	0.80	0.85	NA
Yield	Pounds/acre	6,866	6,676	6,926	7,369	6,548	6,822	7,308	NA
Beginning stocks	Mil. cwt	9.98	15.78	14.29	12.13	12.32	6.82	10.43	15.60
Production	"	64.33	52.14	57.97	58.51	45.12	54.16	62.12	47.45
Total supply 8/	"	75.15	69.70	73.32	71.95	59.58	63.28	74.83	65.05
Domestic & residual 5/	"	41.91	37.68	40.26	44.20	37.37	34.79	41.25	34.90
Exports	"	17.45	17.73	20.93	15.42	15.39	18.06	17.98	16.00
Total use	"	59.36	55.42	61.19	59.62	52.76	52.85	59.23	50.90
Ending stocks	"	15.78	14.29	12.13	12.32	6.82	10.43	15.60	14.15
Average market									
Average market price 7/	$/cwt	6.70	8.82	8.37	8.52	9.18	6.62	NA	NA

NA = Not available. Note: Totals may not add due to rounding.

1/ August 1 to July 31 marketing year. 2/ Estimated. 3/ Projected as of November 2001. 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: 1994/95,1.1 million; 1995/96, .6 million; 1996/97, 1.0 million, 1997/98, 1.1 million; 1998/99, 1.2 million; 1999/00, 1.4 million; 2000/01, 1.2 million; 2001/02, 1.2 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: Beginning stocks	Supply: Production	Supply: Imports	Supply: Total	Disappearance: Domestic use: Food, industrial and residual	Disappearance: Domestic use: Seed	Disappearance: Domestic use: Total	Disappearance: Exports	Disappearance: Total disappearance	Ending stocks--July 31: CCC inventory	Ending stocks--July 31: Free	Ending stocks--July 31: 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	6.2	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	238.1	117.8	4.0	121.9	88.9	210.7	0.0	27.5	27.5
2000/01 1/	27.5	190.9	10.9	229.2	113.1	4.1	117.2	83.5	200.7	0.0	28.5	28.5
2001/02 2/	28.5	209.7	11.0	249.2	117.0	4.0	121.0	86.0	207.0	N/A	N/A	42.2

N/A = Not available.

1/ Estimated. 2/ Projected as of November 2001.

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

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

Year beginning August 1	Supply 1/ Beginning stocks	Production	Total 2/	Disappearance Domestic and residual	Exports	Total	Ending stocks 1/ 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	130.5	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	87.1	70.8	157.9	15.6
2000/01 3/	15.6	128.8	153.1	76.0	65.5	141.5	11.6
2001/02 4/	11.6	162.3	182.9	86.1	70.0	156.1	26.8

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/ Estimated. 4/ Projected as of November 2001.

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

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

Year beginning August 1	Supply 1/ Beginning stocks	Production	Total 2/	Disappearance Domestic and residual	Exports	Total	Ending stocks 1/ 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	71.3	41.9	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	34.8	18.1	52.9	10.4
2000/01 3/	10.4	62.1	74.8	41.2	18.0	59.2	15.6
2001/02 4/	15.6	47.4	65.0	34.9	16.0	50.9	14.1

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/ Estimated. 4/ Projected as of November 2001.

Source: 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	92,550	64.0
1994/95	161,040	119,262	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 2/	148,274	101,745	68.6	86,291	58.2

1/ Includes brown rice. 2/ Revised.

Source: Rice Millers' Association.

Appendix table 6--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 3/	68.30	69.74	68.62

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

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
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 2/	18,715	10,838	53,814	2,653	86,020	4,057	129	798	4,984
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 2/	921	5,178	15,699	220	22,018	3,896	165	376	4,437

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 Service, USDA.

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

	1988	1989	1990	1991	1992	1993	1994
	1,000 cwt						
Long grain:							
Arkansas	57,447	57,458	53,034	58,328	66,912	53,928	68,160
California	4,200	2,250	1,314	1,168	1,200	1,145	567
Louisiana	17,538	13,128	14,805	12,500	19,278	14,648	19,413
Mississippi	13,275	13,395	14,250	12,320	15,675	12,985	18,467
Missouri	4,080	4,056	3,713	4,641	5,328	4,557	6,396
Texas	22,824	18,874	20,690	20,180	19,622	15,801	20,442
United States	119,364	109,161	107,806	109,137	128,015	103,064	133,445
Medium grain:							
Arkansas	7,236	6,322	6,912	8,392	8,940	8,007	12,666
California	22,050	26,315	28,215	28,399	31,342	34,112	39,627
Louisiana	6,542	8,360	11,664	12,235	9,568	9,460	10,035
Mississippi	505	1/	1/	1/	1/	1/	1/
Missouri	102	52	47	51	48	1/	52
Texas	456	392	490	400	735	294	810
United States	36,891	41,441	47,328	49,477	50,633	51,873	63,390
Short grain:							
Arkansas	52	60	54	60	62	159	114
California	3,590	3,825	900	693	948	1,014	830
United States	3,642	3,885	954	753	1,010	1,173	944
Total rice:							
Arkansas	64,735	63,840	60,000	66,780	75,914	62,094	80,940
California	29,840	32,390	30,429	30,260	33,490	36,271	41,224
Louisiana	24,080	21,488	26,469	24,735	28,846	24,108	29,448
Mississippi	13,780	13,395	14,250	12,320	15,675	12,985	18,467
Missouri	4,182	4,108	3,760	4,692	5,376	4,557	6,448
Texas	23,280	19,266	21,180	20,580	20,357	16,095	21,252
United States	159,897	154,487	156,088	159,367	179,658	156,110	197,779
State	1995	1996	1997	1998	1999	2000	2001 2/ 3/
	1,000 cwt						
Long grain:							
Arkansas	61,218	55,055	65,192	73,644	79,417	68,478	NA
California	600	360	693	537	340	639	NA
Louisiana	21,022	22,687	24,731	26,727	29,050	23,114	NA
Mississippi	15,552	12,480	13,804	15,544	18,250	12,862	NA
Missouri	5,936	5,162	6,095	7,280	9,828	9,576	NA
Texas	17,402	17,885	13,970	15,596	14,978	14,087	NA
United States	121,730	113,629	124,485	139,328	151,863	128,756	162,260
Medium grain:							
Arkansas	11,682	16,770	13,908	12,400	15,513	17,514	NA
California	33,972	36,150	40,557	29,218	32,850	40,400	NA
Louisiana	5,187	3,290	2,250	1,380	1,775	1,288	NA
Mississippi	1/	1/	1/	1/	1/	1/	NA
Missouri	1/	111	106	156	108	57	NA
Texas	400	580	270	250	294	255	NA
United States	51,241	56,901	57,091	43,404	50,540	59,514	45,584
Short grain:							
Arkansas	120	120	120	80	124	120	NA
California	780	949	1,296	1,631	3,500	2,482	NA
United States	900	1,069	1,416	1,711	3,624	2,602	1,865
Total rice:							
Arkansas	73,020	71,945	79,220	86,124	95,054	86,112	99,634
California	35,352	37,459	42,546	31,386	36,690	43,521	38,622
Louisiana	26,209	25,977	26,981	28,107	30,825	24,402	29,430
Mississippi	15,552	12,480	13,804	15,544	18,250	12,862	16,120
Missouri	5,936	5,273	6,201	7,436	9,936	9,633	11,993
Texas	17,802	18,465	14,240	15,846	15,272	14,342	13,910
United States	173,871	171,599	182,992	184,443	206,027	190,872	209,709

NA = Not available.

1/ No grain estimates. 2/ Projected as of November 2001. 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 harvested			Yield			Production		
	1998	1999	2000	1998	1999	2000	1998	1999	2000
	1,000 acres			Pounds / acre			1,000 cwt		
Long grain:									
Arkansas	1,283	1,374	1,130	5,740	5,780	6,060	73,644	79,417	68,478
California	9	5	9	5,970	6,800	7,100	537	340	639
Louisiana	590	581	455	4,530	5,000	5,080	26,727	29,050	23,114
Mississippi	268	323	218	5,800	5,650	5,900	15,544	18,250	12,862
Missouri	140	182	168	5,200	5,400	5,700	7,280	9,828	9,576
Texas	278	253	209	5,610	5,920	6,740	15,596	14,978	14,087
United States	2,568	2,718	2,189	5,426	5,587	5,882	139,328	151,863	128,756
Medium grain:									
Arkansas	200	249	278	6,200	6,230	6,300	12,400	15,513	17,514
California	418	450	505	6,990	7,300	8,000	29,218	32,850	40,400
Louisiana	30	35	25	4,600	5,070	5,150	1,380	1,775	1,288
Missouri	3	2	1	5,200	5,400	5,700	156	108	57
Texas	5	6	5	5,000	4,900	5,100	250	294	255
United States	656	742	814	6,616	6,811	7,311	43,404	50,540	59,514
Short grain:									
Arkansas	2	2	2	4,000	6,200	6,000	80	124	120
California	31	50	34	5,260	7,000	7,300	1,631	3,500	2,482
United States	33	52	36	5,185	6,969	7,228	1,711	3,624	2,602
Total grains:									
Arkansas	1,485	1,625	1,410	5,800	5,850	6,110	86,124	95,054	86,112
California	458	505	548	6,850	7,270	7,940	31,386	36,690	43,521
Louisiana	620	616	480	4,530	5,000	5,080	28,107	30,825	24,402
Mississippi	268	323	218	5,800	5,650	5,900	15,544	18,250	12,862
Missouri	143	184	169	5,200	5,400	5,700	7,436	9,936	9,633
Texas	283	259	214	5,600	5,900	6,700	15,846	15,272	14,342
United States	3,257	3,512	3,039	5,663	5,866	6,281	184,443	206,027	190,872

Source: 1998 and 1999, Crop Production, January 2001, NASS, USDA. 2000, Crop Production, September 2001, NASS, USDA.

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

State	Area planted					
	1991	1992	1993	1994	1995	1996
	1,000 acres					
Long grain:						
Arkansas	1,149	1,249	1,115	1,218	1,148	918
California	16	15	14	7	8	5
Louisiana	290	410	325	400	460	465
Mississippi	225	280	250	315	290	210
Missouri	96	116	105	130	119	95
Texas	337	338	293	340	310	290
United States	2,113	2,408	2,102	2,410	2,335	1,983
Medium grain:						
Arkansas	150	150	162	220	200	260
California	332	369	413	470	449	484
Louisiana	270	220	220	225	115	70
Mississippi	1/	1/	1/	1/	1/	2
Missouri	1	1	1/	1	1/	1/
Texas	8	15	7	15	10	10
United States	761	755	802	931	774	826
Short grain:						
Arkansas	1	1	3	2	2	2
California	9	12	13	10	10	13
United States	10	13	16	12	12	15
Total grain:						
Arkansas	1,300	1,400	1,280	1,440	1,350	1,180
California	357	396	440	487	467	502
Louisiana	560	630	545	625	575	535
Mississippi	225	280	250	315	290	210
Missouri	97	117	105	131	119	97
Texas	345	353	300	355	320	300
United States	2,884	3,176	2,920	3,353	3,121	2,824

State	Area planted					2001 as share
	1997	1998	1999	2000	2001	of 2000
	1,000 acres					Percent
Long grain:						
Arkansas	1,168	1,293	1,378	1,138	1,470	129
California	9	9	5	9	7	78
Louisiana	535	595	585	460	540	117
Mississippi	240	270	325	220	250	114
Missouri	120	142	184	169	209	124
Texas	255	280	254	210	211	100
United States	2,327	2,589	2,731	2,206	2,687	122
Medium grain:						
Arkansas	230	205	250	280	145	52
California	493	420	455	507	445	88
Louisiana	50	30	35	25	10	40
Mississippi	1/	1/	1/	1/	1/	1/
Missouri	2	3	2	1	1	100
Texas	5	5	6	5	4	80
United States	780	663	748	818	605	74
Short grain:						
Arkansas	2	2	2	2	2	100
California	16	31	50	34	23	68
United States	18	33	52	36	25	69
Total grain:						
Arkansas	1,400	1,500	1,630	1,420	1,617	114
California	518	460	510	550	475	86
Louisiana	585	625	620	485	550	113
Mississippi	240	270	325	220	250	114
Missouri	122	145	186	170	210	124
Texas	260	285	260	215	215	100
United States	3,125	3,285	3,531	3,060	3,317	108

1/ No medium grain estimated. 2/ As estimated in the September 2001 Acreage report.

Sources: 1990 to 2000, 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	85,014
1967	1,982	1,970	4,537	89,379
1968	2,367	2,353	4,425	104,120
1969	2,141	2,128	4,318	91,887
1970	1,826	1,815	4,617	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	4,275	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	131,900
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 2/	3,317	3,290	6,374	209,709

1/ August 1 to July 31 crop year. 2/ Estimated November 2001.

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 1/	6,374	6,200	8,200	5,400	6,500	5,850	6,500

1/ Preliminary as of November 2001.

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	31.2	1.4	190,872
2001 1/	77.4	21.7	0.9	209,709

1/ Estimated November 2001.

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	86.9	200.9	22.1	11.0
1999	117.8	4.0	88.9	210.7	27.5	13.0
2000	113.1	4.1	83.5	200.7	28.5	14.2
2001 3/	117.0	4.0	86.0	207.0	42.2	20.4

1/ Includes shipments to U.S. territories. 2/ Includes residual. 3/ November 2001 projection.

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	7.0	42.8	14.1	56.9	10.8	67.7
1997/98	37.6	6.6	44.2	15.6	59.8	11.1	70.9
1998/99	38.1	7.1	45.2	16.1	61.4	10.7	72.1
1999/2000	39.2	7.0	46.2	16.9	63.1	11.2	74.3

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 1999/2000 compiled by Food Research Associates for the USA Rice Federation. Import data are from the U.S. Department of Commerce. Brewers' use data from the U.S. Treasury Department. All data updated March 2001 when reported in U.S. Rice Distribution Patterns 1999-2000 Report. The 2000/01 report is expected to be available in early 2002.

Appendix table 16--Per capita rice consumption, United States 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/	U.S. resident population 5/
			- - - - - - - - - - Pounds--milled basis - - - - - - - - - -					Millions
1955/56	4.9	0.1	5.0	0.9	5.9	2.5	8.4	165.3
1956/57	5.1	0.0	5.1	0.9	6.0	2.1	8.1	168.2
1960/61	5.7	0.1	5.8	1.2	7.0	1.9	8.9	179.4
1961/62	6.1	0.2	6.3	1.2	7.5	1.8	9.3	182.3
1966/67	5.6	0.0	5.6	1.5	7.1	1.9	9.1	195.5
1969/70	6.4	0.1	6.5	1.5	7.9	2.5	10.4	201.8
1971/72	6.2	0.4	6.6	1.7	8.2	2.6	10.8	206.5
1973/74	6.2	0.1	6.3	1.6	7.9	2.8	10.7	211.0
1974/75	5.9	0.0	5.9	1.2	7.1	2.8	9.9	212.9
1975/76	6.0	0.0	6.0	1.3	7.3	3.0	10.3	214.9
1978/79	6.8	0.0	6.8	1.7	8.5	3.5	12.1	221.5
1980/81	8.2	0.1	8.3	2.0	10.3	3.5	13.8	226.5
1982/83	8.2	0.2	8.4	1.4	9.9	4.1	14.0	231.2
1983/84	8.9	0.5	9.4	2.3	11.7	4.1	15.8	233.3
1986/87	9.4	0.8	10.2	3.1	13.4	4.4	17.8	239.6
1988/89	10.2	1.1	11.3	3.5	14.8	4.5	19.3	245.7
1990/91	11.0	1.4	12.4	5.0	17.4	4.5	21.9	251.0
1994/95	11.9	2.1	14.0	6.6	20.6	4.4	24.9	264.5
1995/96	13.6	2.2	15.7	6.1	21.8	4.6	26.3	267.7
1996/97	13.2	2.9	16.1	5.8	21.8	4.4	26.2	270.9
1997/98	13.7	2.7	16.4	6.3	22.7	4.5	27.6	274.1
1998/99	13.7	2.9	16.6	6.6	23.2	4.4	27.6	277.3
1999/00	14.0	2.9	16.8	6.9	23.7	4.6	28.3	280.6

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. / 5 Population data prior to 1989/90 are from the Bureau of the Census, Department of Commerce. Population data since 1989/90 are derived by ERS based on data from the Bureau of Economic Analysis, Department of Commerce that smoothed in data from the 2000 Census of Population.

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 1999/2000 Economic Research Service, USDA. Survey data 1994/95 to 1999/2000 compiled by Food Research Associates for the USA Rice Federation. Import data are from the U.S. Department of Commerce. Brewers' use data from the U.S. Treasury Department. All data last updated March 2001 when reported in U.S. Rice Distribution Pattern 1998-99 Report. The 1999/2000 survey results will be available in early 2002.

Appendix table 17--Prices and ending stocks for rice

Crop year	Ending stocks	Farm price	Loan rate	Target price	Announced world price	Direct payment
	Mill. cwt			---$/cwt---		
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	3/ 2.77
1997	27.91	9.70	6.50	2/ ---	8.45	3/ 2.71
1998	22.08	8.89	6.50	2/ ---	7.37	3/ 2.92
1999	27.48	5.93	6.50	2/ ---	4.49	3/ 2.82
2000	28.45	5.56	6.50	2/ ---	3.20	3/ 2.60
2001 1/	42.18	4.00-4.50	6.50	2/ ---	3.00	3/ 2.10

--- = 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.

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

Appendix table 18--Class loan rates and differentials

Item	Crop year							
	1986	1987	1988	1989	1990	1991	1992	1993
	Cents/lb							
Milled rice:								
Long whole kernels	12.44	11.36	10.89	10.81	10.84	10.74	10.74	10.75
Medium and short whole kernels	10.44	10.36	9.89	9.81	9.84	9.74	9.74	9.75
Broken kernels	4.98	5.68	5.45	5.41	5.42	5.37	5.37	5.37
Differential (milled basis) 1/	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	$/hundredweight							
Rough rice 2/:								
Average, all classes	7.20	6.84	6.63	6.50	6.50	6.50	6.50	6.50
Average, long grain	7.52	7.03	6.75	6.68	6.68	6.65	6.66	6.67
Average, medium grain	6.36	6.54	6.33	6.13	6.21	6.11	6.13	6.11
Average, short grain	6.44	6.39	5.98	5.98	6.12	6.07	6.13	5.89

Item	Crop year							
	1994	1995	1996	1997	1998	1999	2000	2001
	Cents/lb							
Milled rice:								
Long whole kernels	10.72	10.69	10.77	10.69	10.71	10.66	10.71	10.69
Medium and short whole kernels	9.72	9.69	9.77	9.69	9.71	9.66	9.71	9.69
Broken kernels	5.36	5.35	5.38	5.35	5.35	5.33	5.35	5.35
Differential (milled basis) 1/	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	$/hundredweight							
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	6.64	6.68	6.68	6.67	6.67	6.67	6.66	6.67
Average, medium grain	6.13	6.12	6.17	6.14	6.14	6.12	6.12	6.09
Average, short grain	6.02	5.99	6.02	6.07	6.04	6.04	6.16	6.13

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 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 the broken rice loan rate.

Source: Farm Service Agency, USDA.

Appendix table 19--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

See footnote at end of table. *Continued--*

Appendix table 19--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 18	10.64	9.93	9.86	5.32	6.58	6.22	5.93
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

See footnote at end of table.

Continued--

Appendix table 19--World market rice prices, loan rate basis 1/--Continued

Date	Milled kernel rates				Rough rates		
	Long	Medium	Short	Broken	Long	Medium	Short
	---$/cwt---				---$/cwt---		
1992:							
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
1993:							
December 8,1992-January 5, 1993	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

See footnote at end of table.

Continued--

Appendix table 19--World market rice prices, loan rate basis 1/--Continued

Date	Milled kernel rates				Rough rates		
	Long	Medium	Short	Broken	Long	Medium	Short
	---$/cwt---				---$/cwt---		
1994:							
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
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

See footnote at end of table.

Continued--

Appendix table 19--World market rice prices, loan rate basis 1/--Continued

Date	Milled kernel rates				Rough rates		
	Long	Medium	Short	Broken	Long	Medium	Short
	---$/cwt---				---$/cwt---		
1996:							
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
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

See footnote at end of table. *Continued--*

Appendix table 19--World market rice prices, loan rate basis 1/--Continued

Date	Milled kernel rates				Rough rates		
	Long	Medium	Short	Broken	Long	Medium	Short
	---$/cwt---				---$/cwt---		
1998:							
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
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

See footnote at end of table.

Continued--

Appendix table 19--World market rice prices, loan rate basis 1/--Continued

Date	Milled kernel rates				Rough rates		
	Long	Medium	Short	Broken	Long	Medium	Short
	---$/cwt---				---$/cwt---		
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
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	4.76	2.70	3.37	3.02	3.02

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 20--Rough rice: Average price received by farmers by month and marketing year 1/

Item	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93
					--- $/cwt ---				
Month:									
August	8.22	7.86	4.02	3.82	7.49	7.41	6.66	7.16	6.60
September	8.17	7.55	3.86	4.34	6.97	7.59	6.21	7.67	6.41
October	8.08	7.73	3.83	6.25	6.85	7.41	6.02	7.65	6.40
November	8.13	7.84	3.90	7.53	6.81	7.03	6.29	7.84	6.40
December	8.08	7.71	3.74	7.64	6.68	7.05	6.13	7.98	6.38
January	8.09	7.90	3.55	7.93	6.58	7.44	6.39	7.84	6.35
February	7.72	7.86	3.84	9.37	6.67	7.57	6.75	7.97	6.06
March	8.17	7.60	3.62	9.22	6.60	7.55	7.07	7.78	5.63
April	8.20	5.32	3.63	8.92	6.74	7.41	7.43	7.46	5.50
May	7.91	4.52	3.71	7.97	6.78	7.28	7.44	7.18	5.23
June	7.83	4.04	3.62	7.69	7.05	7.18	7.43	6.97	5.02
July	7.54	3.86	3.49	7.94	7.45	7.05	7.21	6.99	4.90
Season average price:									
12 months 1/	8.04	6.53	3.75	7.27	6.83	7.35	6.70	7.58	5.89
5 months 2/	8.14	7.73	3.87	5.71	6.84	7.24	6.25	7.64	6.44
State: 3/									
Arkansas	8.51	6.70	3.68	7.60	6.90	7.46	6.75	7.69	5.93
California	6.43	5.33	3.18	6.72	6.15	6.27	5.93	6.65	5.64
Louisiana	8.20	7.24	4.03	7.65	6.90	7.81	6.73	7.67	5.88
Mississippi	8.88	7.10	3.91	7.90	7.02	7.57	6.99	8.48	5.82
Missouri	8.70	7.05	3.57	7.41	7.22	7.54	7.21	7.81	5.91
Texas	8.90	7.38	4.22	8.07	7.24	8.02	7.41	8.15	6.17
Type:									
Long grain	8.66	6.75	3.82	7.77	6.96	7.59	6.94	7.83	5.87
Medium & short grain	6.66	5.87	3.55	6.36	6.47	6.71	6.19	7.00	5.91

Item	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01 4/	2001/02 5/
					--- $/cwt ---				
Month:									
August	5.14	6.87	7.77	10.10	9.94	9.01	6.94	5.60	5.10
September	5.16	6.82	8.01	10.00	9.92	9.42	5.78	5.72	4.78
October	6.01	6.52	8.84	9.66	10.00	9.31	5.97	5.61	4.69 6/
November	7.94	6.63	9.21	9.41	9.82	9.02	6.02	5.63	
December	8.78	6.60	9.45	9.82	9.77	9.10	6.08	5.60	
January	8.92	6.83	9.36	9.95	9.57	9.09	6.02	5.84	
February	9.99	6.74	9.19	10.10	9.75	9.02	5.88	5.72	
March	10.10	6.67	9.20	10.20	9.67	8.93	5.71	5.55	
April	9.80	6.75	9.35	10.30	9.40	8.49	5.75	5.59	
May	9.90	6.87	9.73	10.20	9.38	8.21	5.63	5.15	
June	8.76	7.06	9.77	9.90	9.58	8.25	5.80	5.01	
July	7.69	7.19	9.81	10.00	9.58	8.26	5.65	5.25	
Season average price:									
12 months 1/	7.98	6.78	9.15	9.96	9.70	8.89	5.93	5.56	4.00-4.50
5 months 2/	6.73	6.65	8.62	9.74	9.83	NA	NA	NA	NA
State: 3/									
Arkansas	7.97	6.52	9.14	10.20	9.87	8.87	5.70	5.70	NA
California	8.27	6.97	8.79	7.91	7.95	9.19	6.97	5.30	NA
Louisiana	7.65	6.71	9.09	10.60	10.20	8.87	5.99	5.80	NA
Mississippi	8.37	7.00	9.25	10.50	10.40	8.99	5.49	5.60	NA
Missouri	8.03	6.72	9.06	10.30	10.00	8.75	5.60	5.60	NA
Texas	7.69	7.12	9.73	10.80	10.90	9.32	6.04	5.75	NA
Type:									
Long grain	7.93	6.87	9.37	10.60	10.20	8.79	5.70	NA	NA
Medium & short grain	8.09	6.70	8.82	8.37	8.52	9.18	6.62	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 2001 Annual Agricultural Price Summary. Grain type prices are from the January 30, 2001, Agricultural Prices. 5/ Season-average farm price is from the November 9, 2001, WASDE. 6/ Preliminary.

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

Appendix table 21--Milled rice: Average price, f.o.b. mills, at selected milling centers 1/

Year and type	Aug.	Sept.	Oct.	Nov.	Dec.	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								10.88
							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								13.89

See footnotes at end of table.

Continued--

Appendix table 21--Milled rice: Average price, f.o.b. mills, at selected milling centers 1/--Continued

Year and type	Aug.	Sept.	Oct.	Nov.	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								10.86
							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								11.33

See footnotes at end of table.

Continued--

Appendix table 21--Milled rice: Average price, f.o.b. mills, at selected milling centers 1/--Continued

Year and type	Aug.	Sept.	Oct.	Nov.	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								11.30
							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								13.26

See footnotes at end of table.

Continued--

Appendix table 21--Milled rice: Average price, f.o.b. mills, at selected milling centers 1/--Continued

Year and type	Aug.	Sept.	Oct.	Nov.	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								13.34

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

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

Appendix table 22--Rice byproducts: Monthly average price, Southwest Louisiana 1/

Year and type	Aug.	Sept.	Oct.	Nov. 2/	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Simple average
							$/cwt, bagged 3/						
Milled second head:													
1975/76	9.25	9.75	9.75	9.00	8.10	6.90	6.95	6.75	7.75	8.00	8.25	8.45	8.25
1976/77	7.00	6.80	7.05	6.80	6.75	6.15	6.20	6.25	6.50	6.95	7.25	7.25	6.75
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								7.05
Rice bran, f.o.b. mills:							$/ton 4/						
1975/76	64.00	68.00	60.60	69.40	87.00	92.50	71.50	68.00	62.00	54.85	60.50	62.50	68.40
1976/77	68.50	71.00	68.00	73.10	73.30	71.20	74.75	66.10	54.00	51.75	45.50	44.50	63.45
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	NQ	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								39.24

See footnotes at end of table.

Continued--

Appendix table 22--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	NQ	NQ	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	NQ	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								14.68

NQ = Not quoted.

1/ Monthly average of the midpoint for reported weekly low and high quotes. 2/ December 2001 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 23--Brewers' prices: Monthly average price for Arkansas brewers' rice 1/

Year & State	Aug.	Sept.	Oct.	Nov.	Dec.	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								6.61

1/ December 2001 data are preliminary. 2/ Rice Marketing News, Agricultural Marketing Service, USDA.

Appendix table 24--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 24--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 24--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 24--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 24--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

See footnotes at end of table.

Continued--

Appendix table 24--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			
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
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	174	167	156	135
December	184	197	179	173	160	134
Average 3/	178	205	173	166	155	141

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 25--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

See footnotes at end of table.

Continued--

Appendix table 25--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-continued:							
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
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
Average 2/	182	177	172	NQ	161	NQ	NQ
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

See footnotes at end of table.

Continued--

Appendix table 25--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--continued:							
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
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
Average 2/	NQ	NQ	NQ	NQ	136	NQ	168
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

See footnotes at end of table.

Continued--

Appendix table 25--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			
Pakistan--continued:							
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
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
Average 2/	NQ	166	160	154	149	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 26--ARAG 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 26--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		
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 26--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 26--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
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

See footnotes at end of table.

Continued--

Appendix table 26--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		
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
Average 4/	226	226	215	241	259

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 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 27--World rice supply and utilization

Year	Area harvested	Yield 1/	Production 2/ Rough	Production 2/ Milled	Exports 3/	Total use 4/	Ending stocks 5/	Stocks-to-use ratio 6/
	Mill. Hectares	Mt/ha	---Million metric tons---					
1961/62	115.8	1.9	215.6	147.3	6.3	149.3	8.5	5.7
1962/63	119.7	1.9	228.1	155.1	7.3	151.1	12.5	8.3
1963/64	121.6	2.0	248.3	169.0	7.7	165.3	16.3	9.8
1964/65	125.4	2.1	265.5	180.7	8.2	179.8	17.2	9.6
1965/66	124.0	2.0	253.5	172.9	7.9	172.0	18.1	10.5
1966/67	125.7	2.1	262.1	179.0	7.8	178.5	18.6	10.4
1967/68	127.0	2.2	276.9	188.9	7.2	186.1	21.3	11.4
1968/69	128.6	2.2	285.8	194.9	7.5	191.6	24.5	12.8
1969/70	131.4	2.2	295.2	201.1	8.2	199.2	26.4	13.3
1970/71	132.7	2.4	312.5	213.0	8.6	210.6	28.8	13.7
1971/72	134.8	2.3	316.6	215.8	8.7	216.5	28.0	12.9
1972/73	132.7	2.3	306.2	208.9	8.4	213.2	23.8	11.2
1973/74	136.3	2.5	333.8	227.5	7.7	222.4	29.3	13.2
1974/75	137.8	2.4	331.0	225.6	7.3	226.2	28.7	12.7
1975/76	142.9	2.5	357.4	243.1	8.4	232.5	39.4	16.9
1976/77	141.4	2.5	346.5	235.8	10.6	236.4	38.8	16.4
1977/78	143.4	2.6	368.7	250.6	9.6	244.6	44.8	18.3
1978/79	143.6	2.7	385.4	262.3	11.9	252.3	54.8	21.7
1979/80	141.2	2.7	376.5	256.8	12.5	257.6	54.0	21.0
1980/81	144.4	2.8	397.0	269.9	12.7	271.3	52.6	19.4
1981/82	144.4	2.8	408.3	277.9	11.5	279.9	50.5	18.0
1982/83	140.7	3.0	418.2	285.0	11.5	278.7	56.7	20.4
1983/84	144.6	3.1	450.8	306.9	12.1	294.3	69.3	23.5
1984/85	144.1	3.2	464.8	316.7	11.5	298.4	87.7	29.4
1985/86	144.8	3.2	467.2	317.9	12.4	307.9	97.7	31.7
1986/87	144.8	3.2	464.5	316.0	13.3	310.4	103.3	33.3
1987/88	141.6	3.3	464.0	314.6	11.2	313.3	104.6	33.4
1988/89	146.0	3.4	489.6	331.4	13.9	325.3	110.9	34.1
1989/90	146.6	3.5	508.0	343.9	11.6	335.5	119.3	35.6
1990/91	146.7	3.6	520.4	352.0	12.1	344.9	126.3	36.6
1991/92	147.4	3.6	525.1	354.6	14.2	354.0	126.9	35.8
1992/93	146.4	3.6	526.9	355.6	14.9	358.6	123.9	34.6
1993/94	144.9	3.6	526.8	355.3	16.3	359.3	120.0	33.4
1994/95	147.4	3.7	540.1	364.5	21.0	366.0	118.4	32.3
1995/96	148.1	3.7	551.3	371.4	19.7	372.0	117.8	31.7
1996/97	149.7	3.8	563.4	380.2	18.9	378.9	119.0	31.4
1997/98	151.3	3.8	574.2	386.8	27.7	379.5	126.3	33.3
1998/99	152.3	3.8	585.6	394.1	24.9	387.4	133.0	34.3
1999/00	154.9	3.9	607.3	408.3	22.9	398.6	142.8	35.8
2000/01 7/	152.2	3.9	589.2	395.9	23.0	401.2	137.5	34.3
2001/02 8/	151.3	3.9	585.8	393.3	23.0	404.6	126.2	31.2

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 2001.

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

Appendix table 28--World rice production and stocks: Selected countries or regions 1/

Country or region	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02 3/
	Million tons												
Production: 2/													
Bangladesh	26.8	26.8	27.4	27.5	27.1	25.3	26.5	28.3	28.3	29.8	34.6	36.5	34.5
Burma	13.5	13.7	12.8	13.4	15.1	16.0	17.0	15.5	15.3	16.0	17.0	17.0	17.0
China	180.1	189.3	183.8	186.2	177.7	175.9	185.2	195.1	200.7	198.7	198.5	187.9	181.0
India	110.4	111.4	112.0	109.3	120.5	121.8	119.4	122.0	123.8	129.0	134.2	129.5	133.5
Indonesia	45.2	44.7	48.2	48.2	46.6	49.7	51.1	49.4	49.2	50.4	52.9	50.6	51.4
Japan	12.9	13.1	12.0	13.2	9.8	15.0	13.4	12.9	12.5	11.2	11.5	11.9	11.3
Pakistan	4.8	4.9	4.9	4.7	6.0	5.2	6.0	6.5	6.5	7.0	7.7	7.1	6.8
Philippines	8.9	9.9	9.1	9.5	9.9	10.5	11.2	11.2	10.0	10.3	12.0	12.5	13.7
South Korea	8.1	7.7	7.4	7.3	6.4	6.9	6.4	7.1	7.4	6.8	7.1	7.2	7.5
Taiwan	2.4	2.3	2.3	2.1	2.2	2.1	2.1	19.0	2.0	1.9	2.0	1.9	2.0
Thailand	20.6	17.2	20.4	19.9	19.2	21.4	21.8	20.7	23.5	23.6	25.0	25.5	25.5
Vietnam	19.4	18.8	22.2	21.2	24.3	24.6	26.8	27.3	28.9	30.5	31.7	31.0	31.2
Subtotal	453.1	459.8	462.5	462.5	464.8	474.2	486.9	515.0	508.3	515.1	534.2	518.6	515.4
Australia	0.8	0.8	1.1	1.0	1.1	1.1	1.0	1.4	1.3	1.4	1.1	1.8	1.5
Brazil	8.0	10.0	10.1	9.9	10.5	11.2	10.0	9.5	8.6	11.6	11.4	10.4	10.9
Egypt	2.1	3.2	3.4	3.9	4.2	4.6	4.4	4.9	5.4	4.2	5.8	6.0	5.3
European Union	2.1	2.4	2.3	2.2	2.0	2.2	2.1	2.6	2.7	2.7	2.7	2.4	2.4
All others	34.9	37.1	38.5	39.3	37.1	37.9	39.1	22.3	39.7	42.3	42.8	41.4	40.8
Total non-U.S.	501.0	513.3	517.9	518.8	519.7	531.2	543.4	555.6	565.9	577.3	598.0	580.5	576.3
United States	7.0	7.1	7.2	8.1	7.1	9.0	7.9	7.8	8.3	8.4	9.3	8.7	9.5
World total	508.1	520.4	525.1	526.9	526.8	540.1	551.3	563.4	574.2	585.6	607.3	589.2	585.8
Ending stocks 4/:													
Total foreign	118.4	58.4	56.3	53.9	51.6	117.4	117.0	118.2	125.5	132.3	61.8	58.3	58.3
United States	0.9	0.8	0.9	1.3	0.9	1.1	0.8	0.9	0.9	0.7	0.9	0.9	1.3
World total	119.3	126.3	126.9	123.9	120.0	118.4	117.8	119.0	126.3	133.0	142.8	137.5	126.2

1/ Production is reported on a rough basis. Ending stocks are reported on a milled basis. 2/ World rice harvest stretches almost 18 months and timing varies widely across countries and Hemispheres. 3/ Projected November 2001.   4/ Stocks are based on an aggregate of different local marketing years, and should not be construed as reprenting world stocks at any fixed point in time. In addition, stocks data are not available for all countries.

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

Appendix table 29--World rice trade (milled basis): Exports and imports of selected countries or regions

Country or region	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001 1/	2002 1/
	Calendar year											
Exports:												
Argentina	75	207	276	203	327	365	530	599	654	473	275	250
Australia	450	511	540	570	519	562	641	547	662	617	600	700
Burma	176	185	222	587	645	265	15	94	57	159	500	500
China	689	933	1,374	1,519	32	265	938	3,734	2,708	2,951	1,800	2,000
Egypt	159	209	135	268	160	328	201	426	320	500	550	650
European Union	391	376	153	185	323	318	372	346	348	308	350	350
Guyana	54	115	124	182	201	262	286	249	252	167	175	150
India	711	577	609	615	4,179	3,549	1,954	4,666	2,752	1,449	1,600	1,500
Pakistan	1,297	1,358	937	1,399	1,592	1,677	1,982	1,994	1,838	2,026	1,900	1,900
Taiwan	229	188	101	117	200	92	71	55	113	120	90	90
Thailand	3,988	4,876	4,971	4,720	5,891	5,281	5,216	6,367	6,679	6,549	7,000	7,000
United States	2,199	2,112	2,725	2,793	2,993	2,625	2,304	3,156	2,648	2,756	2,650	2,700
Uruguay	260	351	451	410	451	597	640	628	681	642	700	650
Vietnam	1,048	1,914	1,594	2,222	2,315	3,040	3,327	3,776	4,555	3,370	3,600	4,000
Other	474	388	788	510	972	474	341	1,033	658	809	1,240	524
World total	12,200	14,300	15,000	16,300	20,800	19,700	18,818	27,670	24,925	22,896	23,030	22,964
Imports:												
Bangladesh	24	34	0	159	1,567	655	44	2,520	1,220	638	475	500
Brazil	772	456	831	1,098	987	786	845	1,555	781	700	500	500
Canada	186	175	182	190	214	225	239	245	248	280	260	265
China	67	93	112	959	1,964	832	326	261	178	278	300	310
Cuba	264	198	397	252	318	389	267	336	431	415	450	455
Eastern Europe	168	238	230	187	224	218	245	334	361	343	352	357
European Union 2/	481	480	444	725	762	952	844	787	784	852	800	800
Hong Kong	418	418	456	342	333	346	331	312	326	274	315	320
Indonesia	192	534	22	1,120	3,011	1,029	808	5,765	3,729	1,500	1,300	1,600
Iran	599	1,122	1,161	584	1,583	1,344	973	844	1,313	1,100	800	1,250
Iraq	268	548	647	64	96	234	744	630	779	1,274	1,000	1,000
Ivory Coast	169	309	386	187	341	291	470	520	600	550	650	650
Japan	34	17	229	2,264	29	446	546	468	633	656	700	700
Malaysia	367	569	385	317	402	573	645	630	617	596	600	600
Mexico	173	377	275	269	239	307	289	295	342	415	425	425
Nigeria	296	440	382	300	450	350	731	900	950	1,200	1,600	1,200
North Korea	194	10	112	53	683	195	272	250	159	400	550	450
Peru	340	360	337	220	287	437	208	236	116	86	150	100
Philippines	91	6	215	0	277	768	814	2,185	1,000	900	950	800
Russia	100	500	128	50	129	405	284	224	580	400	350	350
Saudi Arabia	559	783	877	724	638	814	660	775	750	992	950	875
Senegal	434	333	399	252	406	604	575	600	700	637	750	750
South Africa	360	360	431	415	448	481	573	529	514	525	550	550
Sri Lanka	208	338	267	39	25	394	349	168	205	18	30	30
Syria	124	86	141	140	236	158	228	160	200	150	150	150
Turkey	146	314	314	268	416	341	274	276	321	350	300	350
U.A. Emirates	57	67	72	73	87	75	75	75	75	75	75	80
United States	164	177	206	265	228	279	317	300	357	308	315	325
Yemen	NA	169	145	183	78	157	185	111	217	210	215	225
Other	3,462	3,513	3,278	3,010	3,416	3,832	4,036	4,075	4,941	5,497	6,075	5,904
Unaccounted 3/	1,483	1,276	1,939	1,591	926	1,783	1,621	1,304	1,498	1,277	1,093	1,093
World total	12,200	14,300	15,000	16,300	20,800	19,700	18,818	27,670	24,925	22,896	23,030	22,964

NA = Not available.

1/ Projected as of November 2001. 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 30--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	9.5	3,213.1
2000/01	932.7	485.2	541.8	83.6	1,031.1	7.8	3,082.2

NA = Not available.

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 31--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	747	0	747	1,467	2,214	34
1976	509	0	0	0	0	509	0	509	1,374	1,883	27
1977	676	0	0	0	0	676	0	676	1,585	2,261	30
1978	502	0	0	0	0	502	0	502	1,695	2,197	23
1979	442	0	0	0	0	442	0	442	1,891	2,333	19
1980	500	0	0	0	0	500	0	500	2,359	2,859	17
1981	320	0	0	0	0	320	0	320	2,677	2,997	11
1982	332	0	0	0	0	332	0	332	2,444	2,776	12
1983	429	0	0	0	0	429	0	429	1,780	2,209	19
1984	366	0	0	0	49	415	0	415	1,797	2,212	19
1985	500	0	0	0	5/ 180	680	0	680	1,228	1,908	36
1986	411	0	0	0	0	411	23	434	1,803	2,237	19
1987	370	60	0	0	0	430	28	458	1,954	2,412	19
1988	338	29	0	0	0	367	120	488	1,637	2,125	23
1989	355	0	0	0	0	355	20	375	1,875	2,250	17
1990	276	0	0	0	0	276	0	276	2,225	2,501	11
1991	210	4	0	0	0	214	76	290	2,126	2,416	12
1992	229	0	0	16	0	245	358	603	1,676	2,279	26
1993	199	0	0	137	0	336	278	614	2,096	2,710	23
1994	222	0	0	10	0	232	46	279	2,155	2,434	11
1995	196	0	0	14	0	209	113	322	3,441	3,763	9
1996	179	0	0	12	0	191	23	214	2,613	2,826	8
1997	115	0	0	14	0	129	0	129	2,431	2,560	5
1998	183	0	0	11	0	194	0	194	3,116	3,310	6
1999	515	0	0	45	0	561	0	561	2,505	3,066	18
2000	216	147	0	31	0	394	0	394	2,913	3,307	12
2001 6/	144	0	32	29	0	205	0	205	2,953	3,158	7

1/ Exports (program and non-program) reported on a product-weight basis. 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. 6/ Based on shipment data through November 2001.

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 Service Agency.

Appendix table 32--Top 10 U.S. rice export markets 1/

	2000/01		1999/00		1998/99		1997/98		1996/97		1995/96	
Rank	Country	Exports	Country	Exports	Country	Exports	Country	Exports	Country	Exports	Country	Exports
	1,000 metric tons											
1	Mexico	403.5	Mexico	373.0	Brazil	398.0	Mexico	318.9	Mexico	266.8	Mexico	262.0
2	Japan	339.0	Japan	282.9	Japan	298.3	Japan	249.7	Turkey	227.6	Turkey	220.6
3	Canada	183.9	Turkey	212.8	Mexico	250.0	Colombia	207.1	Japan	220.5	Japan	193.0
4	Haiti	174.9	Haiti	200.6	Haiti	222.5	Haiti	178.7	Canada	165.2	Haiti	178.1
5	Saudi Arabia	148.4	Canada	179.6	Canada	171.7	Canada	172.8	Saudi Arabia	160.3	Canada	165.3
6	Turkey	138.0	Saudi Arabia	154.3	Peru	119.3	Saudi Arabia	121.3	Haiti	146.6	Republic of South Africa	153.0
7	United Kingdom	104.8	United Kingdom	125.9	Saudi Arabia	106.4	Peru	119.8	Republic of South Africa	119.2	Saudi Arabia	149.5
8	Philippines	104.7	Ghana	81.3	United Kingdom	102.7	Ecuador	112.6	United Kingdom	101.9	Netherlands	108.7
9	Ghana	80.8	Republic of South Africa	75.0	Turkey	89.3	Dominican Republic	108.7	Jordan	87.9	Iran	85.8
10	Honduras	69.6	Philippines	72.2	Republic of South Africa	81.2	Turkey	101.3	Switzerland	79.6	Costa Rica	84.4
	Sub-total	1,747.6	Sub-total	1,757.6	Sub-total	1,839.4	Sub-total	1,690.9	Sub-total	1,575.6	Sub-total	1,600.3
	Total exports	2,633.4	Total exports	2,825.4	Total exports	2,757.8	Total exports	2,800.0	Total exports	2,495.7	Total exports	2,687.7

1/ August-July market year. Exports are reported on a milled basis.

Source: Foreign Agricultural Service, USDA.

Appendix table 33--U.S. rice imports by origin 1/

Country of origin	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01
Thailand	151,136	167,549	179,979	190,466	204,356	234,795	215,355	238,788	235,202	259,590
India	9,793	19,419	16,265	18,468	24,354	25,165	33,367	33,428	40,387	47,769
Pakistan	1,542	3,903	5,011	6,934	5,167	5,090	9,378	9,340	9,973	10,806
Vietnam	0	0	3,032	16,204	40	44,577	20,116	1,324	36	125
China	12	13	7,460	103	1,654	668	94	12,979	25,041	
Italy	1,552	1,167	2,445	3,752	3,365	3,516	3,842	4,061	4,509	3,923
Argentina	0	0	0	0	0	10,409	41	0	137	20
Uruguay	0	0	0	0	0	1,830	5,489	0	0	0
Egypt	10	0	0	0	0	6	0	5,294	54	63
Australia	0	27	0	0	0	0	0	11,576	103	10,900
Other 2/	2,623	2,444	3,847	1,453	2,158	3,795	2,972	16,091	2,344	5,680
Total	166,668	194,522	218,039	237,380	241,094	329,850	290,654	332,881	317,786	338,876

1/ August-July market year. Product-weight basis.

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

Source: Bureau of the Census, Department of Commerce.