Rice: Background and Issues for Farm Legislation

Nathan W. Childs

This report provides background information for addressing policy issues facing the U.S. rice industry as Congress debates provisions of new farm legislation. The report includes an examination of the structure of the U.S. rice sector and the global rice market to provide a backdrop for discussion of current policy issues. It also includes a description of the major features of the government rice program as well as a summary of issues related to global and multilateral trade agreements.

Major rice production areas, 1997

U.S. Rice Farming

The acreage devoted to rice currently averages about 1 percent of the total cropland harvested in the United States. The total value of the rice crop is relatively small compared with that of other field crops, typically ranking ninth behind corn, soybeans, hay, wheat, cotton, dry edible beans, potatoes, and tobacco. All U.S. rice is produced from irrigated fields, with yields among the highest in the world.

Rice production in the United States is concentrated in six regions: the Arkansas Grand Prairie, northeastern Arkansas and the bootheel of Missouri, the Mississippi River Delta (in Arkansas, Mississippi, and northeast Louisiana), southwest Louisiana, the Coastal Prairie of Texas, and the Sacramento Valley of California. Florida, with less than 1 percent of U.S. production, accounts for nearly all of the remainder.

Arkansas, with more than 45 percent of U.S. rice acreage, produces more rice than any other State. California has the second largest production, more than 18 percent of the U.S. crop and the highest yields in the United States. Louisiana has the second largest area devoted to rice and the third largest production, accounting for about 12 percent of the U.S. crop. Mississippi and Texas rank fourth and fifth in both area and production, accounting for 6 to 8 percent of total U.S. rice production. Missouri, with about 5 percent of U.S. production, has the smallest production of the six top-producing States. However, Missouri has substantially expanded rice plantings over the past decade, a result of higher returns for rice than for competing crops, primarily soybeans.

In the United States, rice is referred to by length of grain: long, medium, and short.

- Long-grain rice, grown almost exclusively in the South, accounts for nearly 75 percent of U.S. production.
- Medium-grain rice, grown both in California and the South, accounts for almost a fourth of total U.S. production and nearly all of California’s rice crop. California grows more than two-thirds of the U.S. medium-grain crop. Arkansas and Louisiana account for almost all southern medium-grain production. California’s medium-grain rice typically sells at a higher price than southern medium-grain and typically accounts for the bulk of U.S. medium-grain exports.
- Short-grain rice is grown mostly in California and accounts for 1 to 2 percent of the total U.S. crop.
- In addition, the United States produces very small amounts of specialty rices, including aromatic or fragrant varieties.

U.S. rice production by class of grain

source: Economic Research Service, USDA.

These States account for 99 percent of U.S. production.

source: National Agricultural Statistics Service, USDA.
The 1997 Census of Agriculture reported 9,291 U.S. farms that produced rice, down significantly from more than 12,000 reported in 1987. The reduction was more pronounced for rice than for farming in general. As farm numbers declined, average rice acreage increased. Farms growing rice averaged 336 acres in rice in 1997, up from 202 acres in rice in 1987.

The rice sector tends to be dominated by a relatively few large producers, and large farms have become more prominent over the past decade. The number of farms with 500 or more acres of rice has increased in each census since 1987, with very large farms growing at a particularly fast rate. Over the same period, the number of farms with 100 acres or less declined sharply.

Rice acreage on farms that grow rice tends to be larger than the specific crop acreage of other commodity farms. The 1997 rice-producing farm average of 336 rice acres was well above the 162 acres of corn for corn-producing farms, 242 acres of wheat for wheat-producing farms, and 186 acres of soybeans for soybean-producing farms. Among major field crops, only farms producing cotton—at 420 acres of cotton—reported a larger average acreage per farm than rice.

Rice is a capital-intensive crop as demonstrated by the value of land, buildings, machinery, and equipment. In 1997, among all field crops (except cotton), rice had the highest per-farm machinery and equipment expenses—at $176,000. Part-owners and tenants account for almost 80 percent of farms producing rice, compared with just 40 percent for farming in general.

Production and Imports

Rice production in the United States generally increased during the 1990s, with production reaching an all time high of 206 million cwt in 1999. Planted area increased rapidly during the second half of the 1990s, exceeding 3.5 million acres by 1999, second only to the 1981 record of more than 3.8 million. Planting flexibility, combined with higher returns for rice than for alternative crops, was behind the acreage expansion. U.S. rice acreage dropped in 2000 in response to lower farm prices, higher production costs, and drought-related problems in Louisiana.

Not all areas shared in this expansion equally. In the Delta, primarily Arkansas, Mississippi, and Missouri,
### Table 1—U.S. rice plantings; by State and U.S. total, 1990 to 2001

<table>
<thead>
<tr>
<th>Market year</th>
<th>Arkansas</th>
<th>California</th>
<th>Louisiana</th>
<th>Mississippi</th>
<th>Missouri</th>
<th>Texas</th>
<th>U.S. total</th>
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</thead>
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<tr>
<td>1,000 acres</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>1990</td>
<td>1,240</td>
<td>400</td>
<td>555</td>
<td>255</td>
<td>92</td>
<td>355</td>
<td>2,897</td>
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<td>1991</td>
<td>1,300</td>
<td>357</td>
<td>560</td>
<td>225</td>
<td>97</td>
<td>345</td>
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<tr>
<td>1992</td>
<td>1,400</td>
<td>396</td>
<td>630</td>
<td>280</td>
<td>117</td>
<td>353</td>
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<td>1993</td>
<td>1,280</td>
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<td>545</td>
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<td>1994</td>
<td>1,440</td>
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<td>535</td>
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<td>585</td>
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<td>620</td>
<td>325</td>
<td>186</td>
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<td>2000</td>
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<td>550</td>
<td>485</td>
<td>220</td>
<td>170</td>
<td>215</td>
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<tr>
<td>2001</td>
<td>1,530</td>
<td>475</td>
<td>580</td>
<td>240</td>
<td>210</td>
<td>215</td>
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<tr>
<td>1991-1995 ave.</td>
<td>1,354</td>
<td>429</td>
<td>587</td>
<td>272</td>
<td>114</td>
<td>335</td>
<td>3,091</td>
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<tr>
<td>1996-2000 ave.</td>
<td>1,426</td>
<td>508</td>
<td>570</td>
<td>253</td>
<td>144</td>
<td>264</td>
<td>3,185</td>
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</tbody>
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1 August-July market year  
2 Estimated.

Source: *Crop Production, Annual Summary*, various issues, National Agricultural Statistics Service, USDA.

### Table 2—U.S. rice production, by State and U.S. total, 1990 to 2001

<table>
<thead>
<tr>
<th>Market year</th>
<th>Arkansas</th>
<th>California</th>
<th>Louisiana</th>
<th>Mississippi</th>
<th>Missouri</th>
<th>Texas</th>
<th>U.S. total</th>
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<tr>
<td>1,000 cwt (rough basis)</td>
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<td></td>
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<tr>
<td>1990</td>
<td>60,000</td>
<td>30,429</td>
<td>26,469</td>
<td>14,250</td>
<td>3,760</td>
<td>21,180</td>
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<td>30,260</td>
<td>24,735</td>
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<td>33,490</td>
<td>28,846</td>
<td>15,675</td>
<td>5,376</td>
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<td>36,271</td>
<td>24,108</td>
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<td>4,557</td>
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<td>80,940</td>
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<td>6,448</td>
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<td>73,020</td>
<td>35,352</td>
<td>26,209</td>
<td>15,552</td>
<td>5,936</td>
<td>17,802</td>
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<td>37,459</td>
<td>25,977</td>
<td>12,480</td>
<td>5,273</td>
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<td>42,546</td>
<td>26,981</td>
<td>13,804</td>
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<tr>
<td>1999</td>
<td>95,054</td>
<td>36,690</td>
<td>30,825</td>
<td>18,250</td>
<td>9,936</td>
<td>15,272</td>
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<td>2000</td>
<td>86,112</td>
<td>43,521</td>
<td>24,402</td>
<td>12,862</td>
<td>9,633</td>
<td>14,342</td>
<td>191,872</td>
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<tr>
<td>2001</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>1991-1995 ave.</td>
<td>71,750</td>
<td>35,319</td>
<td>26,669</td>
<td>15,000</td>
<td>5,402</td>
<td>19,217</td>
<td>173,357</td>
</tr>
</tbody>
</table>

N/A = Not available.  
1 August-July market year.  
2 Forecast.

Source: *Crop Production, Annual Summary*, various issues, National Agricultural Statistics Service, USDA.
Rice acreage expanded substantially during the 1990s, with Arkansas and Missouri achieving record plantings in 1999. The Delta has accounted for an increasing share of U.S. rice acreage since acreage allotments were terminated in the mid-1970s. California’s rice acreage also expanded during the 1990s, primarily in response to the opening of the Japanese market in 1995, but remained below the record plantings of the early 1980s. Water availability and cost are major factors driving planting decisions in California.

In contrast, rice acreage in Texas has declined for more than 20 years as a result of high costs (especially for irrigation), lack of a viable rotation crop, and a difficult climate for rice production. Louisiana’s rice acreage remained below record during the 1990s, even though rice plantings generally expanded over the decade, with annual average plantings from 1990 to 1999 the highest on record for any decade.

Over the next decade, U.S. rice acreage is expected to increase fractionally, driven solely by continued growth in domestic consumption. In contrast, U.S. rice exports are projected to decline over the next decade, because of uncompetitive prices in the global market. The Delta is expected to account for virtually all of the acreage expansion, more than offsetting acreage reductions in the Gulf Coast. Little change is expected in California’s rice acreage if adequate water is available.

After exhibiting remarkable growth during the 1980s—a result of rapid adoption of high-yielding semi-dwarf varieties—U.S. rice yields expanded little during the 1990s. In fact, the 1996 record was not exceeded until 2000. In the second half of the 1990s, several years of poor weather cut California’s yields. For rice, development and adoption of higher yielding varieties has typically come in 4- to 5-year cycles. USDA’s long-term baseline forecasts project U.S. rice yields expanding by about a half a percent per year over the next decade. U.S. rice production is expected to expand over the next decade, a result of fractional growth in acreage and rising yields.

Although insignificant in 1980, U.S. rice imports have expanded substantially over the past 20 years and currently exceed 300,000 tons (milled basis) per year. Nearly all U.S. rice imports are aromatic varieties not currently grown in the United States. Thailand supplies about 75 percent of U.S. rice imports, primarily its high-quality jasmine rice. Basmati from India and Pakistan account for most of the remainder. Imports account for almost 11 percent of U.S. food use of rice. Imports are projected to expand slowly over the next decade and account for a slightly larger share of total supply.

**Total Rice Use**

The domestic market (including residual or unreported losses in processing and marketing) is the primary outlet for U.S. rice, accounting for almost 60 percent of total use. The domestic market has nearly doubled in the past 20 years with total domestic disappearance currently growing 2 to 3 percent per year, well ahead of population growth. Food use and beer account for the bulk of domestic disappearance. The residual and seed use account for the remainder.

Food use (both direct food use and use in processed foods) accounts for nearly three-fourths of total domestic disappearance and is responsible for nearly all growth over the past decade. Use of rice in processed foods—primarily pet foods, package mixes, cereal, and rice cakes—has been the fastest growing category of food use and accounts for nearly 23 percent of total domestic consumption. Beer use accounts for about 16 percent of domestic consumption and has been stagnant for nearly a decade. Seed use is the smallest category and is directly proportional to area planted.

Over the next decade, both total and per capita rice consumption are expected to continue to rise, with food use accounting for nearly all of the growth. Population growth, ethnic composition of the United States, healthy lifestyles, convenience, and a large array of new products using rice are behind expecta-

**U.S. rice disappearance and ending stocks**

![Graph of U.S. rice disappearance and ending stocks]

Sources: National Agricultural Statistics Service and Economic Research Service, USDA.
tions of steady growth. Imports’ share of domestic use is expected to increase slightly. Expansion in beer use is expected to be fractional.

The United States currently exports a little more than 40 percent of its crop, down from about 60 percent 20 years ago. The United States exports rice in all three forms: rough, brown, and fully milled. Japan, Mexico, the EU, Central America, the Caribbean, Turkey, Saudi Arabia, and Sub-Saharan Africa are major destinations for U.S. rice. Rough rice accounts for about a third of U.S. rice exports, with Mexico, Central America, and Turkey the largest markets. U.S. rough rice exports have been at record or near-record levels for the past 4 years. The United States is the only major exporter of rough rice, as all major Asian exporting countries prohibit rough exports, preferring to keep the value added. In contrast, the United States has steadily lost market share in the combined milled and brown rice markets, especially in South Africa and the Middle East, a result of keen competition from low-priced Asian suppliers.

Global Trade and U.S. Market Share

The international rice market is thin and volatile. Only about 6 percent of production is traded annually, compared with about 18 percent for wheat, 25 percent for soybeans, and almost 13 percent for corn. Much of this thinness is due to policies in many countries that bar imports and protect local producers. With only a small share of production traded in global markets, a production shortfall in a major importing country—such as Indonesia or the Philippines—can cause a large swing in international prices. In addition, the global rice market is severely stratified by type and quality, with little substitution in production or consumption. With so many types and qualities of rice trading, there is no generally accepted single world market price for rice.

**Indica rice**—which cooks dry and separate—accounts for about 80 percent of global rice trade. The bulk of indica rice is grown in the tropics and sub-tropics.

**Japonica rice**—accounting for about 12 percent of global trade—cooks moist and clingy. The bulk of japonica rice is grown in temperate climates such as northern California, northeastern China, Japan, Korea, Europe, and Australia. U.S. southern long-grain is classified as indica rice while the bulk of U.S. medium- and short-grain rice is classified as japonica.

**Aromatic rices**—primarily basmati from India and Pakistan and jasmine from Thailand—account for 9 to 10 percent of global trade and typically sell at a premium to indica and japonica rice.

**Glutinous rices**—grown almost exclusively in Southeast Asia, account for nearly all the remainder.

The global rice export market is highly concentrated. The top six exporters—Thailand, Vietnam, the United States, Pakistan, India, and China—account for more than 80 percent of world trade. Thailand is the top rice exporter, shipping more than 6 million tons per year and accounting for almost 30 percent of global rice trade. Thailand ships both high-quality rice—mostly to the Middle East, Europe, and the United States—as well as medium- and low-quality rice to Africa and some Asian markets. Vietnam’s rice exports rank second, with around 18 percent of global trade, shipping mostly to medium- and low-quality markets in Asia, the Middle East, and Africa. Vietnam has expanded exports substantially over the past decade, with shipments exceeding 4 million tons in 1999, a result of strong growth in production and some quality improvements. USDA’s 2001 long-term baseline forecasts project combined exports from Thailand and Vietnam to expand by 2 to 3 million tons over the next decade. The United States currently ranks third, with less than 12 percent of global trade. The United States ships both high-quality indica and japonica and is the only major exporter of rough rice.

Pakistan ranks fourth, shipping both regular milled white rice and basmati—its premium specialty rice.
Drought in the region will likely limit any expansion in Pakistan’s rice exports in the near term. China currently ranks fifth in rice exports, with around 8 percent of total exports. Much of China’s exports are subsidized, as internal prices are higher than world levels. China’s grain trade is totally controlled by the government. China exports both high-quality japonica to Japan and lower quality indica to Africa and Australia.

India is the last of the top six rice-exporting countries, accounting for just 5 to 6 percent of global trade in recent years. India’s internal support prices currently make the country uncompetitive in the global market for regular milled rice. Like Pakistan, India ships both regular milled white rice and its premium basmati rice. For both exporters, basmati is shipped primarily to Europe, the Middle East, and the United States while lower quality regular milled white rice is shipped to Africa and Asia.

Egypt, Japan, Uruguay, Argentina, the EU, Guyana, Surinam, and Taiwan account for most of the rest of global exports. Egypt, Japan, the EU, and Taiwan typically export japonica rice, while Argentina, Uruguay, Guyana, and Surinam export indica.

The import market is much less concentrated. Indonesia, Iran, Iraq, Nigeria, the EU, the Philippines, and Saudi Arabia are typically the top importers, accounting for 30 to 40 percent of global trade.

**Share of 2001 global rice export market**

![Pie chart showing the share of 2001 global rice export market.](chart)

- Thailand 30%
- United States 12%
- Vietnam 18%
- Pakistan 10%
- China 8%
- India 4%
- Other 18%

Exports total 22.3 million tons


Source: Foreign Agricultural Service, USDA.

Nearly all of their rice imports are indica. Other large importers of indica rice include: Senegal, Malaysia, Cote d’Ivoire, Brazil, Bangladesh, and South Africa. Japan is the largest market for japonica imports. Turkey, South Korea, and Jordan account for most of the remainder. For many of the countries, weather is a main factor determining annual import levels. State trading enterprises account for about a third of global rice imports and exports.

The U.S. share of global rice exports peaked in 1975 at more than 28 percent and has steadily declined since the early 1980s, as global trade has expanded substantially and U.S. exports have shown no long-term expansion. In 1981, the United States accounted for 24 percent of global exports. By 1991 the U.S. share had dropped to 17 percent and is projected at less than 12 percent in 2001. Over the next decade, U.S. exports are expected to decline slowly, even as world trade expands. Declining U.S. acreage, a growing domestic market, and abundant supplies from major competitors are behind this projection.

**Prices, Costs, and Returns**

U.S. and global rice prices have dropped substantially since the late 1990s. From early 1995 through 1998, prices were supported—first by growing world trade—and later by damage from the 1997/98 El Niño. Global prices have dropped since early 1999 and by spring 2001 were the lowest in at least 15 years, a result of extremely large supplies in nearly all exporting countries and—except for parts of the Middle East—little
crop damage in any major importing country or region. In the milled rice market, the U.S. price difference over Thailand’s 100 percent grade B has widened substantially over the past year and is currently more than $100 per ton. In 1999/2000 this difference averaged $54 per ton. Prices for most grades of Thailand’s rice have dropped substantially over the past year due to large exportable supplies in the global market and bumper crops in most importing countries.

In the United States, average farm prices for rice dropped substantially during the 1999/2000 market year and have traded in a very narrow range since, with the 2000/01 season-average price projected to be the lowest since 1986/87. Extremely low world prices are preventing any significant increase in U.S. prices despite an extremely tight supply situation in the United States this year, especially for long-grain rice. Medium-grain prices are currently well below long-grain prices in the United States, a result of a record California crop and larger medium-grain plantings in the South in 2000. Without a major weather problem, there is little expectation of any sizable increase in U.S. or global prices in the near future.

In contrast to declining prices, U.S. rice farmers are facing big increases in fuel and fertilizer costs this year, which will mean larger expenses for pumping and drying. Over the past decade, production costs have risen, largely due to higher chemical and fertilizer expenses. In 1999, total variable cash expenses were estimated at $356 per acre, up from $307 in 1989/90. In 1999, total variable cash expenses for U.S. production were almost $1.3 billion, fractionally larger than the gross value of production (excluding government payments). And while farm prices for rice are projected to decline in 2000/01 and 2001/02, production costs are expected to rise due to higher fuel prices.

At $355 per acre, Gulf Coast rice farmers have the highest production costs in the South, largely due to much higher water and pumping costs than those reported for the Delta and non-Delta Arkansas. In the Mississippi River Delta, total variable cash expenses average $307 per acre in 1999. California has the highest per acre cost of production in the United States—with 1999 total variable cash expenses of almost $500 per acre—largely due to greater expenses for custom operations and other technical services. However, California’s high yields offset some of the impacts of high per acre expenses.

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<table>
<thead>
<tr>
<th>Year</th>
<th>Price received by farmers, loan rate, and variable cash expenses, 1980-2000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Season-average price</td>
</tr>
<tr>
<td>1980</td>
<td>12</td>
</tr>
<tr>
<td>1985</td>
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<td>1990</td>
<td>8</td>
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<td>1995</td>
<td>6</td>
</tr>
<tr>
<td>2000</td>
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Source: Economic Research Service, USDA.
Under the 1996 Farm Act, the primary government programs affecting rice producers are production flexibility contract payments and the marketing loan program. Rice farmers also benefit from subsidized crop and revenue insurance as well as trade promotion programs, food aid, and export credit guarantees, as well as emergency market loss assistance in recent years.

An important feature of the 1996 Farm Act is planting flexibility, which allows farmers to plant almost any crop on their contract acreage and not lose any benefits. For the 1996-2002 crops, producers who participate in the Production Flexibility Contract (PFC) program receive contract payments that are not linked to current production or prices of the contract commodity. In fiscal year 1999, PFC payments to rice contract holders totaled $483 million, yielding a $2.82 per cwt payment rate.

As a result of low commodity prices, Congress in 1998 authorized supplemental payments for individuals eligible for PFC payments, which have been termed “market loss assistance” (MLA) payments. For the 1998 crop, contract holders received additional payments equal to approximately 50 percent of that year’s PFC payment. In 1999 and 2000, contract holders received supplemental payments equal to the 1999 PFC payment rate.

Payments under Production Flexibility Contracts are based on historical base acres and are thus completely decoupled from current production decisions. Likewise, MLA payments under the emergency ad hoc assistance bills have been tied to historical rice base. As such, neither of these payments necessarily goes to current rice producers, but to those who own contract acreage.

The key provisions of the Marketing Loan Program are “non-recourse loans” and “loan deficiency payments.” The marketing loan program provides non-recourse loans to eligible producers, with the rice grown on their farm used as collateral. The collateral may be forfeited to USDA’s Commodity Credit Corporation (CCC) at maturity with no penalty or repaid in full at the repayment rate (the lesser of the loan rate plus interest or USDA’s announced world price) at or before maturity. A producer is eligible for a “marketing loan gain” (MLG) when the announced world price (as calculated by USDA) falls below the loan rate for the different classes of rice. This amount is referred to as the marketing loan gain and is a direct payment to producers.

In addition, farmers are not required to take the non-recourse loans in order to benefit from this program. If the world price falls below the loan rate, farmers can take a “loan deficiency payment” (LDP) in lieu of securing a loan. Like the MLG, the LDP is the amount by which the loan rate exceeds the world price on the day that the application is made. Once the LDP is made, the farmer can sell the crop and avoid storage costs or hold the crop and sell later.

The Marketing Loan Program began in the mid-1980s when world prices were extremely low and U.S. stocks at record-high levels. In addition, at the end of the 1984/85 and 1985/86 market years, USDA’s Commodity Credit Corporation held more than 40 million cwt of rice, the largest amounts ever held at the end of a market year. The Marketing Loan Program allowed producers to maintain ownership of the rice, providing for an orderly marketing of the rice as well as providing MLG/LDP to producers.

From 1995/96 through 1997/98, the announced world price exceeded the loan rate, so no MLGs or LDPs were made. However, in early 1999 world prices began to fall, and by the spring of 1999 marketing loan payments were available. The steady decline in world prices pushed LDPs to more than a $1 per cwt by August 1999. And by early May 2001, LDPs for long-, medium-, and short-grain rice exceeded $3.50 per cwt, compared with an average monthly cash price of less than $6.

Government payments rose substantially after 1997/98, a result of declining world prices triggering LDPs and MLGs and Congress’ authorizing market loss assistance payments. In 1997/98, the only direct payment to rice farmers was the $448-million PFC payments to eligible contract holders. There were no LDPs or MLGs in 1997/98. By 1999/2000, direct payments exceeded $1.3 billion: $466 million in PFC payments, $465 in MLAs, and $393 million in MLGs and LDPs. During the same period, the market value of production dropped to $1.23 billion from $1.76 billion, a result of much lower prices.

In addition to these direct income supports, U.S. rice farmers benefit from several programs that promote
U.S. agricultural exports. Three types of government programs account for the bulk of government assistance available to U.S. rice exports. First, the United States sells rice on concessional credit terms and donates rice to needy countries either bilaterally or through the World Food Program. USDA currently provides food aid abroad through three channels: the Public Law 480 (P.L. 480) program, the Section 416(b) program, and the Food for Progress program. In fiscal year 2000, almost 400,000 tons of rice—or 18 percent of total U.S. rice exports—were exported under U.S. food aid programs, down from 584,000 tons and 25 percent in fiscal 1999.

Second, USDA provides export credit guarantees for commercial financing of U.S. agricultural exports. The CCC administers export credit guarantee programs for commercial financing of U.S. agricultural exports to buyers in countries where financing may not be available without CCC guarantees. 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 years. Both programs are administered through the office of the General Sales Manager. The GSM-102 and GSM-103 programs underwrite credit extended by private banks 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. In addition, under the Supplier Credit Guarantee Program, the CCC guarantees a portion of payments due from importers under short-term financing (up to 180 days) that exporters have extended directly to the importers for the purchase of U.S. agricultural commodities and products. For fiscal 1999 and 2000, annual U.S. rice exports shipped under credit guarantees averaged more than 200,000 tons.

And third, USDA funds the creation, expansion, and maintenance of foreign markets for U.S. agricultural products through marketing programs that help U.S. agricultural exporters finance the marketing and distribution of their products abroad. Included in this category are the Market Access Program (MAP) and Foreign Market Development program (FMD). These marketing promotion programs provide exporters greater access to credit and credit risk protection. Other programs that promote exports of U.S. rice include the Emerging Market Program, the Qualities Samples Pilot Program, the Cochrane Fellowship Program, and Section 18. Additional information on these programs can be found on the Internet at: http://www.fas.usda.gov/export.html
POLICY CHOICES

Issues for Upcoming Farm Legislation

For rice producers, the current farm bill is being debated in an environment of extremely low prices, rapidly rising costs, and keen international competition. In fact, based on cost estimates from USDA's 2001 baseline forecasts, 2000/01 returns to U.S. rice producers—excluding government payments—will be less than variable costs of production. And these cost estimates were made in October 2000, before the recent large increases in fuel and fertilizer prices.

Traditional Support Programs. Continuation of traditional support programs has been advocated by many groups and organizations. Proposals from these groups have all recommended some type of countercyclical income support program, although details vary on trigger mechanisms and payment formulas. Proposals for triggers have included farm income, aggregate price, gross revenue, gross revenue per acre, gross cash receipts, or percentage of production costs. Payments would be the difference between the current levels of the measure and the measure during some base period or a fixed target multiplied by some eligibility factor. For this eligibility factor, some have suggested historical area and yields, others have proposed recent average production, and some suggested the same eligibility as required under current production flexibility contract payments.

Most proponents of traditional support programs have favored continuing the current PFC payments, with many arguing for increasing the amount. Most also favor maintaining the current marketing loan program and adjusting commodity loan rates upward to rebalance relationships among covered crops with the level currently set for soybeans. In addition, many suggest increasing the flexibility in the operation of the marketing loan and loan deficiency payment programs, including allowing pre-harvest lock-in of LDP rates and extending sign-ups and final dates for requesting LDPs through the marketing year. All proponents of traditional support recommend eliminating payment limitations for the loan programs, and most advocate no means testing for participation in income support programs. Virtually all advocates of traditional support programs recommended continuing the planting flexibility introduced in the 1996 Farm Act.

Supply Control Programs. A small minority recommended adoption of supply control programs to manage surpluses. They believe trade forecasts were too optimistic when the 1996 Farm Act was enacted, overstating access to international outlets for surplus production. Their proposals include a voluntary supply control program that would provide higher marketing loan rates in return for falling land. Other proposals suggested increasing humanitarian food aid donations and creating a farm storage program for government-owned surplus stocks designated for food aid and use as renewable fuels.

Market-Oriented Approach. Others advocate a more market-oriented approach. This view is based on the idea that the U.S. farm sector is diverse and thus requires a range of programs that will meet the needs of most groups without damaging the interests of others. Proponents of this approach contend that large commercial farms do not need income support because they produce adequate farm income to support the household. Small farms also do not need the support, due to adequate off-farm income. Support is needed by the medium-sized farms that rely heavily on farming as the source of their income. In addition, supporters of the market-oriented view have recommended that farm payment programs focus more on environmental stewardship, given the non-farming public's concern about environmental impacts of agriculture and the safety of food production.

All groups have been in agreement in their recommendations for continuing public expenditures on research and technical assistance. Proposals have been made for increased research in the areas of food safety, new technologies, and environmental quality. Virtually all groups agree on the need for programs designed to assist farmers in meeting conservation goals and environmental mandates. Many argue for compensating producers for current and future conservation and environmental practices that enhance water, soil, and air quality, as well as wildlife habitat. Much of the U.S. rice-growing area already provides excellent annual habitat for migrating waterfowl and other wildlife. Many also favor expanding land retirement for conservation. Nearly all groups favor greater market access in the international arena.
As debate over the 2002 farm legislation continues, new ideas and programs will likely emerge. Regardless of the final outcome, farm policy will need to be consistent with current domestic support commitments under the World Trade Organization (WTO) and remain within Federal spending limits.

**International Trade Agreements**

In the international market, U.S. rice producers would benefit greatly from expanded market access. Globally, rice is a heavily protected commodity, with state control of trade and import barriers the primary impediments to expanded trade. The most important international trade agreements affecting the U.S. rice sector are the North America Free Trade Agreement (NAFTA) and the Uruguay Round of the General Agreements on Tariffs and Trade (GATT)—which was replaced by the WTO.

Under NAFTA, which began in 1994, Mexico, Canada, and the United States agreed to phase out all tariffs and non-tariff barriers to trade between them over a 10-year period ending in 2003. For the United States, NAFTA has given rice producers a clear advantage in the Mexican market compared with lower cost Asian exporters. The United States supplies about 90 percent of Mexico’s rice imports and the country is typically the largest market for U.S. rice. Rough rice accounts for the bulk of U.S. shipments. Stringent phytosanitary requirements effectively keep Asian rice out of Mexico.

U.S. rice exports to Canada and Mexico have increased 81 percent by volume and 54 percent by value since the inception of NAFTA, even though total U.S. rice exports have not exhibited any long-term growth. Lower tariffs likely contributed to a slight increase in U.S. rice exports to Canada.

One of the most significant accomplishments of the GATT was the signing of the Uruguay Round Agreement on Agriculture (URAA). Under the URAA, WTO members committed themselves to cut average tariff rates on all agricultural products, lower both the volume of subsidized exports and the value of expenditures on export subsidies, and reduce aggregate spending on trade-distorting domestic support programs for agriculture. The Uruguay Round was the first time the GATT disciplined domestic support programs.

For rice, the single most important result has been the partial opening of Japan and South Korea to imported rice through a minimum access quota. Prior to the URAA, both Japan and South Korea barred imported rice to protect local producers. Prices in both countries, especially Japan, are well above global levels. As a developed country, Japan was required to open its domestic market to imports at 4 percent of base period (1986-88) consumption in 1995, rising to 8 percent by 2000.

In the case of South Korea, a developing country, the corresponding quota is 1 to 2 percent of base period consumption in the first 5 years, rising to 4 percent in the next 5 years. The WTO minimum-access imports have been a major factor in expanding global japonica trade. Total imports by both countries are now more than 785,000 tons (milled basis).

In 1999, Japan opted for tariffication, which halved the annual rate of growth in minimum access imports to .4 percent of base period consumption in exchange for allowing over-quota imports. To date, there have been virtually no over-quota imports, largely due to an extremely high tariff. Japan’s URAA imports will remain at the 2000/01 level—682,000 tons—unless a new agreement is reached. The United States has supplied almost half of Japan’s WTO minimum access imports, with virtually all of the rice coming from California. Japan accounts for almost half of California’s rice exports. South Korea has not bought any rice from the United States under its WTO commitments. If Taiwan becomes a member of the WTO, it will be required to import roughly 145,000 tons (brown rice) or 8 percent of its base period consumption. The United States would be a likely supplier if Taiwan joined the WTO.

China’s potential membership in the WTO could affect the global rice market as well. In 1999, China committed itself to a tariff rate quota (TRQ) for rice of 5.3 million tons by 2004 if it becomes a member of the WTO. The TRQ is not a purchase commitment, but an opportunity for market access in a fair and transparent manner. China specified half of the rice would be indica and half japonica. About half of all imports would be by private traders. It is unlikely that China would import the full TRQ or that the United States would supply much, if any, of China’s rice imports.

For the United States, the URAA impacts on the rice sector have been rather small. First, while the URAA
requires reductions in both quantity and expenditures on export subsidies, the United States has not provided export subsidies for rice. Thus this commitment has had no impact on the U.S. rice sector. Second, the United States agreed to reduce its tariffs on rice imports by 36 percent from 1995 to 2000. However, U.S. tariffs were already quite low and rice consumption in the United States has a very low response to price changes.

Under the URAA, countries were required to reduce outlays, termed aggregate measures of support (AMS), on domestic programs that provided producers with direct economic incentives to increase production. Government payments that are fully decoupled from current prices, production, and resource use (“green” box, see next page) do not count toward the maximum allowable limit on official supports for U.S. farmers (currently $19.1 billion). Payments that fall in the “amber” box (see next page) count toward this limit, unless they are judged to be non-commodity specific or fall below a de minimis level. LDPs and disaster assistance are examples of amber box payments which provide crop-specific support.

As a developed country, the United States was required to reduce aggregate outlays for all commodities—not rice specifically—on trade-distorting domestic support programs by 20 percent by 2000/01. The United States was able to meet the 20-percent AMS commitment without reducing support to rice. Support to rice is small relative to the total AMS.

The URAA did affect EU rice policy. Under the URAA, the EU converted its variable import levies to fixed tariffs, and agreed to lower these tariffs by 36 percent by 2000. However, EU rice imports have not been greatly affected by WTO market access commitments, primarily because a large share of EU imports result from import concessions. The URAA also committed the EU to reduce the level of budgetary expenditures on export subsidies by 36 percent and the volume of subsidized exports by 21 percent from 1995 to 2001. In volume terms, the EU’s subsidized rice exports are scheduled to decline from 184,000 tons in 1995/96 to 145,000 by 2000/01. High production costs make EU rice uncompetitive without subsidies in most markets.

Intervention (or government) purchases account for the bulk of EU’s domestic support for rice production. Like the United States, the EU was required to reduce aggregate spending on this type of support by 20 percent by 2000/01. Intervention stocks have become extremely high in recent years. The EU is currently reevaluating its entire rice regime, and has discussed relying more on direct payments and border measures instead of intervention purchases.
URAA Defines Programs as “Green” or “Amber” box

The form in which government payments and other benefits are provided to the rice sector is important because of the obligations of the United States under the URAA. The total amount of support from all U.S. programs of certain types is limited to a specific maximum amount under the URAA ($19.1 billion in 2000). The covered programs are those considered to have the most potential for production and trade distortions, and are called “amber box” payments. Programs considered to be least trade distorting are classified as “green box.”

Examples of amber box programs for rice producers include loan deficiency payments, marketing loan gains, and other benefits related to the commodity loan program for rice. The market loan program is classified as an amber box program because the amount of benefits for a rice producer depends on his or her current level of rice production and the announced world price for rice relative to the commodity loan rate.

Rice producers also benefit from the U.S. crop and revenue insurance programs, which are considered to be production-distorting amber box programs under the URAA. However, these programs are implemented using non-commodity specific (generic) provisions. As such, they would count toward the U.S. upper limit on agricultural support only if the total benefits from all non-commodity specific amber programs exceed 5 percent of the total value of agricultural production in the United States (the de minimis provision), something that has not happened yet.

The rice sector also participates in programs considered to be least distorting to production and trade, called green box programs. Benefits from these programs do not count toward the limits on total U.S. support levels. Examples include environmental, conservation, and resource retirement program payments in which producers agree to use certain production or conservation practices. The Conservation Reserve Program is included here.

Production Flexibility Contract payments to rice producers are also considered to be green box because the payment method conforms to URAA criteria for “decoupled” payments. The amount of the producer’s PFC depends on past program participation and does not depend on current market prices, production, or resources. Hence the payments are considered decoupled from production, prices, and resources.

The United States has notified the WTO that crop market loss assistance payments (MLA) mandated by recent emergency legislation are non-commodity-specific, amber box payments. As with the green box PFC payments, each producer’s share of the total amount of MLA available in a given year is determined by past program participation and not by current production or resource use. The payments are distributed, in fact, in proportion to their PFC. However, the PFC totals were predetermined by the 1996 FAIR Act while the MLA payments were legislated annually in response to recent market price experiences. Consequently, the MLA payments may be assumed to be related to recent prices after the PFC base period, making the MLA ineligible for the green box.

With crop market loss assistance and PFC payments, the “rice” payments do not necessarily go to current producers of rice because only past production and resource use is relevant in determining the producer’s share of total PFC payments. Producers were given a one-time opportunity to sign up for the PFC after the 1996 Farm Bill was passed. The market loss payments are distributed on the same basis as the PFC.