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## Brazil

### Grain and Feed

### Annual

### 2004

**Approved by:**

William W. Westman, Agricultural Counselor  
U.S. Embassy

**Prepared by:**

Oliver L. Flake

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**Report Highlights:**

Post estimates 2003/04 wheat production at 5.9 million tons and record exports at 900,000 tons. Marketing year imports are forecast at 5.3 million tons, which is 1.4 million tons less than the previous year. Production in 2004/05 is forecast at 4.5 million tons with imports at 5.5 million tons. Corn production in 2003/04 is forecast at 41.5 million tons and marketing year exports at 4.0 million tons. Post forecasts exports to increase to 4.5 million tons in 2004/05 with production at 43.5 million tons. Rice production is forecast up from the previous Post forecast to 8.3 million tons with calendar 2004 imports at 600,000 tons. Imports are forecast to increase in 2004/05 to 1.0 million tons as production falls to 7.5 million tons. Sorghum production in 2003/04 is estimated at a record 2.1 million tons with record exports at 450,000 tons. Production in 2004/05 is forecast at 2.2 million tons and exports at 400,000 tons.

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## Executive Summary

Wheat production in 2003/04 is estimated at 5.9 million tons, which is nearly double the previous year's crop. As a result, Brazil is a significant wheat exporter for the first time with record exports forecast at 900,000 tons. Due to the large crop, imports are forecast at only 5.3 million tons for the marketing year with the U.S. forecast to supply 400,000 tons. Production in 2004/05 is forecast at 4.5 million tons with imports at 5.5 million and only 100,000 tons of exports.

Corn production in 2003/04 is forecast at 41.5 million tons; a 3 million ton decrease from last year's bumper crop. Trade year exports are forecast at 5.5 million tons with most having already been shipped. Production in 2004/05 is expected to be 43.5 million tons with trade year exports of 3.5 million tons. Exports would be even greater if not for very strong domestic demand from the pork and poultry industries.

Brazil is forecast to produce a very large rice crop this year of 8.3 million tons (milled basis) or 12.2 million tons of rough production with imports falling from the previous year to just 500,000 tons for the marketing year. Production will be high due to strong price incentives at planting as well as very good planting weather. Post forecasts 2004/05 production at 7.5 million tons milled or 11.0 million tons rough basis. Imports are forecast to rebound to 1.0 million tons due to the smaller crop and stronger domestic demand.

Sorghum production is soaring in Brazil with the 2003 crop estimated at 2.1 million tons and exports at a record 450,000 tons with most shipped to the EU. Production is expected to increase only slightly to 2.2 million tons in 2004/05 with plantings restrained by lack of seeds. Exports are forecast to remain strong at 400,000 tons due to competitive domestic prices and high international corn prices.

## Economic Overview

Brazil, like other developing economies, is vulnerable to exchange rate fluctuations, and large capital inflows and outflows. Intense pressure on the exchange rate and Brazil's high debt to GDP ratio exacerbates this situation. If investors lose confidence, the flows register a downward trend, weakening the local currency, which leads investors to limit lending. Therefore, the cost of money increases. A reduction in the dependence on foreign capital seems desirable; however, for the foreseeable future, Brazil will continue to rely on foreign investment. For now, the Brazilian economic and political outlook is guardedly optimistic. Though Brazil's new President, Luiz Ignacio Lula da Silva, known as Lula, hails from the Labor Party, he continued the sound macroeconomic policies of his predecessor, Fernando Henrique Cardoso, since taking power in January 2003. In addition, Lula has shown an ability to press forward with reforms in the Brazilian Congress, which at least in the short run is more likely to ensure growth and expand tax revenues.

## Economic Indicators

	1998	1999	2000	2001	2002	2003*
GDP Growth (%)	0.1	0.9	4.0	1.5	1.5	0.5
Inflation (%) (IPCA/IBGE)	1.7	8.9	6.0	7.7	12.5	9.6
Average Exchange Rate (R\$/US\$)	1.16	1.81	1.83	2.35	2.96	3.10
Total Exports (US\$ billion)	51.1	48.1	55.0	58.2	59.6	73.1
Total Imports (US\$ billion)	57.5	49.2	55.7	55.5	55.3	48.2

Source:

- Brazilian Ministry of Development, Industry and Commerce (MDIC)/Secretariat of Foreign Trade (SECEX) trade databases (1998-2002)
- Brazilian Institute of Geography and Statistics (IBGE) (1998-2002)
- Brazilian Central Bank trade data
- Current trend analysis

\* Projections for 2003 are taken from the Central Bank of Brazil (FIPE)

## Wheat

## Wheat PS&amp;D

Brazil							
Wheat							
	2002	Revised	2003	Estimate	2004	Forecast	UOM
	USDA Official [Old]	Post Estimate [New]	USDA Official [Old]	Post Estimate [New]	USDA Official [Old]	Post Estimate [New]	
Market Year Begin		10/2002		10/2003		10/2004	MM/YYYY
Area Harvested	2043	2043	2470	2464	0	2400	(1000 HA)
Beginning Stocks	900	796	656	550	756	801	(1000 MT)
Production	2935	2925	5500	5851	0	4500	(1000 MT)
TOTAL Mkt. Yr. Imports	6727	6700	5600	5300	0	5500	(1000 MT)
Jul-Jun Imports	6631	6644	5600	5400	0	5500	(1000 MT)
Jul-Jun Import U.S.	656	656	0	400	0	500	(1000 MT)
TOTAL SUPPLY	10562	10421	11756	11701	756	10801	(1000 MT)
TOTAL Mkt. Yr. Exports	6	6	1000	900	0	100	(1000 MT)
Jul-Jun Exports	6	6	1000	900	0	100	(1000 MT)
Feed Dom. Consumption	450	450	350	200	0	400	(1000 MT)
TOTAL Dom. Consumption	9900	9865	10000	10000	0	10200	(1000 MT)
Ending Stocks	656	550	756	801	0	501	(1000 MT)
TOTAL DISTRIBUTION	10562	10421	11756	11701	0	10801	(1000 MT)

## Production

Post raised 2003 wheat production to 5.9 million tons, which is also Conab's estimate. Yield reports, market prices, and exports all confirm that 2003 production was exceptional and therefore, Conab's figures appear accurate. Yield increased 60 percent over 2002 and area nearly 21 percent. In addition, newer wheat varieties performed well and overall crop quality was good, largely due to lack of sprouting, which is common.

Post forecasts a fall in production in 2004/05 to 4.5 million tons and a slight decrease in area to 2.4 million hectares. Production in Rio Grande do Sul (RS) and, to a lesser extent, in Parana is expected to drop as yields return to more normal levels (see chart below). Nevertheless, yields are expected to be strong relative to the five-year average, due to increased inputs and improved seed varieties. The 2003 crop experienced near ideal growing conditions and largely avoided damaging frosts during grain filling and just prior to harvest. Though more typical weather should lead to lower yields in 2004, the fall in production will be somewhat mitigated by a second year of very large planted area. Producer prices fell dramatically after the 2003 harvest but recovered somewhat once exports began and domestic millers increased purchase prices. These steady prices combined with very good yields, lead to good profits (about 13 percent greater than 2002) for most producers. The price after harvest in November 2003 averaged about R\$416 per ton (U.S. \$143) compared to R\$569 per ton (U.S. \$158) in November of 2002, which is about 15 percent less. However yields increased year-to-year by more than 45 percent. Therefore, most producers will likely return to wheat in hopes of similar profits. Furthermore, soybean producers in the RS and Parana are likely to opt for wheat as the follow-up winter crop since current dry planting conditions favor wheat over corn due its need for less water.

<b>Wheat Area, Yield, and Production</b>					
	2000/01	2001/02	2002/03	2003/04	2004/05*
<b>Area</b> (million hectares)	1.47	1.72	2.04	2.46	2.40
<b>Yield</b> (tons/hectare)	1.13	1.88	1.44	2.37	1.87
<b>Production</b> (million tons)	1.66	3.25	2.93	5.85	4.50

\* Post Forecast

Wheat producers in Brazil are becoming more connected with international markets. International spot prices and futures are watched closely to determine the price of imported Argentine and U.S. supplies, which compete with domestic supplies. In addition, markets are now being watched to determine export potential, though exports are only likely under unusual circumstances. Therefore, Brazilian producers are well aware of the tight global stocks situation, the relatively small Argentine harvest, and recent demand by China. Contacts in Southern Brazil report that farmers in the region are very bullish on wheat and these price-supporting factors are fueling producer's anticipation of high prices and thus will sustain wheat area.

Over the long-term, the Brazilian government aims to reduce Brazil's dependence on wheat imports, and increase self-sufficiency to as much as 80 percent. Industry representatives report that in order to reach this production goal several measures are needed, including government support, credit with lower interest rates, insurance, guaranteed prices, and increased cooperation and funding by the input and milling industries. However, despite the government's aggressive goal, it is very doubtful that it can be achieved since Brazil's climate is simply not conducive to wheat production. Fertilizer and agrochemical input expenses are more than double those in the United States. In addition, production areas in the south, where over 90 percent of Brazil's wheat is produced, are often plagued by excessive rains during late crop development. Therefore, sprouting is common and protein levels are typically quite low. Furthermore, these rains and frosts during development result in significant yield and quality losses. Meanwhile neighboring Argentina enjoys a much more favorable climate for wheat production and the country generally produces double to triple its consumption needs. With such a large supply of higher quality wheat next door, it is doubtful that Brazilian producers will consistently receive price incentives sufficient to increase production on a scale envisioned by the government.

## Trade

Post forecasts 2003/04 local marketing year (October/September) imports at 5.3 million tons, which is about 1.4 million tons less than the previous year, due to a large Brazilian crop in the fall of 2003. However, Brazilian exports of wheat over the past several months have meant that more imports will be needed than thought immediately after harvest. Imports of U.S. wheat in 2003/04 are forecast at 400,000 tons. U.S. imports for the first 6 months of the international marketing year (July/June) were 350,000 tons and an additional 50,000 tons are possible in May and June. In 2004/05 total marketing year imports are forecast at 5.5 million tons, which is 200,000 tons more than 2003/04. Slightly greater imports will be needed due lower expected production but the overall level of imports will be relatively low due to additional supply from large carryin stocks and a reduction of exports of 800,000 tons. Trade year U.S. imports are forecast at 500,000 tons as Northeastern millers continue to demand U.S. HRW and SRW supplies.

The Post 2003/04 wheat import estimate includes around 300,000 tons of pre-mix flour, which continues to arrive despite strong opposition from Brazilian millers. Argentina taxes wheat and wheat flour exports at a rate of 20 percent, while pre-mixes are subject to just a 5 percent tax. Consequently, Argentine flour exporters add a dash (0.3 to 0.5 percent) of

salt to flour and export it as pre-mix. Brazilian imports of pre-mix flour have soared from only 18,000 tons, grain equivalent, in 2001/02 (July/June) to 310,399 tons in 2002/03. At the same time, "real" flour fell from 239,000 tons in 2001/02 to just 35,000 tons in 2002/03. As these imports have continued flowing into Brazil, millers have grown increasingly upset. Millers claim that Argentine flour is priced about 25 percent lower than domestic flour and competition with this cheap "flour" is causing the overall price of wheat and flour to fall.

In November 2003, Brazil began exporting significant amounts of wheat for the first time. Post forecasts 2003/04 exports at 900,000 tons with nearly 395,000 tons shipped through January. The majority of the wheat is being shipped to North Africa and Eastern Europe (see chart below). The largest market, thus far, has been Morocco which is seeking cheap medium quality milling wheat to satisfy demand that was filled by Russia, Ukraine, and the EU last year. Brazil has long-been one of the top wheat importing countries and therefore exports were very unexpected. A unique set of conditions has allowed for the wheat shipments and such conditions are not likely to be present in 2004/05. Therefore, Post forecasts 2004/05 exports at only 100,000 tons. A review of the conditions leading to exports this past year is warranted since future sporadic shipments onto the global market are possible.

<b>Brazilian Wheat Exports</b>	
Destination	2003/04 (Oct to Jan) 1000 tons
Morocco	140
Romania	105
Bulgaria	78
Spain	29
Italy	18
Yugoslavia	16
Algeria	8
Romania	1
Portugal	1
<b>Total</b>	<b>395</b>

A bumper crop in Southern Brazil forced prices down after harvest with millers willing to pay only R\$380 per ton in some areas of RS, which was R\$20 below the government minimum prices. Producers in the South have a long history of animosity toward domestic millers who they believe refuse to pay "fair market prices." Historically, producers have been forced to sell domestically since transportation costs are high and wheat quality is generally not considered high by international standards. Domestic millers prefer to import wheat rather than use domestic supplies because imported wheat (mainly Argentine) is considered to have higher gluten content. Additionally, long repayment periods and low international interest rates make imports attractive. Therefore, many millers held off on buying the plentiful and low-priced domestic supplies after harvest due to intentions to import Argentine wheat. To make matters worse, storage at wheat harvest was in short supply since producers were holding the record soybean crop longer than normal and the very large winter corn crop competed for storage space.

After failed attempts to get millers to raise prices and the government to support prices, cooperatives in RS and Parana turned to the global market for help. Argentine supplies were tight and prices high with several months before the Argentine harvest. Tight global supplies, particularly of feed-quality wheat, meant international prices were firm. Buyers in North Africa, and Western, and Eastern Europe began buying from Brazil at around U.S. \$155

FOB. Subsequent sales were executed at U.S. \$165 per ton and domestic millers, surprised by the exports, raised purchase prices to above R\$400 per ton. Contacts report that nearly all the wheat shipped to Eastern Europe and North Africa is being used for bread production while some, but not all, of the wheat sent to Western Europe is being used in feed rations.

Most of the wheat exported, approximately 80 percent, is from the state of Rio Grande do Sul (RS). Wheat from this state is said to be very good for cookie and cracker production but due to very high internal transport costs, mills in the Southeast and Northeast cannot absorb the large harvest. Transport from RS to the Northeast is estimated at US\$ 45 per ton while transport to Western Europe is only minimally more expensive. These high internal rates are, in part, due to high internal taxes, vessel sizes, and a law that requires that only Brazilian flag ships be used for shipments between Brazilian ports. Therefore, Post estimates that around 700,000 tons of wheat from RS has been sold to Italy, Germany, Ukraine, Egypt, Tunisia, and Morocco.

Brazil has been selling wheat in the past few months at just under or even with Argentine prices on an FOB basis. Transport to Black Sea ports is a bit less for Brazilian wheat (about \$70 per ton) and both sources have been priced just under U.S. HRW and about even with SRW. French wheat is priced about \$10 per ton over these sources. Originally many industry contacts believed that over 1.0 million tons would be exported to Eastern Europe and other destinations. However, that now appears unlikely as soaring freight rates and competition for port facilities from the soybean harvest are expected to slow exports. Furthermore, competition from Argentine supplies is increasing.

Brazil's entrance in the global wheat market as an exporter is not expected to be long-term. Even with a large crop in 2003, domestic production will fill only about half of Brazilian consumption with the rest filled through imports from Argentina, the United States, and Canada. However, under the right conditions of a bumper crop, tight Argentine supplies, and high international prices, exports are a short-term option for producers in Southern Brazil and can't be ruled out in the future. Nevertheless, in 2004/05 Argentine supplies are likely to increase and Brazilian production decrease making large-scale exports unlikely.

### **Imports of U.S. Wheat**

Currently the only two classes of U.S. wheat that are exported to Brazil are HRW and SRW. Brazilian millers, particularly those in the Northeast, use HRW in the production of bread flour and mix with Argentine or domestic wheat. From the total of 656,000 tons of U.S. exports to Brazil in trade year 2002/03, 75 percent were HRW. HRW has a very good reputation among millers who report that its baking properties are superior to domestic and Argentine supplies. End-users indicate that flour between 10.5 to 12 percent protein is optimal.

Imports of SRW represent 25 percent of total imports of U.S. wheat. When competitively priced, millers in the Northeast prefer SRW for use in the production of flour for cookies and crackers. In fact, one mill in the Northeast reported that in 2003, it used only SRW in the production of cookies and crackers. However, it is more common for SRW to be mixed with supplies from Rio Grande do Sul, which is also soft but of slightly lower quality.

The government of Brazil currently allows the import of HRS but demand among mills is lacking. Mills report that HRS prices are simply too high given the price of Argentine and domestic supplies. Potential for the import of HRS does exist but price, more than quality, currently drives millers' import decisions given tight industry margins and low consumer purchasing power. Nevertheless, HRS use in pasta production may allow for some imports.



Currently Durum, Hard White Winter (HWW), and Soft White Winter (SWW) are not imported due to phytosanitary restrictions. Post knows of only one mill in Brazil that is equipped to handle Durum. Argentine semi-hard and higher quality domestic supplies from Parana are used in pasta production. As a result, pasta is of relatively low quality but inexpensive. Millers and industry representatives indicate that consumers are simply unwilling to pay more for high quality pasta that could be produced with U.S. durum. However, one possibility could be among the wealthier Italian immigrants that demand a high quality product. Additionally, semolina from the U.S. is occasionally imported and durum could be milled instead if demand for high-quality pasta increases.

Traders and millers generally agree that of the three classes currently not allowed into Brazil, HWW has the greatest market potential. Some traders have been aggressive in relaying to millers the advantages of HWW. As a result, many mills have expressed a desire to import this variety as Brazilian consumers prefer very white bread and a common complaint among bakers is that the flour provided by millers is too dark. At-home consumers of flour also express a need for whiter flour and millers are anxious to work with HWW since it is reported to yield whiter flour and have approximately a 2 percent higher extraction rate than domestic wheat supplies.

### **U.S. Competition**

U.S. market share in Brazil in 2002/03 was 10 percent, compared to an average of 1 percent the previous five years. Primary U.S. competitors in the Brazilian market are Argentina, Canada, and Eastern Europe. Argentine wheat imported from Bahia Blanca is considered to be semi-hard, of average to good quality, and used to mix with Brazilian supplies for stability. Argentine upriver supplies are generally (though not this year) lower quality and considered to be soft and generally priced U.S. \$10 per ton lower than Bahia Blanca supplies. Argentina accounted for 78 percent of Brazilian imports in 2002/03, which appears high but is actually significantly below the previous four-year average of 96 percent. As a Mercosul member, Argentina enjoys preferential tariff rates and lower freight to South and Southeastern Brazil. However, U.S. wheat competes well in the Northeast where Argentina has little to no freight advantage and U.S. supplies are exempt from the Merchant Marine tax. Northeastern millers and traders relay that from May to November, during and after the U.S. harvest and before the Argentine harvest, HRW is very competitively priced to mills in Fortaleza. Due to the higher quality of HRW, traders indicate that they are willing to pay a premium of about \$5 per ton over Argentine supplies.

In the South and Southeast where Brazil's population is concentrated, U.S. wheat faces more obstacles. Along with high freight rates and tariffs, traders have an economic incentive to buy Argentine wheat. Due to the transparency of U.S. prices, traders report that margins on U.S. imports are generally only \$1 or less per ton. However, Argentine-based trades can produce \$3 to \$4 per ton margins. For these reasons, U.S. wheat is rarely imported to the South or Southeast of Brazil. However, some millers report growing dissatisfaction with Argentine supplies that have more of the European Baguette variety. Argentine producers are said to prefer Baguette variety because of high yields and producers apparently receive no premium for the non-Baguette varieties despite their better baking qualities. As a result of Brazilian dissatisfaction with these supplies and due to high Argentine prices in 2003, the southern state of Parana imported 30,000 tons of HRW for the first time. Nevertheless, dissatisfaction with Argentine wheat is not universal and as long as Argentina enjoys a preferential tariff, it appears unlikely that U.S. wheat will gain a significant hold in the South and Southeast.

Canada's market share has been in decline since 1997/98 when exports were nearly 900,000 tons. Since that time, Brazil's economic struggles have forced millers to turn to less-expensive sources of wheat. Additionally, U.S. wheat was shut out of the Brazilian market so Canada was the only source for high-quality supplies. Importers now describe Canadian imports, nearly all of which are hard red spring wheat, as "spice" wheat that is blended in very small quantities to improve flour quality. Millers now appear to prefer U.S. HRW, which is less expensive and enjoys a small freight advantage to the Northeast of Brazil compared to Canada's shipments out of the St. Lawrence. It is difficult to forecast Canadian exports since the Canadian Wheat Board operates under a closed system where prices are not transparent and price-discounting/dumping is common. However, with international prices high, it is doubtful that the Canadian Wheat Board will focus on Brazil where HRW is very competitive.

<b>Exports (1000 tons) and Export Shares (%) of the Brazilian Wheat and Product Market - 1997/98 –2003/04 (July/June)</b>							
	97/98	98/99	99/00	00/01	01/02	02/03	2003/04*
Argentina (Includes Pre-mix)	4,496 (79)	7049 (96)	7056 (96)	7178 (96)	6934 (96)	5186 (78)	5000 (91)
Canada	871 (15)	277 (4)	158 (2)	123 (2)	0 (0)	116 (2)	100 (2)
Others	317 (6)	45 (0)	84 (1)	99 (1)	69 (1)	673 (10)	50 (1)
United States	1 (0)	16 (0)	79 (1)	53 (1)	199 (3)	656 (10)	400 (7)
<b>Total</b>	<b>5685</b>	<b>7387</b>	<b>7298</b>	<b>7453</b>	<b>7202</b>	<b>6631</b>	<b>5500</b>

Source: Brazilian Ministry of Agriculture, U.S. Customs Service, and Post

\*Post forecasts

Note: Argentine export figures vary widely depending on the source with Brazilian customs, Argentine customs, and the Argentine Department of Agriculture all diverging. Based on these three sources, the table above contains Post's estimate of Brazilian imports from Argentina and includes significant amounts of pre-mix flour in the past three years.

U.S. wheat also competes, to some extent, with domestic supplies. Sources report that regardless of domestic supply and prices, some higher-quality imported wheat is always needed so that it can be mixed with local wheat to produce minimum quality flour. U.S. exports face several duties that make it more expensive to domestic millers such as the Merchant Marine tax in the south and the Common External for non-Mercosul countries. U.S. exporters will also now be faced with a higher CONFINS and PIS tax. Funds generated through the COFINS tax go toward social programs. These two taxes had totaled 3.25 percent of the imported wheat value but due to a new law the rates have increased to 9.25 percent. The tax is to be collected at customs when the wheat imports are registered. It is not yet clear if Argentina will have to pay these taxes. Brazilian mills belonging to cooperatives can obtain a 70 percent refund of the tax when wheat is sourced domestically but no refund is available for imported wheat thereby increasing the comparative price on such wheat by 6 percent. Millers, particularly those in the Northeast where imports are a necessity due to lack of regional production, are very upset by the measure and are pressing the government to exempt wheat imports from the tax. They argue that the underdeveloped Northeast is being punished since they don't always have the option to buy cheap domestic wheat, like millers in the south.

Though it is expensive to transport domestic supplies to the Northeast, U.S. wheat is facing more competition from domestic supplies in the region this year. However, freight from RS to Fortaleza has been high due to a shortage of vessels. Brazilian law requires that freight

shipped between Brazilian ports be carried on Brazilian flag ships but such ships are in short supply. The domestic wheat industry has also pressed the government to suspend this law.

### Consumption

Total wheat consumption in 2003/04 (Oct/Sep) is forecast at 10.0 million tons. Feed consumption is forecast at only 200,000 tons despite the very large crop. The 2003 crop was very good quality with little damaged by rains and frosts. Additionally, corn and sorghum supplies are plentiful and cheap, so with wheat priced strong there is little incentive to feed wheat to livestock. Food, Seed, and Industrial use in 2003/04 is forecast at only 9.7 million tons (see chart below). Human consumption of wheat in 2003/04 is expected to be limited by poor economic growth and low consumer purchasing power.

2004/05 total use is forecast to increase 200,000 tons from 2003/04 to 10.2 million tons with feed and food consumption expected to rise 100,000 tons each. A more typical crop in 2004/05 would mean a return to more feed wheat consumption and industry contacts estimate that wheat used for feed varies from 200,000 tons to 500,000 tons each year. Food, seed, and industrial use are forecast to rise by only 100 tons due to somewhat improved economic growth. Post believes that due to pressure from the milling industry, by October 2004 the government could limit imports of pre-mix flour from Argentina. However, the domestic milling industry is likely to only gain some of the limited additional demand since regular flour imports are expected to rebound to levels observed prior to the beginning of pre-mix imports.

<b>Post Forecast 2003/04 and 2004/05 Domestic Consumption (Thousand metric tons)</b>		
	2003/04	2004/05
Domestic Milling	9,100	9,300
Imported Flour/Pre-Mix	300	200
<b>Total Human Consumption</b>	<b>9400</b>	<b>9500</b>
Seed	225	235
Industrial	75	65
<b>Total Food, Seed, and Industrial</b>	<b>9700</b>	<b>9800</b>
Feed	200	300
Residual/Waste	100	100
<b>Total Feed and Residual/Waste</b>	<b>300</b>	<b>400</b>
<b>Total Domestic Consumption</b>	<b>10,000</b>	<b>10,200</b>

Note: Post uses ending stocks as a residual in balancing supply and demand rather than consumption since consumption information obtained from the domestic milling industry is more precise than stocks estimates. Feed, Seed, and Industrial use are less precise than domestic milling but information provided by trade contacts and private analysts allow for reasonable rounded forecasts.

Wheat competes with rice and manioc for a share of the Brazilian diet. Per capita consumption of bread in Brazil is very low at roughly 28 kg per person compared with 83 kg per person in Argentina. Bakery products make up 50 percent of consumption while pasta comprises 19 percent and confectionery products 16 percent. At home flour use represents 12 percent of consumption and industrial bakeries comprise the remaining 3 percent.

## Ending Stocks

Conab forecasts ending stocks to rise to 874,000 by the end of marketing year 2003/04, which is nearly 350,000 tons higher than the previous year. The increase in ending stocks is due to the large harvest and weak domestic consumption. Post forecasts 2003/04 ending stocks at 801,000 tons and 2004/05 ending stocks at 501,000 tons as a stocks drawdown is likely due to a smaller domestic crop. Producers are building more on-farm storage but soybeans are given priority for storage space.

## Corn

### Corn PS&D

Brazil							
Corn							
	2002	Revised	2003	Estimate	2004	Forecast	UOM
	USDA Official [Old]	Post Estimate [New]	USDA Official [Old]	Post Estimate [New]	USDA Official [Old]	Post Estimate [New]	
Market Year Begin		03/2003		03/2004		03/2005	MM/YYYY
Area Harvested	12919	12900	12900	12600	0	13000	(1000 HA)
Beginning Stocks	1020	2260	4370	5440	3270	4590	(1000 MT)
Production	45000	44500	42000	41500	0	43500	(1000 MT)
TOTAL Mkt. Yr. Imports	350	800	400	450	0	400	(1000 MT)
Oct-Sep Imports	521	520	400	600	0	500	(1000 MT)
Oct-Sep Import U.S.	8	8	0	0	0	0	(1000 MT)
TOTAL SUPPLY	46370	47560	46770	47390	3270	48490	(1000 MT)
TOTAL Mkt. Yr. Exports	5000	4620	4500	4000	0	4500	(1000 MT)
Oct-Sep Exports	3181	3200	5500	5500	0	3500	(1000 MT)
Feed Dom. Consumption	32500	34000	34000	35000	0	33800	(1000 MT)
TOTAL Dom. Consumption	37000	37500	39000	38800	0	40000	(1000 MT)
Ending Stocks	4370	5440	3270	4590	0	3990	(1000 MT)
TOTAL DISTRIBUTION	46370	47560	46770	47390	0	48490	(1000 MT)

## Production

Corn production in 2003/04 is forecast up from the previous post forecast to 41.5 million tons on 12.6 million hectares with a yield of 3.3 tons per hectare. However, 2003/04 production is forecast to be 3.0 million tons less than the previous year due lower planted area and less favorable growing conditions. Less production in RS, Parana, and the Center-West is largely responsible for the fall in the summer crop as low soil moisture at planting combined with strong soybean and rice prices encouraged some movement to these alternative crops, especially in Mato Grosso. The soy-corn price spread was particularly large at planting and increasing input costs also favored rice and soybeans, which require less inputs than corn. A severe drought over the past few months in the south has severely hurt corn that was planted late. However, most corn was planted early and this has been largely unaffected by the drought.

A smaller winter crop is also expected in 2003/04 with post forecasting a winter crop of just 10 million tons. Conab forecasts the total 2003/04 crop at 46.3 million tons with winter corn production nearly identical (12.6 million tons) to the previous year. The Brazilian media is

also very optimistic regarding the winter crop. However, post believes that another bumper winter crop is unlikely given that rains have delayed the harvest of soybeans in Mato Grosso and delayed the planting of a follow-up corn crop. Planting has also been delayed in Parana due to lack of soil moisture and last year's late planting of short-season soybeans means that some producers will move away from a winter corn crop. Further dampening the outlook for the second corn crop are very low producer prices in some regions, lower year-to-year seed purchases for the winter crop, and an expected return to more normal weather following ideal conditions for last year's winter corn crop.

Options contracts are used by the government to guarantee minimum prices and provide security to producers. The government assures purchase of corn at a pre-determined price if the market price at contract expiration is lower than that forecast in the contract. The difference in value is a subsidy paid by the government. However, it is reported that this year no government resources are available for such a subsidy. Last year the options contracts greatly contributed to the increased planted area for winter corn. However, this year producers will not enjoy the same security, which should contribute to the fall in winter corn crop area.

Winter corn (Safrinha) area, which is planted in January through April, will also be impacted by increased sorghum area given large sorghum exports in 2003 and strong prices. Nevertheless, a shortage of sorghum seeds will limit sorghum planted area. Wheat area is forecast to be as large as last year and thus will also limit winter corn production. The dryness over the past few months in the South is said to be encouraging a move away from corn to wheat which requires much less soil moisture. Finally input costs are about 25 percent greater than last year and, therefore, as was the case with the summer crop, it is expected that less input-intensive crops will substitute for some corn area.

Post feels that Conab's historical (especially 2002/03) production figures are slightly overestimated which may be leading to an overly optimistic forecast for 2003/04. While Post agrees that the harvest in 2002/03 was large, corn prices (see chart below) and the level of exports do not validate crops as large as Conab estimates.

Season Average Corn Price			
	2001	2002	2003
Sack in Local Currency (Reis)	9.73	16.43	18.36
Sack in U.S. Dollars	4.14	5.55	5.92

Post forecasts production in 2004/05 at 43.5 million tons on 13.0 million hectares. Over the past few years producer profits for corn have been healthy. Therefore, the 2004/05 crop is expected to be large as producers again seek healthy returns. At this point it appears that the primary factor that could significantly lower corn area would be a dramatic fall in prices before the summer crop is planted in September but this appears unlikely. Though corn prices in early 2004 have eased, an increasing export pace, a smaller 2003/04 winter crop, and strong demand from the poultry industry are expected to support prices through the summer crop planting in the fourth quarter of 2004.

<b>Cost of Production for Corn and Competing Crops</b>						
<b>2003 Cost in \$Reis</b>						
	Sorghum	Corn	Cotton	Soybeans	Wheat	Rice*
Mechanical Operations	166	261	889	241	240	353
Inputs	240	810	1,692	567	503	438
Administration	120	78	158	85	76	126
Post-Harvest Costs	106	155	132	68	44	64
Total Cost per Hectare	632	1,304	2,872	961	860	981
Revenue per Hectare	1,005	2,217	4,674	1,486	1,240	1,182
Profit per Hectare	373	913	1,802	525	379	201
<b>Sales Margin</b>	<b>37%</b>	<b>41%</b>	<b>39%</b>	<b>35%</b>	<b>29%</b>	<b>17%</b>
Prior Year's Sales Margin	14%	19%	7%	22%	16%	-10%

Source: FNP Consultoria and Agroinformativos

\* Non-irrigated

- Land values and rents not included in costs

Sorghum, rice, and cotton in Goias, corn in Mato Grosso, soybeans in Mato Grosso do Sul, and wheat in Rio Grande do Sul.

Corn production in Brazil is concentrated in the South, Southeast, and Center-West with these regions accounting for much of Brazil's production. There are two corn crops in Brazil. The main summer crop is planted in September through November and the second crop, or "safrinha" winter crop is planted from late January through March, and competes for area with other winter crops such as wheat and sorghum. The importance of the safrinha crop is increasing as production has more than doubled from 1999/00 to 2002/03 and now constitutes about 25 percent of the total production. This is largely due to greater production in the new cropland of the Center-West region where corn is used as a second crop following soybeans. Larger safrinha production has meant less seasonality of prices and greater exports. However, Brazil's increasing dependence on safrinha corn concerns the pork and poultry sectors, which depend on domestic corn production. The winter crop frequently suffers considerable weather damage, such as drought during planting, frosts during maturation, and heavy rains at harvest time. Furthermore, the pork and poultry sectors are reluctant to use imported corn, because they promote "GMO-free" product to the European market.

Long-term projections among industry analysts in Brazil are robust for corn production. Continued increases in new soy area will benefit corn. As noted above, corn is commonly used in rotations and expansion of area is seen in the Center-West region where soy and corn area have grown hand-in-hand to where the region is now the second largest corn producer. Conversion of traditional pasture area into a corn-pasture rotation will also boost national planted area. However, the most significant factor pushing corn production will be continued strong demand from the booming poultry and swine industries. As long as exports from these sectors continue to surge upward, demand and thus production of corn will continue to rise. Additionally, Brazilian corn production has high potential for yield gains as yields are currently about half that of Argentina and a little more than a third that of the United States.

Government policy will be key in stimulating production. In 2002, the government's initiative to offer options contracts provided producers with some liquidity that had been lacking. In early 2003 the government provided options contracts at export prices in hopes of building stocks to avoid a domestic shortage. Through these contracts the government procured nearly 2 million tons of corn, thereby supporting prices and decreasing exports. The result was that with supported prices, producers greatly increased winter corn area. However, currently it appears the government may be focusing more on guaranteed minimum prices,



which are generally below market prices and less effective in providing the security necessary to encourage corn planting.

## Trade

Corn exports are forecast at 4.6 million tons the marketing year ending in February 2004. Major destinations for the first 11 months (see chart above) include the EU, South Korea, and Iran. Demand from the EU (mostly Spain) has been very strong due to internal shortages from the small domestic crop. Competitively priced Brazilian corn has been very attractive as it is preferred over Argentine since Brazilian corn is GMO free. Imports by Italy were unprecedented as they typically source only European corn to fill domestic needs but bought Brazilian corn as an alternative non GMO source. A shortage of corn in Eastern Europe also led to increased purchases of Brazilian corn while food corn markets in Japan and South Korea held firm. Iranian imports from Brazil were strong as Argentina was largely out of the market allowing Brazil to fill imports needs not met by China, the top exporter to Iran last year. A similar situation took place in South Korea where Brazil replaced Argentine corn but trailed China.

Brazilian corn imports are estimated at 800,000 tons for the marketing year with the majority coming from neighboring Paraguay. This is the largest import level since 1999/2000 and somewhat unexpected given the very large Brazilian Harvest. Imports occurred due to a large Paraguayan winter crop, which benefited, like Southern Brazil, from near ideal growing conditions last year. This large supply coupled with strong demand from the pork and poultry industry in the nearby Southern Brazilian states of Santa Catarina and Parana, allowed for over 700,000 tons of Paraguayan imports into the area. Though production in the southern Brazil was very large, imports from Paraguay were still possible due to very low Paraguayan prices and duty-free access into Brazil. Normally, Brazil's Northeast accounts for most of the corn imports but only totaled 20,000 tons in the marketing year. Post forecasts 2003/04 marketing year imports at 450,000 tons and 2004/05 imports at 400,000 tons.

<b>Brazilian Corn Exports by Destination</b> (1000 tons)		
Destination	March 2002/Feb 2003	March 2003/Jan 2004 (11 months)
Spain	230	997
South Korea	472	793
Iran	308	431
Japan	205	262
Israel	0	160
Morocco	178	147
Belgium	0	128
Saudi Arabia	78	126
Portugal	0	142
Italy	0	114
Slovenia	0	108
Poland	0	92
Holland	0	68
Chile	75	40
Algeria	72	18
South Africa	54	0
Mozambique	246	0
Others	136	375
<b>Total</b>	<b>2,054</b>	<b>4,001</b>

Corn exports in the 2003/04 marketing year (beginning March 2004) are forecast at 4.0 million tons which is 600,000 ton less than the estimate for the prior year. Exports should benefit from tight global stocks supporting prices as well as less export competition from China in markets such as South Korea and Iran. Nevertheless demand will likely fall in Asian markets impacted by Avian Influenza, which should lower demand for corn used in feed rations. Additionally, The United States and Argentina are likely to increase competition in these and other markets. Demand during the second half of the year should also be lower from the EU as production recovers from last year's dismal crop. Brazilian domestic demand for corn from the pork and poultry industries will limit exportable supply which will also be diminished by a smaller crop that is forecast down 3.0 million tons lower than last year.

International trade year 2003/04 (Oct/Sept) exports are forecast at 5.5 million tons, which is 2.3 million tons greater than the previous year. The massive winter crop and resulting competitive prices have spurred exports for the first 7 months of the year. Based on shipments and vessel lineups, post forecasts that from October 2003 to April 2004 exports will total 3.6 million tons. Demand from the EU has been strong and should continue through the EU harvest. Very large Brazilian stocks and the need to make room for soybeans will allow for large exports in March and part of April but the large soybean crop and limited storage at ports will likely constrain corn exports for several months beginning in late April. Furthermore, prices should strengthen with prospects for a smaller winter crop thus making exports less competitive. Sources indicate that very few export contracts have been signed recently and once shipments in the pipeline are gone, exports should fall dramatically. The international trade year, as opposed to the marketing year, should not be impacted greatly by the smaller winter crop, which will mean less exportable supply.

Exports in marketing year 2004/05 are forecast 4.5 million tons due to expected strong production and a possible domestic stocks drawn-down if global conditions (prices) are high. This export forecast assumes that by the start of the marketing year (March 2005) competition from China will decrease and freight rates will ease somewhat. However the 2004/05 forecast is limited by strong expected domestic demand growth for corn, which should outpace production growth and thereby limit exportable supply.

In 2002/03 Brazil was the world's 4<sup>th</sup> largest corn exporter for the 4<sup>th</sup> consecutive year. Prior to 2000/01 exports were only very minimal, reaching a maximum of just 460,000 tons in 1996/97. Brazilian exports began in earnest in 2000/01 due to a massive crop in significant excess on domestic needs. As a result, exports soared above 6 million tons and since that time have remained above 3 million tons each year. Consequently, global importers have become accustomed to Brazilian corn and even pay a premium of around \$5 per ton since it is GMO free. Exports have increased producer liquidity and supported domestic prices over the past four years. Previous to 2000/01, corn prices were based exclusively on internal demand and government intervention. After exports began in 2001, the soybean meal/corn price spread narrowed and today internal prices are less volatile than in the past. However, corn still trails soybeans in terms of liquidity and corn prices are less correlated to international prices than soybeans.

## Consumption

Total consumption in 2003/04 (corresponding to 2004 in the table below) is forecast at 38.8 million tons. Post forecasts an increase in industrialized corn rations of nearly 5 percent in 2003/04 from the previous year and an increase of 6.5 percent in 2004/05. These increases are primarily due to greater demand from the poultry industry as exports are expected to increase significantly due, in part, to less competition from Asian exporters impacted by diseases in their poultry populations. Poultry is the largest user of industrialized feed rations



at just over 50 percent and Post forecasts that calendar year 2004 poultry production will increase more than 5 percent over 2003 production, mainly due to exports which are about 25 percent that of domestic consumption. The table below shows poultry consumption of corn growing slightly less than the rate of growth for poultry production (more than 5 percent) due to the fact that use of sorghum in industrialized rations is increasing and substituting for some corn.

<b>Brazilian Corn Consumption</b>					
<b>Consumption base</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004*</b>	<b>2005*</b>
Industrialized Rations	23.958	25.379	26.68	27.95	29.75
Broilers	11.94	12.70	13.40	14.00	15.00
Hens	2.22	2.29	2.34	2.45	2.60
Hogs	7.89	8.18	8.51	9.00	9.50
Cattle	0.60	0.78	0.86	0.90	0.95
Other Animals	1.28	1.40	1.50	1.60	1.70
On Farm Rations	5.53	3.87	4.06	4.00	4.05
Human Consumption	5.67	5.75	5.75	5.85	6.20
Fresh and On-farm	1.48	1.50	1.50	1.50	1.55
Dry Milling	1.45	1.55	1.55	1.60	1.75
Wet Milling	1.35	1.35	1.35	1.40	1.50
Small Mills	1.40	1.35	1.35	1.35	1.40
Losses and Seeds	1.0	1.0	1.0	1.0	1.0
<b>Total</b>	<b>36.23</b>	<b>36.0</b>	<b>37.50</b>	<b>38.80</b>	<b>40.00</b>

Sources: SindiRacoes, Abimilho, and Post

\* Post Forecasts

- Based on a Calendar year.
- Note: the 2004 table year corresponds to the 2003/04 PS&D table year (March/Feb) since the majority of the year fall in 2004.

Post forecasts 2004/05 consumption at 40.0 million tons due mainly to continued strong demand for industrialized rations which are expected to grow at 7 percent due to demand from the poultry and pork sectors. Human consumption in 2004/05 is expected to increase due to a small boost from the "Zero Hunger" program, though rice should be the main beneficiary of the program. Use of corn in beer production and pet foods is also increasing and driving consumption. The Brazilian press and other sources often understate human consumption of corn because they fail to include corn that is consumed in farm households and fresh corn consumption.

Human corn consumption per capita is very low in Brazil and less than 30 percent that of Mexico. The Brazilian Association of the Corn Milling Industry (Abimilho, in Portuguese) is seeking to increase per capita consumption by 20 percent through its "Corn is Better" campaign. Through an advertising campaign and school education, Abimilho is promoting the health benefits of consuming corn. Post does not foresee such a large increase in consumption given the traditional level rice and wheat consumption, but some increase is likely.

## Ending Stocks

Ending stocks for 2002/03 are estimated at 5.4 million tons due to the record crop. Conab forecasts ending stocks at 6.0 million tons, which seems to be accepted by many private analysts and contacts in Brazil. However, Conab's marketing year ends in January while Post and USDA/Washington use a marketing year ending in February. Taking into account one month of exports and internal consumption leaves February ending stocks at 5.4 million tons. Nevertheless, Post considers ending stocks forecasts to be less reliable than consumption forecasts where more private industry information is reliable.

## Rice

### Rice PS&D

Brazil							
Rice, Milled							
	2002	Revised	2003	Estimate	2004	Forecast	UOM
	USDA Official [Old]	Post Estimate [New]	USDA Official [Old]	Post Estimate [New]	USDA Official [Old]	Post Estimate [New]	
<b>Market Year Begin</b>		04/2003		04/2004		04/2005	MM/YYYY
<b>Area Harvested</b>	3150	3156	3550	3400	0	3300	(1000 HA)
<b>Beginning Stocks</b>	538	522	604	538	854	838	(1000 MT)
<b>Milled Production</b>	6935	6935	8100	8300	0	7500	(1000 MT)
<b>Rough Production</b>	10199	10199	11912	12206	0	11029	(1000 MT)
<b>MILLING RATE (.9999)</b>	6800	6800	6800	6800	0	6800	(1000 MT)
<b>TOTAL Imports</b>	1250	1200	500	500	0	1000	(1000 MT)
<b>Jan-Dec Imports</b>	1200	1063	600	600	0	1000	(1000 MT)
<b>Jan-Dec Import U.S.</b>	0	331	0	100	0	200	(1000 MT)
<b>TOTAL SUPPLY</b>	8723	8657	9204	9338	854	9338	(1000 MT)
<b>TOTAL Exports</b>	19	19	50	100	0	75	(1000 MT)
<b>Jan-Dec Exports</b>	19	19	50	100	0	75	(1000 MT)
<b>TOTAL Dom. Consumption</b>	8100	8100	8300	8400	0	8450	(1000 MT)
<b>Ending Stocks</b>	604	538	854	838	0	813	(1000 MT)
<b>TOTAL DISTRIBUTION</b>	8723	8657	9204	9338	0	9338	(1000 MT)

## Production

Post raised the forecast for the 2003/04 rice crop to 12.2 million tons and area to 3.5 million hectares, which is slightly below Conab's forecast of 12.5 million tons. Planting in Brazil runs from September through November and very strong prices during this period lead to increased planted area. The price of rough rice in Rio Grande do Sul (RS) during September 2003 averaged R\$691/ton (US\$238/ton) compared to just R\$439/ton (US\$131/ton) at planting in September 2002. The state of Mato Grosso, where about 10 percent of the crop is produced, saw a particularly large increase in rice area of about 45 percent as farmers reacted to strong rice and soybean prices. Rice is often planted prior to soybeans on newly cultivated land and under dryland (without irrigation) conditions. At planting the cost of production was low and financial returns were very high last year thus encouraging increased rice seeding. Production would be even greater in Mato Grosso and other states of the Center-West had growing conditions been better. Yields in the region are expected to be

even with last year as excessive rain in Mato Grosso and dryness in Mato Grosso do sul have impacted crop development.

Production in Rio Grande do Sul (RS), which produces about half the national crop, is expected to be much greater in 2003/04 than the previous year due to better planting conditions. Producer contacts in the state's extreme southern region around Pelotas reported that plantings took place ahead of schedule this year and weather has been good. Lack of precipitation in southern Brazil over the past two months is not considered significant since, unlike the Center-West, production in the South is mostly irrigated. The western part of RS experienced some flooding in January that contacts estimated resulted in a loss of less than 100,000 tons. The total amount lost is very small compared to the expected increase in production in the state of more than 1.0 million tons. Early harvest result show yields in the state at 5.9 kg/ha compared to 4.9 kg/ha last year.

National production is forecast at a record in 2003/04 largely due to record yields. Several factors contributed to the high yields including the use of new hybrid seed in Rio Grande do Sul called "Avaxi" which is reported to yield as much as 12.8 tons per hectare in some areas of the state. Yields are also up due to high prices at planting that motivated increased fertilizer use by producers seeking maximize profits.

Brazilian Rice Yields							
	1998	1999	2000	2001	2002	2003*	2004*
Yield (mt/ha)	3.02	3.12	3.24	3.32	3.22	<b>3.48</b>	3.34

\* Post Forecast

While production is forecast to be very large this year, the quality of the crop is expected to be lower. Many producers used saved seed this past planting rather than commercialized seed in an attempt to lower costs and therefore quality is considered to be lower.

Production in 2004/05 is forecast to fall to 11.0 million tons due to more normal planting and growing conditions that will lower yields. Nevertheless, yields are forecast above 3.3 tons per hectare due to the continuing trend of better seed varieties and growing practices. The large crop this year this should ease prices somewhat giving less incentive to plant rice next year. Area is forecast down to 3.3 million hectares, but this fall should be somewhat mitigated by strong domestic demand for rice from the "Zero Hunger" program which should stabilize prices.

Unlike many other grain crops in Brazil, rice production has not grown substantially in Brazil over the past several years. Despite an increase in rice area in 2003/04, area devoted to rice production is only 50 percent of the area under cultivation 18 years ago. Meanwhile, overall production has fluctuated between 8 and 11 million tons over the past 25 years with no real growth. Production continues to be concentrated in the South with the southern state of Rio Grande do Sul producing about half of the national crop. Production in the south is irrigated and yields are generally high at more than 5 tons per hectare. Conversely, production in the Center-West and Northeast is dryland cultivated with much lower yields. The Northeast is comprised of many small producers that rely on hand labor and use few inputs and thus yields are only one third of those on the Southern lands.

The Center-West is the second largest production region but rice area has not grown as many had predicted. With the massive expansion of soybean and corn cropland the region, it was believed that rice would also expand as it is often used as a precursor crop and occasionally in rotation with soybeans. However, such expansion has not occurred on the

scale many had predicted and in fact, area has fallen from over 1 million hectares in 1998/99 to under 900,000 hectares in 2003/04. Nevertheless, rice area in the Center-West could very easily expand under different market conditions.

Unlike the Center-West, area expansion is not likely in RS where about half of the national crop is produced. However, production in the state is expected to expand due to better control of red rice. It is reported that as much as 1.3 million tons of rice is left unharvested in the state each year due to red rice infestation and only 5 percent of the crop is unaffected by infestation. Some sources suggest that the annual production loss is 20 percent. However, two new seed varieties under the "Clearfield Rice" name will be available for planting in 2004/05. The rice from the new seeds is tolerant to a herbicide developed by BASF, called "Only" that kills red rice. The new seeds, which were developed at the University of Louisiana, work in much the same way as roundup ready soybeans but were developed from mutagenic rather than transgenic technology. No royalties will be charged and BASF will gain only by selling the "Only" herbicide. Reports suggest that 10 percent of the upcoming crop will be planted with the new seeds with usage increasing in future crops.

### Trade

With 2003/04 production expected to rebound, imports are forecast to fall to just 500,000 tons for the marketing year. In mid December Vietnam's Ministry of Trade signed a Memorandum of Understanding (MOU) with Brazilian counterparts to export 150,000 tons of milled rice to Brazil in 2004, indicating importers' desire to continue to source non-Mercosul supplies despite a rebound in Mercosul production. However, the MOU may be a sign of good will between the two nations rather than a serious intent to trade. Brazilian importers are also looking at Thai rice for the upcoming months but most of Brazil's imports will come from Mercosul as exportable supplies should rebound. Imports in 2004/05 are forecast to reach 1.0 million tons as production falls but domestic demand increases slightly.

Total rice imports (milled bases) in calendar year 2003 totaled 1.1 million tons, according to the GOB. Imports in the marketing year are expected to be 1.2 million tons. These import figures may differ slightly from USDA/Washington as Post uses Brazilian import data for rice rather than global exporters' data.

<b>2003 Calendar Year Rice Imports</b> (thousand tons – milled bases)			
Exporter	Paddy (milled bases)	Milled	Total
Uruguay	94	401	495
United States	316	5	321 (331)*
Argentina	30	140	170
Thailand	0	49	49
Vietnam	0	11	11
Paraguay	1	2	3
French Guiana	0	3	3
South Africa	0	1	1
<b>Total</b>	<b>441</b>	<b>612</b>	<b>1,063</b>

Source: Minister of Industrial Development and Foreign Trade

\* PS&D shows 331,000 tons as reported by U.S. exports

Imports from Thailand and Vietnam were only 60,000 tons, which is much less than some analysts had predicted early in the season. Mercosul countries supplied 62 percent of imports despite speculation that the U.S. and Asian exporters would fill most of Brazil's import needs due to shortages in Mercosul. Contacts in the rice industry report that rice

from Thailand and Vietnam was not imported at the reduced tariff (see paragraph below), as is commonly believed, but rather at 13.5 percent. This is due to other countries buying the licenses to import milled rice at the lower tariff. With an obvious freight advantage at a time of skyrocketing freight rates, and no tariffs, Mercosul rice accounted for 90 percent of milled rice imports. For 2004, it is likely that Asian rice will have a limited impact on the Brazilian market due to a bumper domestic crop, high freight rates, and strong international prices.

Tight supplies in Brazil and throughout Mercosul along with rising prices led the Minister of Agriculture to announce in early August a reduction in the Common External Tariff (TEC) for rice to 4 percent, down from the previous 11.5 percent on paddy rice and 13.5 percent on milled. The reduced tariff came into effect the first of October and expired the last day of December 2003. The reduction was largely due to pressure from importers combined with the government's concern about the impact of high rice prices on inflation. Rice accounts for 12 percent of the "Cesta Basica" used in measuring inflation. However, at the request of Mercosul members, the quantity was limited to 500,000 tons of which paddy accounted for 400,000 tons and milled rice 100,000 tons on a rough basis.

Producers, particularly those in Rio Grande do Sul (RS), were unhappy with the measure and argued that tariff reductions are a disincentive to production. They insisted that instead of reducing rates, they should be increased to the pre-December 2002 levels of 18 percent for rough and 21 percent for milled or even to the maximum of 35 percent. However, once the tariff rates were reduced in October, producers in RS and Uruguay turned their attention to pressing the government for the higher rates to be implemented at expiration of the reduced tariff on Jan 1, 2004. However, tariff rates fell to under 10 percent per ton, which is the current TEC for rough rice and 12 percent for milled rice.

Despite the lower tariff and the need for U.S. imports, quantities imported were not as high as expected. Importers report that the even more U.S. rice would have been purchased early in the year had the GSM 102 program for Brazil not been suspended (it has now been reinstated), thus making the financing unavailable to importers. Additionally, very high U.S. prices coupled with soaring freight rates encouraged even more nearby shipments from Uruguay. Before the run up in U.S. prices to \$194/ton, it was believed that the United States would fill nearly all the 400,000-ton quota for rough rice with a lower TEC. U.S. exports filled only a small portion of the lower duty quota (valid from October to December) but total imports of U.S. rice for all of 2003 reached 486,764 tons (rough bases), which is nearly 400,000 tons greater than in 2002. The majority of imports from the U.S. were purchased by a group of importers in the state of Sao Paulo. Post forecasts imports of U.S. rice in 2004 at 100,000 tons as demand for imports from Non-Mercosul countries should drop due to a recovery in production. However, demand for U.S. rice is expected to be strong from new importers in the Northeast where U.S. rice enjoys a freight advantage. Completion of a new port in Fortaleza should also stimulate U.S. imports. U.S. exports could be face additional challenges in the Brazilian market if rice producers are successful in convincing the government to raise the TEC and require that all non-Mercosul imported rice be labeled with country of origin.

Rice exports from Brazil in calendar 2003 totaled 19,434 tons with most shipped to Africa. Exports in 2004 are forecast at 100,000 tons, which would be a 25-year high. Meanwhile exports in 2005 a forecast at 75,000 tons. The Rice Institute of Rio Grande do Sul (IRGA, in Portuguese) is said to be negotiating sells of 70,000 tons of rice from the harvest currently underway. Contacts believe the destinations could be to Chile and Africa and some speculate the total exports could reach 200,000 to 300,000 tons. However, Post does not believe that more than 100,000 tons are likely. It may appear counterintuitive that Brazil could be

exporting rice at the same time imports are expected to be 600,000 tons, it is important to look at the situation with wheat this year to see that exports are very possible.

Like wheat, most of the nation's rice is produced in the extreme southern state of Rio Grande do Sul. During harvest for wheat and rice, prices in the state plummet and storage is very limited. Storage is particularly tight at rice harvest since the state is also a major soybean producer with the two crops harvested at the same time. This past year, wheat producers increased exports instead of accepting very low domestic prices. As with the wheat harvest, the rice harvest is expected to be massive in the state and thus producers are looking to export some of the excess. With international rice prices high, it is very likely that Brazil will have some success in exporting this year and possibly with the 2005 crop.

### **Consumption**

Approximately 70 percent of rice consumed in Brazil is milled white rice and 22 to 25 percent is parboiled, with whole rice accounting for the remaining amount. Consumption of specialty rice such as organic rice and very sticky oriental rice is small in Brazil but increasing rapidly. Nevertheless, the majority of Brazilian consumers prefer a highly polished, loose rice, light in color, long grained, and without a strong taste and odor.

Per capita rice consumption in Brazil has remained steady over the past 20 years at between 70 and 75 kilograms per person but due to population growth total consumption has been increasing at just over 1 percent each year. However, consumption actually fell over the past year due to high prices that lead consumers to opt for lower priced substitutes. Additionally, poor economic growth has restrained consumer purchasing power. Post forecasts consumption to increase in 2003/04 (begins March 2004) to 8.4 million tons of milled rice due to a larger domestic and Mercosul crop and minimally lower retail prices. Additionally, the government's "Zero Hunger" program is likely to spur consumption. CONAB forecasts over 500,000 tons (rough bases) of additional consumption due to "Zero Hunger" while others believe the rice need for the program could reach 750,000 tons. However, not all of this will be "additional" consumption since it is expected that at least some of the recipients of rice under the program would have purchased rice anyway. Furthermore, difficulties in executing the program could lead to less than the projected amount being distributed. Despite the expected increase from "Zero Hunger" other factors restraining consumption are likely to continue, such as low consumer purchasing power and tight domestic stocks, which will minimize the expected fall in prices, and thus restrain the consumption increase.

Food, seed, and industrial use is forecast at 8.4 million tons milled bases in 2003/04 with seed use totaling about 275,000 tons and 200,000 tons in post-harvest losses. Human and industrial use is forecast at 7.9 million tons.

### **Ending Stocks**

Government held stocks are very tight and not expected to increase greatly in the near future. Due to a tight domestic and global rice supply, domestic prices have been very strong and above the government minimum prices. Therefore, the government has not procured rice for storage and is unlikely to do so until prices approach the minimum price. However, in some areas, such as Mato Grosso, that are expected to have a healthy crop and difficulty in marketing it, the government may be able to purchase rice inexpensively for storage. Ending stocks in 2003/04 are forecast at 527,000 tons but with larger production and lower prices in 2004/05, stocks are forecast to increase to 877,000 tons.



## Sorghum PS&amp;D

Brazil							
Sorghum							
	2002	Revised	2003	Estimate	2004	Forecast	UOM
	USDA Official [Old]	Post Estimate [New]	USDA Official [Old]	Post Estimate [New]	USDA Official [Old]	Post Estimate [New]	
<b>Market Year Begin</b>		10/2002		10/2003		10/2004	MM/YYYY
<b>Area Harvested</b>	800	800	900	900	0	950	(1000 HA)
<b>Beginning Stocks</b>	47	50	33	36	183	100	(1000 MT)
<b>Production</b>	1900	1900	2100	2100	0	2200	(1000 MT)
<b>TOTAL Mkt. Yr. Imports</b>	0	0	0	0	0	0	(1000 MT)
<b>Oct-Sep Imports</b>	0	0	0	0	0	0	(1000 MT)
<b>Oct-Sep Import U.S.</b>	0	0	0	0	0	0	(1000 MT)
<b>TOTAL SUPPLY</b>	1947	1950	2133	2136	183	2300	(1000 MT)
<b>TOTAL Mkt. Yr. Exports</b>	64	64	300	450	0	400	(1000 MT)
<b>Oct-Sep Exports</b>	64	64	300	450	0	400	(1000 MT)
<b>Feed Dom. Consumption</b>	1775	1775	1575	1500	0	1725	(1000 MT)
<b>TOTAL Dom. Consumption</b>	1850	1850	1650	1586	0	1800	(1000 MT)
<b>Ending Stocks</b>	33	36	183	100	0	100	(1000 MT)
<b>TOTAL DISTRIBUTION</b>	1947	1950	2133	2136	0	2300	(1000 MT)

### Production

Post estimates sorghum production in 2003 at 2.1 million tons and area at 900,000 hectares. The crop year runs from October to September with the majority produced as a winter crop and harvested in September. Post forecasts the 2004 crop at 2.2 million tons on 950,000 hectares. The crop would be forecast even greater if not for a very tight supply of planting seeds limiting winter crop area. Nevertheless, with current strong sorghum prices and high input costs, it is likely that sorghum will take some area that would have gone to more input intensive crops such as winter corn (see cost of production chart in the corn production section). In addition, sorghum producers now enjoy the government's support in the form of options contracts, minimum prices, and subsidized financing. This added security combined with continued export prospects will allow for further expansion of sorghum area. (For background information on sorghum production in Brazil see report BR4603, Jan. 21, 2004.)

### Trade

Brazil has been a sporadic importer of sorghum over the past 20 years. However, in 1999/00 and 2000/01 imports increased to 258,000 tons and 141,000 tons respectively. These relatively large imports were due to feed millers' growing demand for the grain. However, Brazil has imported only 4,000 tons over the past two years as a result of soaring domestic production, which has more than filled domestic demand. Meanwhile, Brazil's first significant exports of sorghum occurred in 2002/03 with 64,276 tons. In just the four months of the October/September 2003/04 international marketing year, exports have reached 277,000 tons.

The top Brazilian market over the past few months has been the EU with imports of 233,000 tons. Corn and sorghum production in the EU are down dramatically this year and feed

millers are looking for cheap protein imports. Brazilian corn exports have benefited from this EU demand but the low price of Brazilian sorghum has made it very attractive as well. Sorghum is entering the EU at a much lower duty than corn. Total sorghum imports by the EU are forecast to nearly triple that of last year and the United States and Brazil are competing for this market. Argentina is not expected to be a major player as Argentine sorghum is reported to have high tannin content. Brazil is also finding a buyer in the Philippines where poultry producers are searching for substitutes to replace feed wheat which is in short supply and priced high on the global market. Due to these factors, Posts forecasts record exports in 2003/04 at 450,000 tons. Exports in 2004/05 are forecast at 400,000 tons due to a large expected domestic crops. However, exports will be 50,000 tons less than in 2003/04 due to less expected demand from the EU and Eastern Europe.

<b>Brazilian Marketing Year Sorghum Exports</b>		
1000 tons		
Destination	Oct 2002 to Sept 2003 12 months	Oct 2003 to Jan 2004 4 months
Spain	47	102
Italy	17	101
Japan	0	25
Holland	0	19
Philippines	0	17
Germany	0	11
Others	0	2
<b>Total</b>	<b>64</b>	<b>277</b>

## Policy

### MERCOSUL

Brazil is a member of MERCOSUL, which is comprised of Brazil, Argentina, Uruguay, and Paraguay. Peru, Chile and Bolivia are associate members of Mercosul. Countries within MERCOSUL enjoy duty-free access for most agricultural products traded within the trading bloc, while a Common External Tariff (TEC) is applied for non-MERCOSUL countries. For associate members of Mercosul the TEC is 60 percent of that applied to non-Mercosul members. The TEC puts U.S. agricultural products at a competitive disadvantage, particularly for the bulk commodity sector (wheat, corn, and rice) in which profit margins are very thin. The price difference between U.S. and Argentine wheat is often very small and the 11.5 percent TEC can be the difference in a purchase decision.

Tight supplies in Brazil and throughout Mercosul along with rising prices led the Minister of Agriculture to announce in early August 2003 a reduction in the Common External Tariff (TEC) for rice to 4 percent, down from the previous 11.5 percent on paddy rice and 13.5 percent on milled rice. The tariff came into effect the first of October and expired the last day of December 2003. The reduction was largely due to pressure from importers combined with the government's concern about the impact of high rice prices on inflation. Rice accounts for 12 percent of the "Cesta Basica" used in measuring inflation. However, at the request of Mercosul members, the quantity was limited to 500,000 tons of which paddy accounted for 400,000 tons and milled rice 100,000 tons on a rough bases or about 68,000 tons on a milled basis.

The TEC for wheat is 10.0 percent, while corn and sorghum face a 8.0 percent tariff. The tariffs on non-MERCOSUL rice are 10.0 percent for HS1006.10 (excluding for seed), 11.5



percent for HS1006.20, 12.0 percent for HS1006.30.11 and HS1006.30.21, and 10.0 percent for HS1006.30.19 and HS1006.30.29, and 11.5 percent for HS1006.40.

### Administrative and Fiscal Measures

U.S. agricultural products face other constraints in accessing the Brazilian market. Administrative and fiscal impediments include the Merchant Marine Tax, which is a 25-percent surcharge on the value of the freight for imports of all products. This tax has been waived for imports to the North/Northeast regions of Brazil in order to stimulate development in the region. As a result, wheat is competitive in the Northeast and significant imports were seen in 2003. Even greater imports of U.S. wheat and rice could be achieved in the North/Northeast without the punitive TEC. These constraints increase costs for the importer and generally result in the exporter being priced out of much of the Brazilian market, particularly the south where the U.S. does not enjoy a freight advantage and must compete more on quality. Some measures, particularly the TEC, have been removed at the request of importers, in periods of domestic shortages in order to facilitate imports and keep domestic prices and thus inflation under control. The lower rice TEC during the last quarter of 2003 is a good example of this.

### Support Prices

Brazil maintains agricultural support prices for many commodities, and the prices often vary by region, variety, and timing of the crop. The minimum prices for corn for the 2003/04 crop year ranged regionally from R\$13.50/60kg to R\$16.50/60kg. Rice minimum prices are more variable, due to greater differences in varieties and planting methods, and range from R\$10.12/60kg to R\$20.70/60kg.

In an effort to encourage wheat production and reduce dependence on imports, the Minister of Agriculture increased the minimum price for wheat in 2003 and maintained higher prices for non-traditional growing regions. The 2003 minimum price for wheat in the three southern states of Rio Grande do Sul, Santa Catarina, and Parana is R\$400/ton while Mato Grosso do Sul, Mato Grosso, Goias, Sao Paulo, Minas Gerais, Bahia and the Distrito Federal enjoy a higher minimum price of R\$450/ton.

The government is likely to use a variety of the policies and programs discussed below for the 2004/05 crops. Although next crop year's programs will not be announced for months, Post expects that policy tools will remain essentially the same as 2003/04.

Minimum Prices For Class 1 Wheat (Brazilian \$ Reis/Ton)						
Region	2002		2003		% Increase	
	Soft	Bread Wheat	Soft	Bread Wheat	Soft	Bread What
South	248	258	248	400	40	40
Center-West, South-East & Bahia	261	300	391	450	50	50

### Support Prices

### Key Elements of Domestic Support Programs

The Brazilian government maintains a rural credit system that offers various instruments to support agricultural production and farm income. These programs are summarized below:

1. Government Commodity Loan Program (EGF):

This program is highly used by farmers to finance the holding of their products in accredited warehouses as collateral for the bank lender. The loan amount is based on the value of product offered as guarantee, based on a minimum price set annually by the government for various products. Banks normally provide loans on the basis of 70 percent of the minimum price. Subsidized interest is available at annual rates of 8.75 percent interest (commercial rates are 26 percent). The volume of such subsidized credit available is limited.

#### 2. EGF-Industry Commodity Loan Program:

This program is similar to EGF, but applicable only to processors of agricultural commodities under the Minimum Support Price Program, except for rice and soybeans. Access to this program is available between the processor and the farmer or cooperative. Financing is limited to 50 percent of the production capacity of the processors, and payment to the farmer cannot be lower than the government-established minimum commodity price in effect. Subsidized interest is available at annual rates of 8.75 percent.

#### 3. Government Commodity Acquisition Program (AGF):

This program is similar to EGF and applicable to farmers who sell farm products to the federal government. Products must be in accredited warehouses, cleaned, dried and graded. The government, through the National Food Company (CONAB), an entity of the Ministry of Agriculture and Food Supply (similar to USDA/CCC) purchases the product at the minimum price.

#### 4. Rural Promissory Note (CDR):

Processors of agricultural commodities can contract a CDR with accredited banks. Financing is limited to 50 percent of the processor's production capacity. Processors must prove they have paid at least the minimum price to the producer. Products eligible for CDR are: cotton, rice, corn and wheat. Subsidized interest rates are 8.75 percent plus banking expenses.

#### 5. Subsidy Auction Program (PEP):

This program is similar to the U.S. loan deficiency payment program. Through this program, the government pays the difference between the prevailing market price and the minimum price of the product. Only wheat, corn, and rubber have been eligible for this program so far. The federal government through CONAB conducts public auctions to set a premium for buyers of a given product. These buyers then contact producers interested in selling their production at the minimum support price in force. Buyers (normally processors or millers) must transport the product to the destination previously established by the program.

PEP was first introduced in November 1996 to help sales of domestic wheat at the minimum price and to relieve pressure on government purchases of wheat. The PEP was initially put in place to assist in the marketing of lower quality wheat shunned by mills at prevailing market prices. Wheat was put up for auction to millers who bid on the level of the subsidy and not the price of the wheat. Through these official auctions, the government compensated for some of the difference between the prevailing market price and the minimum price. Under the PEP, the government never takes possession of the wheat itself but facilitates the transfer of the wheat from the seller to the buyer. In some respects the program is basically a transportation subsidy as the bonus varies with the distance from the seller to the purchasing mill. After an initial slow start in 1996, PEP auctions accelerated and PEP has proven useful marketing tool for the Brazilian government. The costs of PEP are much less than purchase, storage, subsequent marketing, and eventual losses under a Government purchase program.

#### 6. Option Contract:

The federal government through CONAB offers a futures price, normally between harvest periods, for purchase of eligible (wheat, corn, rice, and cotton) product. The futures price is established by CONAB at the moment the contract is offered, and the price is always above the minimum price. The producer may acquire a put option to sell contracts of 27 metric tons. The producer of the option contract acquires the right to sell the contracted product to CONAB at a later date and price specified in the contract.

#### 7. Product Equivalency:

Small producers, under the Program to Strengthen Family Farms (PRONAF), are entitled to production cost financing based on the equivalency concept: farmers pay their back loans by delivering an equivalent amount of the crops. The government established minimum price is used as reference. This scheme is only available for cotton, rice, corn and wheat. Interest rates for small family farms are highly subsidized, at the annual interest rate of 5.75 percent. The volume of credit available at this rate is limited.

#### 8. Other:

Long-term support for production and processing of agricultural products is centralized in the BNDES - Brazilian Bank for Economic and Social Development, along with the Special Agency for Industrial Financing (FINAME). Both form the BNDES system. The BNDES system's mission is to foster economic and social development in Brazil, acting as an agent for long-term investments. The BNDES system provides financial support to the following sectors of the Brazilian economy: agriculture, industry, infrastructure, commerce and services. The BNDES system offers a broad range of services to support various agribusiness project types. Among those are:

- FINAME Rural. A credit line destined for acquisition, maintenance and/or rebuilding of agricultural machinery. The annual interest rate is 14.5 percent for a period of 5 years, with a grace period of two years.
- BNDES Automatic. A credit line aimed at creating pasture, other animal production projects, and for production of forest products. Annual interest rates are similar to the credit line above and terms of financing are flexible according to each project.

Programs covered under the 2003/04 Agricultural Plan are listed below. Funding in 2003/04 increased to R\$5.75 billion (U.S. \$1.91 billion) from R\$4.63 billion (U.S.\$ 1.58 billion) in 2002/03.

2003/04 Agricultural Plan						
Ministry of Agriculture and Supply						
Program	Description of Items Financed	2002/03 Funding	2003/04 Funding	Credit Limit R\$1,000/ Operation	Interest Rate (%)	Maximum Payment Period (years)
		R\$ Million				
PRODEFRUTA	Fixed or semi-fixed investments related to the introduction and improvement of fruit varieties.	380	240	200	8.75	8
MODERAGRO	Soil improvement, green fertilizer, soil conservation, reclamation of pastures, and designation of meadow.	570	600	200	8.75	5
PRODEAGRO	Fixed and semi-fixed investments related to production of flower, goat & sheep, fish, honey, pork, poultry, and rubber.	140	60	150	8.75	5
MODERINFRA	Fixed and semi-fixed investments directed toward irrigated agriculture and the installation or improvement of silos or rural properties.	300	500	400	8.75	8
PRODECOOP	Fixed and semi-fixed investments for cooperative organizations seeking to aggregate the value of agricultural production.	250	450	20,000	10.75	12
PROPFLORA	Fixed and semi-fixed investments for the commercial planting of forests.	60	50	150	8.75	12
PROLEITE	Machinery and equipment for dairies.	100	100	80	8.75	5
MODERFROTA	Agricultural tractors, implements, and harvesters, as well as equipment for coffee processing.	1,000	2,000	No Limit except for coffee	9.75	5
				20 coffee	12.75	6
PROGER	Fixed and semi-fixed investments of small farmers.	100	250	56	7.25	8
FINAME AGRICOLA ESPECIAL	Machinery and equipment for the processing of cotton, fruit, seeds, fish, and others.	500	500	300	13.95	5
<b>SUBTOTAL</b>		<b>3,430</b>	<b>4,750</b>			
<b>CONSTITUTIONAL FUNDS*</b>		<b>1,200</b>	<b>1,000</b>			
<b>TOTAL</b>		<b>4,630</b>	<b>5,750</b>			

\* Constitutional funds can be used in any of the above programs or other programs.