

GM Rice Seed Issues



Nathan W. Buehring

AUGUST 18, 2006

State's farmers want answers on tainted rice

Harmed by export discovery,
they say at Stuttgart meeting

August 18, 2006



In Error, Rice Crop Is Mixed With an Unapproved Strain



STATEMENT

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Statement by Agriculture Secretary Mike Johanns Regarding Genetically Engineered Rice

August 18, 2006

"The U.S. Department of Agriculture and U.S. Food and Drug Administration have been notified by Bayer CropScience that the company has detected trace amounts of regulated genetically engineered (GE) rice in samples taken from commercial long grain rice. Both have reviewed the available scientific data and concluded that there are no human health, food safety, or environmental concerns associated with this GE rice.

"Bayer has developed many GE herbicide-tolerant products with the protein called Liberty Link, three of which are rice. The regulated line is LLRICE 601 and Bayer reports finding only trace amounts of it during testing. LLRICE 601 was field tested between 1998 and 2001. Two deregulated lines, LLRICE 62 and LLRICE 06, have been through thorough safety evaluations and have been deemed safe for use in food and safe in the environment, although these lines have not been commercialized.

BUSINESS & FINANCIAL TIMES

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HEALTH ALERT: Beware of banned US rice

Ghanaian rice consumers have been warned to be wary of United States long grain rice on the market because of their unwholesomeness.

Tests conducted by the international non-governmental organization, Friends of the Earth (FoE) have confirmed that a

Genetically Modified (GM) strain of rice known as LL601 unapproved for human consumption has been detected in US rice imports to Ghana.

Tests further revealed positive levels of LL601 contamination in Ghana and Sierra Leone, with Ghana



recording the highest levels.

Among the brands found to contain LL601 are Texas Stars Rice, Riz Special Collection,

Chicago Star, American Long Grain Rice, Texas Stars American Long Grain Rice, Hard Milled, White Rice, and First

Choice American Long Grain Rice.

Health experts are very worried over the issue because Ghana is the fifth biggest importer of

USA rice and it is feared that the contamination may have spread across the West African sub-region and beyond.

Ghana's rice imports from the USA stood at 78,900 metric tones in 2001/2002, 117,600 metric tones in 2002/2003, and

Continued on Page 2

The Stock Market Last Week

Brought to you by:



UNIQUE TRUST FINANCIAL SERVICES

Opening CSE Index: 4,974.10
Closing CSE Index: 4,978.26
Change Last Week: (0.25)
Change Year to date: 4.30%

Market Capitalisation as at 24/11/02
\$112,097.89 billion

BoG Treasury Bill Rates

91 Day Bill	10.47
182 Day Bill	10.75
01 Year Note	10.50
2 Year Fixed Note	13.70
3 Year Fixed Rate Bond	16.00

Money & Currency Markets

£ (Pound Sterling)	\$17,800
US\$ (Dollars)	\$9,500
Euro	\$12,000
CFA Franc	\$18,400

2006 Macroeconomic Targets

GDP: 6%
End of year inflation Target: 3.8%

Interest Rates

Inflation Rate/October 2005: 11.5%
BoG Prime Rate: 14.5%

August 18, 2006

***Daily Rice
Futures***

\$9.75

\$9.25

\$8.75

\$8.25

\$7.75

1/3/06

2/12/06

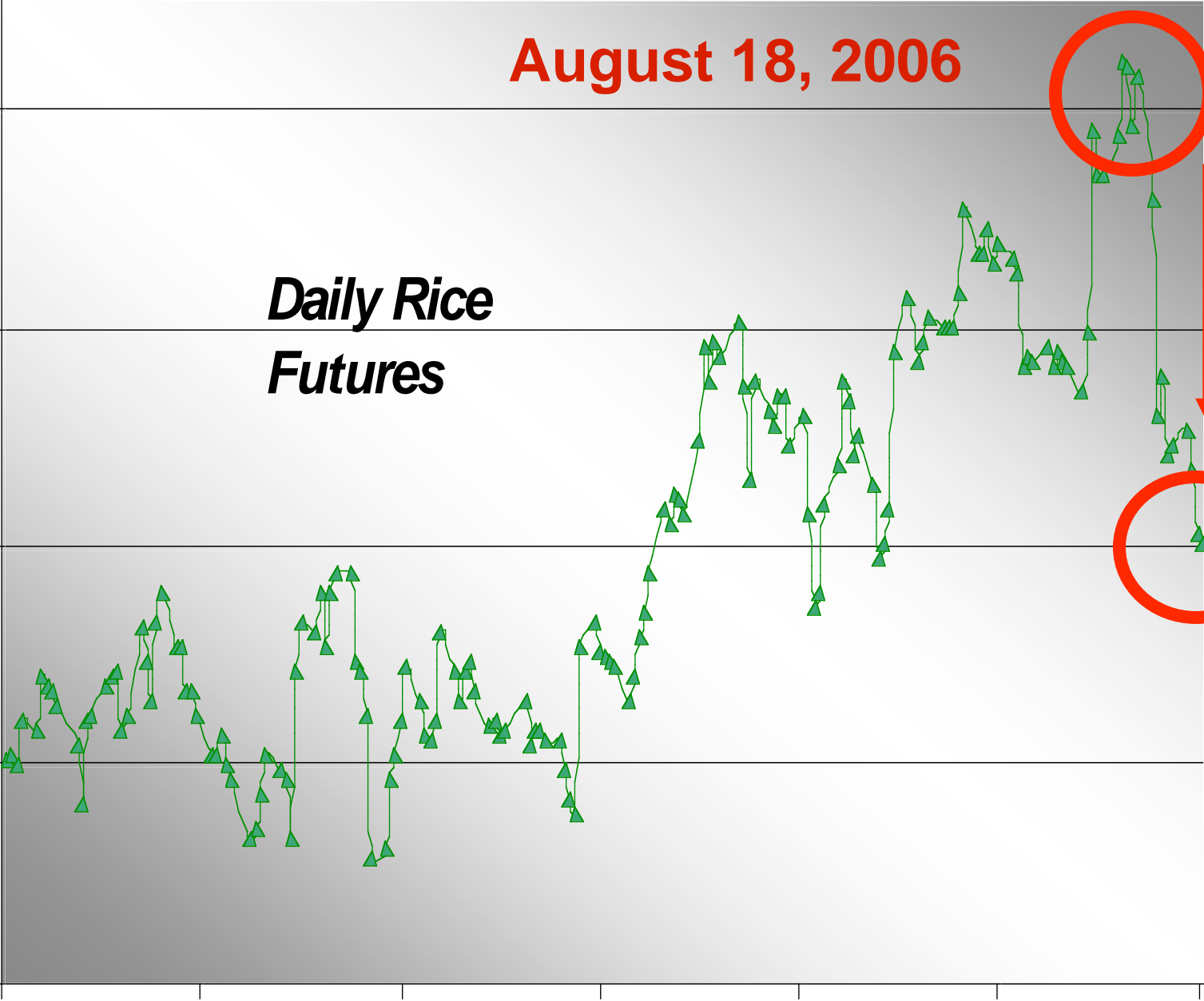
3/24/06

5/3/06

6/12/06

7/22/06

8/31/06



MARKET IMPACT OF GE FINDING

Export



Domestic



LONG GRAIN EXPORTS

A large black and red grain ship is docked at a pier. The ship has a prominent yellow stripe along its side. Several large cranes are visible on the pier, extending over the ship. The sky is clear and blue. The ship is positioned in the foreground, with a body of water and a bridge visible in the background.

55% of U. S. Long grain
production

(Last 4 crop years)

EUROPEAN UNION MARKET

2005/06 Marketing Year
(In metric tons)

	<u>U. S. exports</u>	<u>Long Grain Only</u>
EU Market	326,582	304,600
Overall U. S. Exports	4,109,427	3,314,438
Percent:	7.9%	9.2%

U. S. EXPORTS

(In metric tons)

	<u>Long Grain</u>	<u>Overall</u>
2006/07	1,724,200	2,228,500
2005/06	<u>2,145,800</u>	<u>2,728,900</u>
	<u>(421,600)</u>	<u>(500,400)</u>
Down	20%	18%

LONG GRAIN EXPORTS

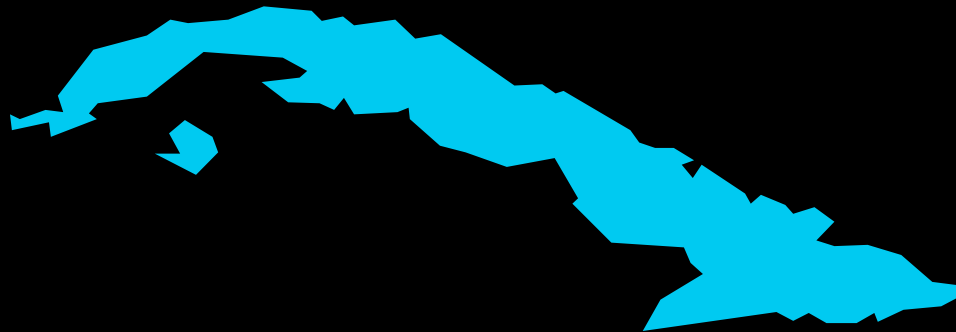
(In metric tons)

	<u>Rough Rice</u>	<u>Milled</u>	<u>Brown</u>
2006/07	978,200	700,000	46,000
2005/06	<u>873,400</u>	<u>1,079,100</u>	<u>193,300</u>
	<u>+104,800</u>	<u>(379,100)</u>	<u>(147,300)</u>
	Up 12%	Dn. 35%	Dn. 76%

CUBA U. S. EXPORTS

2005/06 186,100 Metric tons

2006/07 -0- Metric tons



Russia

Ban on all U.S. exports



Putin

PHILIPPINES

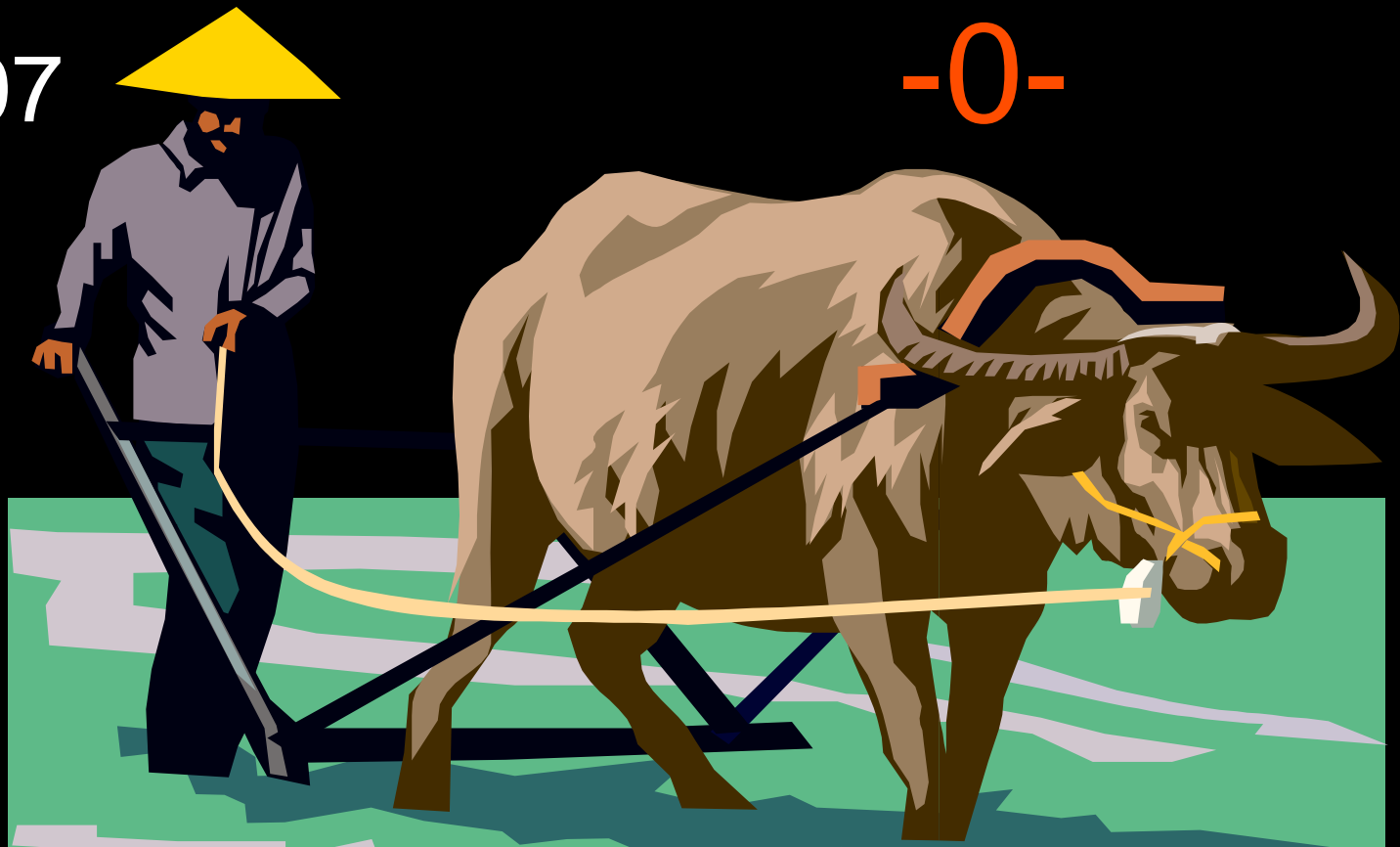
U. S. EXPORTS

2005/06

65,200 metric tons

2006/07

-0-



Philippines

Cancelled three PL 480 tenders

Require .1% PCR testing



DOMINICAN REPUBLIC

U. S. exports

2005/06

47,400 Metric tons

2006/07

200 Metric Tons





**MAJOR U. S. ROUGH RICE
EXPORT MARKETS
2005/06 U. S. EXPORTS**

Mexico	673,900 Metric tons
Costa Rica	125,700 Metric tons

MEXICAN NEWS STORY

FOX ADMINISTRATION ACCUSED OF ALLOWING IMPORTATION OF TRANSGENIC RICE

The National Federation of Rice Producers (FENAPROZ) denounced the government of Vicente Fox for allowing the illegal import of 100,000 tons of transgenic rice from the United States. The group claims that the Mexican population is currently consuming the rice, with no regard as to whether there is an impact on human health. Pedro Diaz Hart, President of FENAPROZ, has demanded that the National Service of Health and Food Safety and Food Quality (SENASICA) and the Federal Commission for the prevention of Health Risks (COFEPRIS) perform an analysis of the grains that comes into Mexico, principally through the ports of Veracruz and Ciudad Juarez, in order to find out if the rice is genetically modified. (Source: La Jornada, 12/07/06)

Costa Rica

Costa Rican importers have said they do not want anymore Cheniere or CL 131.

Any rice shipped to them will be tested upon arrival.

Other Market Impact

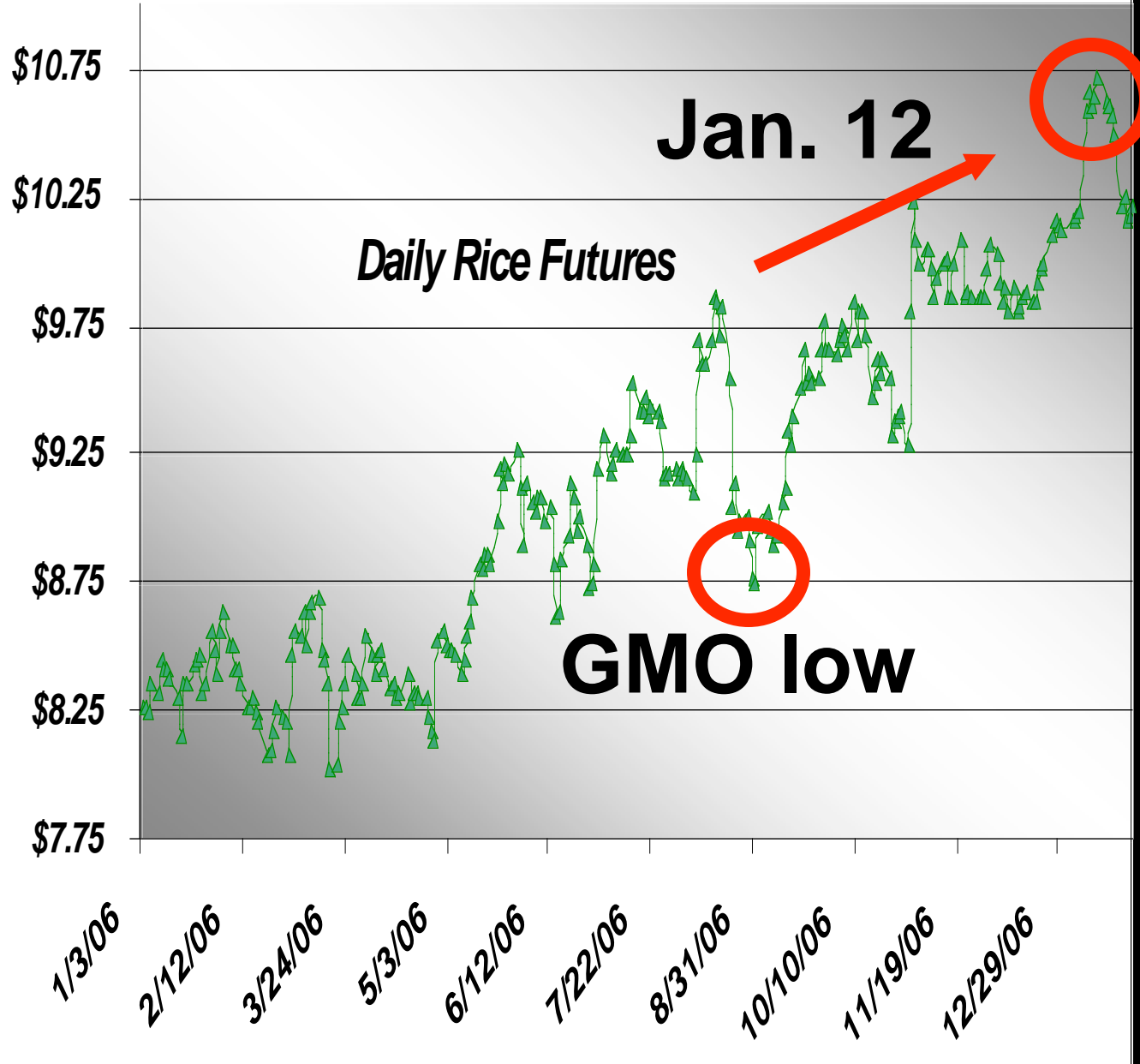
Volume 4, Issue 7

General Market Update

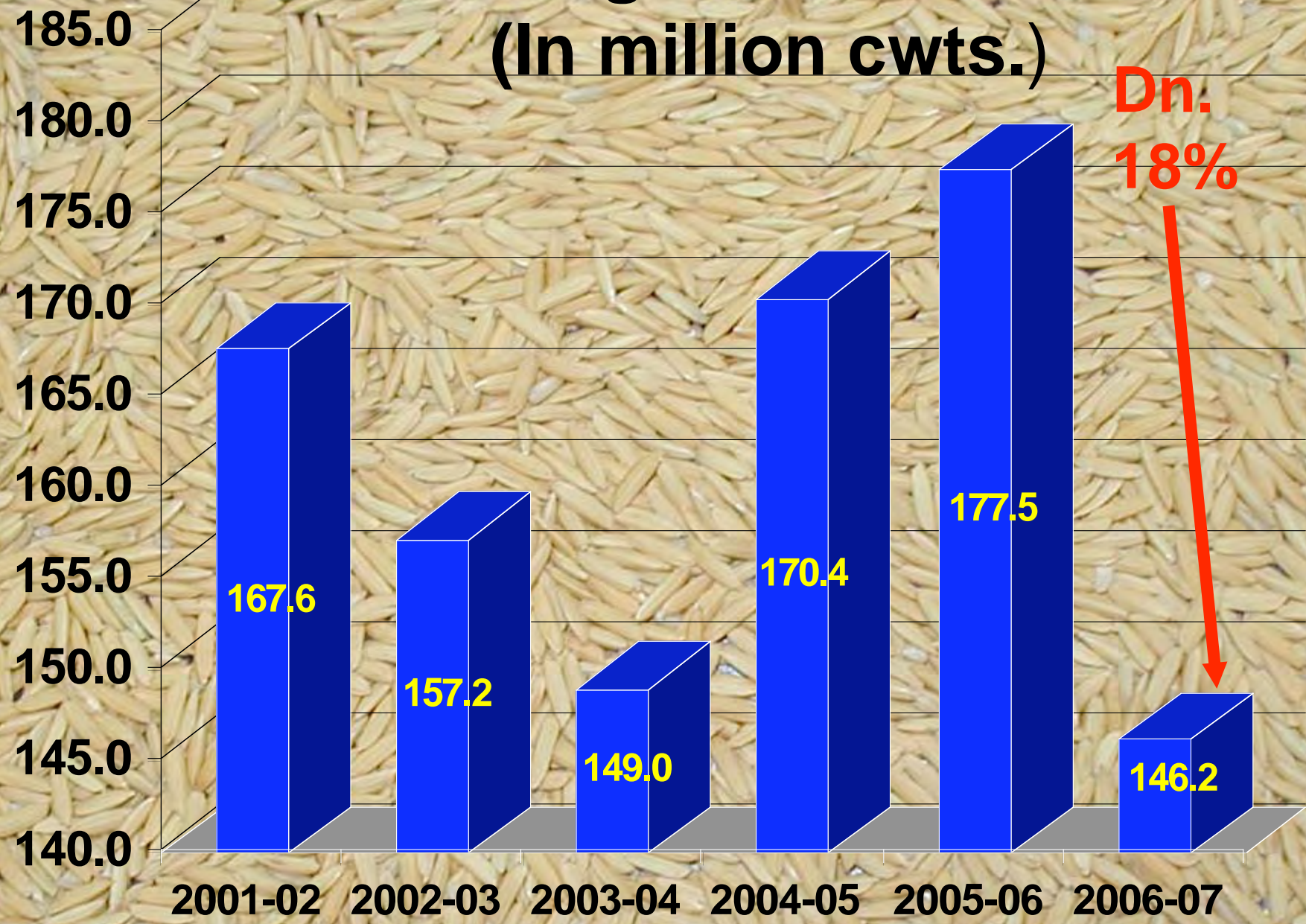
The export numbers posted by USDA this week continued to be good at 78,400 metric tons, most of which was long grain – paddy to Mexico and Central America and milled mostly to Iraq. About twenty percent of the total export tonnage was medium grain rough, brown, and milled for various destinations. Weekly sales were fairly good also at 64,800 metric tons registered. Long grain paddy accounted for just over half of the registrations, and long grain milled covered about a quarter of the tonnage sold. Both export and sales figures were welcome, but we need to see more long grain milled sales, particularly to Iraq, for all sectors of the market to remain healthy. We understand that talks continue with both Iraq for commercial sales and the Philippines for the PL480 business yet to be completed. Hopefully something will surface on one or both of those markets in the near future. Cash markets are very slow with mills showing little interest, and this may well be the case until some additional large export sales are made. About 400,000 cwts of paddy traded this week in Texas at \$4.00 over, with some buying interest still being shown at that level. Milling is quiet in south Louisiana, but buying interest is still being seen \$16.50/\$16.75. Bidding at \$9.65 delivered barge is reported in

the Delta with Cheniere and CL131 being excluded. Little interest, if any, has been shown by sellers. Markets in Arkansas are reported as sluggish, but buying at \$0.60 to \$0.70 under futures could most likely be found. In Asia Thai 100%B is quoted a touch stronger at \$320 fob vessel, and Vietnamese appears to be strengthening slightly even as the harvest continues. Rice futures maintained the narrow trading range at only \$0.13 cents for the week as the market generally seemed to be looking toward USDA's monthly Supply/Demand Report released on Friday. While there were some mildly negative tones to the report, the report looked overall positive and was treated as such by the market. All the grains traded both sides of the market following the report, but at the end of the day rice, corn, beans, and wheat were all in decidedly positive territory for the day. Rough rice futures settled at \$10.18, above both the middle of the week's range and five cents over last Friday's close. Good support has been seen in the low \$10.00's area (basis the March contract) for the past three weeks. Some further cash business, especially on the milled rice, needs to be seen, but we continue to believe that higher futures price levels will be seen.

CHICAGO RICE FUTURES



U. S. Long Grain Production (In million cwts.)



**SECOND REASON FOR
BETTER RICE PRICES:**

HIGH GRAIN PRICES



CHICAGO FUTURES PRICES (Per Bushel)

	<u>Dec.</u> <u>wheat</u>	<u>Dec.</u> <u>corn</u>	<u>Jan.</u> <u>beans</u>
Aug.18'06	\$3.82	\$2.33	\$5.72
@Expiration	<u>\$4.77</u>	<u>\$3.5875</u>	<u>\$7.06</u>
Gain	<u>\$.95</u>	<u>\$1.2575</u>	<u>\$1.34</u>
	+25%	+54%	+23%

CBOT PRICES (Per cwt.)

January
Rice

August 18, 2006

\$10.30

Contract Expiration

\$10.10

Down

(.20)
2%

LL Seed Contamination Issues (LL601 and LL62)

LL Contamination Issue

Still know very few facts on how the contamination occurred (Still waiting on the final APHIS report)

Known:

**2003 foundation seed of Cheniere (LSU)
tested positive for LL601**

**One sample of 2003 foundation seed of
Cheniere (LSU) tested positive for LL62**

**Certified seed stocks of CL 131 has tested
positive for LL traits**

LL Contamination Issue

Cheniere:

Believed to be mixed with LL601/LL 62 variety

None of the foundation seed in 2005 tested +

CL 131:

Early indications of LL 62 contamination

Very possible this is an outcrossing issue

Cheniere

Will be eliminated from production

Will not be accepted by any of the rice mills in 2007

Provisions for seed increase in 2007

Must sell 2006 Cheniere by July 31, 2007

No Cheniere will be accepted after this date

CL 131

≥50% of CL 131 Certified Seed has tested positive for LL traits

Not sure what the fate of this variety will be

Gaining negative perception day by day

Producers Rice Mill will only accept CL 131 if tested negative for LL traits

Even though no LL traits were detected in the seed, does not mean it will test negative at the point of sell

If this variety is available in 2007, rice producers still need to consider if growing this variety will impact whether or not they can sell it, or if they could possibly be discounted

Mississippi Crop Improvement Association

VARIETY	BUSHEL OF SEED TESTED	BUSHEL TESTING POSITIVE	BUSHEL TESTING NEGATIVE	APPROX. ACRES OF SEED AVAIL.
COCODRIE	460,000	0	460,000	207,000
CL 131	?	50%	50%	?
CL 161	12-33,000	0	12-33,000	5,500- 15,000
HIDALGO	12,000	0	12,000	5,500
SABINE	33,000	0	33,000	15,000
WELLS	14,000	0	14,000	6,000
TOTAL BUSHEL AVAILABLE			531,000 – 552,000	
APPROXIMATE AMOUNT OF ACRES IN RICE				239,000 –249,000

02/13/07

Arkansas State Plant Board Results

VARIETY	LOTS SUBMITTED BY ASPB INSPECTORS	LOTS TESTED BY LABS	LOTS WITH NO DETECTION	LOTS WITH DETECTION
BANKS	2	1	1	0
BENGAL	44	40	40	0
CHENIERE	2	2	2	0
CL 131	85	47	22	25
CL 161	43	25	25	0
CL 171	4	3	3	0
COCODRIE	23	18	18	0
CYBONNET	21	18	18	0
CYPRESS	4	2	2	0
FRANCIS	70	52	52	0
JUPITER	5	4	4	0
RU0401182	1	1	1	0
SPRING	9	3	3	0
TRENASSE	6	5	5	0
WELLS	168	136	136	0
TOTAL	487	357	332	25

02/02/07

Farmer must provide:

- 1. Lab certificate showing seed lot planted tested negative on the detection of LL rice traits.**
- 2. Sales invoice from dealer showing seed lot number & quantity of negative seed purchased.**
- 3. FSA form showing certified rice acres.**

What do you need to do to eliminate the GMO?

Rid your farm of any Cheniere seed that was left over from 2006

Thoroughly clean all grain drills and equipment

Thoroughly clean all combines from top to bottom

Thoroughly clean all of your on farm bin storage areas

Rotate 2006 Cheniere fields to crop other than rice or CL 161 rice

Maintain good records of seed used, acres produced