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## **Acknowledgments**

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We appreciate all the time and effort put forth by the cooperators and County Agents who worked diligently with us week after week in order to make this project a success.

Finally, we would like to express our gratitude to the following AgCenter scientists for assisting us with their expertise: Don Groth (Plant Pathology), who assisted with the recommendations on disease control; Eric Webster (Weed Control), whose advice on weed control proved extremely useful and Steve Linscombe (Rice Breeding), whose lab provided the milling data and Mike Stout who advised us on insect control.

# LOUISIANA RICE RESEARCH VERIFICATION PROGRAM 2006

J. K. Saichuk and J.P. Hebert

## Introduction

The Louisiana Rice Research Verification Program (LRRVP) began in 1997 in three parishes: Allen, Calcasieu and Jeff Davis. In 1998 the program was funded and expanded to ten parishes: Acadia, Avoyelles, Calcasieu, East Carroll, Evangeline, Jeff Davis, Madison, Morehouse, St. Landry and Vermilion. From 1999 to 2005, 73 fields were included in the verification program. In 2006, the program was expanded to 8 fields (Figure 1).

The fields were visited on at least a weekly basis by a Specialist, County Agent or the Extension Associate. Production practice recommendations were made by the Specialist or Agent. These recommendations included, but were not limited to: fertilization, weed control, disease control, insect control and water management to a limited degree. The fields were followed from planting to harvest.

Yield data were collected for each of the fields (Table 1). Yields of the first crop averaged 6857 lbs/acre (152.3 bu/acre or 42.3 bbl/acre) at 12 % moisture.

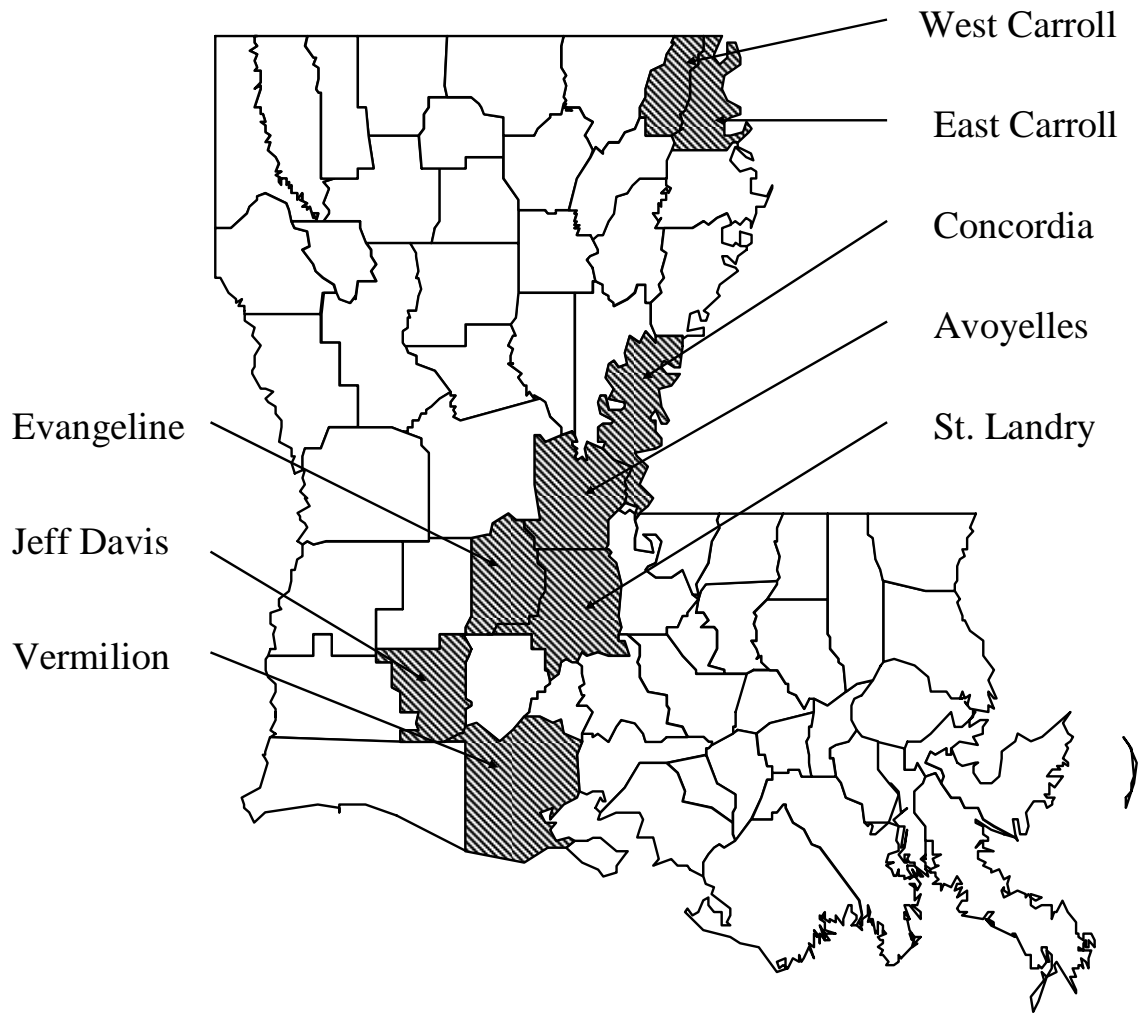
Economic data continue to reveal large production cost differences between growers. It is also clear that more needs to be done to help farmers reduce production costs (Table 2).

The program continues to provide an accurate evaluation of current recommendations and provide insight into other areas of research. The educational value of the program to all concerned (farmers, researchers and extension personnel) increases each year.

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<sup>1</sup> This project is supported in part by funding provided by rice producers through their check-off contributions to the Louisiana Rice Research Board.

Figure 1. 2006 Louisiana Rice Research Verification Program Parishes



**Table 1. 2006 Louisiana Rice Research Verification Program Yield Summary**

Parish	Acres in Verification Program	Verification Yield per Acre @ 12% Moisture		Verification Program			Average Parish Yield <sup>1</sup>	Parish Acreage	Total Parish Production
		1st Crop Alone	Second Crop	Total Yield per acre	1st Crop Production	Total Production			
Avoyelles	41.8	6966	0	6966	291,178.8	291,178.8	6804	12,728	86,601,312
Concordia	54.7	8237	0	8237	450,563.9	450,563.9	6500	7,943	51,629,500
East Carroll	60.4	6751	0	6751	407,760.4	407,760.4	6800	11,907	80,967,600
Evangeline	29.4	5227	0	5227	153,673.8	153,673.8	5994	34,139	204,629,166
Jeff Davis	21.5	6000	0	6000	129,000.0	129,123.0	5350	60,825	325,413,750
St. Landry	40.9	5962	0	5962	238,201.6	238,201.6	5350	21,214	113,494,900
West Carroll	50.1	8603	0	8603	431,010.3	431,010.3	7650	2,950	22,567,500
Vermilion	29.6	7108	0	7108	210,396.8	210,396.8	4779	33,543	160,301,997
<b>TOTAL</b>	<b>328.4</b>				<b>2,311,785.6</b>	<b>2,311,785.6</b>		<b>185,249</b>	<b>1,045,605,725</b>
<b>Average yield (lbs./Acre)</b>					<b>7040</b>	<b>7040</b>	<b>5644</b>		

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**Table 2. 2006 Louisiana Rice Research Verification Program Yield, Milling and Economic Summary**

Parish	Variety	Yield @				Return on
		12%	Milling	Variable	Cost of	Variable
		Moisture	(% Whole / % Total)	Costs	Production	Costs
		(cwt/acre) <sup>1</sup>		(\$/acre) <sup>2</sup>	(\$/cwt) <sup>2</sup>	(\$/acre) <sup>2,3</sup>
Avoyelles	Cheniere	6972	55.9 / 72.0	299.64	4.30	327.84
Concordia	Cheniere	8237	60.4 / 71.9	346.72	4.97	394.61
East Carroll	CL 131	6751	61.5 / 67.0	337.95	5.01	269.64
Evangeline	Cheniere	5227	50.2 / 69.6	265.05	1.49	205.38
Jeff Davis	CL 131	6000	62.8 / 69.2	432.22	7.20	107.78
St. Landry	CL 161	5962	57.4 / 69.6	302.28	2.07	234.30
Vermilion	Jupiter	7108	57.9 / 71.1	352.74	4.96	286.26
West Carroll	CL 131	8603	51.7 / 69.0	343.69	4.00	430.58
1 - Figure includes ratoon crop yield of cwt/acre in Jeff Davis and Vermilion						
2 - Costs captured are from land preparation to getting the crop to the truck. They do not include land rent, transporting, drying, storing or fixed costs.						
3 - This value was obtained using a selling price of \$9.00/cwt.						

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## Avoyelles

The field chosen to be in the verification program in Avoyelles parish had been laser leveled the summer and fall before which presented several special problems. First, the soil at the location has a high pH a problem only exacerbated by leveling. Second, we have experienced nutrient availability problems in this area for the past several years. Third, the field was not leveled properly with the result that one corner of the field was significantly lower than the rest of the field while the opposite corner was higher than the rest of the field.

As soon as the field was drilled it was flushed to provide the needed moisture. Recent laser leveling prevented the use of Command which had been the herbicide of choice especially in drill seeded rice. This forced us to experiment with a mixture of Prowl and propanil with which we were quite pleased. This mixture was applied when rice was in the one leaf stage. This was followed by an application of diammonium phosphate and the field was flushed again.

Even though this soil will test high in phosphorus, phosphorus deficiency has been observed in this field and others nearby we felt it would be better to anticipate a possible problem than to wait until one is visible. Crop response justified the choice. The uneven field prevented permanent flood establishment as soon as we would have liked. Poor seedling growth forced an application of zinc.

Standing water in some parts of the field and heavy rice water weevil populations required an insecticide application prior to permanent flood. Once permanent flood was established a mixture of Londax, Permit and Karate was applied to control broadleaf weeds and rice water weevils.

At mid-season instead of using urea we used a blend of ammonium sulfate and urea to supply some sulfur. Most of the field responded well, however some areas still exhibited a form of chlorosis similar to bronzing. Test applications of phosphorus did not provide a response

Fungicide was applied to control sheath blight and the anticipated kernel smut and false smut. Insecticide was applied to control rice stink bugs later.

The harvest yield of 6972 lbs/acre at 12% moisture (43.0 bbls/A, 155 bu/A) was one of the best we have ever harvested in this area. A more level field would have yielded even better.

AVOYELLES PARISH

**Cooperator:** Matthew Zaunbrecher

**Agent:** Carlos Smith

**Field Size:** 41.8 Acres

**CULTURAL PRACTICES**

**Variety:** Cheniere

**Method of Planting:** Drill

**Water Management:** Delayed Flood

**Seeding Rate:** 130 lbs/Acre

**Date of Planting:** April 2

**Date of Emergence:** April 14

**GROWTH AND DEVELOPMENT**

Stage	Observation Date	DD50 Date
Green Ring	6-6	5-19
PD	6-24	6-2
50 % Heading	7-18	6-28
Drain for Harvest	8-1	
Harvest	8-21	7-28

**YIELD, MILLING AND ECONOMIC DATA**

	Yield @ 12 % Moisture (cwt./acre)	Milling Yield (% whole / % total)	Variable Costs (\$/acre) <sup>1</sup>	Cost of Production (\$/cwt.) <sup>1</sup>	Return on Variable Costs (\$/acre) <sup>1,2</sup>
1 <sup>st</sup> Crop	69.72	55.9/72	299.64	4.30	327.84
2 <sup>nd</sup> Crop	--	--	--	--	--

Average Parish Yield (1<sup>st</sup> and 2<sup>nd</sup> Crop): cwt./acre

<sup>1</sup> Costs captured are from land preparation to getting the crop to the truck. They do not include land rent, transportation, drying, storage or fixed costs.

<sup>2</sup> This value was obtained using a selling price of \$9.00/cwt.

## FERTILIZATION

<b>Date</b>	<b>Source</b>	<b>Rate (lbs/A)</b>	<b>N (lbs/A)</b>	<b>P (lbs/A)</b>	<b>K (lbs/A)</b>
4-21	18-46-0	100	18	0	0
5-27	46-0-0	200	92	0	0
6-14	33-0-0- 12S	190	63	0	0
Total	--	--	173	0	0

## WEED MANAGEMENT

<b>Weeds Present</b>	<b>Date of Treatment Decision</b>	<b>Recommendation</b>
--	4-24	2 pts Prowl + 3 qts Propanil
Sedge, Texas Weed, Sesbania	6-3	Londax .8 oz + Permit .25 oz/ acre

## DISEASE MANAGEMENT

<b>Diseases Present</b>	<b>Date of Treatment Decision</b>	<b>Recommendation</b>
Sheath Blight/Hist. of Smut	7-11	Stratego 14 oz/acre

## INSECT MANAGEMENT

<b>Insects Present</b>	<b>Date of Treatment Decision</b>	<b>Recommendation</b>
Rice Water Weevil	5-10	Karate Z 2.13 oz/acre
Rice Stink Bug	7-11	Methyl 12.79 oz/acre
Rice Stink Bug	7-18	Mustang Max 2.98 oz/acre
Rice Stink Bug	7-27	Methyl 1 pt/acre

## Concordia

The field in Concordia parish was graded to produce a flat, slightly sloping surface in each paddy and straight levees between paddies. Side inlet irrigation was set up by the farmer which permitted quicker, more uniform flooding than flooding by the traditional method of pumping into the upper paddies and allowing water to flow to the lower ones. This method definitely helped in timing all managerial decisions related to flooding.

After drilling Cheniere rice at 85 pounds per acre, Command herbicide was applied and the field was flushed. Another flush and two rainfall events of over 2 inches each kept the field moist over the next few weeks. Between two of these events ammonium sulfate was applied. When rice began to emerge two drill passes the length of the field showed very poor to no emergence ultimately determined to be a consequence of planter operation.

Duet plus Permit then 220 pounds of urea were applied just ahead of permanent flood establishment. At mid-season another 130 pounds of urea was applied.

To control sheath blight and suppress both false and kernel smut a fungicide containing a strobilurin and propiconazole was applied.

Although stinkbugs did not quite reach our published threshold values they remained at the sub-threshold level long enough to cause concern. In addition, all of the surrounding fields were treated so we recommended treating this one too as a means of preventing reinfesting other fields while reducing injury. Based on the milling yield of this field it was a good decision.

We harvested our second highest yield (single crop only) from this field. It was 8237 pounds per acre at 12% moisture (50.8 bbls/A, 183 bu/A).

CONCORDIA PARISH

**Cooperator:** Noble Guedon  
**Agent:** Glen Daniels  
**Field Size:** 54.7 Acres

**CULTURAL PRACTICES**

**Variety:** Cheniere  
**Method of Planting:** Drill  
**Water Management:** Delayed Flood  
**Seeding Rate:** 85 lbs/Acre  
**Date of Planting:** April 6  
**Date of Emergence:** April 18

**GROWTH AND DEVELOPMENT**

Stage	Observation Date	DD50 Date
Green Ring	6-6	5-28
PD	6-20	6-11
50 % Heading	7-16	7-8
Drain for Harvest	8-13	
Harvest	9-2	8-6

**YIELD, MILLING AND ECONOMIC DATA**

	Yield @ 12 % Moisture (cwt./acre)	Milling Yield (% whole / % total)	Variable Costs (\$/acre) <sup>1</sup>	Cost of Production (\$/cwt.) <sup>1</sup>	Return on Variable Costs (\$/acre) <sup>1,2</sup>
<b>1<sup>st</sup> Crop</b>	82.37	60.4/71.9	346.72	4.97	394.61
<b>2<sup>nd</sup> Crop</b>	--	--	--	--	--

Average Parish Yield (1<sup>st</sup> and 2<sup>nd</sup> Crop): cwt./acre

<sup>1</sup> Costs captured are from land preparation to getting the crop to the truck. They do not include land rent, transportation, drying, storage or fixed costs.

<sup>2</sup> This value was obtained using a selling price of \$9.00/cwt.

## FERTILIZATION

<b>Date</b>	<b>Source</b>	<b>Rate (lbs/A)</b>	<b>N (lbs/A)</b>	<b>P (lbs/A)</b>	<b>K (lbs/A)</b>
5-4	21-0-0-24S	75	16	0	0
5-18	46-0-0	220	101	0	0
6-8	46-0-0	130	60	0	0
Total	--	--	177	0	0

## WEED MANAGEMENT

<b>Weeds Present</b>	<b>Date of Treatment Decision</b>	<b>Recommendation</b>
--	4-14	Command 1gal/6 acres
Sprangle Top, Dayflower, Sesbania, Texas Weed	5-18	Duet 5lbs +.25 Permit
Sprangle Top	6-23	Clincher 13 oz/ac

## DISEASE MANAGEMENT

<b>Diseases Present</b>	<b>Date of Treatment Decision</b>	<b>Recommendation</b>
Sheath Blight/ Hist. of Smut	7-8	Quilt 14 oz + Quadris 5 oz

## INSECT MANAGEMENT

<b>Insects Present</b>	<b>Date of Treatment Decision</b>	<b>Recommendation</b>
Rice Water Weevil	5-10	Karate Z 1.93 oz/acre
Rice Water Weevil	5-25	Karate Z 1.9 oz/acre
Rice Stink Bug	7-21	Karate Z 1.93 oz/acre

## East Carroll

The verification field in East Carroll was our last field to be planted and one of the last for the farmer. It was further delayed by a cold front that moved through the area just after planting. Blackbirds thinned the stand out enough in one area of the field to warrant replanting a portion. It was difficult to keep the soil moist enough to maintain growth of the young seedlings and allow it to dry enough to operate the machinery required to drill the affected areas. Had the field not been planted to CL 131 the prolonged period without a flood would have resulted in either a major weed problem or high herbicide costs or both.

Between the first and second applications of Newpath 100 pounds per acre of diammonium phosphate was applied. This field like the one in Avoyelles is on soil that will test high in phosphorus, but the high pH may be affecting its availability. Without a true comparison it is difficult to say, however there was a positive response which could be to either phosphorus or nitrogen.

Despite the size of the replanted rice versus the rest of the field, the second application of Newpath was made along with Londax and Permit, followed by 220 pounds of urea per acre and the field was flooded. Karate was included in the mix to control rice water weevils. At mid-season 150 pounds of urea per acre was applied.

Fungicide containing a strobilurin and propiconazole was applied to control sheath blight suppress stem rot, kernel smut and false smut.

Yield was somewhat disappointing probably as a consequence of the areas that had to be replanted because of blackbird damage and an area down the center of the field where the stand was thinned because water was too deep. The yield monitor of the combine hung around the 170 to 175 bushel range most of the time. Yield was 6751 pounds per acre at 12% moisture (41.7 bbls/A, 150 bu/A).

EAST CARROLL PARISH

**Cooperator:** Ken Fairchild

**Agent:** Donna Lee

**Field Size:** 60.4 acres

**CULTURAL PRACTICES**

**Variety:** CL 131

**Method of Planting:** Drill

**Water Management:** Delayed Flood

**Seeding Rate:** 80 lbs/Acre

**Date of Planting:** April 15

**Date of Emergence:** April 26

**GROWTH AND DEVELOPMENT**

Stage	Observation Date	DD50 Date
Green Ring	6-21	5-31
PD	7-6	6-10
50 % Heading	7-24	7-10
Drain for Harvest	8-13	
Harvest	9-8	8-8

**YIELD, MILLING AND ECONOMIC DATA**

	Yield @ 12 % Moisture (cwt./acre)	Milling Yield (% whole / % total)	Variable Costs (\$/acre) <sup>1</sup>	Cost of Production (\$/cwt.) <sup>1</sup>	Return on Variable Costs (\$/acre) <sup>1,2</sup>
<b>1<sup>st</sup> Crop</b>	72.10	61.5/67	337.95	5.01	269.64
<b>2<sup>nd</sup> Crop</b>	--	--	--	--	--

Average Parish Yield (1<sup>st</sup> and 2<sup>nd</sup> Crop): cwt./acre

<sup>1</sup> Costs captured are from land preparation to getting the crop to the truck. They do not include land rent, transportation, drying, storage or fixed costs.

<sup>2</sup> This value was obtained using a selling price of \$9.00/cwt.

## FERTILIZATION

<b>Date</b>	<b>Source</b>	<b>Rate (lbs/A)</b>	<b>N (lbs/A)</b>	<b>P (lbs/A)</b>	<b>K (lbs/A)</b>
5-4	18-46-0	100	18	46	0
6-7	46-0-0	220	101	0	0
6-24	46-0-0	150	69	0	0
Total	--	--	188	46	0

## WEED MANAGEMENT

<b>Weeds Present</b>	<b>Date of Treatment Decision</b>	<b>Recommendation</b>
--	--	--
Sedge, Red Rice	5-2	New Path 4 oz/ acre
Sedge, Red Rice, Duck Salad, Sesbania	6-6	.5 oz Londax + . 5 oz Permit + 6 oz New Path

## DISEASE MANAGEMENT

<b>Diseases Present</b>	<b>Date of Treatment Decision</b>	<b>Recommendation</b>
Sheath Blight/ Stem Rot	7-21	Quilt 14 oz + Quadris 5 oz

## INSECT MANAGEMENT

<b>Insects Present</b>	<b>Date of Treatment Decision</b>	<b>Recommendation</b>
Rice Water Weevil	6-7	Karate Z 2 oz/acre

## **Evangeline**

This field was bordered on three sides by active crawfish ponds at the time of planting. The impact of this situation was significant. Cheniere was water seeded at 110 pounds per acre and the field drained with intentions of pinpoint flooding.

When rice seedlings were in the 1 leaf stage Londax was applied at 1 1/3 ounces per acre without the recommendation of the verification team. A permanent flood could not be maintained at this time. Because rice water weevil adults were present and the field was partially drained it provided a window of opportunity to apply urea impregnated with Mustang Max.

A couple of weeks later some areas of the field were exposed causing concern about possible nitrogen loss. Rice water weevil adults were found in high numbers again. Due to a breakdown in communication no insecticide was applied. When three crown nodes were visible the field was drained and allowed to dry severely. One hundred and fifty pounds of urea per acre was applied and the field flooded.

Following establishment of permanent flood again we sampled for rice water weevil larvae. We found an average of 11 rice water weevil larvae per core. Roots were acceptable considering the heavy weevil pressure.

By the time rice reached panicle differentiation some areas of the field were showing nitrogen deficiency. Taking into account the cost of nitrogen, the price of rice at the time and the yield potential we chose not to add more nitrogen. This may have compromised yield.

No sheath blight was detected while scouting so no fungicide was recommended. The field looked fine until very near maturity when the onset of Narrow Brown Leaf Spot in the form of net blotch on the flag leaf sheath struck the field affecting it severely.

At harvest grain moisture averaged 13.7%, an indicator of the effect of *Cercospora* on the crop. We harvested 5227 pounds per acre at 12% moisture (32.3 bbls/A, 116 bu/A), the lowest yield in the verification program this year.

## EVANGELINE PARISH

**Cooperator:** Richard Fontenot

**Agent:** Keith Fontenot

**Field Size:** 29.4 acres

### CULTURAL PRACTICES

**Variety:** Cheniere

**Method of Planting:** Water Seeded

**Water Management:** Pinpoint Flood

**Seeding Rate:** 110 lbs/Acre

**Date of Planting:** April 8

**Date of Emergence:** April 17

### GROWTH AND DEVELOPMENT

Stage	Observation Date	DD50 Date
Green Ring	5-28	5-26
PD	6-2	6-2
50 % Heading	6-29	7-1
Drain for Harvest	7-19	
Harvest	8-9	8-1

### YIELD, MILLING AND ECONOMIC DATA

	Yield @ 12 % Moisture (cwt./acre)	Milling Yield (% whole / % total)	Variable Costs (\$/acre) <sup>1</sup>	Cost of Production (\$/cwt.) <sup>1</sup>	Return on Variable Costs (\$/acre) <sup>1,2</sup>
1 <sup>st</sup> Crop	52.27	50.2/69.6	265.05	1.49	205.38
2 <sup>nd</sup> Crop	--	--	--	--	--

Average Parish Yield (1<sup>st</sup> and 2<sup>nd</sup> Crop): cwt./acre

<sup>1</sup> Costs captured are from land preparation to getting the crop to the truck. They do not include land rent, transportation, drying, storage or fixed costs.

<sup>2</sup> This value was obtained using a selling price of \$9.00/cwt.

## FERTILIZATION

<i><b>Date</b></i>	<i><b>Source</b></i>	<i><b>Rate (lbs/A)</b></i>	<i><b>N (lbs/A)</b></i>	<i><b>P (lbs/A)</b></i>	<i><b>K (lbs/A)</b></i>
3-8	0-18-36	200	0	36	72
4-20	46-0-0	190	87	0	0
5-25	46-0-0	150	69	0	0
Total	--	--	156	36	72

## WEED MANAGEMENT

<i><b>Weeds Present</b></i>	<i><b>Date of Treatment Decision</b></i>	<i><b>Recommendation</b></i>
--	--	--
Sedge, Barnyard, Duck Salad	4-19	Londax 1.33 oz/acre

## DISEASE MANAGEMENT

<i><b>Diseases Present</b></i>	<i><b>Date of Treatment Decision</b></i>	<i><b>Recommendation</b></i>
--	--	--

## INSECT MANAGEMENT

<i><b>Insects Present</b></i>	<i><b>Date of Treatment Decision</b></i>	<i><b>Recommendation</b></i>
Rice Water Weevil	4-20	Mustang Max 4 oz/acre
Rice Water Weevil Larvae	5-18	Drain

## Jeff Davis

The field in Jeff Davis parish had been in the verification program a few years ago, but was included this year because it could be used in another study at the same time. From the beginning there were problems as a result of salty water in the irrigation canals. The storm surge associated with hurricane Rita followed by extremely dry conditions left many fields too salty to be planted and many surface water supplies contaminated. In this case the surge did not reach the field so the soil was acceptable, but it did affect the water supplies which influenced this field.

The field was planted to CL131 via water seeding after having been sprayed with glyphosate to reduce weed pressure. By the time rice had emerged there was already large red rice, various aquatic species, barnyardgrass and sprangletop present. Because of the large red rice 6 ounces of Newpath was recommended. About two weeks later a second application of 6 ounces of Newpath followed by fertilization and flooding.

Inability to establish a deep flood on a timely basis for the above mentioned reasons reduced the efficacy of the herbicides and may have contributed to some nitrogen loss. Beyond herbicide was recommended to pick up the escaped red rice plants.

At green ring an additional application of nitrogen was recommended along with 2,4-D to control jointvetch and other broadleaf weeds not controlled by Newpath. Because some areas of the field continued to show nitrogen deficiency an additional 100 pounds of urea was applied to the worst areas. Looking back, the additional nitrogen should have been applied to the entire field.

Sheath blight pressure remained light except in the area of the field that received the additional nitrogen, but did not warrant the application of a fungicide. Stink bugs did reach treatable levels.

On August 5 we harvested 6000 lbs/A (37.0 bbls/A or 133 bu/A) adjusted to 12% moisture. While acceptable, the last time this field was in the verification program Wells had been planted and the yield had been a little over 7000 lbs/A. The field was fertilized and flooded to produce a second crop.

Second crop was not harvested because yield potential was too low to be economically viable. No second crop yield is reported.

JEFF DAVIS PARISH

**Cooperator:** Kevin Berken

**Agent:** Eddie Eskew

**Field Size:** 21.5 acres

## CULTURAL PRACTICES

**Variety:** CL 131

**Method of Planting:** Water Seeded

**Water Management:** Delayed Flood

**Seeding Rate:** 100 lbs/Acre

**Date of Planting:** April 12

**Date of Emergence:** April 16

## GROWTH AND DEVELOPMENT

Stage	Observation Date	DD50 Date
Green Ring	5-30	5-23
PD	6-8	6-2
50 % Heading	7-1	7-3
Drain for Harvest	7-22	
Harvest	8-5	7-31

## YIELD, MILLING AND ECONOMIC DATA

	Yield @ 12 % Moisture (cwt./acre)	Milling Yield (% whole / % total)	Variable Costs (\$/acre) <sup>1</sup>	Cost of Production (\$/cwt.) <sup>1</sup>	Return on Variable Costs (\$/acre) <sup>1,2</sup>
1 <sup>st</sup> Crop	60.00	62.8/69.2	432.22	7.20	107.78
2 <sup>nd</sup> Crop	--	--	--	--	--

Average Parish Yield (1<sup>st</sup> and 2<sup>nd</sup> Crop): cwt./acre

<sup>1</sup> Costs captured are from land preparation to getting the crop to the truck. They do not include land rent, transportation, drying, storage or fixed costs.

<sup>2</sup> This value was obtained using a selling price of \$9.00/cwt.

## FERTILIZATION

<b>Date</b>	<b>Source</b>	<b>Rate (lbs/A)</b>	<b>N (lbs/A)</b>	<b>P (lbs/A)</b>	<b>K (lbs/A)</b>
3-1	0-20-30	187	0	38	56
5-2	46-0-0	175	80	0	0
5-2	0-20-30	200	0	40	60
5-24	46-0-0	140	64	0	0
Total	--	--	144	78	116

## WEED MANAGEMENT

<b>Weeds Present</b>	<b>Date of Treatment Decision</b>	<b>Recommendation</b>
Red Rice, Sagittaria, Echinodorus, Swamp Dayflower, Sedge, Sprangle Top, Alligatorweed	4-21	New Path 6 oz/ acre
Barnyard, Sprangle Top, Red Rice	5-4	New Path 6 oz/acre
Red Rice	5-18	Beyond 5 oz/acre
Sesbania, Jointvetch	6-2	2,4-D 2 pts/acre

## DISEASE MANAGEMENT

<b>Diseases Present</b>	<b>Date of Treatment Decision</b>	<b>Recommendation</b>
Sheath Blight	--	--

## INSECT MANAGEMENT

<b>Insects Present</b>	<b>Date of Treatment Decision</b>	<b>Recommendation</b>
Rice Water Weevil	5-10	Karate 2 oz/acre
Rice Stink Bug	7-6	Karate 2 oz/acre

## **St. Landry**

This field was actually in Acadia parish because the road on which it is located is also the parish line. The farmer also had other fields in St. Landry parish and the St. Landry parish county agent was involved from the beginning so it was referenced as the “St. Landry” field.

The fertilizer program on this field was compromised when the opportunity to apply phosphorus and potassium to dry ground with a ground rig never materialized. The farmer then flooded the weed infested poorly prepared field and flew on seed of CL161. A blend of 10-20-30 was eventually applied at the rate of 200 pounds per acre.

Newpath herbicide applications were similarly hampered by being delayed. The first application was at least one week later than it should have been. Two weeks later the second application of Newpath to which ¼ ounce of Permit had been added was applied. The plan was to then apply 160 pounds per acre of urea and flood. Before the fertilizer could be applied 6.38” of rain flooded the field. Again fertilizer was compromised because it was applied into water.

Heavy rice water weevil pressure necessitated an application of insecticide.

At mid-season 2,4-D was recommended to control escaped alligatorweed. This herbicide was never applied. According to the farmer, the flying service did not want to fly anything because of nearby houses. One hundred and forty pounds of urea was applied as a top dressing. When the crop did not respond to the top dressing another one hundred pounds of ammonium sulfate was applied.

Disease pressure remained light eliminating the need to apply a fungicide. Likewise, stink bugs did not require treatment.

The somewhat disappointing yield of 5824 pounds per acre (36 bbls/A, 129 bu/A) at 12% moisture was most influenced by fertilizer inefficiency and an uneven population consequent to poor seedbed preparation. No second crop was planned.

ST. LANDRY PARISH

**Cooperator:** Kyle Smith

**Agent:** Keith Normand

**Field Size:** 40.9 acres

**CULTURAL PRACTICES**

**Variety:** CL 161

**Method of Planting:** Water Seeded

**Water Management:** Delayed Flood

**Seeding Rate:** 90 lbs/Acre

**Date of Planting:** March 27

**Date of Emergence:** April 3

**GROWTH AND DEVELOPMENT**

Stage	Observation Date	DD50 Date
Green Ring	5-21	5-17
PD	6-2	5-24
50 % Heading	6-27	6-25
Drain for Harvest	7-15	
Harvest	8-8	7-23

**YIELD, MILLING AND ECONOMIC DATA**

	Yield @ 12 % Moisture (cwt./acre)	Milling Yield (% whole / % total)	Variable Costs (\$/acre) <sup>1</sup>	Cost of Production (\$/cwt.) <sup>1</sup>	Return on Variable Costs (\$/acre) <sup>1,2</sup>
<b>1<sup>st</sup> Crop</b>	59.62	57.4/69.6	302.28	2.07	234.30
<b>2<sup>nd</sup> Crop</b>	--	--	--	--	--

Average Parish Yield (1<sup>st</sup> and 2<sup>nd</sup> Crop): cwt./acre

<sup>1</sup> Costs captured are from land preparation to getting the crop to the truck. They do not include land rent, transportation, drying, storage or fixed costs.

<sup>2</sup> This value was obtained using a selling price of \$9.00/cwt.

## FERTILIZATION

<b>Date</b>	<b>Source</b>	<b>Rate (lbs/A)</b>	<b>N (lbs/A)</b>	<b>P (lbs/A)</b>	<b>K (lbs/A)</b>
4-12	10-20-30	200	20	40	60
4-20	46-0-0	160	74	0	0
5-18	46-0-0	140	64	0	0
6-4	21-0-0	100	21	0	0
Total	--	--	179	40	60

## WEED MANAGEMENT

<b>Weeds Present</b>	<b>Date of Treatment Decision</b>	<b>Recommendation</b>
--	--	--
Alligatorweed, Bull Tongue, Sedge	4-10	New Path 4 oz/acre
Alligatorweed, Sedge, Saggitaria, Knotgrass, Barnyard, Signalgrass	4-24	New Path 4 oz + Londax 1.25 oz + Permit .25 oz/acre

## DISEASE MANAGEMENT

<b>Diseases Present</b>	<b>Date of Treatment Decision</b>	<b>Recommendation</b>
Sheath Blight	--	--

## INSECT MANAGEMENT

<b>Insects Present</b>	<b>Date of Treatment Decision</b>	<b>Recommendation</b>
Rice Water Weevil	5-4	Karate 2 oz/acre

## Vermilion

Jupiter was planted in the verification field in Vermilion parish. This is the first time a medium grain variety has been used in the verification program. According to the producer this field had presented problems in the past because part of the field had an oil field location in it and because it had been laser leveled fairly hard. The grower had applied chicken litter to most of the field prior to the verification team becoming involved.

Seeding was on March 30 followed by emergence on April 5 at which time 160 pounds per acre of urea was applied and the pinpoint flood started.

When the plants reached the 4 leaf stage rice water weevils were detected as were a variety of broadleaf weeds and grasses. A recommendation of Clincher plus either Mustang Max or Karate to be followed in a separate application a mixture of Londax and Permit. Questions were raised about the need for a grass herbicide. Against better judgment Clincher was omitted and the insecticide plus broadleaf herbicides was applied. Later this proved to be a mistake when grass pressure warranted a Clincher application.

Nitrogen deficiency symptoms appeared prior to internode elongation. An application of 140 pounds of urea per acre was made about six days before green ring was observed. Pumping problems caused some areas of the field to dry out resulting in apparent nitrogen loss based on plant appearance. To correct the problem 100 pounds per acre of ammonium sulfate was applied. While it is unusual to recommend a third application of nitrogen in the verification program special circumstances required special recommendations. Later in the season the uneven losses in the field were apparent because lodging occurred where nitrogen rates were sufficient and other plants never quite caught up with the rest of the field.

Sheath blight pressure remained low. No fungicide was recommended. Stink bugs reached treatable levels and were sprayed.

The first crop was harvested on August 4<sup>th</sup>. Had there not been a few acres of lodged rice yield might be better than the 7108 lbs/A (43.9 bbls/A, 158 bu/A) at 12% moisture. The field was immediately fertilized and flooded to produce a second crop.

A test area of the field was harvested and showed yields too low to be economically viable. No second crop yield is reported.

VERMILION PARISH

**Cooperator:** Christian Richard

**Agent:** Howard Cormier

**Field Size:** 29.6 Acres

**CULTURAL PRACTICES**

**Variety:** Jupiter

**Seeding Rate:** 130 lbs/Acre

**Method of Planting:** Drill

**Date of Planting:** March 30

**Water Management:** Water Seeded

**Date of Emergence:** April 5

**GROWTH AND DEVELOPMENT**

Stage	Observation Date	DD50 Date
Green Ring	5-16	5-19
PD	5-30	5-30
50 % Heading	6-18	6-22
Drain for Harvest	7-17	
Harvest	8-4	8-4

**YIELD, MILLING AND ECONOMIC DATA**

	Yield @ 12 % Moisture (cwt./acre)	Milling Yield (% whole / % total)	Variable Costs (\$/acre) <sup>1</sup>	Cost of Production (\$/cwt.) <sup>1</sup>	Return on Variable Costs (\$/acre) <sup>1,2</sup>
<b>1<sup>st</sup> Crop</b>	71.08	57.9/71.1	352.74	4.96	286.98
<b>2<sup>nd</sup> Crop</b>	--	--	--	--	--

Average Parish Yield (1<sup>st</sup> and 2<sup>nd</sup> Crop): cwt./acre

<sup>1</sup> Costs captured are from land preparation to getting the crop to the truck. They do not include land rent, transportation, drying, storage or fixed costs.

<sup>2</sup> This value was obtained using a selling price of \$10.00/cwt. (\$9.00 cwt + \$1.00 premium)

## FERTILIZATION

<b>Date</b>	<b>Source</b>	<b>Rate (lbs/A)</b>	<b>N (lbs/A)</b>	<b>P (lbs/A)</b>	<b>K (lbs/A)</b>
3-15	0-20-34	150	0	30	51
4-7	46-0-0	160	74	0	0
5-11	46-0-0	140	74	0	0
5-31	21-0-0	100	21	0	0
Total	--	--	169	30	51

## WEED MANAGEMENT

<b>Weeds Present</b>	<b>Date of Treatment Decision</b>	<b>Recommendation</b>
--	--	--
Sedge, Duck Salad, Sesbania	4-21	Londax .75 oz + .25 Permit
Barnyard	5-5	15 oz Clincher on 17 acres

## DISEASE MANAGEMENT

<b>Diseases Present</b>	<b>Date of Treatment Decision</b>	<b>Recommendation</b>
--	--	--

## INSECT MANAGEMENT

<b>Insects Present</b>	<b>Date of Treatment Decision</b>	<b>Recommendation</b>
Rice Water Weevil	4-21	Karate 2.13 oz/acre
Rice Stink Bug	6-28	Karate 2.13 oz/acre

## West Carroll

The field in West Carroll was planted with CL 131 seed about eight days earlier than the field in East Carroll. The week difference was magnified by weather conditions which separated harvest by three weeks. Nearly all other conditions were very similar which demonstrates the significance of weather especially in the early stages of crop development.

Within two weeks of planting the first application of Newpath was made. This was followed by 100 pounds per acre of diammonium phosphate for the same reasons mentioned in the discussion of the East Carroll field – high pH affecting phosphorus availability. Two weeks later the second application of Newpath was made, 230 pounds of urea per acre was applied and the field was flooded.

About a week after establishing the permanent flood, Karate was applied to control rice water weevil.

At mid-season 150 pounds of urea per acre was applied. A few weeks later fungicide containing a strobilurin and propiconazole was applied to control sheath blight and suppress kernel smut and false smut.

The yield of the field was the highest yielding field (first crop only) in the program. We harvested 8603 pounds per acre at 12% per acre (53.1 bbls/A, 191.2 bu/A).

WEST CARROLL PARISH

**Cooperator:** Steve Rye  
**Agent:** Myrl Sistrunk  
**Field Size:** 50.1 acres

**CULTURAL PRACTICES**

**Variety:** CL 131  
**Method of Planting:** Drill  
**Water Management:** Delayed Flood  
**Seeding Rate:** 81 lbs/Acre  
**Date of Planting:** April 7  
**Date of Emergence:** April 16

**GROWTH AND DEVELOPMENT**

Stage	Observation Date	DD50 Date
Green Ring	6-5	5-22
PD	6-14	6-2
50 % Heading	7-16	7-3
Drain for Harvest	8-1	
Harvest	8-21	7-31

**YIELD, MILLING AND ECONOMIC DATA**

	Yield @ 12 % Moisture (cwt./acre)	Milling Yield (% whole / % total)	Variable Costs (\$/acre) <sup>1</sup>	Cost of Production (\$/cwt.) <sup>1</sup>	Return on Variable Costs (\$/acre) <sup>1,2</sup>
<b>1<sup>st</sup> Crop</b>	86.03	51.7/69	343.69	4.00	430.58
<b>2<sup>nd</sup> Crop</b>	--	--	--	--	--

Average Parish Yield (1<sup>st</sup> and 2<sup>nd</sup> Crop): cwt./acre

<sup>1</sup> Costs captured are from land preparation to getting the crop to the truck. They do not include land rent, transportation, drying, storage or fixed costs.

<sup>2</sup> This value was obtained using a selling price of \$9.00/cwt.

## FERTILIZATION

<i>Date</i>	<i>Source</i>	<i>Rate (lbs/A)</i>	<i>N (lbs/A)</i>	<i>P (lbs/A)</i>	<i>K (lbs/A)</i>
4-20	18-46-0	100	18	46	0
5-11	46-0-0	260	120	0	0
6-9	46-0-0	135	62	0	0
Total	--	--	200	46	0

## WEED MANAGEMENT

<i>Weeds Present</i>	<i>Date of Treatment Decision</i>	<i>Recommendation</i>
--	--	--
Sedge	4-21	New Path 4 oz/acre
Red Rice, Sedge	5-11	New Path 4 oz/acre

## DISEASE MANAGEMENT

<i>Diseases Present</i>	<i>Date of Treatment Decision</i>	<i>Recommendation</i>
Sheath Blight/Hist. of Smut	6-29	Quilt 14 oz + Quadris 5 oz/acre

## INSECT MANAGEMENT

<i>Insects Present</i>	<i>Date of Treatment Decision</i>	<i>Recommendation</i>
Rice Water Weevil	5-18	Karate 2 oz/acre

**Table 3. Eight Year Louisiana Rice Research Verification Summary**

<b>1998 Verification Acres and Yields</b>				
		<b>Yield @ 12% Moisture</b>		
<b>Parish</b>	<b>Acres</b>	<b>Barrels/A</b>	<b>Bushels/A</b>	<b>Pounds/A</b>
Acadia*	53	32.8	118.1	5314
Avoyelles	32.5	42.9	154.4	6950
Calcasieu*	60	34.1	122.8	5524
East Carroll	33.9	41.1	148	6658
Evangeline	33	42.9	154.4	6950
Jeff Davis*	61.8	37.3	134.3	6043
Madison	36.6	39	140.4	6318
Morehouse	63	33.8	121.7	5476
St. Landry	37.1	38.2	137.5	6188
Vermilion	16.7	29.4	105.8	4763
<b>TOTALS</b>	<b>427.6</b>	<b>37.2</b>	<b>133.7</b>	<b>6018.4</b>

\* Yields include second crop.

<b>1999 Verification Acres and Yields</b>				
		<b>Yield @ 12% Moisture</b>		
<b>Parish</b>	<b>Acres</b>	<b>Barrels/A</b>	<b>Bushels/A</b>	<b>Pounds/A</b>
Acadia*	31.1	37.4	134.6	6059
Avoyelles	32.5	46.6	167.8	7549
Calcasieu	49.3	34.6	124.6	5605
Catahoula	30.4	33.4	120.2	5411
East Carroll	36.1	47	169.2	7614
Evangeline	22.3	43.1	155.2	6982
Jeff Davis*	26.6	30.8	110.9	4990
Madison	38.1	39	140.4	6318
St. Landry	30.1	38.8	139.7	6286
Vermilion	23.8	36.5	131.4	5913
<b>TOTALS</b>	<b>320.3</b>	<b>38.7</b>	<b>139.4</b>	<b>6272.7</b>

\* Yields include second crop.

<b>2000 Verification Acres and Yields</b>				
		<b>Yield @ 12% Moisture</b>		
<b>Parish</b>	<b>Acres</b>	<b>Barrels/A</b>	<b>Bushels/A</b>	<b>Pounds/A</b>
Acadia	53.3	39.4	141.8	6383
Avoyelles	63.2	36.7	132.1	5945
Calcasieu	22.1	25.1	90.4	4066
Catahoula	39.6	36.4	131	5897
East Carroll	45.1	49.1	176.8	7956
Evangeline	19.9	38.2	137.5	6188
Jeff Davis	30.6	26.7	96.1	4325
Morehouse	27.7	28.3	101.9	4585
St. Landry	70.7	39.2	141.1	6350
Vermilion*	21.6	37.7	135.7	6107
<b>TOTALS</b>	<b>393.8</b>	<b>35.7</b>	<b>128.4</b>	<b>5780.2</b>

\* Yields include second crop.

**Table 3. Continued**

<b>2001 Verification Acres and Yields</b>				
		<b>Yield @ 12% Moisture</b>		
<b>Parish</b>	<b>Acres</b>	<b>Barrels/A</b>	<b>Bushels/A</b>	<b>Pounds/A</b>
Acadia*	60.6	50.8	182.9	8230
Allen	41.6	35.1	126.4	5686
Avoyelles	63.2	38.1	137.2	6172
Calcasieu*	61.9	39.4	142	6388
Concordia	79.6	36.1	130.1	5853
Evangeline*	20.8	52.7	189.7	8538
Jeff Davis*	21.6	57.3	206.4	9289
Richland	65.9	46	165.5	7447
St. Landry*	40.6	51.1	184	8282
Vermilion*	33.3	52.4	188.7	8493
<b>TOTALS</b>	<b>489.1</b>	<b>45.9</b>	<b>165.3</b>	<b>7437.8</b>

\* Yields include second crop

<b>2002 Verification Acres and Yields</b>				
		<b>Yield @ 12% Moisture</b>		
<b>Parish</b>	<b>Acres</b>	<b>Barrels/A</b>	<b>Bushels/A</b>	<b>Pounds/A</b>
Acadia*	38.4	49.8	179.3	8068
Allen*	25.1	46	165.6	7452
Avoyelles	37.4	49.9	179.6	8084
Beauregard*	49.5	53.1	191.2	8602
Calcasieu*	41.4	42.4	152.6	6869
Concordia	67.6	48.2	173.5	7808
Evangeline	42	37.6	135.4	6091
Jeff Davis*	31.7	45	162	7290
Richland	35.8	42.1	151.5	6819
St. Landry	32.7	48.8	175.7	7906
Vermilion*	32	49.8	179.4	8072
<b>TOTALS</b>	<b>433.6</b>	<b>46.6</b>	<b>167.8</b>	<b>7551.0</b>

\* Yields include second crop

<b>2003 Verification Acres and Yields</b>				
		<b>Yield @ 12% Moisture</b>		
<b>Parish</b>	<b>Acres</b>	<b>Barrels/A</b>	<b>Bushels/A</b>	<b>Pounds/A</b>
Acadia	57.2	44	158.4	7128
Allen*	35.7	46.1	166	7469
Avoyelles	37.4	50.1	180.4	8116
Beauregard*	45.7	48.7	175.2	7884
Concordia	79.5	49.2	177.1	7970
Evangeline*	48.4	44.5	160.2	7209
Jeff Davis*	52.9	28.7	103.3	4649
Richland	40.2	44.7	160.8	7234
St. Landry*	32.7	61.1	220	9898
Vermilion*	33	40	144	6480
<b>TOTALS</b>	<b>462.7</b>	<b>45.7</b>	<b>164.5</b>	<b>7403.7</b>

\* Yields include second crop

**Table 3. Continued**

**2004 Verification Acres and Yields**

Parish	Acres	Yield @ 12% Moisture		
		Barrels/A	Bushels/A	Pounds/A
Allen*	53.2	40.9	147.1	6620
Avoyelles	33.3	32.8	118	5307
Beauregard*	21.8	42.5	153.3	6899
Concordia	82.3	36	130	5843
East Carroll	54.8	45.8	165	7427
Evangeline	30.7	34.8	125.2	5638
Jeff Davis*	42.3	38.5	138.6	6237
Natchitoches	47.2	44.1	158.8	7144
St. Landry*	60.1	65.1	234.3	10543
Vermillion*	30	42.1	151.6	6824
<b>TOTALS</b>	<b>455.7</b>	<b>42.26</b>	<b>152.19</b>	<b>6848.2</b>

\*Yields include second crop

**2005 Verification Acres and Yields**

Parish	Acres	Yield @ 12% Moisture		
		Barrels/A	Bushels/A	Pounds/A
Acadia	28.9	39.6	143.8	6427
Allen	76.7	25.6	92	4140
Avoyelles	32.1	35.9	129.3	5819
Calcasieu	49	51	184	8282
Concordia	60.5	43	156	7003
East Carroll	30.4	47.9	172.7	7771
Evangeline	30	37.1	133.6	6014
Jeff Davis	39.2	32.5	117	5264
Natchitoches	30	43.3	156	7022
Richland	47.4	49.2	177.2	7974
St. Landry	61.7	47.5	170.9	7689
Vermillion	52.8	40.9	147.3	6631
<b>TOTALS</b>	<b>538.7</b>	<b>41.12</b>	<b>148.3</b>	<b>6669.6</b>

\*Yields include second crop

**2006 Verification Acres and Yields**

Parish	Acres	Yield @ 12% Moisture		
		Barrels/A	Bushels/A	Pounds/A
Avoyelles	41.8	43.0	155	6972
Concordia	54.7	50.8	183	8237
East Carroll	60.4	44.5	150	7210
Evangeline	29.4	32.3	116	5227
Jeff Davis	21.5	43.8	157.8	6000
St. Landry	40.9	36.8	132.5	5962
Vermillion	29.6	37.0	133.3	7100
West Carroll	50.1	53.1	191.2	8603
<b>TOTALS</b>	<b>328.4</b>	<b>43.4</b>	<b>156.4</b>	<b>7040</b>

\*Yields include second crop

<b>1998 - 2006 Verification Summary</b>					
<b>Verification Totals</b>			<b>Verification Parish Totals</b>		
<b>Year</b>	<b>Acres</b>	<b>Pounds/A</b>	<b>Acres</b>	<b>Pounds/A</b>	<b>Verification - Parish</b>
1998	427.6	6018.4	475,103	5052	966.4
1999	320.3	6272.7	444,015	5502	770.7
2000	393.8	5780.2	385,824	5620	160.2
2001	489.1	7437.8	412,286	5794	1643.8
2002	433.6	7551.0	412,630	5764	1787.0
2003	462.7	7403.7	327,843	5843	1560.7
2004	455.7	6848.2	311,606	5582	1266.2
2005	538.7	6669.6	402,759	6165	504.6
2006	328.4	7039.5	185,249	5644	1395.5
<b>Totals</b>	<b>3849.9</b>	<b>6780.12</b>	<b>3,357,315</b>	<b>5662.89</b>	<b>1117.23</b>

