

LOUISIANA RICE RESEARCH VERIFICATION PROGRAM 2003

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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. In 1999 the program was funded again and conducted in ten parishes with the absence of Morehouse parish and addition of Catahoula parish. In 2000 funding continued. Ten parishes participated but included Morehouse parish and discontinued Madison parish. Funded again in 2001, the ten parishes included Acadia, Allen, Avoyelles, Calcasieu, Concordia, Evangeline, Jeff Davis, Richland, St. Landry and Vermilion parishes. In 2002, the funding continued with the same ten parishes participating from the previous year with the addition of Beauregard parish. With the discontinuation of Calcasieu parish, the remaining ten parishes from 2002 participated in 2003 (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 6,548 lbs/acre (145.5 bu/acre or 40.4 bbl/acre) at 12 % moisture. When the second crop yields are added, the yield averages increase to 7,337 lbs/acre (163 bu/acre or 45.3 bbl/acre).

Economic data continue to reveal large production cost differences, especially in water costs, 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.

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

Table 1. 2003 Louisiana Rice Research Verification Program Yield Summary

Parish	Acres in Verification Program	Verification Yield per Acre @ 12% Moisture		Verification Program			Average Parish Yield ¹	Parish Acreage	Total Parish Production
		1st Crop Alone	Second Crop	Total Yield per acre	1st Crop Production	Total Production			
Acadia	57.2	7128		7128	407,721.6	407,721.6	6400	76,217	487,788,800.0
Allen	35.7	5962	1507	7469	212,843.4	266,643.3	5346	17,190	91,897,740.0
Avoyelles	37.4	8116		8116	303,538.4	303,538.4	5508	11,384	62,703,072.0
Beauregard	45.7	5989	1895	7884	273,697.3	360,298.8	5913	1,901	11,240,613.0
Concordia	79.5	7970		7970	633,615.0	633,615.0	5850	10,234	59,868,900.0
Evangeline	48.4	5654	1555	7209	273,653.6	348,915.6	6000	43,689	262,134,000.0
Jeff Davis	52.9	4050	599	4649	214,245.0	245,932.1	5510	75,455	415,757,050.0
Richland	40.2	7234		7234	290,806.8	290,806.8	6300	6,330	39,879,000.0
St. Landry	32.7	7144	2754	9898	233,608.8	323,664.6	5670	18,370	104,157,900.0
Vermilion	33.0	5638	842	6480	186,054.0	213,840.0	5670	67,073	380,303,910.0
	462.7				3,029,783.9	3,394,976.2		327,843	1,915,730,985.0
Average yield (lbs./Acre)					6548	7337			5843

¹ Estimated, Includes 2nd crop, and adjusted to 12% moisture.

Table 2. 2003 Louisiana Rice Research Verification Program Yield, Milling and Economic Summary

Parish	Variety	Yield @ 12% Moisture (cwt/acre)¹	Milling (% Whole / % Total)	Variable Costs (\$/acre)²	Cost of Production (\$/cwt)²	Return on Variable Costs (\$/acre)^{2,3}
Acadia	Cocodrie	71.28	60.0 / 72.4	266.24	3.74	268.36
Allen	Cocodrie	74.69	64.0 / 72.6 (64.1 / 70.4) ⁴	290.80	3.89	269.38
Avoyelles	Cocodrie	81.16	64.6 / 70.8	255.33	3.15	353.37
Beauregard	CL 161	78.84	61.6 / 68.7 (62.9 / 71.5) ⁴	328.11	4.16	263.19
Concordia	CL 161	79.70	65.8 / 71.3	298.94	3.75	298.81
Evangeline	Cocodrie	72.09	65.6 / 72.2 (NA) ⁴	231.32	3.21	309.36
Jeff Davis	Jefferson	46.49	45.1 / 69.4 (53.0 / 70.2) ⁴	285.27	6.14	63.41
Richland	CL 161	72.34	67.2 / 72.6	252.81	3.49	289.74
St. Landry	Cypress	98.98	60.5 / 63.9 (62.7 / 69.0) ⁴	319.92	3.23	422.43
Vermilion	Francis	64.80	62.4 / 72.0 (61.6 / 69.4) ⁴	239.25	3.69	246.75

1 - Figure includes ratoon crop yield of 15.07 cwt/acre for Allen; 18.95 cwt/acre for Beauregard; 15.55 cwt/acre for Evangeline; 5.99 cwt/acre for Jeff Davis; 27.54 cwt/acre for St. Landry; 8.42 cwt/acre for 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 \$7.50/cwt.

4 - Ratoon Crop

ACADIA PARISH

At the beginning of the season an adjacent crawfish pond still being fished and a nearby subdivision posed limitations on recommendations. Command would have been an excellent herbicide for this field given its weed history and planned management, but because of the proximity of the subdivision was not allowed. Use of Karate to control rice water weevil adults was also risky given the sensitivity of crawfish to pyrethroid insecticides. The product was applied without incident partially because both the pond and the field were under the management of the same grower who was willing to take the chance. Had the crawfish farmer and the grower not been the same individual a different control measure would probably been employed.

One decision about which some might question was the application of Clincher to only one half of the field. With diligent scouting grass was thought to be confined primarily to the east end of the field. Furthermore, the main grasses were perennials, such as, knotgrass. Usually the application of herbicide to a portion of a field results in weed problems in the area not treated. Barnyardgrass did show up in the untreated area; however it was felt the problem was more cosmetic than yield robbing.

Yield of this field of Cocodrie was 7128 pounds (44 barrels, 158 bushels) of dry rice per acre.

The grower was asked what was one of the key differences between the AgCenter's recommendations and his practices that might have accounted for the improvement in yield. He cited two things; application of more than half of the total nitrogen just ahead of the permanent flood and the establishment of permanent flood as early as recommended.

ACADIA PARISH

Cooperator: Larry & Allen Lawson

Agent: Ronnie Levy

Field Size: 57.2 Acres

CULTURAL PRACTICES

Variety: Cocodrie

Method of Planting: Water Plant

Water Management: Pinpoint Flood

- Dry seed treated with Fungicide and Zinc.

Seeding Rate: 130 lbs/Acre

Date of Planting: April 10

Date of Emergence: April 18

GROWTH AND DEVELOPMENT

Stage	Observation Date	DD50 Date
Green Ring	May 18	May 22
PD	May 30	May 31
50 % Heading	June 22	June 25
Drain for Harvest	July 16	July 16
Harvest	August 4 & 5	July 30

YIELD, MILLING AND ECONOMIC DATA

	Yield @ 12 % Moisture (cwt./acre)	Milling Yield (% whole / % total)	Variable Costs (\$/acre) ¹	Cost of Production (\$/cwt.) ¹	Return on Variable Costs (\$/acre) ^{1,2}
1 st Crop	71.28	60.0 / 72.4	266.24	3.74	268.36
2 nd Crop	-----	-----	-----	-----	-----

Average Parish Yield (1st and 2nd Crop): 64.00 cwt./acre

¹ 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.

² This value was obtained using a selling price of \$7.50/cwt.

FERTILIZATION

Nitrogen Rate	Nitrogen Timing	P & K Rate	P & K Timing	Soil Test Used
170 # 46-0-0	April 18	100# 0-30-40	March 21	LSU
3 pt. Zinc	May 1			
135 # 46-0-0	May 17			

- The 3 pt. Zinc was tank mixed with 1.33 oz. Londax + 2 oz. Karate on May 1.

WEED MANAGEMENT

Weeds Present	Date of Treatment Decision	Recommendation
Alligator, Ducksalad, Sedge, Smartweed	May 1	1.33 oz. Londax
Knotgrass, Barnyardgrass	May 12	13.5 oz. Clincher

- The 1.33 oz. Londax was tank mixed with 3 pt. Zinc + 2 oz. Karate on May 1.
- The 13.5 oz. Clincher was applied to 23.9 acres on May 12.

DISEASE MANAGEMENT

Diseases Present	Date of Treatment Decision	Recommendation
Sheath Blight	June 23	9.2 oz. Quadris

- The 9.2 oz. Quadris was tank mixed with 1.34 pt. Malathion on June 23.

INSECT MANAGEMENT

Insects Present	Date of Treatment Decision	Recommendation
Rice Water Weevil (Adults)	May 1	2 oz. Karate
Rice Stink Bug	June 23	1.34 pt. Malathion

- The 2 oz. Karate was tank mixed with 1.33 oz. Londax + 3 pt. Zinc on May 1.
- The 1.34 pt. Malathion was tank mixed with 9.2 oz. Quadris on June 23.

ALLEN PARISH

Soil sample analyses indicated this field could have fertility problems because of low pH values with accompanying low calcium and magnesium values. Although deficiencies in neither calcium nor magnesium have been diagnosed in rice in Louisiana it was feared this could be the first time. An effort was made to locate and have applied some dolomitic limestone, but was not successful. Dolomitic limestone was applied by hand at two rates to two plots later in the season. At season's end there appeared to be some benefit from the application prompting the application of lime to next year's verification field on the same farm.

As in years past, rice water weevil adult pressure was heavy prompting two applications of Karate to bring them under control. Stink bugs reached threshold levels when the field was about 20 to 30% headed. Later the grower would tell the agent the lessons he learned concerning insect control were among the most valuable lessons he learned from the project.

About five weeks after planting interveinal chlorosis appeared in the leaves of many of the young rice plants. It was thought this might be a manifestation of magnesium deficiency. A foliar chelated form of magnesium was located and applied to about 10 acres of the field. No visible response could be detected and without a means to harvest this area separately from the rest of the field if there was a yield response it was not measured.

Excellent water management paid off in weed control as no grass herbicide was applied. Deep areas may have reduced stands some, but not enough to off set the benefits of weed control. Yield was a somewhat disappointing 5962 pounds (36.8 barrels, 132.5 bushels) per acre at 12% moisture. It is believed more yield potential is there even though the grower indicated this was among his highest yielding fields and exceeded the adjacent fields.

Following harvest the field was fertilized and flooded to produce a second crop. The second crop yielded 1507 pounds (9.3 barrels, 33.5 bushels) per acre at 12% moisture for a total of 7469 pounds (46.1 barrels, 166 bushels) per acre. Both the first and second crop yields and the total are considered excellent for the area.

ALLEN PARISH

Cooperator: Hine Unkel

Agent: Eddie Eskew

Field Size: 35.7 Acres

CULTURAL PRACTICES

Variety: Cocodrie

Seeding Rate: 120 lbs/Acre

Method of Planting: Water Plant

Date of Planting: March 27

Water Management: Pinpoint Flood

Date of Emergence: April 8

- Dry seed with no treatment.

GROWTH AND DEVELOPMENT

Stage	Observation Date	DD50 Date
Green Ring	May 16	May 17
PD	May 25	May 26
50 % Heading	June 20	June 20
Drain for Harvest	July 10	July 12
Harvest	July 31	July 26

YIELD, MILLING AND ECONOMIC DATA

	Yield @ 12 % Moisture (cwt./acre)	Milling Yield (% whole / % total)	Variable Costs (\$/acre) ¹	Cost of Production (\$/cwt.) ¹	Return on Variable Costs (\$/acre) ^{1,2}
1 st Crop	59.62	64.0 / 72.6	290.80	3.89	269.38
2 nd Crop	15.07	64.1 / 70.4			

Average Parish Yield (1st and 2nd Crop): 53.46 cwt./acre

¹ 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.

² This value was obtained using a selling price of \$7.50/cwt.

FERTILIZATION

Nitrogen Rate	Nitrogen Timing	P & K Rate	P & K Timing	Soil Test Used
150 # 46-0-0	April 5	200 # 0-18-36	March 17	LSU
110 # 46-0-0	May 12			
160 # 46-0-0	August 1 (2 nd Crop)			

WEED MANAGEMENT

Weeds Present	Date of Treatment Decision	Recommendation
Alligator, Smartweed, Spikerush, Southern Watergrass	April 23	1.22 oz. Londax + 1% Crop Oil

- The 1.22 oz. Londax + 1% Crop Oil was tank mixed with 2 oz. Karate on April 23.

DISEASE MANAGEMENT

Diseases Present	Date of Treatment Decision	Recommendation
None	-----	None

INSECT MANAGEMENT

Insects Present	Date of Treatment Decision	Recommendation
Rice Water Weevil (Adults)	April 16	2 oz. Karate
Rice Water Weevil (Adults)	April 23	2 oz. Karate
Rice Stink Bug	June 20	2.84 oz. Mustang Max + 1 pt. Crop Oil

- The 2 oz. Karate was tank mixed with 1.22 oz. Londax + 1% Crop Oil on April 23.

AVOYELLES PARISH

Historically the farm on which the 2003 verification field was located has produced some of the highest rice yields in the verification program while maintaining some of the lowest production costs. This year yields were as expected, but costs were not primarily as a result of a difficult start.

The original intention was to drill seed the field, but the wet spring prompted the grower to contact us regarding an attempt at water seeding into a stale seedbed. Thinking we knew what the field looked like we agreed without actually visiting the field. Had we been on site we would have realized conditions were such that failure was likely. Heavy algae growth (scum) prevented much of the seed from making contact with the soil and prevented others from emerging. The field had to be drained, plowed and re-planted.

The field had been burned down twice prior to flooding and had been planted with registered Cocodrie because it is a seed field, thus had to be re-planted with the same expensive seed.

Command was used at planting followed by 1 quart of propanil plus $\frac{3}{4}$ pint of Grandstand. We had recommended 4 quarts of Duet plus .2 ounce of Londax, but used the other mix at the request of the farmer. We had to come back with 1.0 ounce of Londax later to clean up the ducksalad and other broadleaves missed in the first application.

At the late boot stage while scouting for sheath blight we discovered sugarcane borers at the stage at which insecticidal control is possible and in numbers we felt would justify spraying. We recommended Karate at 2.56 ounces per acre. The next week no borers or their signs could be found.

In July stink bugs were found at the level of 18 per 100 sweeps at a time when the threshold is 30 per 100. Because we were forced to sample the field in mid-afternoon and Dr. Castro had indicated sampling during the hot hours might affect numbers we asked the grower to sample the field again the next morning. His results were 54 per 100. Not only did this mean the field was beyond threshold, but it also raised concerns about other fields that must be sampled during the heat of the day. Stinkbugs reached threshold again about three weeks later and were treated again.

Yield was an outstanding 8116 pounds (50 barrels, 180 bushels) per acre at 12% moisture. This is the highest yield ever in the verification program from a single crop.

AVOUELLES PARISH

Cooperator: Philip LaMartiniere

Agent: Carlos Smith

Field Size: 37.4 Acres

CULTURAL PRACTICES

Variety: Cocodrie

Seeding Rate: 90 lbs/Acre

Method of Planting: Drill Plant

Date of Planting: April 16

Water Management: Delayed Flood

Date of Emergence: April 27

- Water planted 135 lbs/Acre on March 16, but had to replant on April 16 after taking stand counts.

- Dry seed treated with Fungicide.

GROWTH AND DEVELOPMENT

Stage	Observation Date	DD50 Date
Green Ring	June 6	May 30
PD	June 22	June 9
50 % Heading	July 11	July 3
Drain for Harvest	August 6	July 18
Harvest	August 29	August 8

YIELD, MILLING AND ECONOMIC DATA

	Yield @ 12 % Moisture (cwt./acre)	Milling Yield (% whole / % total)	Variable Costs (\$/acre) ¹	Cost of Production (\$/cwt.) ¹	Return on Variable Costs (\$/acre) ^{1,2}
1 st Crop	81.16	64.6 / 70.8	255.33	3.15	353.37
2 nd Crop	-----	-----	-----	-----	-----

Average Parish Yield (1st and 2nd Crop): 55.08 cwt./acre

¹ 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.

² This value was obtained using a selling price of \$7.50/cwt.

FERTILIZATION

Nitrogen Rate	Nitrogen Timing	P & K Rate	P & K Timing	Soil Test Used
200 # 46-0-0	May 17	None	-----	LSU
125 # 46-0-0	June 2			

WEED MANAGEMENT

Weeds Present	Date of Treatment Decision	Recommendation
Sprangletop, Barnyardgrass	April 16	1.33 pt. Command
Palmleaf Morningglory, Sedge, Barnyardgrass, Sprangletop, Eclipta, Mexicanweed,	May 15	1qt. Propanil + 0.75 pt. Grandstand
Ducksalad	May 29	1 oz. Londax

DISEASE MANAGEMENT

Diseases Present	Date of Treatment Decision	Recommendation
None	-----	None

INSECT MANAGEMENT

Insects Present	Date of Treatment Decision	Recommendation
Rice Water Weevil (Adults)	May 22	3.2 oz. Fury
Sugarcane Borers	July 3	2.56 oz. Karate
Rice Stink Bug	July 18	3.2 oz. Mustang Max
Rice Stink Bug	July 31	1 pt. Methyl

BEAUREGARD PARISH

The verification field was planned from 2002 to be a Clearfield 161 field with intentions of drilling, however the wet spring cancelled those plans. This not only affected planting method, but required adjustments to the fertilizer program and herbicide program as well. Once the decision was made to water plant, the field was flooded, worked and the water allowed to clear. Pre-sprouted seed were flown in at 100 pounds per acre.

The first application of Newpath was a little late in that it was made when rice was in the 1 to 2 leaf stage. Other weeds noted at that time included jointvetch, alligatorweed and ducksalad, none of which are controlled effectively with Newpath. Plans were made to tank-mix the second application of Newpath with another herbicide. Eight days following the first application the second was made with Facet added for jointvetch control and suppression of alligatorweed and ducksalad. Karate was also added to the mix because rice water weevils had been detected. The field was then fertilized and the permanent flood established.

Sheath blight pressure was heavy by the time rice reached late boot warranting a full rate of Quadris fungicide. Stink bugs never reached threshold levels even though they were present from flowering to harvest.

Red rice control was excellent throughout the field in contrast to poor control of jointvetch along the south side of the field where the aerial applicator could not get close to the tree line on that side of the field. Although the field yielded well producing 5989 pounds (37 barrels, 133 bushels) per acre at 12% moisture, it disappointed us because it appeared to have greater potential than was realized. The field was immediately fertilized and flooded to produce a ratoon crop.

The second crop was harvested on November 6 and 7. The combine being used had GPS yield monitor equipment on it so we used the weigh wagon to calibrate the combine then recorded yields on that basis. We harvested 1895 pounds (11.7 barrels, 42 bushels) per acre at 12% moisture for a total of 7884 pounds (48.7 barrels, 175.2 bushels) per acre. Like Allen parish, yields in this are typically lower than in many parts of the state so when these are taken in that context the yields were very satisfying.

BEAUREGARD PARISH

Cooperator: David Habetz

Agent: John Harris

Field Size: 45.7 Acres

CULTURAL PRACTICES

Variety: CL 161

Method of Planting: Water Plant

Water Management: Delayed Flood

- Pre-sprouted seed with no treatment.

Seeding Rate: 100 lbs/Acre

Date of Planting: April 17

Date of Emergence: April 22

GROWTH AND DEVELOPMENT

Stage	Observation Date	DD50 Date
Green Ring	May 30	June 1
PD	June 17	June 8
50 % Heading	July 5	July 3
Drain for Harvest	July 29	July 25
Harvest	August 12 & 13	August 7

YIELD, MILLING AND ECONOMIC DATA

	Yield @ 12 % Moisture (cwt./acre)	Milling Yield (% whole / % total)	Variable Costs (\$/acre) ¹	Cost of Production (\$/cwt.) ¹	Return on Variable Costs (\$/acre) ^{1,2}
1st Crop	59.89	61.6 / 68.7	328.11	4.16	263.19
2nd Crop	18.95	62.9 / 71.5			

Average Parish Yield (1st and 2nd Crop): 59.13 cwt./acre

¹ 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.

² This value was obtained using a selling price of \$7.50/cwt.

FERTILIZATION

Nitrogen Rate	Nitrogen Timing	P & K Rate	P & K Timing	Soil Test Used
174 # 46-0-0	May 9	117 # 0-0-60	May 9	LSU
170 # 46-0-0	May 29			
70 # 46-0-0	June 11			
150 # 46-0-0	August 14 (2 nd Crop)			

WEED MANAGEMENT

Weeds Present	Date of Treatment Decision	Recommendation
Alligator, Smartweed, Ducksalad, Jointvetch, Sedge, Redstem, Spikerush, Red Rice	May 1	4 oz. New Path + 1% Crop Oil
Jointvetch, Ducksalad, Red Rice	May 9	4 oz. New Path + 0.4 lb. Facet + 1% Crop Oil

- The 4 oz. New Path + 0.4 lb. Facet + 1% Crop Oil was tank mixed with 2 oz. Karate on May 9

DISEASE MANAGEMENT

Diseases Present	Date of Treatment Decision	Recommendation
Sheath Blight	June 25	12.3 oz. Quadris

INSECT MANAGEMENT

Insects Present	Date of Treatment Decision	Recommendation
Rice Water Weevil (Adults)	May 9	2 oz. Karate

- The 2 oz. Karate was tank mixed with 4 oz. New Path + 0.4 lb. Facet + 1% Crop Oil on May 9.

CONCORDIA PARISH

In addition to serving as a verification field the field in Concordia was part of a comparison of CL161 and use of Newpath for red rice control to traditional rice in an adjacent field. Comments here are in reference to the verification field only.

The field was drill seeded, Command herbicide was applied and the field flushed. By the time the rice was up to 1 leaf, red rice was up and in the 3 leaf stage. Newpath was applied at this time. The field was kept excessively wet because beavers repeatedly plugged the drain. This delayed the second application because some areas where rice was stressed were allowed to recover prior to making the second application of Newpath. Facet was added to the mixture as it had been in Beauregard parish to pick up sesbania and other weeds not controlled by Newpath.

Because of wet conditions the second herbicide application had to be done by air and because of northerly breezes and an adjacent conventional rice field immediately to the south of the field the applicator only sprayed the upper 1/2 to 2/3 of the field. Several days elapsed between the beginning of herbicide application and completion resulting in larger weeds, including red rice, and drier conditions than were desired. This came back to haunt us requiring additional herbicide application to control both sesbania and escaped red rice. The red rice area was about two acres to which an additional 4 oz. of Newpath were applied. This calculated to 8.01 oz per acre for the entire field. The consensus was that the additional herbicide was definitely worth it to prevent possible out-crossing.

At panicle differentiation sheath blight had become a problem. At 1/2" panicle a full rate of Quadris fungicide was applied. Stink bugs reached threshold only once requiring an application of Mustang Max for control.

Yield of this field was outstanding as was milling. Because this field was being compared to a traditional field with serious red rice infestation the sample was graded by the USDA office in Crowley. The CL161 graded #1 while the adjacent Cocodrie graded #3 because of red rice.

CONCORDIA PARISH

Cooperator: Tommy Ellett (Angelina Plantation)

Agent: Glen Daniels

Field Size: 79.5 Acres

CULTURAL PRACTICES

Variety: CL 161

Seeding Rate: 90 lbs/Acre

Method of Planting: Drill Plant

Date of Planting: April 14

Water Management: Delayed Flood

Date of Emergence: April 27

- Dry seed treated with Fungicide, GA, ICON and Zinc.

GROWTH AND DEVELOPMENT

Stage	Observation Date	DD50 Date
Green Ring	June 11	June 9
PD	June 24	June 20
50 % Heading	July 13	July 9
Drain for Harvest	August 6	July 26
Harvest	August 20 & 23	August 13

YIELD, MILLING AND ECONOMIC DATA

	Yield @ 12 % Moisture (cwt./acre)	Milling Yield (% whole / % total)	Variable Costs (\$/acre) ¹	Cost of Production (\$/cwt.) ¹	Return on Variable Costs (\$/acre) ^{1,2}
1st Crop	79.70	65.8 / 71.3	298.94	3.75	298.81
2nd Crop	-----	-----	-----	-----	-----

Average Parish Yield (1st and 2nd Crop): 58.50 cwt./acre

¹ 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.

² This value was obtained using a selling price of \$7.50/cwt.

FERTILIZATION

Nitrogen Rate	Nitrogen Timing	P & K Rate	P & K Timing	Soil Test Used
100 # 21-0-0	April 14	None	-----	LSU
200 # 46-0-0	May 23			
125 # 46-0-0	June 12			

WEED MANAGEMENT

Weeds Present	Date of Treatment Decision	Recommendation
Sesbania, Palmleaf Morningglory, Dayflower, Barnyardgrass, Red Rice, Texasweed	May 1	4 oz. New Path + 1% Crop Oil
Sesbania, Palmleaf Morningglory, Dayflower, Barnyardgrass, Red Rice, Texasweed	May 18 & 23	4 oz. New Path + 0.4 lb. Facet + 1% Crop Oil
Sesbania	June 7	1.6 oz. Aim + 0.25% Non-Ionic Surfactant

- Strong winds caused the 4 oz. New Path + 0.4 lb. Facet + 1% Crop Oil to go out on separate days (May 18 & 23).
- The 1.6 oz. Aim + 0.25% Non-Ionic Surfactant went out on 30 acres on June 7.

DISEASE MANAGEMENT

Diseases Present	Date of Treatment Decision	Recommendation
Sheath Blight	June 25	12.3 oz. Quadris

INSECT MANAGEMENT

Insects Present	Date of Treatment Decision	Recommendation
Rice Water Weevil (Larvae)	Seed Treatment	ICON
Rice Stink Bug	July 19	3.2 oz. Mustang Max

EVANGELINE PARISH

The Evangeline field posed problems from the onset, the chief one was water management. The field was water planted with Cocodrie then drained to permit the seed to peg. A few days later the field was flushed because of excessive drying and cool temperatures. Once the rice plants reached 1 true leaf we recommended 60% of the total N and all P and K be applied with 0.8 pt. Command impregnated on the fertilizer then flood the field.

Two weeks later we found the field completely drained when we arrived for our regular visit. It was clear the Command had migrated to the bottom cuts of the field and as it turned out, so had much of the nitrogen. The result in the top cuts was mediocre weed control and nitrogen deficiency while the bottom cuts suffered some herbicide injury, but excellent weed control and lodging at the end of the season because of excessive nitrogen. Londax had to be applied to correct some of the loss of broadleaf weed control although no grass herbicide was ever required.

Sheath blight developed to treatable levels when the rice was about 25% headed which should have resulted in ideal fungicide timing. Instead, the fungicide was not applied until two weeks later when rice had reached the milk stage. Certainly this application timing reduced the likelihood of an economic return on the fungicide.

The yield was a disappointing 5654 pounds (34.9 barrels, 125.6 bushels) per acre or 890 pounds (5.5 barrels, 20 bushels) per acre less than we expected. As we have said many times water management is the key to rice production and timing is everything in pest management.

Following harvest the field was fertilized and flooded for a second crop. Because we were not present for the second crop harvest we relied on the growers reports. Yield was a reported 1555 pounds (9.6 barrels, 34.6 bushels) per acre at 12% moisture for a total of 7209 pounds (44.5 barrels, 160.2 bushels) per acre.

EVANGELINE PARISH

Cooperator: Leland Vidrine & Rusty Brignac

Agent: Keith Fontenot

Field Size: 48.4 Acres

CULTURAL PRACTICES

Variety: Cocodrie

Method of Planting: Water Plant

Water Management: Pinpoint Flood

- Dry seed with no treatment.

Seeding Rate: 140 lbs/Acre

Date of Planting: March 15

Date of Emergence: March 29

GROWTH AND DEVELOPMENT

Stage	Observation Date	DD50 Date
Green Ring	May 10	May 10
PD	May 25	May 19
50 % Heading	June 15	June 15
Drain for Harvest	July 7	July 6
Harvest	July 29 & 30	July 20

YIELD, MILLING AND ECONOMIC DATA

	Yield @ 12 % Moisture (cwt./acre)	Milling Yield (% whole / % total)	Variable Costs (\$/acre) ¹	Cost of Production (\$/cwt.) ¹	Return on Variable Costs (\$/acre) ^{1,2}
1 st Crop	56.54	65.6 / 72.2	231.32	3.21	309.36
2 nd Crop	15.55	NA			

Average Parish Yield (1st and 2nd Crop): 60.00 cwt./acre

¹ 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.

² This value was obtained using a selling price of \$7.50/cwt.

FERTILIZATION

Nitrogen Rate	Nitrogen Timing	P & K Rate	P & K Timing	Soil Test Used
135 # 46-0-0	May 9	250 # 33-0-15	April 4	LSU
200 # 46-0-0	August 1 (2 nd Crop)			

- The 250 # 33-0-15 had 0.8 pt. Command impregnated on the fertilizer on April 4.

WEED MANAGEMENT

Weeds Present	Date of Treatment Decision	Recommendation
Alligator, Sedge, Mannagrass, Buttercup	April 4	0.8 pt. Command
Sedge	April 25	1 oz. Londax

- The 0.8 pt. Command on April 4 was impregnated on the fertilizer (250 # 33-0-15).
- The 1 oz. Londax was tank mixed with 2 oz. Karate on April 25.

DISEASE MANAGEMENT

Diseases Present	Date of Treatment Decision	Recommendation
Sheath Blight	June 19	9.2 oz. Quadris

- The 9.2 oz. Quadris was tank mixed with 2.84 oz. Mustang Max on June 19.

INSECT MANAGEMENT

Insects Present	Date of Treatment Decision	Recommendation
Rice Water Weevil (Adults)	April 25	2 oz. Karate
Rice Stink Bug	June 19	2.84 oz. Mustang Max

- The 2 oz. Karate was tank mixed with 1 oz. Londax on April 25.
- The 2.84 oz. Mustang Max was tank mixed with 9.2 oz. Quadris on June 19.

JEFF DAVIS PARISH

Initial intentions in Jeff Davis parish were to drill plant CL161, but at the last minute the grower elected to water plant Jefferson. Upon inspection it was clear the field was unlevel thus the poor seedling vigor associated with Jefferson made managing the water to suppress red rice while not killing the crop was difficult to impossible. The holes ended up with poor stands and red rice appeared on the high areas.

Serious weed problems including large barnyardgrass, roundleaf mud plantain, ducksalad, alligatorweed, knotgrass and sedges warranted the use of Clincher followed by Londax. In an effort to reduce costs the farmer wanted to and was allowed to apply Londax to the top cut of the field only. This was an error in judgment on our part. 2,4-D was applied at mid-season in an attempt to clean up the broadleaf weed problem, but was less than satisfactory on some of the weeds.

Stink bugs reached threshold levels early, however the recommended insecticide was not applied for a week following the recommendation. They reached threshold levels a second time, but were not treated.

When the field was being custom harvested it was felt the combine was being operated at too high a ground speed because excessive grain loss could be observed. Eventually the operator slowed the machine, but not before half the field had been harvested. Yield was an extremely disappointing 4050 pounds (25 barrels, 90 bushels) per acre at 12% moisture.

Poor yields were expected and realized. In an attempt to try to produce a little more rice the field was fertilized and flooded for second crop. Second crop yields were likewise disappointing producing 599 pounds (3.7 barrels, 13.3 bushels) per acre at 12% moisture. The total yield was 4649 pounds (28.7 barrels, 103.3 bushels) per acre. Clearly this is not an economically profitable yield over the long term.

JEFF DAVIS PARISH

Cooperator: Josh Guillory

Agent: Eddie Eskew

Field Size: 52.9 Acres

CULTURAL PRACTICES

Variety: Jefferson

Seeding Rate: 140 lbs/Acre

Method of Planting: Water Plant

Date of Planting: March 28

Water Management: Pinpoint Flood

Date of Emergence: April 9

- Dry seed with no treatment.

GROWTH AND DEVELOPMENT

Stage	Observation Date	DD50 Date
Green Ring	May 15	May 18
PD	May 27	June 2
50 % Heading	June 14	June 13
Drain for Harvest	July 3	July 4
Harvest	July 23 & 24	July 18

YIELD, MILLING AND ECONOMIC DATA

	Yield @ 12 % Moisture (cwt./acre)	Milling Yield (% whole / % total)	Variable Costs (\$/acre) ¹	Cost of Production (\$/cwt.) ¹	Return on Variable Costs (\$/acre) ^{1,2}
1 st Crop	40.50	45.1 / 69.4	285.27	6.14	63.41
2 nd Crop	5.99	53.0 / 70.2			

Average Parish Yield (1st and 2nd Crop): 55.10 cwt./acre

¹ 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.

² This value was obtained using a selling price of \$7.50/cwt.

FERTILIZATION

Nitrogen Rate	Nitrogen Timing	P & K Rate	P & K Timing	Soil Test Used
170 # 46-0-0	April 16	225 # 0-18-36	January 25	LSU
125 # 46-0-0	May 16			
100 # 46-0-0	July 29 (2 nd Crop)			

WEED MANAGEMENT

Weeds Present	Date of Treatment Decision	Recommendation
Knotgrass, Barnyardgrass	April 25	15 oz. Clincher + 1 qt. Crop Oil
Ducksalad, Alligator, Spikerush, Sedge, Smartweed, Roundleaf Mud Plantain	May 2	0.75 oz. Londax + 0.5 oz. Aim + 1% Crop Oil
Alligator, Roundleaf Mud Plantain	May 14	2.5 pt. 2,4-D

- The 15 oz. Clincher + 1 qt. Crop Oil was tank mixed with 2 oz. Karate on April 25.
- The 0.75 oz. Londax + 0.5 oz Aim + 1% Crop Oil went out on 15 acres on May 2.

DISEASE MANAGEMENT

Diseases Present	Date of Treatment Decision	Recommendation
None	-----	None

INSECT MANAGEMENT

Insects Present	Date of Treatment Decision	Recommendation
Rice Water Weevil (Adults)	April 25	2 oz. Karate
Rice Stink Bug	June 19	2.42 oz. Mustang Max

- The 2 oz. Karate was tank mixed with 15 oz. Clincher + 1 qt. Crop Oil on April 25.

RICHLAND PARISH

Mixed soil types in this field presented a challenge. The top of the field had lighter textured soil than the bottom and differences in fertility were reflected in the soil analysis. After consulting with Dr. Pat Bollich we recommended 1 ton of lime per acre on the light textured soils, but none on the heavy. We depended on the farmers and their applicator to identify these areas. The difference in soils also prevented the use of Command herbicide on the entire field. Because of the potential for injury it was omitted from the light textured areas.

The field was drilled with CL161 and Newpath was applied pre-emergence to permit the growers to apply the herbicide with a ground rig. Command was included with Newpath as described above. The second application of Newpath was to follow with Aim for sesbania and palmleaf morningglory control about 10 days later, but rain and northerly winds prevented spraying. Cotton was in the field immediately south of the rice. After about three weeks later it was finally sprayed, part by air and part by ground.

Quadris was applied a little sooner than it should have been then when propiconazole was recommended the grower included methyl parathion with it. The insecticide was much too early to have any real benefit.

We recommended draining on August 19. Harvest was begun on September 10 by which time lodging had occurred in much of the field and grain moisture had dropped to about 16%, well below the recommended harvest moisture. After a couple of days, rain interrupted harvest for at least a week. It took nearly 3 weeks to get the field harvested. Part of that was because the levees were not cut resulting in poor drainage each time it rained. Eventually the levees were cut to complete harvest. Yield was good, but there is potential for much better rice production.

RICHLAND PARISH

Cooperator: Marvin & Elliot Colvin

Agent: Keith Collins

Field Size: 40.2 Acres

CULTURAL PRACTICES

Variety: CL 161

Method of Planting: Drill Plant

Water Management: Delayed Flood

Dry seed treated with Fungicide, Release and ICON.

Seeding Rate: 90 lbs/Acre

Date of Planting: May 2

Date of Emergence: May 7

GROWTH AND DEVELOPMENT

Stage	Observation Date	DD50 Date
Green Ring	June 13	June 10
PD	July 11	June 20
50 % Heading	July 24	July 13
Drain for Harvest	August 23	July 27
Harvest	September 10	August 17

YIELD, MILLING AND ECONOMIC DATA

	Yield @ 12 % Moisture (cwt./acre)	Milling Yield (% whole / % total)	Variable Costs (\$/acre) ¹	Cost of Production (\$/cwt.) ¹	Return on Variable Costs (\$/acre) ^{1,2}
1st Crop	72.34	67.2 / 72.6	252.81	3.49	289.74
2nd Crop	-----	-----	-----	-----	-----

Average Parish Yield (1st and 2nd Crop): 63.00 cwt./acre

¹ 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.

² This value was obtained using a selling price of \$7.50/cwt.

FERTILIZATION

Nitrogen Rate	Nitrogen Timing	P & K Rate	P & K Timing	Soil Test Used
200 # 46-0-0	May 26	100 # 0-18-36	May 4	LSU
125 # 46-0-0	June 13			

WEED MANAGEMENT

Weeds Present	Date of Treatment Decision	Recommendation
Barnyardgrass	May 3	1 pt. Command
Red Rice, Palmleaf Morningglory, Sprangletop	May 3	4 oz. New Path + 1% Crop Oil
Red Rice, Sesbania	May 21	4 oz. New Path + 0.66 oz. Aim + 1 qt. Surfactant

DISEASE MANAGEMENT

Diseases Present	Date of Treatment Decision	Recommendation
Sheath Blight	July 9	10 oz. Quadris
False Smut	July 21	8 oz. Tilt

INSECT MANAGEMENT

Insects Present	Date of Treatment Decision	Recommendation
Rice Water Weevil (Larvae)	Seed Treatment	ICON
Rice Stink Bug	August 11	4 oz. Fury

ST. LANDRY PARISH

The field used in 2003 was the same field used in 2002; the variety was the same, Cypress, many of the problems were the same, the weather was different and the yields ultimately very slightly lower.

This field, like the one in Richland parish starts out as a silt loam at the top and grades into heavy clay at the bottom. The dry spring required three flushings in this field to get the crop up and keep it going until permanent flood could be established.

The herbicide program was straightforward. We recommended Duet plus 0.2 oz of Londax per acre just prior to permanent flood. Karate was mixed with this treatment to control rice water weevils. A week later a second application of Karate was required, again for rice water weevils.

In 2002 sheath blight infested this field early thus it was expected in 2003. It came in a little later in terms of plant growth stage, but early enough that the full rate of Quadris was required.

Stinkbugs were treated with Mustang Max when they reached threshold levels. No other pest management was necessary. Draining was recommended on July 28 and the field was harvested on August 11. Yield was 7144 pounds (44.1 barrels, 158.8 bushels) per acre at 12% moisture, slightly less than last year. The field was fertilized and flooded for second crop.

The second crop was harvested on November 4. Yield was a pleasantly surprising 2754 pounds (17 barrels, 61.2 bushels) per acre at 12% moisture. The combination of excellent first and second crop yields produced the highest total yield in the program at 9898 pounds (61.1 barrels, 220 bushels) per acre. This farmer had not been a second crop producer prior to becoming a participant in the verification program. In fact, his second crop in 2002 appeared to be much better than this year's crop, but because of the hurricane and subsequent rainfall not a grain was harvested. Adding in the high grain quality associated with Cypress this field was exceptional.

ST. LANDRY PARISH

Cooperator: Winn Plattsmier

Agent: Keith Normand

Field Size: 32.7 Acres

CULTURAL PRACTICES

Variety: Cypress

Method of Planting: Dry Broadcast

Water Management: Delayed Flood

- Dry seed treated with Fungicide and GA.

Seeding Rate: 100 lbs/Acre

Date of Planting: April 3

Date of Emergence: April 19

GROWTH AND DEVELOPMENT

Stage	Observation Date	DD50 Date
Green Ring	May 25	June 2
PD	June 11	June 14
50 % Heading	July 1	July 4
Drain for Harvest	July 28	July 18
Harvest	August 11	August 8

YIELD, MILLING AND ECONOMIC DATA

	Yield @ 12 % Moisture (cwt./acre)	Milling Yield (% whole / % total)	Variable Costs (\$/acre) ¹	Cost of Production (\$/cwt.) ¹	Return on Variable Costs (\$/acre) ^{1,2}
1st Crop	71.44	60.5 / 63.9	319.92	3.23	422.43
2nd Crop	27.54	62.7 / 69.0			

Average Parish Yield (1st and 2nd Crop): 56.70 cwt./acre

¹ 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.

² This value was obtained using a selling price of \$7.50/cwt.

FERTILIZATION

Nitrogen Rate	Nitrogen Timing	P & K Rate	P & K Timing	Soil Test Used
150 # 46-0-0	May 2	150 # 6-24-24	April 2	LSU
150 # 46-0-0	May 22			
150 # 46-0-0	August 15 (2 nd Crop)			

WEED MANAGEMENT

Weeds Present	Date of Treatment Decision	Recommendation
Broadleaf Signalgrass, Spikerush, Bull Tongue, Smartweed, Ducksalad	May 1	1 gal. Duet + 0.2 oz. Londax + 1% Crop Oil

- The 1 gal. Duet + 0.2 oz. Londax + 1% Crop Oil was tank mixed with 2 oz. Karate on May 1.

DISEASE MANAGEMENT

Diseases Present	Date of Treatment Decision	Recommendation
Sheath Blight	June 19	12.3 oz. Quadris

INSECT MANAGEMENT

Insects Present	Date of Treatment Decision	Recommendation
Rice Water Weevil (Adults)	May 1	2 oz. Karate
Rice Water Weevil (Adults)	May 15	2 oz. Karate
Rice Stink Bug	July 10	3.2 oz. Mustang Max
Rice Stink Bug (2 nd Crop)	September 17	3.2 oz. Mustang Max

- The 2 oz. Karate was tank mixed with 1 gal. Duet + 0.2 oz. Londax + 1% Crop Oil on May 1.

VERMILION PARISH

From the beginning the field in Vermilion parish posed difficult problems. It had been flooded in late winter to prevent red rice from emerging, however when the field was drained following water planting 2 to 3-leaf red rice plants could be found scattered throughout the field. Knowing the variety, Francis, had less seedling vigor than Cypress or Cocodrie and that red rice was a serious problem in this field meant very careful water management would be necessary especially in the beginning.

Shortly after establishing a pinpoint flood the field had to be drained because cold temperatures appeared to slow seedling growth. As soon as temperatures rose the flood was established again to continue efforts to suppress red rice. This dictated the application of the first of two applications of nitrogen into the flooded field. This is diametrically opposed to current AgCenter recommendations, but we had no choice.

Clincher herbicide was recommended to control sprangletop and other grasses. This was followed by a mixture of Londax and Karate, the Londax for broadleaf weed control and the Karate for rice water weevil control. 2,4-D had to be applied at mid-season to clean up some of the broadleaf weeds. When the rice was heading Mustang Max was utilized to control rice stink bugs. For some reason we did not get good control of the stink bugs, but the manufacturer of the insecticide provided material to re-spray the field. Results were excellent the second time.

The field stayed amazingly free of disease for much of the growing season. Sheath blight was virtually absent from the field which was a first for the program. Unfortunately, collar and rotten neck forms of blast appeared about the time the grains were in the soft dough stage. Because of the lateness of the appearance of symptoms it was decided fungicide application would be of little economic benefit. Perhaps an application in early heading or late boot would have been of benefit.

Harvest put the icing on the cake. Grain yield was from 570 to 730 pounds (3.5 to 4.5 barrels, 13 to 16 bushels) less than estimated. In 2002 an adjacent field of Wells performed opposite by providing much higher yield than anyone expected. Remembering this only added insult to injury.

Although for different reasons, yields from the Vermilion field, like the Jeff Davis field were disappointing. The second crop in Vermilion was 842 pounds (5.2 barrels, 18.7 bushels) per acre for a total of 6480 pounds (40 barrels, 144 bushels) per acre. The adjacent field had been in the verification program last year and had been the highest yielding field on this farm with a total yield of around 2106 pounds (13 barrels, 47 bushels) per acre more than this year.

VERMILION PARISH

Cooperator: Richard Hardee

Agent: Howard Cormier

Field Size: 33.0 Acres

CULTURAL PRACTICES

Variety: Francis

Method of Planting: Water Plant

Water Management: Pinpoint Flood

- Dry seed with no treatment.

Seeding Rate: 115 lbs/Acre

Date of Planting: March 27

Date of Emergence: April 10

GROWTH AND DEVELOPMENT

Stage	Observation Date	DD50 Date
Green Ring	May 13	May 19
PD	May 24	May 28
50 % Heading	June 12	June 22
Drain for Harvest	July 10	July 14
Harvest	July 21	July 28

YIELD, MILLING AND ECONOMIC DATA

	Yield @ 12 % Moisture (cwt./acre)	Milling Yield (% whole / % total)	Variable Costs (\$/acre) ¹	Cost of Production (\$/cwt.) ¹	Return on Variable Costs (\$/acre) ^{1,2}
1st Crop	56.38	62.4 / 72.0	239.25	3.69	246.75
2nd Crop	8.42	61.6 / 69.4			

Average Parish Yield (1st and 2nd Crop): 56.70 cwt./acre

¹ 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.

² This value was obtained using a selling price of \$7.50/cwt.

FERTILIZATION

Nitrogen Rate	Nitrogen Timing	P & K Rate	P & K Timing	Soil Test Used
140 # 46-0-0	April 22	120 # 0-18-36	March 3	LSU
140 # 46-0-0	May 17			
160 # 46-0-0	July 25 (2 nd Crop)			

WEED MANAGEMENT

Weeds Present	Date of Treatment Decision	Recommendation
Sprangletop	April 22	15 oz. Clincher + 1 qt. Crop Oil
Gratiola, Ducksalad, Pickerelweed, Bull Tongue, Alligator, Sedge, Creeping Spot Flower, Roundleaf Mud Plantain, Arrowhead, Water Primrose	April 25	1.22 oz. Londax + 1% Crop Oil
Arrowhead, Roundleaf Mud Plantain	May 16	2 pt. 2,4-D

- The 1.22 oz. Londax + 1% Crop Oil was tank mixed with 2 oz. Karate on April 25.

DISEASE MANAGEMENT

Diseases Present	Date of Treatment Decision	Recommendation
None	-----	None

INSECT MANAGEMENT

Insects Present	Date of Treatment Decision	Recommendation
Rice Water Weevil (Adults)	April 25	2 oz. Karate
Rice Stink Bug	June 18	2.93 oz. Mustang Max + 1 pt. Crop Oil
Rice Stink Bug	June 24	2.93 oz. Mustang Max

- The 2 oz. Karate was tank mixed with 1.22 oz. Londax + 1% Crop Oil on April 25.