

LOUISIANA RICE RESEARCH VERIFICATION PROGRAM 1998

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Introduction

The Louisiana Rice Research Verification Program (LRRVP) was begun in 1997 without any outside funding in three parishes as a trial run. In 1998 the project was funded and the program expanded to ten parishes: Acadia, Avoyelles, Calcasieu, East Carroll, Evangeline, Jeff Davis, Madison, Morehouse, St. Landry and Vermilion. These were selected to represent all of the major rice growing areas of the state.

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 5969 pounds per acre in comparison to the state average of 5000 pounds per acre (Extension Service estimate). Yields of all fields exceeded parish averages except Acadia parish. Second or ratoon crop yields were not included in these comparisons. Second crops were grown in Acadia, Calcasieu and Jeff Davis, but these were without the direct supervision of the LSU Ag Center personnel.

Economic data were collected by Extension Specialist Gene Johnson. These data revealed large differences in costs of production between growers. Most of the differences were in rental agreements and water costs (Table 2).

Through this program unanticipated problems were identified. The first occurred in Calcasieu parish in both 1997 and 1998. For reasons yet undetermined potassium deficiency developed in the verification fields at or near mid-season even though potassium fertilizer had been applied in what should have been adequate amounts. Because this problem arose in verification fields which led to its diagnosis and treatment, many fields in the surrounding area experiencing the same problem were able to receive proper treatment.

The second problem to be identified through the verification program was the failure of the rice water weevil scouting procedures associated with Karate insecticide to work adequately in field situations. This discovery prompted immediate changes to the procedure for the 1998 season with subsequent modification for the 1999 growing season.

The program is fulfilling its objective of verifying current recommendations. For the most part, current recommendations are correct. Only the most recent recommendation, that concerning the use of

Karate insecticide for rice water weevil control, was found to be unsatisfactory in some field situations. In addition, previously unidentified problems, such as the potassium deficiency in the Calcasieu/Cameron area have been diagnosed and a corrective practice put into place. The program has also aided in identifying areas of research which need further investigation. The educational value of the program to all concerned, growers, researchers and extension personnel is incalculable.

¹ This project is supported in part by funding provided by rice producers through the Louisiana Rice Research Board.

Table 2. Verification Program 1st Crop Yield and Variable Cost Summary

Parish	Yield/Acre @ 12% Moisture (lb)	Variable Cost/Acre (\$)
Acadia	5320	242.23
Avoyelles	6950	208.20
Calcasieu	5525	359.54
East Carroll	6651	
Evangeline	6950	320.32
Jefferson Davis	6043	296.29
Madison	6318	264.28
Morehouse	5468	301.93
St. Landry	6188	267.27
Vermilion (recommended)	4763	260.41
Vermilion (conservative)	3418	156.52

Acadia Parish

The field chosen in Acadia Parish was in the lower southwestern portion of the parish just south of the community of Morse. This area of the parish has traditionally produced lower yields and experienced more disease pressure than areas of the parish north of Interstate 10.

Strong winds shortly after planting resulted in exposure of soil in windward areas of the field with subsequent red rice problems even though an attempt at pinpoint flooding was made. The herbicide program consisted of a single application of a mixture of 0.33 pounds of Facet plus 1.0 ounce of Londax. The Facet rate while lower than in the LSU Ag Center's Suggested Chemical Weed Control Guide was agreed upon by the grower, the County Agent and the Specialist because no residual control from the herbicide was desired.

In this field Karate insecticide was used for rice water weevil control with good results. Quadris fungicide was used to control sheath blight. Methyl parathion in the form of PennCap M was used for control of the rice stink bug.

The field was harvested at 18.5% moisture on August 5, 1998. The yield was 80 pounds per acre lower than the parish average. The heavy red rice pressure on one portion of the field is the most likely cause of the yield reduction.

Acadia Parish

Field Size: 53 acres

Cooperator: Thibodeaux Brothers

Agent: Ronnie Levy

Cultural Practices

Variety: Cypress

Seeding Rate: 120 lb. /A

Method of Planting: Water

Date of Planting: 4/3/98

Water Management: Pinpoint

Date of Emergence: 4/8/98

Growth and Development

Stage	Observation Date	DD50 Date
Green Ring	5/20	5/23
50% Heading	6/27	6/24
Drain for Harvest	7/20	-----
Harvest	8/5	7/29

Yield: 5320 lbs/acre @ 12% moisture - 1st Crop
2155 lbs/acre @ 12% moisture - 2nd Crop
7475

Parish Average: 5400 lbs/acre

Fertilization

N Rate	N Timing	P & K Rate	P & K Timing	Soil Test Used?
200# 46-0-0	Preflood	200# 0-30-20	Fall	
100# 46-0-0	Topdress			

Remarks on Fertilization:

Pest Management

Parish: Acadia

Weed Management

Weeds Present	Date of Treatment Decision	Recommendation
Alligator, Pickerel, Brooks, Jvtch, Manna, Red	4/23/98	0.33 lb. Facet + 1 oz. Londax + 2 pt. COC

Remarks on Weed Management:

Disease Management

Diseases Present	Date of Treatment Decision	Recommendation
Sheath Blight	6/9/98	12.3 oz. Quadris

Remarks on Disease Management:

Insect Management

Insects Present	Date of Treatment Decision	Recommendation
Rice Water Weevil	5/5/98	3.84 oz. Karate

Rice Stink Bug	6/30/98	0.25 lb. Methyl

Remarks on Insect Management:

Avoyelles Parish

The Avoyelles Parish field was located on heavy clay soil that required neither phosphorus nor potassium fertilizer. The field had been recently laser leveled.

The herbicide program of 3 quarts of propanil plus 2 pints of Bolero did not effectively control all weeds. Part of the problem was a consequence of water management factors beyond the control of the grower. Later in the season 2 pints of Basagran had to be applied to control escaped duckweed and other broadleaf weeds.

Karate insecticide was used successfully to control the rice water weevil, but two applications were required. This field benefitted from earlier experience with Karate in Calcasieu and Jeff Davis Parishes and the subsequent changes in scouting procedure and application timing.

Disease pressure was light, alleviating the necessity of fungicide usage. Stink bugs never reached threshold values.

Despite water availability problems the yield was 2300 pounds per acre higher than the parish average and equal to the Evangeline parish yield resulting in a tie between the two for the highest yields in the verification program.

Avoyelles Parish

Field Size: 32.5 acres

Cooperator: Phillip Lamartiniere

Agent: Carlos Smith

Cultural Practices

Variety: Cypress

Seeding Rate:

Method of Planting: Water

Date of Planting: 4/11/98

Water Management: Pinpoint

Date of Emergence: 4/17/98

Growth and Development

Stage	Observation Date	DD50 Date
Green Ring	5/30	5/29
50% Heading	7/10	7/1
Drain for Harvest	8/4	-----
Harvest	8/25	8/5

Yield: 6950 lbs/acre @ 12% moisture

Parish Average: 4600 lbs/acre

Fertilization

N Rate	N Timing	P & K Rate	P & K Timing	Soil Test Used?
175# 46-0-0	Preflood		none used	Yes
135# 46-0-0	Topdress			

Remarks on Fertilization:

Pest Management

Parish: Avoyelles

Weed Management

Weeds Present	Date of Treatment Decision	Recommendation
Dksld, rushes, sedges	4/30/98	3 qt. Stam + 2 pt. Bolero
Morning glory, Mex. weed	5/20/98	1.0 pt. Grandstand*
Dksld	6/4/98	2 pt. Basagran + COC

Remarks on Weed Management: * Used on approximately 4 acres in one corner of field.

Disease Management

Diseases Present	Date of Treatment Decision	Recommendation
No thresholds reached		

Remarks on Disease Management:

Insect Management

Insects Present	Date of Treatment Decision	Recommendation

Rice Water Weevil	5/13/98	3.84 oz. Karate
Rice Water Weevil	5/20/98	3.84 oz. Karate
Rice Stink Bug	7/8/98	0.25 lb. Methyl

Remarks on Insect Management:

Calcasieu Parish

The Calcasieu Parish field was actually located just inside the Cameron Parish line, but because the grower resides in Calcasieu Parish and most of his farming operation is also in Calcasieu Parish it was considered a Calcasieu Parish field.

This field posed special problems from the beginning. Because it followed cattle grazing in the winter under the landlord's supervision the farmer was forced to prepare the seedbed late. The field had to be prepared in the water with a large amount of plant material incorporated. Its history of red rice prompted the grower to use Ordram pre-plant incorporated. Londax was later used for broadleaf weed control. The application of Londax was a little late requiring a subsequent application of 2,4-D at mid-season.

The less than satisfactory seedbed combined with a five inch rain when the rice plants were in the two leaf stage posed several problems. To save the rice plants without losing red rice suppression the field had to be drained then flooded within a few days. The plants showed severe stress during this period.

Although rice water weevil adults were never detected at the then recommended threshold levels subsequent checks found the larvae to be at threshold. This meant that Karate could not be used. The recommended 17 pounds of Furadan per acre was not available forcing the grower to use 15 pounds per acre. Larvae numbers remained at or near threshold levels, but the crop responded well.

Shortly afterward a potassium deficiency appeared. Potassium fertilizer was applied even though this is not a "recommended" procedure. The response was dramatic.

Quadris fungicide was applied to suppress stem rot and because a second crop was planned.

The first crop yield was 900 pounds per acre higher than the parish average and the second crop provided another 1360 pounds per acre. Considering the difficulties encountered in the beginning of the growing season this field demonstrated a remarkable recovery.

Calcasieu Parish

Field Size: 60 acres

Cooperator: Mike Schultz

Agent: Jerry Whatley

Cultural Practices

Variety: Cypress

Seeding Rate: 110 lb. /A

Method of Planting: Water

Date of Planting: 4/13/98

Water Management: Pinpoint

Date of Emergence: 4/20/98

Growth and Development

Stage	Observation Date	DD50 Date
Green Ring	5/26	5/29
50% Heading	7/3	6/30
Drain for Harvest	7/28	-----
Harvest	8/12	8/4

Yield: 5525 lbs/acre @ 12% moisture - 1st Crop
 1361 lbs/acre @ 12% moisture - 2nd Crop
 6886

Parish Average: 4620 lbs/acre

Fertilization

N Rate	N Timing	P & K Rate	P & K Timing	Soil Test Used?
150# 46-0-0	Preflood	250# 0-25-25	Spring	
150# 46-0-0	Topdress	50# 0-0-60*	6/2/98	

Remarks on Fertilization: * Potassium deficiency was diagnosed.

Pest Management

Parish: Calcasieu

Weed Management

Weeds Present	Date of Treatment Decision	Recommendation
Preplant	4/6/98	25 lb. Ordram ppi.
Dksld, Alligator, Jvtch, Redstem	5/5/98	1 oz. Londax
Dksld, Jvtch	5/26/98	2, 4-D

Remarks on Weed Management:

Disease Management

Diseases Present	Date of Treatment Decision	Recommendation
Sheath Blight & Stem Rot	7/6/98	12.3 oz. Quadris*

Remarks on Disease Management: * Pressure was fairly light - farmer's wishes - wanted to second crop.

Insect Management

Insects Present	Date of Treatment	Recommendation

	Decision	
Rice Water Weevil Larvae	5/19/98	17 lb. Furadan*

Remarks on Insect Management: * Farmer only had enough for 15 lb. /A of Furadan..

East Carroll Parish

The verification field in East Carroll Parish actually was two adjacent fields totaling a little less than 34 acres. Intentions were to drill the seed, but rain caused the farmer to fly in dry seed then flush the field to establish a stand.

Because the field was to be managed using a prolonged drainage system 4.5 pounds of Stam dry flowable were applied per acre. This was followed by an application of 100 pounds per acre of ammonium sulfate. While this is not a standard recommendation it is based on previous experience and work with Dr. Pat Bollich. On the heavy clay soils of Northeast Louisiana 20 pounds per acre of nitrogen appears to get the crop going quicker. A second application of 3 quarts of liquid propanil followed by 200 pounds of urea per acre were applied immediately ahead of the permanent flood.

Because rice water weevil adults and their leaf scars had been observed prior to establishment of the permanent flood it was recommended that Karate be applied as soon as the flood was established. The same day the Karate was to have been applied six inches of rain fell in four hours. However, due to a communications problem the flying service missed the verification field when spraying others. Once the problem was diagnosed (it first appeared that Karate had failed) a recommendation of Furadan was made.

In addition to the normal topdressing of nitrogen at mid-season, an application of 100 pounds of ammonium sulfate per acre was made because nitrogen deficiency was appearing in some areas of the field. Again, although this is not standard procedure, it is common to apply nutrients to correct diagnosed deficiencies.

Quadris fungicide was applied to control sheath blight.

The yield of 6650 pounds per acre was nearly 1400 pounds above the parish average and second highest in the verification program.

East Carroll Parish

Field Size: 33.9 acres

Cooperator: Ed Patrick

Agent: Don Weston

Cultural Practices

Variety: Cypress

Method of Planting: Broadcast - Dry

Water Management: Delayed

Seeding Rate:

Date of Planting: 4/25/98

Date of Emergence: 5/4/98

Growth and Development

Stage	Observation Date	DD50 Date
Green Ring	6/20	6/13
50% Heading	7/27	7/13
Drain for Harvest	8/22	-----
Harvest	9/7	8/17

Yield: 6651 lbs/acre @ 12% moisture

Parish Average: 5265 lbs/acre

Fertilization

N Rate	N Timing	P & K Rate	P & K Timing	Soil Test Used?
100# 21-0-0-24	Prior to flush			
200# 46-0-0	Preflood			
100# 46-0-0	Topdress			
100# 21-0-0-24*	7/2/98			

Remarks on Fertilization: * N deficiency was diagnosed.

Pest Management

Parish: East Carroll

Weed Management

Weeds Present	Date of Treatment Decision	Recommendation
Byg, Balloon vine, Tea weed, M.G.	5/7/98	Gave Options: Facet or Stam + Bolero or Stam + Stam*
Byg, Smell Melon, M.G., Mex. weed, Balloon vine, Sedges	5/21/98	3 qt. Stam

Remarks on Weed Management: * Farmer applied 4.5 lb. Stam DF.

Disease Management

Diseases Present	Date of Treatment Decision	Recommendation
Sheath Blight	7/9/98	12.3 oz. Quadris

Remarks on Disease Management:

Insect Management

Insects Present	Date of Treatment	Recommendation

	Decision	
Rice Water Weevil	5/21/98	3.84 oz. Karate*
Rice Water Weevil Larvae	6/11/98	17 lb. Furadan

Remarks on Insect Management: * Karate had not been applied - had to use Furadan.

Evangeline Parish

Seedbed preparation of this field began with an application of 1.2 pints of Roundup per acre followed by nitrogen and potassium fertilizer. No phosphorus was needed based on a soil test. The field was immediately flooded and lightly worked in the water.

After planting and draining the field was flushed to keep the soil sealed while allowing plants to become established. As soon as the plants were large enough Facet herbicide was applied with the intention of avoiding additional broadleaf herbicide. Broadleaf weeds did become a problem and Londax herbicide was applied.

Karate was used successfully to control rice water weevils in this field.

This field had the heaviest sheath blight pressure of the verification fields. Quadris fungicide was applied slightly earlier than is normally recommended. This decision was reached after consultation with plant pathologists and taking into account the hot dry weather pattern. The fungicide held the disease in check until late in the season.

Stink bugs never reached threshold levels.

The yield of 6950 pounds per acre tied the Avoyelles Parish yield for the highest in the program and exceeded the very high parish average yield by 1000 pounds per acre. The Evangeline Parish average yield was the highest parish average reported by the Extension Service surveys.

Evangeline Parish

Field Size: 33 acres

Cooperator: Steve Mayeux

Agent: Keith Fontenot

Cultural Practices

Variety: Cypress

Seeding Rate: 120 lb. /A

Method of Planting: Water

Date of Planting: 4/9/98

Water Management: Pinpoint

Date of Emergence: 4/17/98

Growth and Development

Stage	Observation Date	DD50 Date
Green Ring	5/27	5/28
50% Heading	6/29	6/29
Drain for Harvest	7/24	-----
Harvest	8/10	8/10

Yield: 6950 lbs/acre @ 12% moisture

Parish Average: 5929 lbs/acre

Fertilization

N Rate	N Timing	P & K Rate	P & K Timing	Soil Test Used?
130# 46-0-0	Preflood	182# 18-0-36	Spring	Yes
100# 46-0-0	Topdress			

Remarks on Fertilization:

Pest Management

Parish: Evangeline

Weed Management

Weeds Present	Date of Treatment Decision	Recommendation
Preplant Burndown	3/6/98	1.2 pt. Roundup
Byg, Jvtch	4/28/98	0.5 lb. Facet + 2 pt. COC
Red Stem, Dksld	5/6/98	1 oz. Londax

Remarks on Weed Management:

Disease Management

Diseases Present	Date of Treatment Decision	Recommendation
Sheath Blight	6/10/98	12.3 oz. Quadris*

Remarks on Disease Management: * Applied just before P.D. due to heavy pressure, cleared with Dr. Hollier.

Insect Management

Insects Present	Date of Treatment	Recommendation
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	Decision	
Rice Water Weevil	5/13/98	3.84 oz. Karate

Remarks on Insect Management:

Jeff Davis Parish

In this field presprouted seed were water planted and the field drained. Before establishing the permanent flood in the pinpoint system 150 pounds of urea per acre was applied. This represented a departure from the growers normal nitrogen fertilization program.

Londax herbicide was used at 1.0 ounce per acre. No grass herbicide was required because of the excellent water management.

The field was scouted diligently for rice water weevil adults. Very little leaf scarring was noted and few adults were found. At mid-season larvae were found to be at threshold. This was the first situation in which a failure of the scouting procedure associated with management of the rice water weevil with Karate insecticide had been documented. Furadan had to be applied.

Even though sheath blight pressure was not very heavy, the disease was present in the fields and the grower intended to harvest a second crop. Quadris fungicide was recommended at the label rate of 12.3 ounces per acre. The grower, without consulting with Ag Center personnel, applied 8 ounces of Quadris plus Pennncap M (methyl parathion formulation) per acre. The grower was informed that the fungicide rate was too low and the insecticide was totally unwarranted. Subsequent to this the grower made a second application of 6 ounces of Quadris plus Pennncap M to the field. Both applications violated recommended procedures.

The farmer later drained the field earlier than recommended. Yields were excellent despite these problems. The field averaged a little over 6000 pounds per acre on the first crop which was over 800 pounds per acre greater than the parish average. The second crop averaged nearly 1200 pounds per acre.

Jeff Davis Parish

Field Size: 61.8 acres

Cooperator: Winn Watkins

Agent: Eddie Eskew

Cultural Practices

Variety: Cypress

Seeding Rate: 110 lb. /A

Method of Planting: Water

Date of Planting: 3/24/98

Water Management: Pinpoint

Date of Emergence: 4/1/98

Growth and Development

Stage	Observation Date	DD50 Date
Green Ring	5/15	5/19
50% Heading	6/23	6/20
Drain for Harvest	7/7	-----
Harvest	7/28 - 8/3	7/25

Yield: 6043 lbs/acre @ 12% moisture - 1st Crop
1196 lbs/acre @ 12% moisture - 2nd Crop
7239

Parish Average: 5184 lbs/acre

Fertilization

N Rate	N Timing	P & K Rate	P & K Timing	Soil Test Used?
150# 46-0-0	Preflood	200# 0-18-36	Fall	
150# 46-0-0	Topdress	1 gal. Zn Chelate	Postflood	

Remarks on Fertilization:

Pest Management

Parish: Jeff Davis

Weed Management

Weeds Present	Date of Treatment Decision	Recommendation
Dksld, Alligator, Smartweed, Sedges	4/13/98	1.25 oz. Londax
Dksld, Alligator, Smartweed	5/12/98	1 pt. 2, 4-D*

Remarks on Weed Management: * Farmer applied 3 pt. 2, 4-D.

Disease Management

Diseases Present	Date of Treatment Decision	Recommendation
Sheath Blight	6/16/98	12.3 oz. Quadris*

Remarks on Disease Management: * Farmer applied 8 oz. Quadris + Penncap M on 6/16 - Penncap M was not recommended. Farmer applied 6 oz. Quadris + Penncap M on 6/30 - neither were recommended.

Insect Management

Insects Present	Date of Treatment Decision	Recommendation

Rice Water Weevil Larvae	5/12/98	17 lb. Furadan

Remarks on Insect Management:

Madison Parish

This field was planted prior to finalizing all arrangements for the verification program. Three weeks after drilling an acceptable stand did not exist. Flushing was recommended; following which, emergence improved and the decision made to not replant.

The initial herbicide application was a mixture of 0.5 pounds of Facet plus 1.0 quart of propanil per acre. While this is not a recommended practice it was tolerated because it has been a common practice in that area of the state. The use of Facet was agreed upon based on the growers assertion that sprangletop was not a problem in this field. That later turned out to be incorrect. Londax was applied subsequently to control Texasweed.

Two hundred pounds of urea per acre were applied just prior to flooding. The second nitrogen application was a routine one at mid-season.

While the field was still drained rice water weevil adults were observed. Karate was recommended as soon as the permanent flood was established.

Quadris was recommended to control sheath blight.

Stink bugs had been observed in the sprangletop and barnyardgrass prior to rice heading. The inclusion of methyl parathion with the Quadris application was discussed, but since this was not a recommended procedure it was not performed. Two applications of methyl parathion were required later to control the extremely heavy population.

The greatest yield limiting factor in this field was the uneven stand and the heavy sprangletop pressure in portions of the field. The 6300 pounds per acre yield exceeded the parish average yield by nearly 1200 pounds per acre.

Madison Parish

Field Size: 36.6 acres

Cooperator: Tom Bartholomew

Agent: Mike Rome

Cultural Practices

Variety: Cypress

Seeding Rate: 105 lb. /A

Method of Planting: Drilled

Date of Planting: 4/7/98

Water Management: Delayed

Date of Emergence: 4/28/98

Growth and Development

Stage	Observation Date	DD50 Date
Green Ring	6/10	6/10
50% Heading	7/19	7/11
Drain for Harvest	8/12	-----
Harvest	9/3	8/15

Yield: 6318 lbs/acre @ 12% moisture

Parish Average: 5175 lbs/acre

Fertilization

N Rate	N Timing	P & K Rate	P & K Timing	Soil Test Used?
200# 46-0-0	Preflood			
100# 46-0-0*	Topdress			

Remarks on Fertilization: * Recommended 125# urea.

Pest Management

Parish: Madison

Weed Management

Weeds Present	Date of Treatment Decision	Recommendation
Byg. 1-4, M.G., Smell melon	5/6/98	0.5 lb. Facet + 1 qt. Propanil then flush*
Texasweed, Sprangletop	6/4/98	1 oz. Londax + COC 1%

Remarks on Weed Management: * Farmer said there was no history of sprangletop.

Disease Management

Diseases Present	Date of Treatment Decision	Recommendation
Sheath Blight	7/2/98	12.3 oz. Quadris

Remarks on Disease Management:

Insect Management

Insects Present	Date of Treatment Decision	Recommendation

Rice Water Weevil	5/20/98	3.84 oz. Karate after flood
Rice Stink Bug	7/15/98	0.25 lb. Methyl
Rice Stink Bug	7/29/98	0.25 lb. Methyl

Remarks on Insect Management:

Morehouse Parish

The Morehouse Parish field was the last to be planted and was the only field not planted with the variety Cypress. Because it was a seed field of Cocodrie, a planting rate of about 50 pounds per acre was allowed even though the standard drill seeding rate is normally at least 90 pounds per acre.

As soon as the rice emerged weeds were present, especially sedges. A recommendation to flush the field then apply 3 quarts of propanil per acre was made with the intention of applying an additional 3 quarts of propanil or Arrosolo plus 1.25 to 1.5 ounces of Londax per acre in about two weeks. Instead a dealer representative recommended a combination of 0.5 pounds of Facet plus 0.75 ounces of Londax per acre prior to flushing. This combination did not provide satisfactory weed control. An additional 0.75 ounces of Londax per acre was applied, but still did not provide adequate sedge control. DuPont chemical company later paid for an application of Basagran to control sedges. The grower asked for and was given permission to use Whip to control grasses along the edges of the field. It appeared later that the aerial applicator may have applied it to more than the edges of the field causing injury and straighthead like symptoms. This could not be ascertained.

Karate was used successfully to control rice water weevils.

Quadris fungicide was applied even though disease pressure was moderate because the field was intended for seed production.

The yield of nearly 5500 pounds per acre exceeded the parish average by nearly 500 pounds per acre despite the low planting rate and a large area of the field in which plants exhibited symptoms similar to either straighthead or Whip herbicide injury. Plants from this area were examined by Drs. Bollich and Linscombe of the Rice Research Station with no solid conclusion drawn.

Morehouse Parish

Field Size: 63 acres

Cooperator: Mike Costello

Agent: Terry Erwin

Cultural Practices

Variety: Cocodrie

Seeding Rate: 50 lb. /A

Method of Planting: Drilled

Date of Planting: 5/8/98

Water Management: Delayed

Date of Emergence: 5/15/98

Growth and Development

Stage	Observation Date	DD50 Date
Green Ring	6/24	6/15
50% Heading	7/31	7/18
Drain for Harvest	8/30	-----
Harvest	9/19	8/23

Yield: 5468 lbs/acre @ 12% moisture

Parish Average: 4950 lbs/acre

Fertilization

N Rate	N Timing	P & K Rate	P & K Timing	Soil Test Used?
200# 46-0-0	Preflood	100# 18-46-0	Spring	
100# 46-0-0	Topdress			

Remarks on Fertilization:

Pest Management

Parish: Morehouse

Weed Management

Weeds Present	Date of Treatment Decision	Recommendation
Signal grass, Texasweed, Sedges-large, Byg-small	5/21/98	Flush then 3 qt. Stam*
Sedges	6/11/98	0.75 oz. Londax
Sedges	6/24/98	2 pt. Basagran

Remarks on Weed Management: * Farmer applied 0.5 lb. Facet + 0.75 oz. Londax + COC.

Disease Management

Diseases Present	Date of Treatment Decision	Recommendation
Sheath Blight, Stem Rot	7/22/98	12.3 oz. Quadris

Remarks on Disease Management:

Insect Management

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Insects Present	Date of Treatment Decision	Recommendation
Rice Water Weevil	6/11/98	3.84 oz. Karate
Rice Stink Bug	8/11/98	0.25 lb. Methyl

Remarks on Insect Management:

St. Landry Parish

The St. Landry Parish field was planted with presprouted Cypress seed then drained. Because of the history of light red rice pressure a prolonged drainage water management system was employed. One flush was required prior to the application of 4 quarts of propanil and 1.0 ounce of Londax per acre. This was followed by an application of nitrogen and establishment of permanent flood. Phosphorus was not required, but potassium was needed and had been applied prior to planting.

As soon as the permanent flood was established over the entire field Karate was applied for rice water weevil control because adults had been detected before the field was flooded. From this it was learned that in delayed flood water management systems Karate will work well and is much less difficult to time even in South Louisiana.

The well located at this field ran constantly in 1998. Nearly constant water movement through the top two paddies apparently caused some nitrogen loss. Nitrogen was applied a few days later than desired because of scheduling problems.

Sheath blight was detected just past mid-season and Quadris was recommended.

Later methyl parathion was applied to control stink bugs.

More rainfall occurred between the time the field was drained for harvest and harvest than the entire previous part of the season. As a result the farmer had to abandon intentions of producing a second crop even though otherwise the field would have been an ideal candidate for a ratoon crop. The yield of nearly 6200 pounds per acre exceeded the parish average by more than 1600 pounds per acre.

St. Landry Parish

Field Size: 37.1 acres

Cooperator: Mark Reiners

Agent: Keith Normand

Cultural Practices

Variety: Cypress

Seeding Rate: 140 lb. /A

Method of Planting: Water

Date of Planting: 4/17/98

Water Management: Pinpoint

Date of Emergence: 4/26/98

Growth and Development

Stage	Observation Date	DD50 Date
Green Ring	6/3	5/31
50% Heading	7/10	7/2
Drain for Harvest	7/30	-----
Harvest	8/19	8/6

Yield: 6188 lbs/acre @ 12% moisture

Parish Average: 4540 lbs/acre

Fertilization

N Rate	N Timing	P & K Rate	P & K Timing	Soil Test Used?
150# 46-0-0	Preflood	100# 18-0-37	Spring	Yes
135# 46-0-0	Topdress			

Remarks on Fertilization:

Pest Management

Parish: St. Landry

Weed Management

Weeds Present	Date of Treatment Decision	Recommendation
Nut sedge, Signal grass, Byg, Alligator	5/5/98	4 qt. Stam + 1 oz. Londax

Remarks on Weed Management:

Disease Management

Diseases Present	Date of Treatment Decision	Recommendation
Sheath Blight	6/22/98	12.3 oz. Quadris

Remarks on Disease Management:

Insect Management

Insects Present	Date of Treatment Decision	Recommendation
Rice Water Weevil	5/19/98	3.84 oz. Karate

Rice Stink Bug	7/14/98	0.25 lb. Methyl

Remarks on Insect Management:

Vermilion Parish

The Vermilion Parish field began as an approximately 30 acre field into which was flown presprouted Cypress seed. The seedbed preparation was performed in water in the spring. The farmer had only had this field a few years and it still needed more land leveling. Weed pressure was heavy from the beginning because some species such as alligatorweed and smartweed had survived the mild winter and others germinated with the rice when the field was drained following planting.

A balanced fertilizer (19-19-19) had been applied in the fall. This fertilizer was not recommended. Nitrogen containing fertilizer should only be applied to a rice field just prior to or after establishment of a stand. The phosphorus and potassium rates were not based on a soil test, but the field was accepted into the program because of the lateness of the program's start.

Dr. Dearl Sanders recommended 0.5 pounds of Facet plus 1.0 ounce of Londax per acre for weed control. The grower found this treatment to be too expensive so he elected to split the field along a straight levee. This would permit a comparison of the two adjacent fields in addition to satisfying the grower.

Well problems caused a delay in flooding following herbicide and nitrogen fertilization. Rice water weevil adults were detected during this time and Karate was recommended. Unfavorable winds and the irregular field shape caused application problems from both a logistical and timing perspective. Ten days later rice water weevil larvae were detected at threshold levels and Furadan was recommended. This was the only field in the program to which both Karate and Furadan were applied. It demonstrated the difficulty in using Karate where fields are water planted and remain saturated, but not flooded. Apparently, rice water weevils are able to lay eggs under these conditions.

Difficulty maintaining a flood in some cuts of the field occurred throughout the season. Nitrogen deficiency was observed in these paddies, but because it would have been impractical to add nitrogen to them without adding nitrogen to other cuts where it was not needed none was applied.

Sheath blight pressure increased necessitating the use of Quadris. The farmer did not feel the expense justified and did not apply the material. The small quantity needed was provided from demonstration materials and applied ten days later than it should have been applied. This certainly reduced the efficacy and return on investment.

Stink bug pressure built up late thus no control measures were implemented.

The yield of 4763 pounds per acre slightly exceeded the parish average of 4390 pounds per acre and exceeded the adjacent field by nearly 1000 pounds per acre. Economic figures indicated a slight profit advantage as well.

Vermilion Parish

Field Size: 16.7 acres

Cooperator: Raywood Faulk

Agent: Howard Cormier

Cultural Practices

Variety: Cypress

Seeding Rate: 120 lb. /A

Method of Planting: Water

Date of Planting: 4/13/98

Water Management: Pinpoint

Date of Emergence: 4/22/98

Growth and Development

Stage	Observation Date	DD50 Date
Green Ring	6/2	5/30
50% Heading	7/10	7/1
Drain for Harvest	7/28	-----
Harvest	8/12	8/5

Yield: 4763 lbs/acre @ 12% moisture (Recommended Practices)
3418 lbs/acre @ 12% moisture (Conservative Practices)

Parish Average: 4390 lbs/acre

Fertilization

N Rate	N Timing	P & K Rate	P & K Timing	Soil Test Used?
150# 46-0-0	Preflood	125# 19-19-19*	Fall	No
125# 46-0-0	Topdress			

Remarks on Fertilization: * Nitrogen was not recommended in the fall.

Pest Management

Parish: Vermilion

Weed Management

Weeds Present	Date of Treatment Decision	Recommendation
Alligator, Jvtch, Byg, Smtweed, Dksld, Spikerush	5/1/98	0.5 lb. Facet + 1 oz. Londax + 2 pt. COC*

Remarks on Weed Management:* Farmer was unhappy with expense of this recommendation so he split the field and followed the recommendation on 16.7 acres rather than the entire 32.2 acres.

Disease Management

Diseases Present	Date of Treatment Decision	Recommendation
Sheath Blight, Stem Rot	6/30/98	12.3 oz. Quadris*

Remarks on Disease Management: * Quadris was not applied until 7/8/98.

Insect Management

Insects Present	Date of Treatment Decision	Recommendation

Rice Water Weevil (Adult)	5/12/98	3.84 oz. Karate
Rice Water Weevil (Larvae)	5/19/98	17 lb. Furadan

Remarks on Insect Management: