Topics

- Rice Variety Trial Results
- Variety Descriptions
- Date of Planting
- Furrow and Delayed-Flood
Long Grain Varieties

2014 Three Location Average (Bu/A)

- Cheniere: 148
- Francis: 160
- CL111: 167
- CL151: 161
- CL152: 165
- LaKast: 186
- Mementau: 186
- Roy J: 187
- Taggart: 180
- Wells: 157
- Mo0318016: 168
2014 Rice Farm, Water-Seeded, and Clay Soil Yields
Long Grain Varieties

2014 and Three Year Average (Bu/A)
Medium Grain Varieties

2014 Three Location Average (Bu/A)

- Caffey: 190
- CL271: 175
- Jupiter: 165
- Mo0215035: 190
- Mo0902162: 203
2014 Rice Farm, Water-Seeded, and Clay Soil Yields
Medium Grain Varieties

2014 and Three Year Average (Bu/A)

<table>
<thead>
<tr>
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<th>2014</th>
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<tr>
<td>Caffey</td>
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<td>Jupiter</td>
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2014 and Three Year Average (Bu/A)
New Variety Data

- **CL271**
  - A mid-season, medium grain Clearfield variety
  - Averaged 175 Bu/A across three locations in 2014
  - Heading date is about the same as Caffey

- **CL163 (CLX4122?)**
  - Yield potential between CL111 and CL151
  - Milling quality similar to CL111 and CL151
  - Blast tolerance similar to CL151
  - High amylose content (26%)
New Variety Data

- **Lakast**
  - A mid-season long grain variety with excellent yield potential with good milling quality.
  - Averaged 186 Bu/A across three locations in 2014
  - Heading date is similar to CL152
  - Susceptible to sheath blight and blast

- **Mermentau**
  - A mid-season, semi-dwarf, long grain with excellent yield potential and good milling quality
  - Averaged 186 Bu/A across three locations in 2014
  - Heading date is two days earlier than Wells
  - Similar agronomic traits to Cheniere
New Variety Release

- **MM14**
  - Formerly Mo0215035
  - A mid-season, medium grain variety with excellent yield potential
  - The milling quality averaged 74/70 in 2014
  - Averaged 190 Bu/A across three locations in 2014
  - Averaged 161 Bu/A across seven locations and three years
  - Averaged 215 Bu/A across five planting dates in 2014
  - Heading date is one day later than Jupiter
  - Moderately susceptible to sheath blight, Blast, and bacterial panicle blight
Effect of Planting Date Study

![Graph showing Yield and Days to 50% Heading]

- **Yield and Days to 50% Heading**
- **Axis Title**
- **Bu/A**
- **Days to 50% Heading**
Effect of Planting Date Study

Variety Yield Average Across Planting Dates

- Roy J
- Jupiter
- Mermentau
- Mo02.15035
- Mo03.02002
- Mo03.18016
- RU09.02162
- Mo03.26011
- Mo03.27009
- Mo04.062311
- Across Variety Avg

Bu/A
Days to Emergence from Planting and Days from Emergence to 50% Heading

[Graph showing days to emergence and days to 50% heading from April 2 to June 18]
Effect of Planting Date on %Total Weight and %Whole Weight
Furrow Irrigated Rice Production Research - Aide

• The original research was conducted initially to determine the effect of rice cultural practices on Arsenic (As) levels in rice.

  • Increased interest in growing furrow irrigated rice has resulted in continued research on this topic.

• Conducted at the Missouri Rice Research Farm (Crowley silt loam soil) and at an on-farm location (Sharkey clay soil).
2013 Irrigation Study Results

2013
Brown
Polished

mg - As /kg - dry matter

detection limit 0.1 mg/kg

Sharkey-Furrow
Crowley -Delayed Flood
Crowley-Furrow
2014 Irrigation Study Results

- Sharkey - Furrow
- Sharkey - Delayed Flood
- Crowley - Furrow
- Crowley - Delayed Flood

Detection limit 0.1 mg/kg

mg - As /kg - dry mat
Irrigation Yield Trial Summary

- Furrow irrigated rice yielded (field combine average of 162 Bu/A on Sharkey clay in 2013 and 166 Bu/A in 2014) which was greater than the corresponding Crowley furrow irrigated and drill-seeded, delayed flood irrigation system.

Furrow irrigated rice requires a new look at nitrogen fertilization in terms of fertilizer timing, sources (ammonium sulfate versus urea, and amounts) to minimize nitrogen losses attributed to denitrification.

Consequently it is suggested the producer consider following these procedures:
  - Select rice varieties that have some plant resistance to the rice disease ‘Blast’.
  - Split application of the first 120 lbs. N / acre nitrogen application (80 lbs. N / acre followed two weeks by 40 lbs. N / acre. Nitrogen application at mid-season is critical.
  - Plant tissue test for nitrogen two weeks post-nitrogen application.
  - Monitor furrow irrigation to always maintain wet soils.
So:

- Varieties
  - 2014 - Lakast, Mermentau, Roy J, and Taggart; Caffey and Mo5035
  - Multi-Year – CL151, Roy J, Taggart; Jupiter and Mo5035
  - New in 2015: LaKast, CL271, CL163, and MM14
So:

- **Effect of Planting Date**
  - Similar yield effects as observed previously
    - I.e. Early April Planting results in the highest yields
  - Some minor milling quality effect due to planting date
  - Hardest part…. Waiting for the early April planted rice to emerge
So:

• Furrow vs. Delayed-Flood
  • Lower ‘As’ levels in furrow irrigated rice
  • Good yields in furrow irrigated rice on Sharkey clay soils
  • Topics to consider
So:

• Are there any questions??
• Thank You!