



# The Economics of Rice Production

LATMC Meeting  
Marksville, LA  
Friday, February 19, 2016

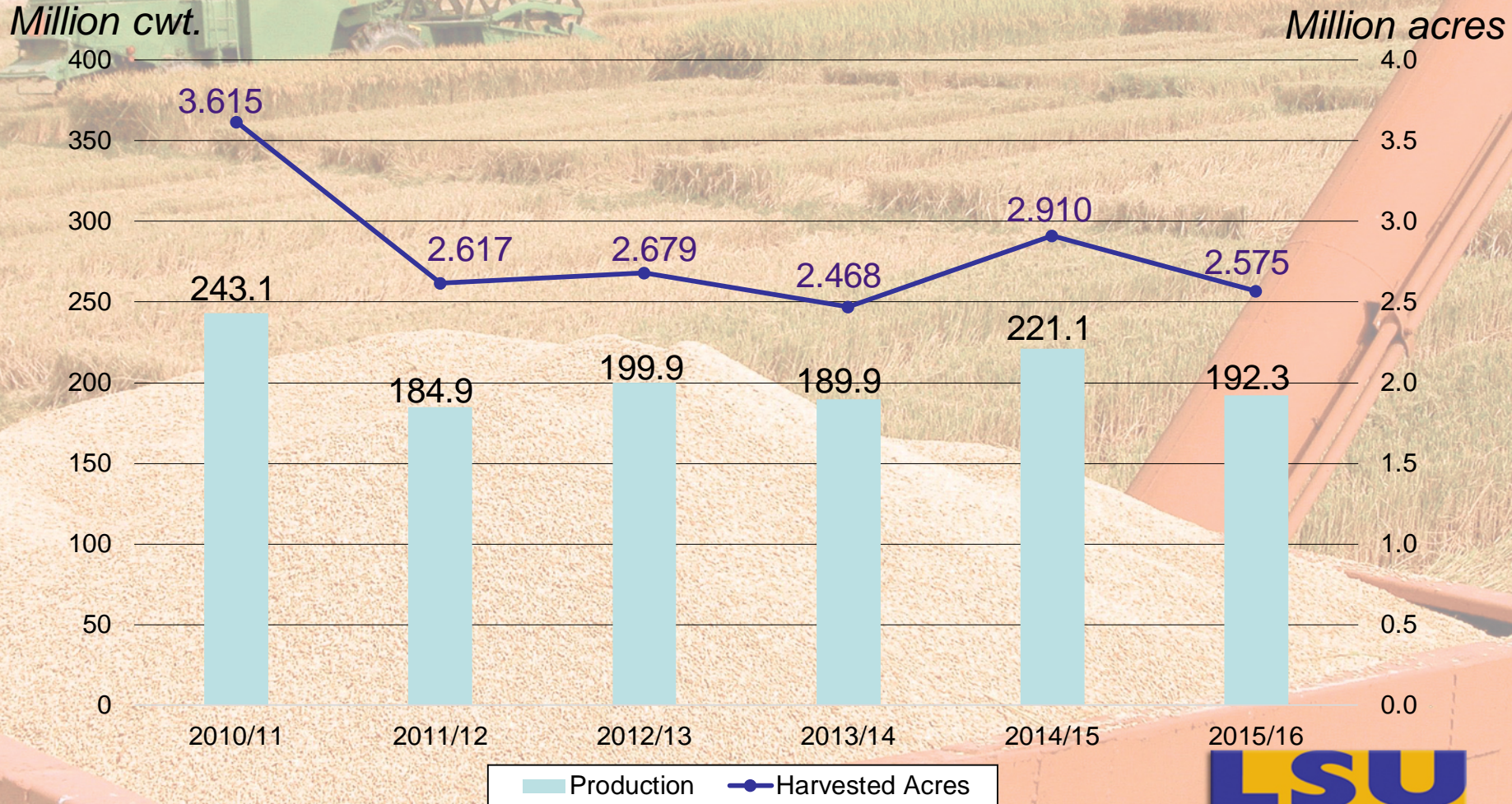
Dr. Michael Deliberto

Department of Agricultural Economics & Agribusiness  
Louisiana State University Agricultural Center  
Baton Rouge, LA



# U.S. Rice Production

*National Yield estimated at 74.70cwt/ac*



Source: USDA NASS.



# Total Rice Supply and Use

TOTAL RICE	2013/14	2014/15 Est.	2015/16 Proj. Feb.
		<i>Million Acres</i>	
Area Planted	2.49	2.95	2.61
Area Harvested	2.47	2.93	2.58
		<i>Pounds</i>	
Yield per Harvested Acre	7,694	7,576	7,470
		<i>Million Hundredweight</i>	
Beginning Stocks	36.4	31.8	48.5
Production	190.0	222.2	192.3
Imports	23.1	24.7	24.0
Supply, Total	249.5	278.7	264.9
Domestic & Residual	124.4	129.9	121.0
Exports, Total	93.3	100.3	102.0
Rough	28	34	35
Milled (rough equiv.)	65.3	66.3	67.0
Use, Total	217.7	230.2	233.0
Ending Stocks	31.8	48.5	41.9
Avg. Milling Yield (%)	71.0	70.5	70.0
Avg. Farm Price (\$/cwt)	16.30	13.40	12.50-13.30

Source: USDA. WASDE Report. February 9, 2016.



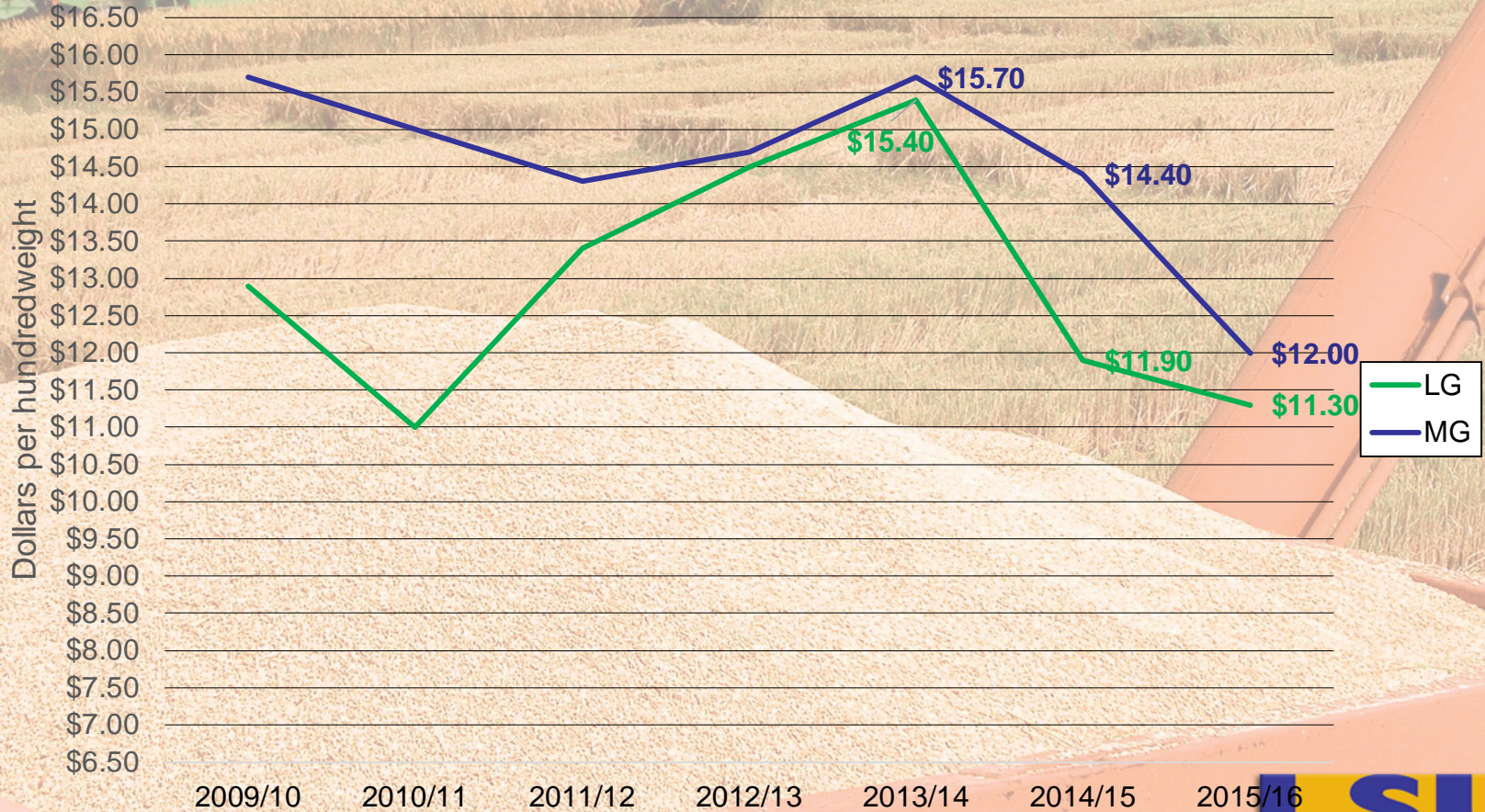
# LG Rice Supply and Use

TOTAL RICE	2013/14	2014/15 Est.	2015/16 Proj. Feb.
		<i>Million Acres</i>	
Area Harvested	1.77	2.20	1.84
		<i>Pounds</i>	
Yield per Harvested Acre	7,464	7,407	7,218
		<i>Million Hundredweight</i>	
Beginning Stocks	21.9	16.2	26.5
Production	131.9	162.7	133.0
Supply, Total	173.3	200.0	180.0
Domestic & Residual	95.3	102.7	88.0
Exports, Total	61.9	70.8	69.0
Use, Total	157.1	173.5	157.0
Ending Stocks	16.2	26.5	23.0
Avg. Farm Price (\$/cwt)	15.40	11.90	11.00-11.60

Source: USDA. WASDE Report. February 9, 2016.



# Rice Prices, by Class



Source: USDA NASS.



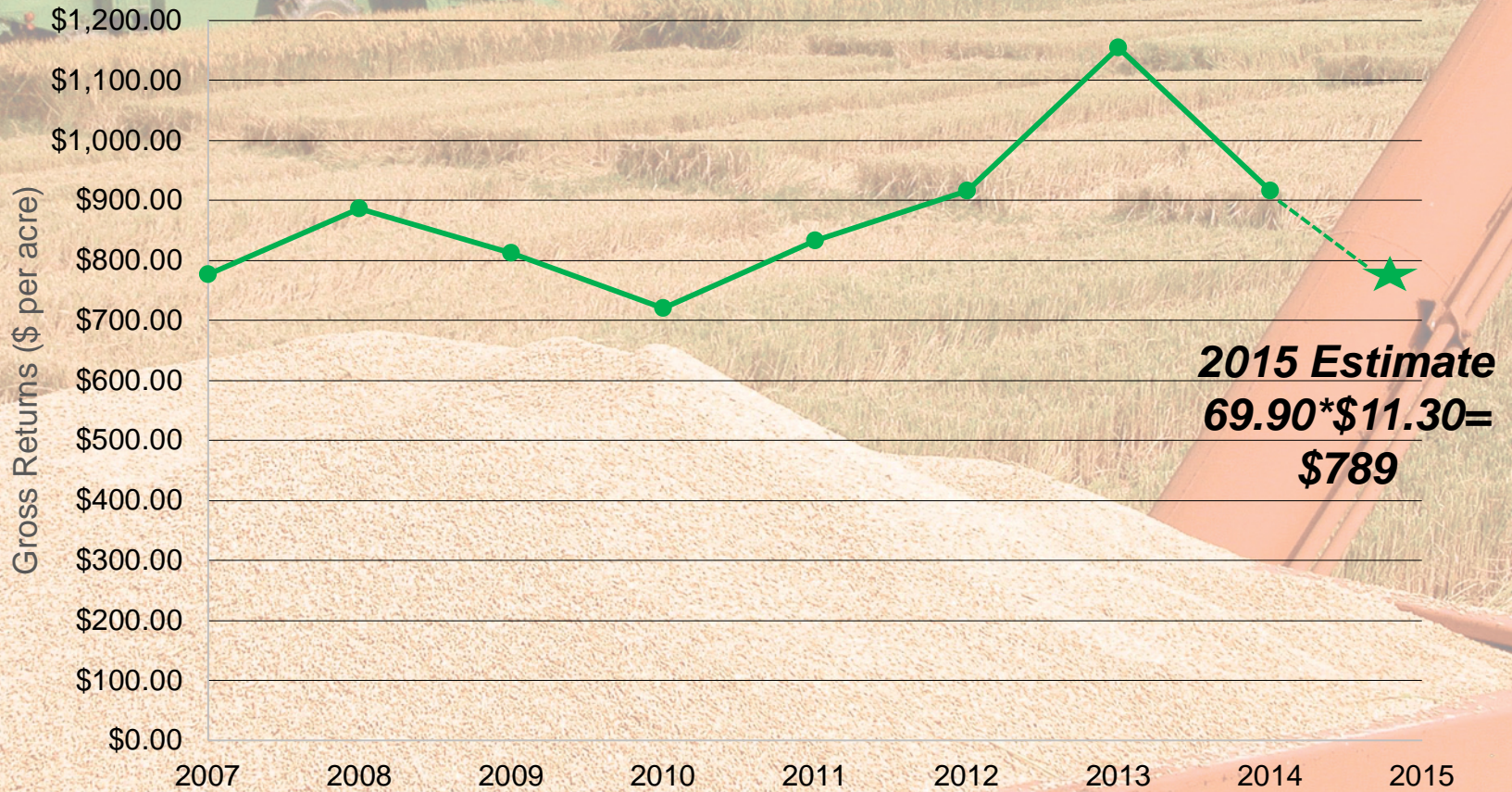
# Market Outlook

- Downward revisions to farm prices
  - LG (\$11.30) and MG (\$17.10)
- Long grain production forecasted at 133.0 M cwt
- Supply forecasted to be 5% lower than a year earlier
- Exports are 2% larger than a year ago

Source: USDA. ERS. "Rice Outlook." January 14, 2016 and USDA February 9, 2016 WADSE.



# Long Grain Gross Returns/ac



Source: USDA NASS. Long Grain Acreage, Yield, Production, and Price for Louisiana.





# Milling Characteristics

- Milling yield interpretation
  - base price of \$12.00/cwt and a 2015 state milling average of 56/69
    - whole and broken price determinations (WK 10.22 to BK 6.51)
- Conventional vs. Clearfield vs. Hybrid

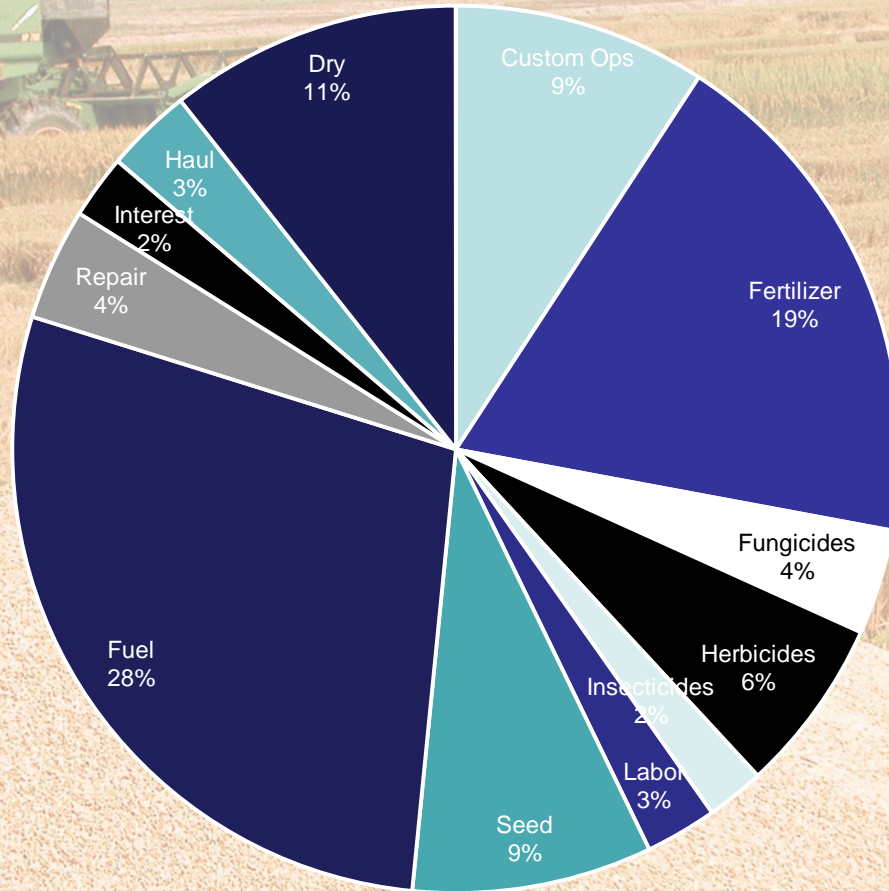
Variety Technology	Milling Percent *	Whole Price	Broken Price	Price Received
Cocodrie	66-74	\$12.32	\$0.95	\$13.27
CL 151	66-73	\$12.32	\$0.83	\$13.15
CLXL 729	64-74	\$11.94	\$0.95	\$12.89
CLXL 745	66-70	\$12.32	\$0.47	\$12.79

\*Source: LSU AgCenter Rice Research Station. "Results of the 2014 Louisiana Rice Variety Trials." Rice Varieties and Management Tips – 2015. pg. 7. Crowley, LA.

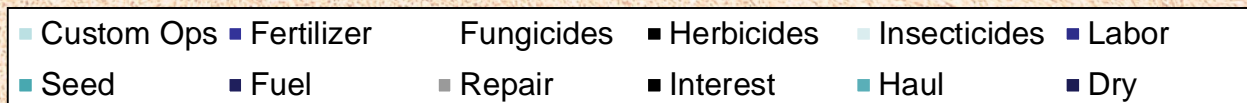


# Budget Share of Expenses

*Represents a 10-year average share of total variable costs per acre.*



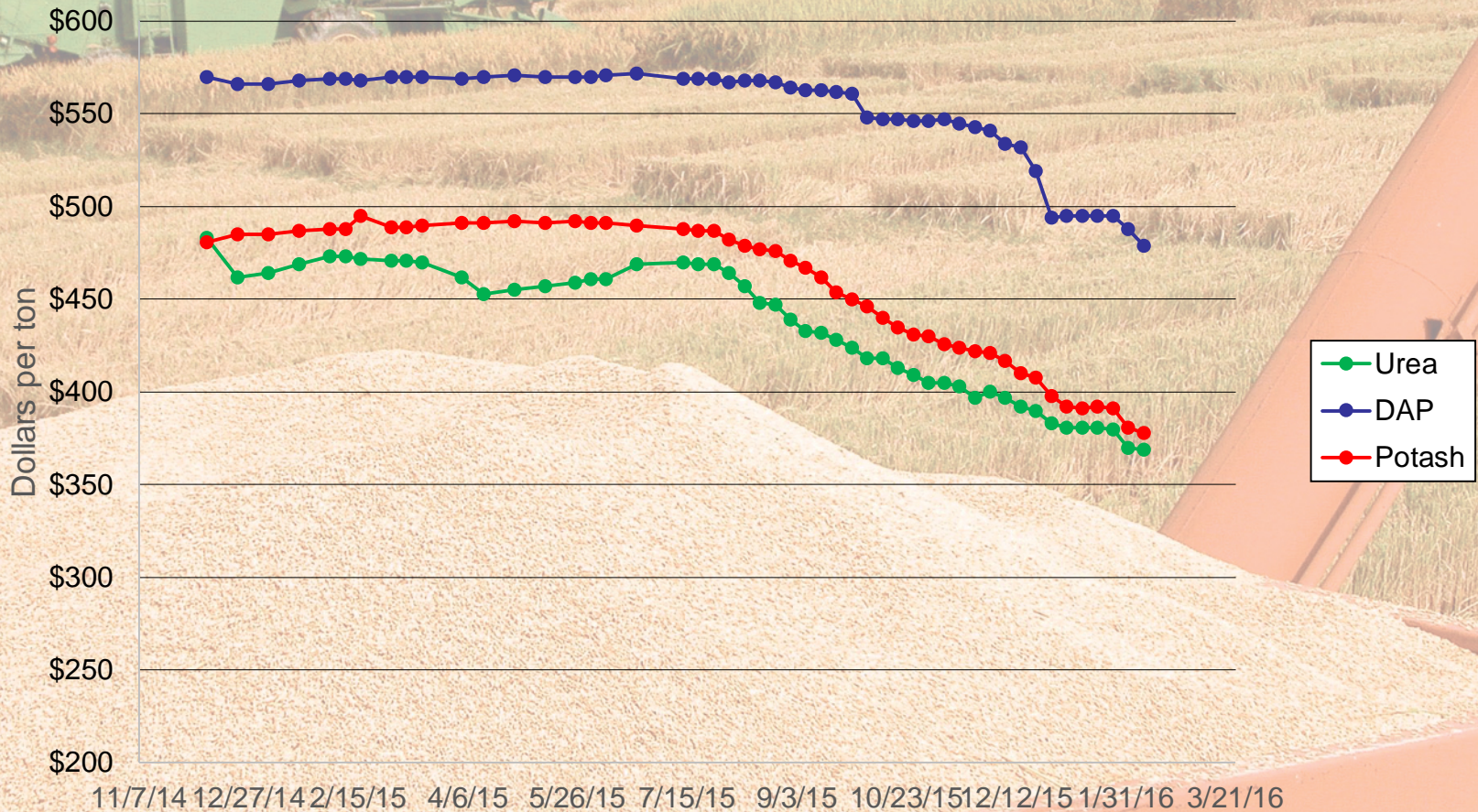
*Total variable costs ranged from \$501.89 in 2007 to \$724.52 in 2012.*



CLEARFIELD® variety, drill planted, southwestern Louisiana.



# Retail Fertilizer Prices



Source: AgFax. DTN Fertilizer. "Fertilizer Trends." February 17, 2016.

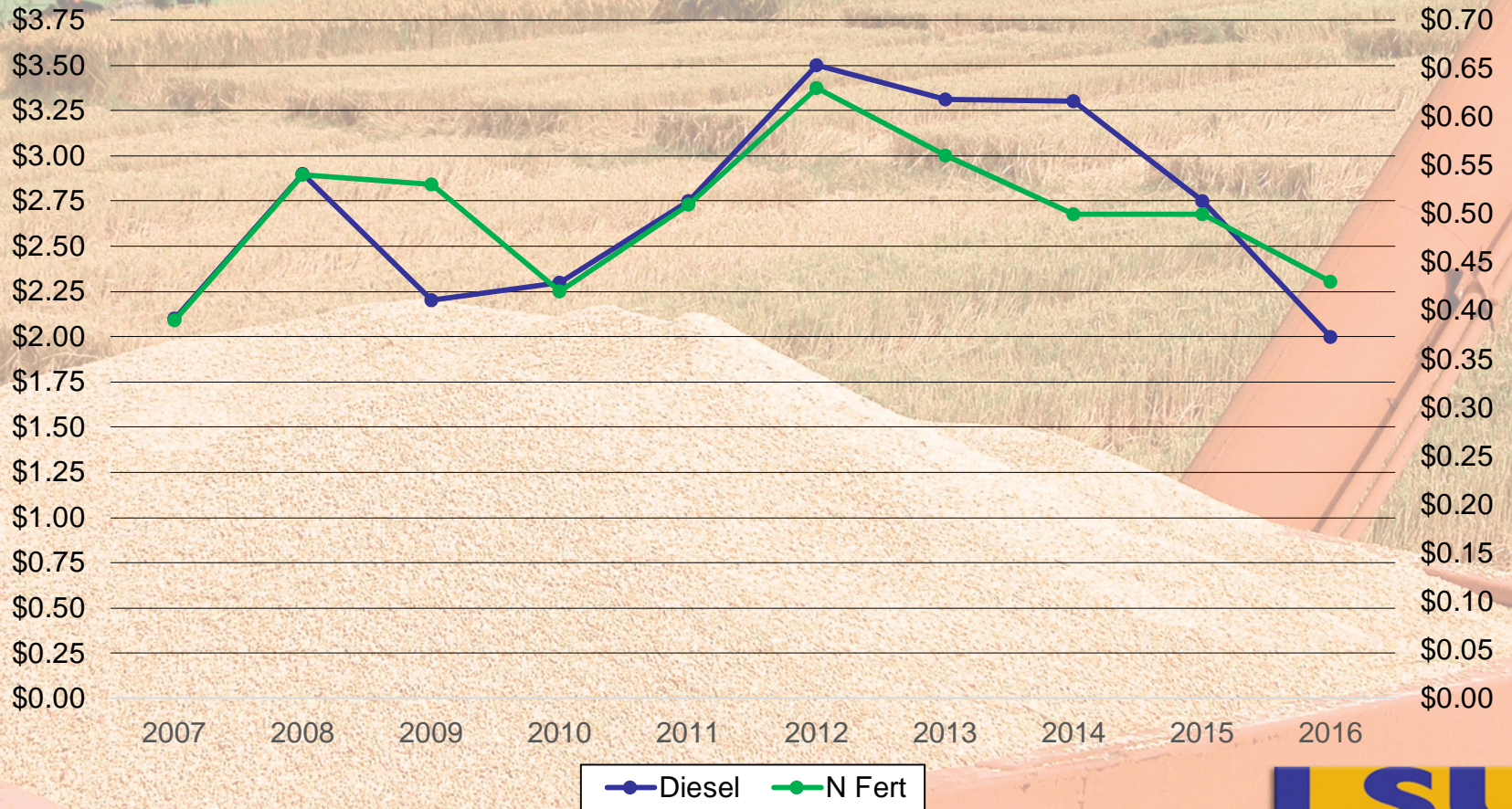
DTN collects roughly 1,700 retail fertilizer bids from 310 retailer location weekly.



# Input Trends for Louisiana

Diesel Price/gal

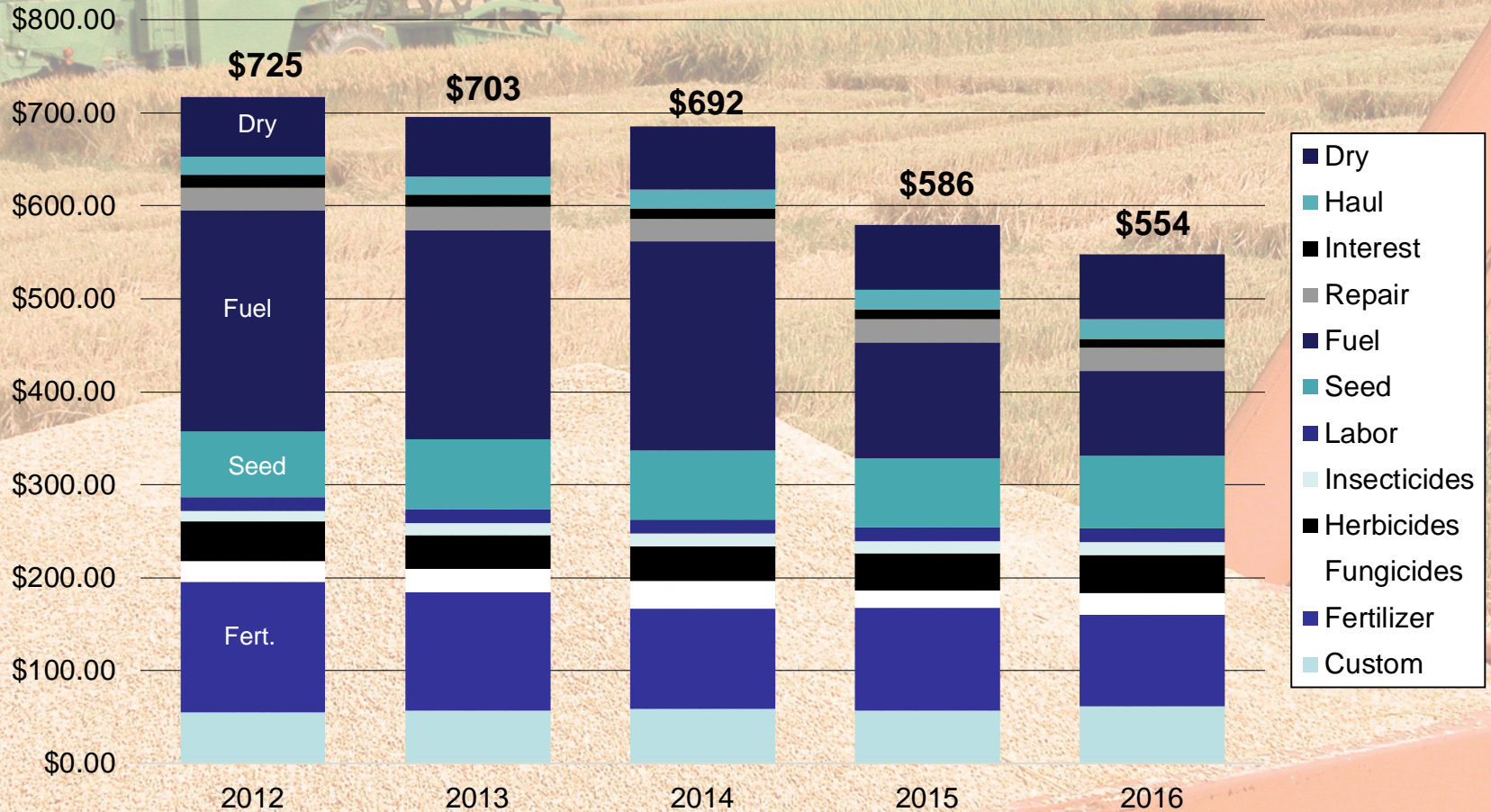
Nitrogen Price/lb



CLEARFIELD® variety, drill planted, southwestern Louisiana.



# Production Costs per acre



CLEARFIELD® variety, drill planted, southwestern Louisiana.

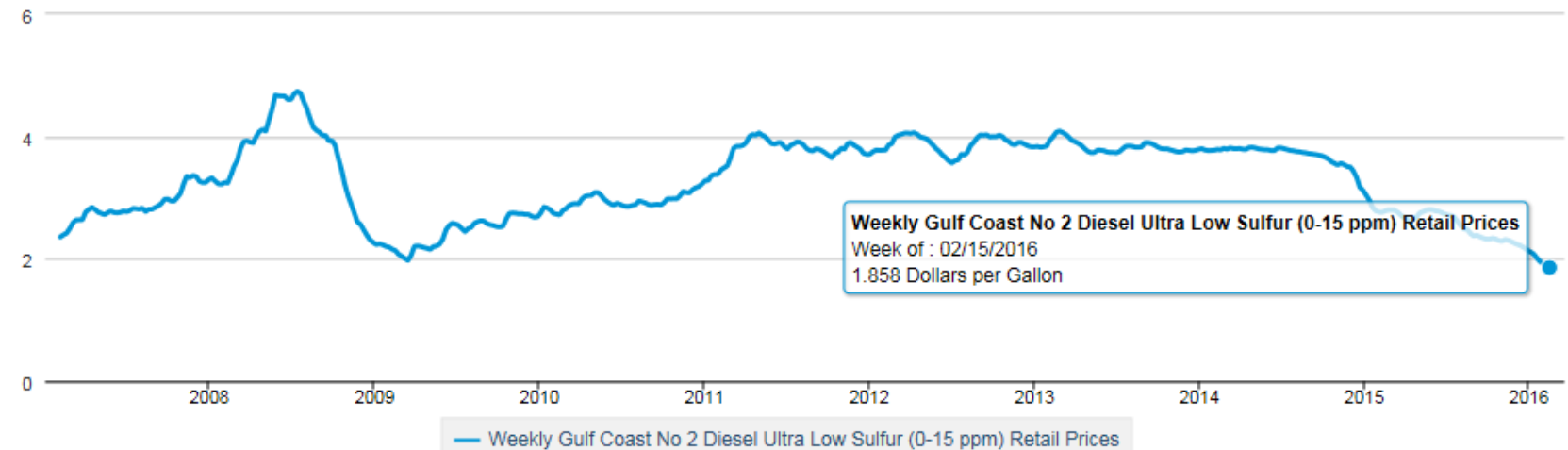


# Gulf Coast Diesel Price (Retail)

Weekly Gulf Coast No 2 Diesel Ultra Low Sulfur (0-15 ppm) Retail Prices

DOWNLOAD

Dollars per Gallon



This information would translate into a farm diesel approximated price per gallon of \$1.41.

(The Louisiana \$0.45 tax is applied to the Gulf Coast region weekly \$1.858 per gallon price.)

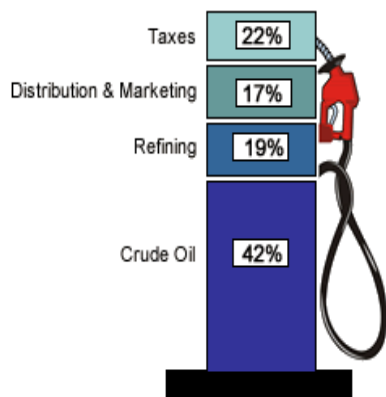
Source: EIA. "Weekly Gasoline and Diesel Prices." February 15, 2016.



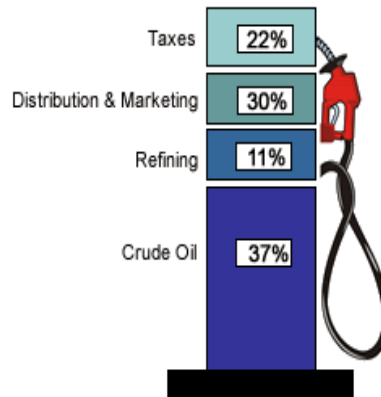
# Fuel Markets and Resulting Price per Gallon

## What we pay for in a gallon of:

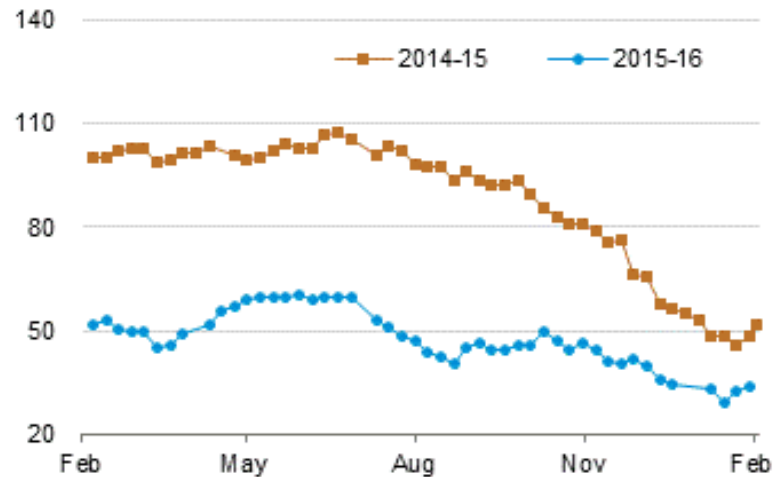
Regular Gasoline (December 2015)  
Retail Price: \$2.04/gallon



Diesel (December 2015)  
Retail Price: \$2.31/gallon



## Crude oil futures price contract 1 dollars per barrel



Source: U.S. Energy Information Administration, New York Mercantile Exchange (NYMEX)

Source: U.S. Energy Information Administration. Petroleum & Other Liquids. "This Week in Petroleum." February 3, 2016.

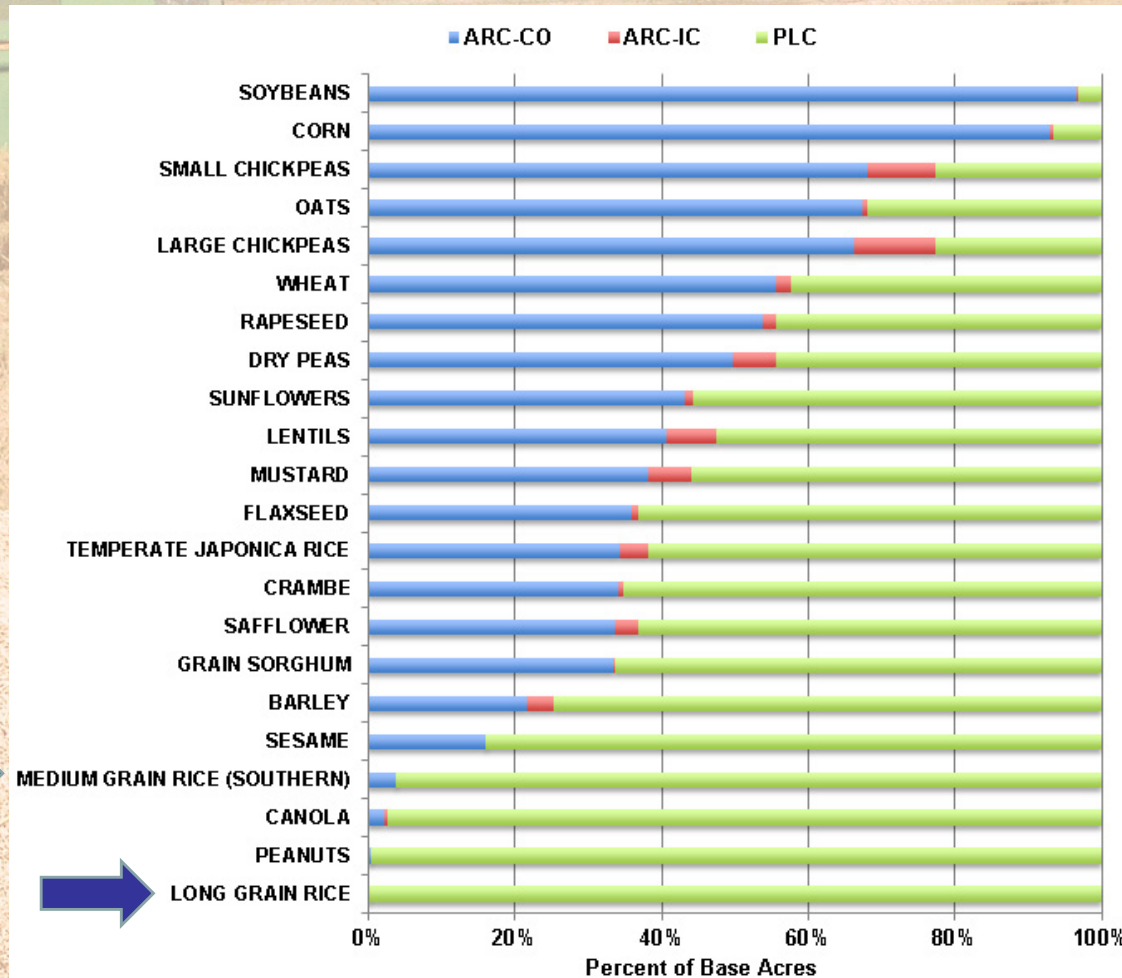


# The 2014 Farm Bill

- Irrevocable program selection
  - ARC or PLC
- PLC farm program payments
  - Reference price of \$14.00 per cwt
  - Considers farm's program yield and the national MYA price
    - No county (parish) level data used
  - Paid on 85% of the crop's base acres



# National Program Election



Source: Schnitkey, G., J. Coppess, N. Paulson, and C. Zulauf. "[Perspectives on Commodity Program Choices under the 2014 Farm Bill.](#)" *farmdoc daily* (5):111, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, June 16, 2015.



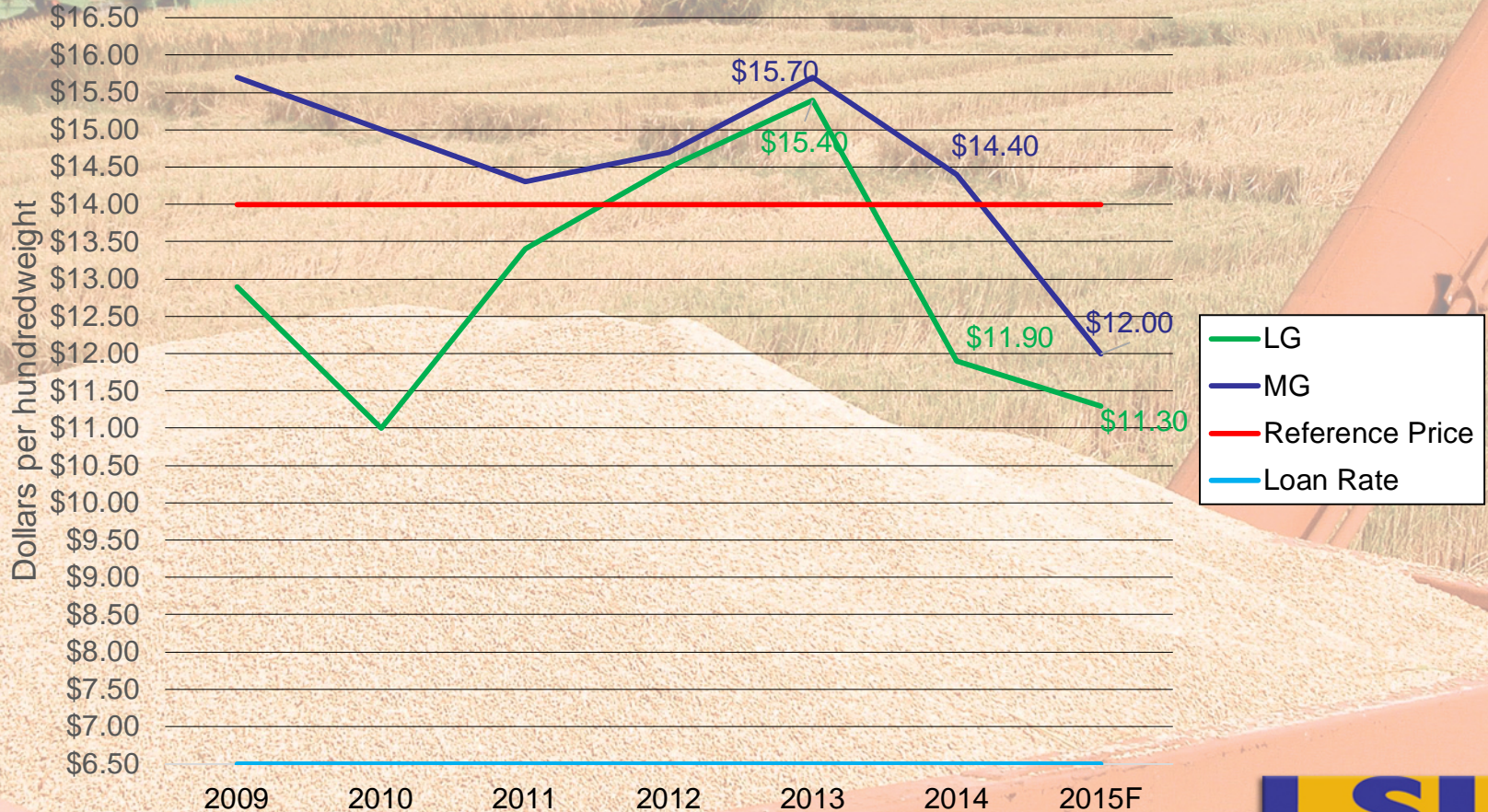
# Program Election by State

Crop	ARC-CO acres	PLC acres	ARC-IC acres	Total Base Acres	Percent of Total
Arkansas					
Corn	197,808	32,070.3	--	229,879	3.33%
Rice (LG)	2,926	1,912,031	--	1,914,958	27.75%
Soybeans	2,221,025	108,281	111	2,329,418	33.76%
Louisiana					
Corn	279,311	32,720	509	312,541	10.59%
Rice (LG)	1,333	799,855	--	801,189	27.14%
Soybeans	461,415	43,231	464	505,111	17.11%
Mississippi					
Corn	346,194	18,703	678	365,576	9.68%
Rice (LG)	1,171	413,107	--	414,279	10.97%
Soybeans	935,830	11,183	1,742	948,756	25.12%
Arkansas reported 1,148,575 generic acres (16.64%); Louisiana reported 995,813 (33.75%); and Mississippi reported 1,623,887 (43.00%) base acres. Source: USDA FSA. May 29, 2015.					

*Almost all LG rice acres were enrolled in the PLC program.*



# Rice Prices, by Class



Source: USDA NASS.



# PLC Payment Calculation (LG)

Parameter	Measure
Reference Price	\$14.00 per cwt
→ 2014 LG rice MYA price	\$11.90 per cwt
PLC payment rate	$(\$14.00 - \$11.90) = \$2.10$ per cwt
PLC payment yield of farm	57.00 cwt
PLC payment to farm <sup>a/</sup>	$0.85 * (\$2.10 * 57.00) = \$101.75$

<sup>a/</sup> does not assume 6.8% sequestration reduction. The 2014 MYA price information was obtained from USDA FSA.

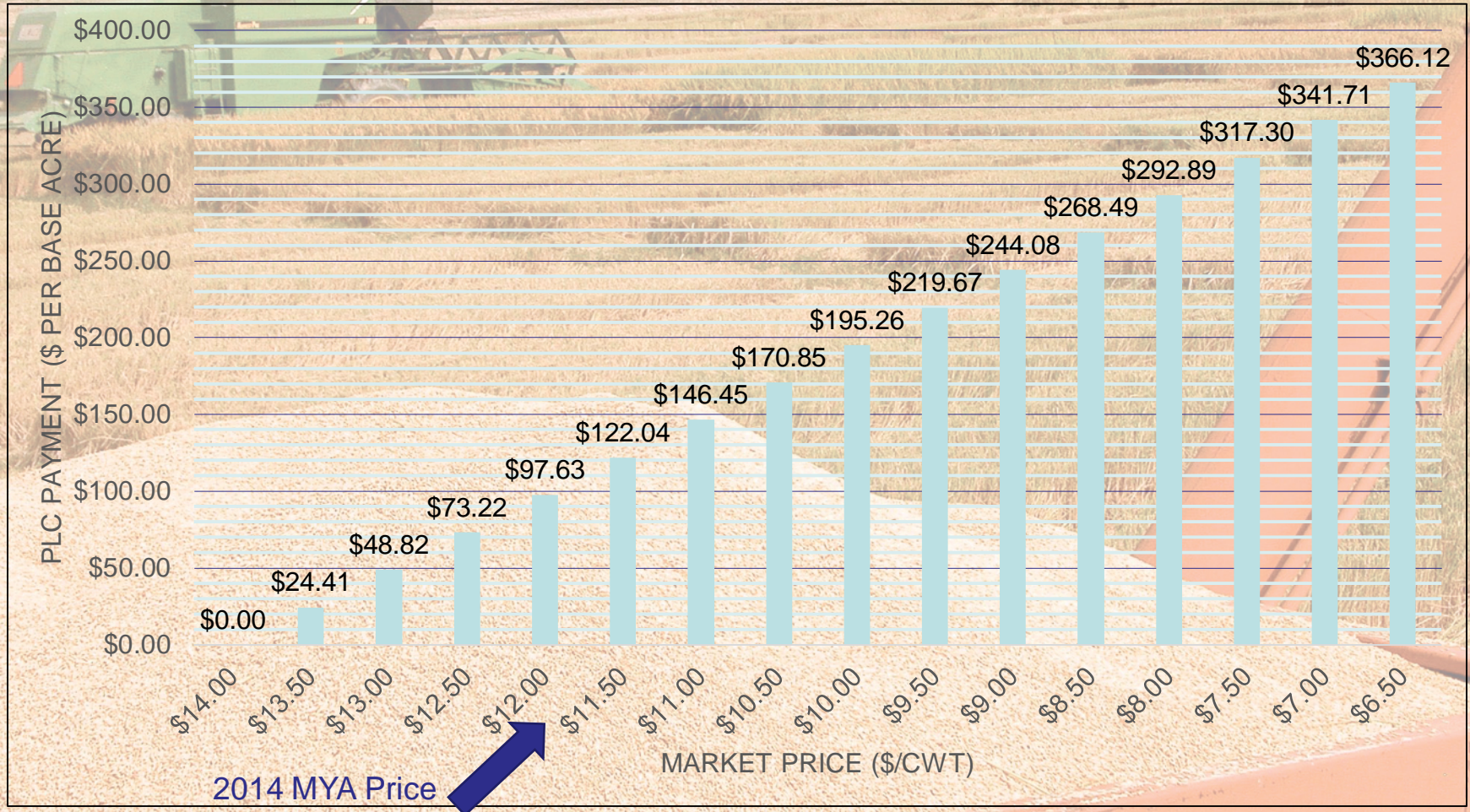
2015F price forecast of would trigger a PLC payment for both LG and MG rice.

The estimated PLC payment rate would be \$2.70 for LG (a \$11.30 est. MYA price) and \$1.00 per cwt for MG (a \$13.00 est. MYA price).

Alternatively, this can be interpreted as \$1.70 and \$0.85 per rice base acre.



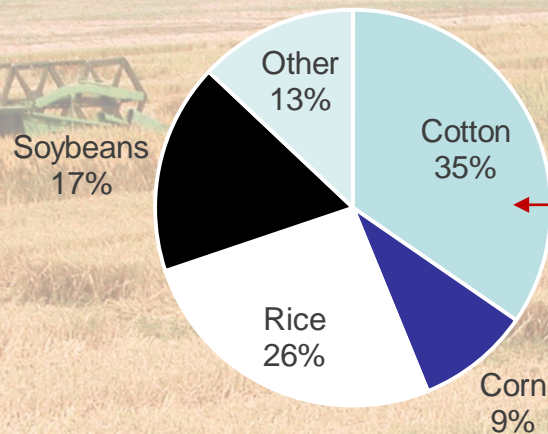
# PLC Payment Example (Rice)



PLC example illustrated for Acadia Parish, LA.  
 The producer elects to update payment yield on rice base to 57.4 cwt.



# Louisiana FSA Base Acres



*Cotton base now termed 'generic'.*

■ Cotton ■ Corn ■ Rice ■ Soybeans ■ Other

Planted : Base Acre Ratio in Louisiana					
<u>Crop</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>
Cotton	0.211	0.237	0.278	0.222	0.124
Corn	2.259	1.820	2.114	1.988	2.484
Rice	0.554	0.689	0.536	0.521	0.551
Soybeans	1.904	1.977	1.920	2.223	2.225

Source: USDA FSA. DCP/ACRE Final Enrollment Report. 2009-2013 crop years.



# Decision Tools Available

- Projected costs and returns
  - 2016 enterprise budgets
  - Breakeven analysis
- Rice farm cash flow model
  - User-specified data compatible
- ARC/PLC decision tool
  - Location, crop, and user-specific
  - Whole farm



# NRAVC Tenant Operator CL Drill Planted, 2016

		Percent								
		80%	85%	90%	95%	100%	105%	110%	115%	120%
		Rice Market Price (\$/cwt)								
	Yield (cwt.)	\$9.60	\$10.20	\$10.80	\$11.40	\$12.00	\$12.60	\$13.20	\$13.80	\$14.40
80%	56.0	-65	-44	-24	-4	16	37	57	77	98
85%	59.5	-41	-19	2	24	46	68	89	111	133
90%	63.0	-18	5	29	52	75	99	122	145	168
95%	66.5	6	30	55	80	105	129	154	179	204
100%	70.0	29	55	82	108	134	160	186	213	239
105%	73.5	53	80	108	136	163	191	219	246	274
110%	77.0	76	105	135	164	193	222	251	280	309
115%	80.5	100	130	161	192	222	253	283	314	345
120%	84.0	123	155	188	220	252	284	316	348	380

Source: "Projected Costs and Returns for Rice Produced in Louisiana, 2016".



# Rice Cash Flow Model

A	B	C	D	E	F	G	H	I	J	K	L	M	N
3	(Projected Net Returns Above Variable Production Costs)					[Enter values shaded in blue]							
5	Farm Name					ABC Rice Farm				Total Rice Net Returns Above Variable Costs			
6	Tract Name / Number					Tract 1 - Variety CL151				Per Farm Tract			
6										Per Acre			
6										Per Cwt			
6										Per Bbl			
6										\$3.66			
9	Enter Yield Unit [ 1 = Cwt 2 = Bbl ]					[ENTER]							
9						1							
10	Total Rice Base Acres					100.0				85.0			
10										Paid Rice Base Acres in 2015			
11	Percent of Rice Base Planted in 2014					85%				85.0			
11										Rice Acres Planted in 2015			
12	Percent of 2016 Planted Rice Acreage Ratoon Cropped					0%				0.0			
12										Ratoon Crop Acres in 2015			
13	Projected 2016 Rice First Crop Yield					70.00 Cwt				70.0			
13										Total Yield per Acre			
14	Projected 2016 Rice Ratoon Crop Yield					0.00 Cwt				5,950			
14										Total Rice Production			
15	Are these yields to be sold on a green-weight basis? [ 1 = NO 2 = YES ]					1							
17	Rice Base Payment Acreage Percent					85.0%							
18	Rice Price Loss Coverage (PLC) Program Yield - **updated yield**					58.00 Cwt				58.0 Cwt			
19										35.8 Bbl			
19													
20	Rice Cash Rent (\$ per acre)					\$0.00							
21	Total Acres Cash Rented					0							
22										Rice Production			
22										Yield Per Acre			
22										70.0 Cwt / A			
22										43.2 Bbl / A			
23	Rice Crop Share for Land and Water					30%							
23										Total Production			
23										5,950 Cwt			
23										3,673 Bbl			
24	Percent of Irrigation Pumping Costs Paid by Grower					0%							
26	Projected 2016 Diesel Price per Gallon					\$2.00							
27	Projected 2016 Nitrogen Price per lb. of N (46% N)					\$0.43				Price per active ingredient obtained			
28	Projected 2016 Phosphorous Price per lb. of P (46% P)					\$0.54				from 2016 Projected LA Rice Cost and Return Budgets			
29	Projected 2016 Potassium Price per lb. of K (60% K)					\$0.35							
31	Rice Reference Price Under Price Loss Coverage (PLC) Program					\$14.00 per Cwt				\$22.68 per Barrel			
32	Projected 2016 Rough Rice Market Price per Cwt. Dry Wt. Price ==>					\$12.00 per Cwt				\$19.44 per Barrel			
33	Projected 2016 World Market Price					\$9.40 per Cwt				\$15.23 per Barrel			
36	Price Loss Coverage (PLC) Payment per Cwt					\$2.00 per Cwt				\$3.24 per Bbl			
37	LDP Payment per Cwt					\$0.00 per Cwt				\$0.00 per Bbl			
38	U.S. Rough Rice Market Price					\$12.00 per Cwt				\$19.44 per Bbl			
39	World Rough Rice Market Price					\$9.40 per Cwt				\$15.23 per Bbl			
42						Per Harvested Rice Acre				Per Actual Production Unit			
43	Gross Income From Rice Production									Total Farm Tract			
44	Market Income					\$840.00				\$71,400.00			
44										Per Cwt			
44										Per Bbl			
44										\$12.00			
44										\$19.44			
45	Price Loss Coverage (PLC) Program Payment					\$116.00				\$9,860.00			
45										Per Cwt			
45										Per Bbl			
45										\$1.66			
45										\$2.68			
46	LDP Payment					\$0.00				\$0.00			
46										Per Cwt			
46										Per Bbl			
46										\$0.00			
46										\$0.00			
47	Total Rice Farm Gross Income					\$956.00				\$81,260.00			
47										Per Cwt			
47										Per Bbl			
47										\$13.66			
47										\$22.12			

Parameters:  
 Unit  
 Ratoon Crop Yields  
 Weight  
 PLC Program  
 Base Acres  
 Land Rent  
 Irrigation (LLD)  
 Input Prices  
 Prices

Gross Income



# Rice Cash Flow Model (cont.)



	A	B	C	D	E	F	G	H	I	J	K	L	
41													
42							Per Harvested		Total Farm Tract	Per Actual Production Unit			
43							Rice Acre			Per Cwt	Per Bbl		
44							\$840.00		\$71,400.00	\$12.00	\$19.44		
45							\$116.00		\$9,860.00	\$1.66	\$2.68		
46							\$0.00		\$0.00	\$0.00	\$0.00		
47							\$956.00		\$81,260.00	\$13.66	\$22.12		
48													
49													
50							\$286.80		\$24,378.00				
51							\$0.00		\$0.00				
52													
53							\$669.20		\$56,882.00	\$9.56	\$15.49		
54													
55							[ENTER]	[ENTER]					
56							Total Costs	Percent Paid					
57							Per Acre	By Grower	Total Farm Tract				
58							[Enter production costs per acre including proportionate share of ratoon crop]						
59							\$35.30	100%	\$3,000.50				
60													
61							Charge/Yld Unit						
62							Drying Charge per Yld Unit - Dry Wt. Bas	\$1.25 per Dry Cwt	\$87.50	70%	\$5,206.25		
63													
64							Fertilizer Material Applied						
65							Urea	282 lbs/Acre	\$394.00	\$0.20	\$55.55	100%	\$4,722.09
66							Phosphate	87 lbs/Acre	\$499.00	\$0.25	\$21.71	100%	\$1,845.05
67							Potash	100 lbs/Acre	\$435.00	\$0.22	\$21.75	100%	\$1,848.75
68							Other Fertilizer	0 lbs/Acre	\$0.00	\$0.00	\$0.00	100%	\$0.00
69							Fungicide		\$23.40	100%			\$1,989.00
70							Herbicides		\$40.94	100%			\$3,479.90
71							Insecticides		\$13.60	100%			\$1,156.00
72							Irrigation Supplies / Gates		\$3.65				\$310.25
73							Seed		\$100.00				\$8,500.00
74							Fertilizer Application Cost		\$24.70	100%			\$2,099.50
75							Planting Cost		\$0.00				\$0.00
76							Hauling Cost		\$21.00				\$1,785.00
77							Labor Costs		\$14.63				\$1,243.55
78							Tillage/Harvest Fuel Cost	14 gal/Acre	\$28.00				\$2,380.00
79							Irrigation Fuel Cost - Diesel	36 gal/Acre	\$72.00	0%			\$0.00
80							Irrigation Fuel Cost - Electric	\$0.00 \$/Acre	\$0.00	0%			\$0.00
81							Repair and Maintenance		\$25.42				\$2,160.70
82							Other Variable Costs		\$0.00	100%			\$0.00
83							Interest on Operating Capital	4.5% rate	\$20.25				\$1,721.22
84							11 months						
85													
86							Total Rice Variable Costs		\$511.15		\$7.30	\$11.83	
87							Per Acre		\$158.05	Total Farm Tract	Per Cwt	Per Bbl	
88									\$13,434.24	\$2.26	\$3.66		
89													
90							Fixed Costs						
91							[Enter fixed expenses relative to the acres represented on this worksheet]						
92							Fixed cost 1		\$47.06		\$4,000	0.67	\$1.09
93							Fixed cost 2		\$11.76		\$1,000	0.17	\$0.27
94							Fixed cost 3		\$0.00		\$0	0.00	\$0.00
95							Total Fixed Costs		\$58.82		\$5,000	\$0.84	\$1.36
96													
97							Net Returns Above Variable and Fixed Costs		\$39.23		\$8,434.24	\$1.42	\$2.30
98													
99							Developed by Michael E. Salassi and Michael A. Deliberto, Dept of Agricultural Economics and Agribusiness, LSU Agricultural Center, Baton Rouge, Louisiana						
100							(Phone: 225-578-2713 Fax: 225-578-2716 Email: msalassi@agcenter.lsu.edu)						
101							(Phone: 225-578-7267 Fax: 225-578-2716 Email: mdeliberto@agcenter.lsu.edu)						

- Cost Parameters:
- Custom Operations
  - Drying
  - Fertilizer Material
  - Fungicides
  - Herbicides
  - Insecticides
  - Seed
  - Application Costs
  - Planting Costs
  - Hauling
  - Labor
  - Fuel Costs
  - Repair
  - (Fixed Costs)

Net Returns



# 2015 Farm Program Calculator

A	B	C	D	E	F
 <b>2015 PLC and ARC-CO Program Payment Calculator</b> 					
Developed by Kurt Guidry and Michael Deliberto					
<p>This calculator was developed to project Price Loss Coverage (PLC) and Agricultural Risk Coverage - County Option (ARC-CO) payments for a specific farm number for the 2015 contract year. The projections made by the calculator are based on user provided information on PLC yields and projections for Marketing Year Average Prices and 2015 Parish Yields. If the user does not provide projections for Marketing Year Average Prices and/or 2015 Parish Yields, the spreadsheet will automatically use default projections.</p> <p>To use the calculator, simply select the administrative parish for the farm number for which you would like to project payments. You are asked to provide the producer's name and farm number to identify the projections provided in the report with the specific farm number. Next, you can enter your projections for Marketing Year Average Prices or simply allow the spreadsheet to use the default values. Next, you must enter the PLC yield for each commodity which has base acres enrolled in the PLC program. Finally, you can enter projections for 2015 parish yields or simply allow the spreadsheet to use the default values. Once this information is provided, the calculator will automatically develop a printable report provide payment levels per base acre.</p>					
<p>TO CLEAR TABLES AND START OVER, SIMPLY CLICK THE RESET BUTTON =====&gt;</p> <div style="text-align: center; border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> <span style="background-color: red; color: white; padding: 5px 15px; font-weight: bold;">RESET</span> </div>					
<p>PAYMENT PROJECTIONS MADE BY THIS CALCULATOR ARE FOR THE CONTRACT YEAR =&gt;</p> <div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 0 auto;">2015</div>					
<p>PLEASE ENTER THE FARM NUMBER OF THE FARM YOU ARE PROJECTING PAYMENTS =&gt;</p> <div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 0 auto;">1224</div>					
<p>PLEASE SELECT THE ADMINISTRATIVE PARISH FOR THE ABOVE FARM NUMBER ==&gt;</p> <div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 0 auto;">St. Landry</div>					
<p>PLEASE ENTER THE NAME OF THE PRODUCER OPERATING ON THIS FARM NUMBER =&gt;</p> <div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 0 auto;">Mike</div>					
<b>2015/16 MARKETING YEAR AVERAGE (MYA) PRICE PROJECTIONS</b>					
<p>The following are the USDA's current (February 2016) price projection ranges for 2015/16 Marketing Year Average Prices. Please enter your projection for the 2015/16 Marketing Average Prices. Note, if you do not enter a price projection, the spreadsheet will use the default price projection.</p>					
Commodity	Low Price	High Price	Mid-Point of Price Projection Range	Default Price Projection	Your 2015/16 MYA Price Projection
Corn (\$/Bu)	\$3.35	\$3.85	\$3.60	\$3.60	\$3.70
Grain Sorghum (\$/Bu)	\$3.10	\$3.50	\$3.30	\$3.30	\$3.30
LG Rice (\$/Lb)	\$0.1100	\$0.1160	\$0.1130	\$0.1130	\$0.1130
MG Rice (\$/Lb)	\$0.1170	\$0.1230	\$0.1200	\$0.1200	\$0.1200
Oats (\$/Bu)	\$2.10	\$2.30	\$2.20	\$2.20	\$2.20
Peanuts (\$/Lb)	\$0.1705	\$0.1955	\$0.1830	\$0.1830	\$0.1830
Soybeans (\$/Bu)	\$8.05	\$9.55	\$8.80	\$8.80	\$8.80
Sunflower (\$/Lb)	\$0.1720	\$0.1970	\$0.1845	\$0.1845	\$0.1845
Wheat (\$/Bu)	\$4.90	\$5.10	\$5.00	\$5.00	\$5.00
<b>FARM'S PLC YIELDS</b>					
<p>Please enter the PLC Yield of each commodity of which the farm has base acres (contract and/or attributed generic acres) enrolled in the</p>					
<div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 0 auto;"> <span style="background-color: green; color: white; padding: 2px 10px; font-weight: bold;">Input</span> <span style="padding: 2px 10px;">Report</span> <span style="font-size: 1.2em;">+</span> </div>					

A	B	C	D	E	F
Wheat (\$/Bu)	\$4.90	\$5.10	\$5.00	\$5.00	\$5.00
<b>FARM'S PLC YIELDS</b>					
<p>Please enter the PLC Yield of each commodity of which the farm has base acres (contract and/or attributed generic acres) enrolled in the PLC program. While every program commodity on the farm is assigned a PLC Yield by FSA, only enter those for those commodities that are enrolled in the PLC program. As a reminder, the PLC Yield for a program commodity on the farm is established by FSA and is reflective of historic yields.</p> <p style="text-align: center;">(Note: Simply leave cells blank of those commodities in which the farm does not have base acres enrolled in PLC.)</p>					
Commodity					Farm's PLC Yield
Corn (Bu/Ac)					
Grain Sorghum (Bu/Ac)					
LG Rice (Lbs/Ac)					5,600.0
MG Rice (Lbs/Ac)					
Oats (Bu/Ac)					
Peanuts (Lbs/Ac)					
Soybeans (Bu/Ac)					
Sunflower (Lbs/Ac)					
Wheat (Bu/Ac)					
<b>2015 PARISH YIELD PROJECTIONS</b>					
<p>The following are USDA's estimate for 2014 parish yields. Please identify which commodities have base acres (contract and/or attributed generic acres) enrolled in ARC-CO by selecting YES in the appropriate column. Then, please provide your estimate of the 2015 parish yield for that commodity. Note, if you do not provide a parish yield projection, the spreadsheet will automatically use default yield projection. The default yield projection for each commodity is set at 95% (a 5% reduction) of the 2014 parish yield.</p> <p style="text-align: center;">(Note: Simply leave cells blank of those commodities in which the farm does not have base acres enrolled in ARC-CO.)</p>					
Commodity	Production Units	2014 Parish Yield	Default 2015 Parish Yield	Please Select "Yes" For The Commodities The Farm Has Base Acres Acres Enrolled in ARC-CO	Your 2015 Parish Yield Projection
Corn	(Bushels/Ac)	184	175		
Grain Sorghum	(Bushels/Ac)	98	93		
LG Rice	(Pounds/Ac)	6,405	6,085		
MG Rice	(Pounds/Ac)	7,221	6,860		
Oats	(Bushels/Ac)	60	57		
Soybeans	(Bushels/Ac)	46	44	Yes	42
Wheat	(Bushels/Ac)	65	62		
<div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 0 auto;"> <span style="background-color: green; color: white; padding: 2px 10px; font-weight: bold;">Input</span> <span style="padding: 2px 10px;">Report</span> <span style="font-size: 1.2em;">+</span> </div>					





# Generated Program Report

Projected PLC and ARC-CO Payments For The 2015 Contract Year Calculations Developed For: Mike Farm #1234 St. Landry Parish	
<b>PROJECTED PLC PAYMENTS</b>	<b>Dollars/Base Acre</b>
LG Rice	\$129
<b>PROJECTED ARC-CO PAYMENTS</b>	<b>Dollars/Base Acre</b>
Soybeans	\$42
<p>The projections provided for PLC and ARC-CO payment rates are based on user provided estimates of both marketing year average prices and 2015 parish yields. These projections DO NOT represent an official USDA estimate of 2015 program payments.</p> <p>To determine the total payments projected for the farm, multiply the per base acre projections provided in this report by the appropriate number of base acres (both contract acres and attributed generic acres) enrolled in the appropriate program for that commodity. Note, doing this will provide an estimate of total payments associated with that commodity for that farm. The payments will reflect both the reduced and full payment rates.</p>	
<input type="button" value="Input"/> <input type="button" value="Report"/> <input type="button" value="+"/>	

Parameters: Rice Price \$11.30  
Soybean Price \$8.80

Parish: FSA Farm #1234  
St. Landry Parish  
Farm Name

Crops: Rice (PLC) and  
Soybeans (ARC-CO)

Proj. Payment: Rice PLC \$129  
Soybean ARC-CO \$42





# ARC/PLC Decision Tool

## Comparison of the ARC and PLC Soybean Support Programs in the 2014 Farm Bill for Avoyelles Parish, LA

Louisiana State University Agricultural Center - Department of Agricultural Economics and Agribusiness

### Step 1. Enter historical production data for parish and individual farm.

Year	Parish Yield per planted acre		Farm Yield per planted acre
	US MYA Price		
2008	30.00	\$9.97	30.00
2009	33.00	\$9.59	33.00
2010	42.00	\$11.30	32.00
2011	29.00	\$12.50	35.00
2012	47.00	\$14.40	35.00
2013	46.00	\$13.00	39.00

### Step 2. Enter expected yield per planted acre and MYA price over the next five years.

Year	Parish Yield per planted acre		PLC Payment
	US MYA Price	Yield for Farm	
2014	54.00	\$10.10	29.70
2015	50.00	\$9.50	29.70
2016	45.00	\$9.56	29.70
2017	45.00	\$9.93	29.70
2018	45.00	\$10.30	29.70

### Step 3. Enter the covered commodity's base acres on farm.

Base Acres	100.00
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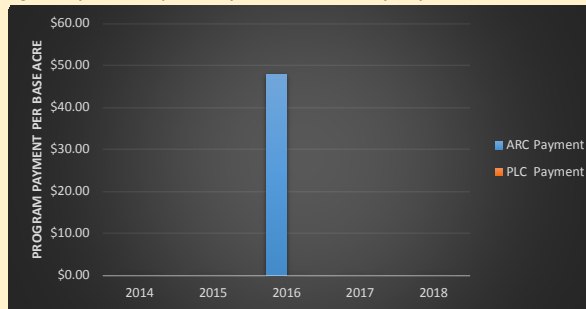
### Step 4. Comparison of the ARC and PLC Programs per base acre.

Year	ARC		PLC Payment
	Payment		
2014	\$0.00	\$0.00	
2015	\$0.00	\$0.00	
2016	\$47.82	\$0.00	
2017	\$0.00	\$0.00	
2018	\$0.00	\$0.00	

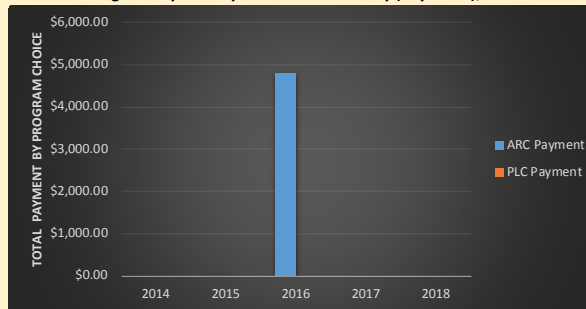
### Step 5. Whole farm evaluation of ARC and PLC Programs (by FSA Number).

Year	ARC Payment	ARC Base Acres on Farm	Total ARC	PLC Payment	PLC Base Acres on Farm	Total PLC
			Payment to Farm			Payment to Farm
2014	\$0.00	100.00	\$0.00	\$0.00	100.00	\$0.00
2015	\$0.00	100.00	\$0.00	\$0.00	100.00	\$0.00
2016	\$47.82	100.00	\$4,781.61	\$0.00	100.00	\$0.00
2017	\$0.00	100.00	\$0.00	\$0.00	100.00	\$0.00
2018	\$0.00	100.00	\$0.00	\$0.00	100.00	\$0.00

### Program Payment Comparison by Covered Commodity (Soybeans), 2014-2018.



### Whole Farm Program Payment by Covered Commodity (Soybeans), 2014-2018.



\*2009-13 are the final reported yield and MYA price values.

\*\*2014 contains the actual reported yield and price values.



# Contact Information

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101 Martin D. Woodin Hall

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Email: [mdeliberto@agcenter.lsu.edu](mailto:mdeliberto@agcenter.lsu.edu)

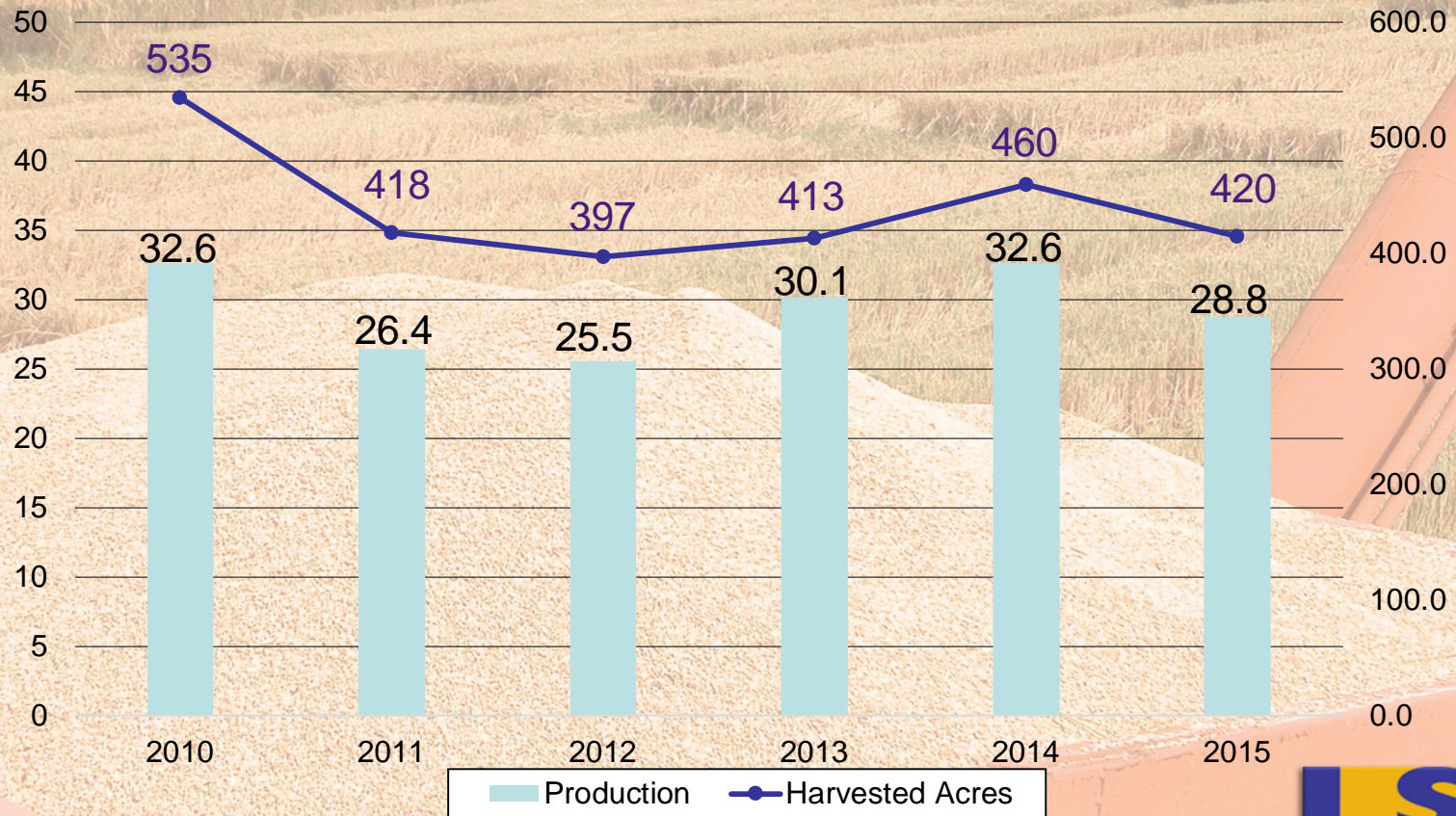


# Louisiana Rice Production

*Yield estimated at 69.40 cwt/ac*

Million cwt.

Thous. acres



Source: USDA NASS.



# Market Outlook

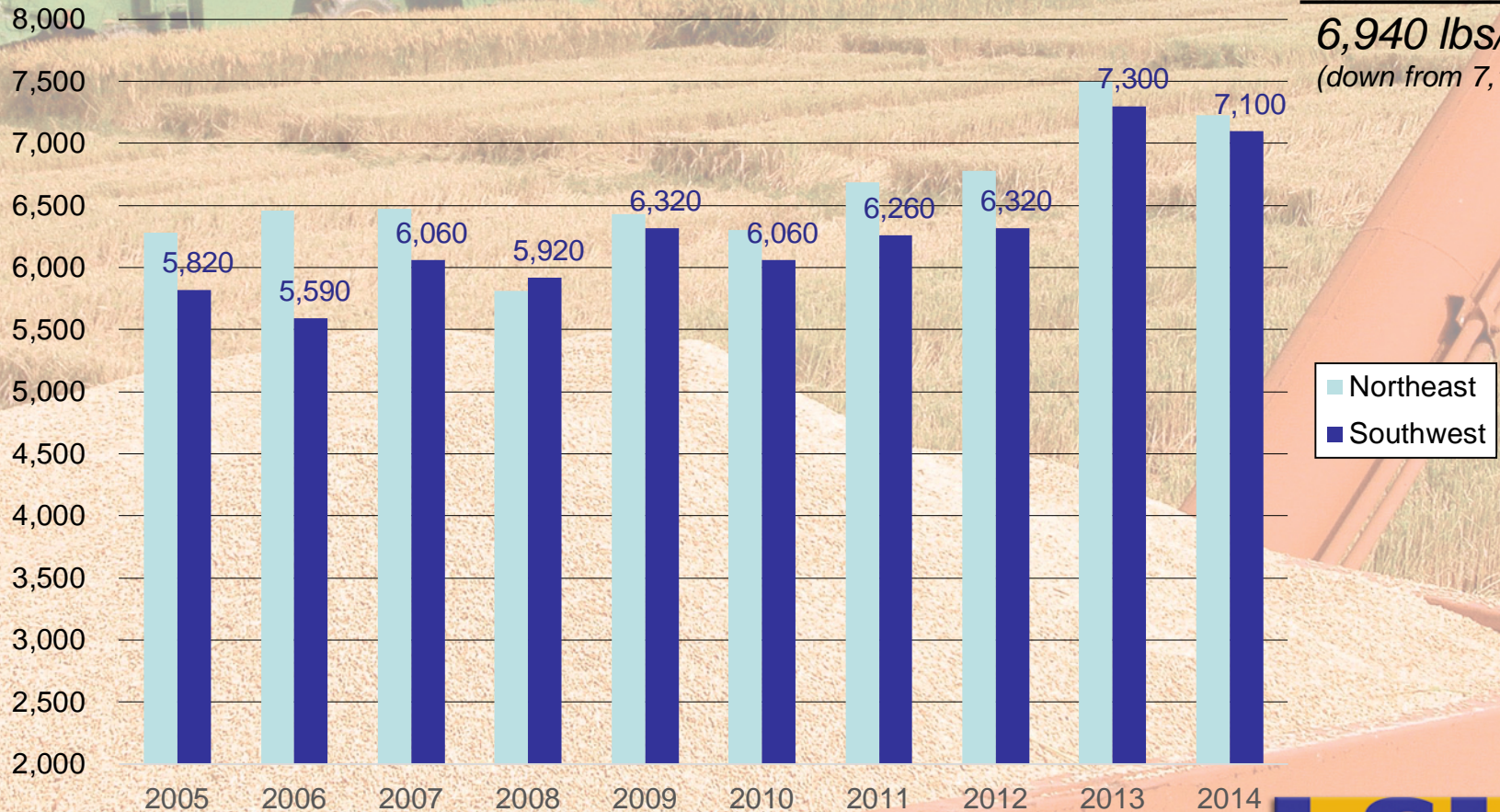
- Downward revisions to farm prices for LG (\$11.30) and MG (\$17.10) based on reported cash prices through November and expectations for prices the remainder of the year
- Slightly higher area and yield estimates for 2015/16
- Long grain production forecasted at 133.0 M cwt, 18% smaller than a year ago
  - Plantings are 15% lower due to low price expectations at plantings; unchanged medium grain production and plantings
  - Plantings declined in all states; yields forecasted lower
- Supply forecasted to be 5% lower than a year earlier
  - Large carry-in for both long and medium grain
- Exports are 2% larger than a year ago
  - Record pace of shipments in the first 4 months of the market year; declining price difference over Asian competitors; and expectations regarding remaining shipments
  - Long grain exports down; medium/short grain exports up

Source: USDA. ERS. "Rice Outlook." January 14, 2016 and USDA February 9, 2016 WADSE.



# Regional Rice Yields

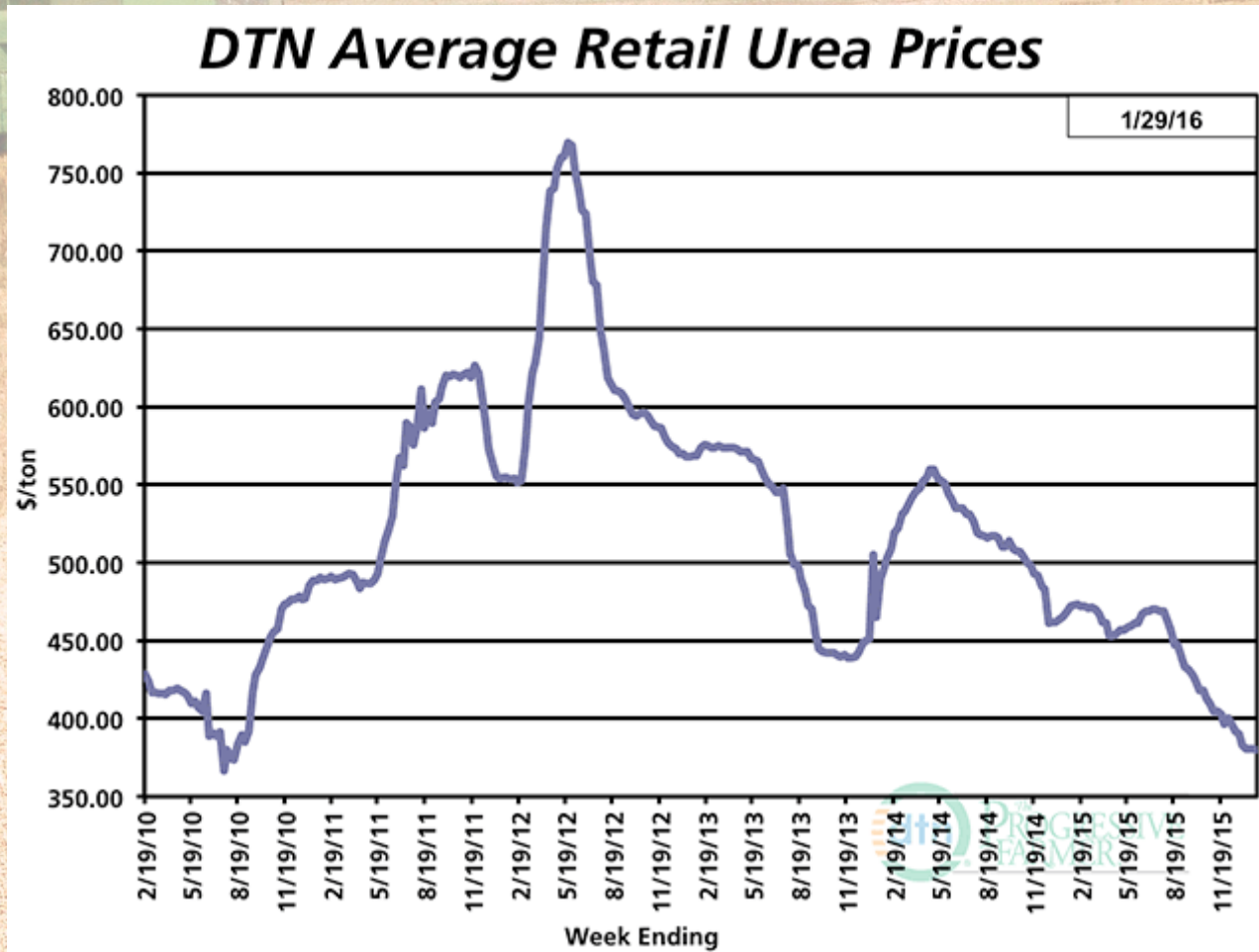
*Est. State Rice  
Yield in 2015:  
6,940 lbs/ac  
(down from 7,130)*



Source: USDA NASS. Quick Stats. Acreage and Production. [www.nass.usda.gov](http://www.nass.usda.gov)



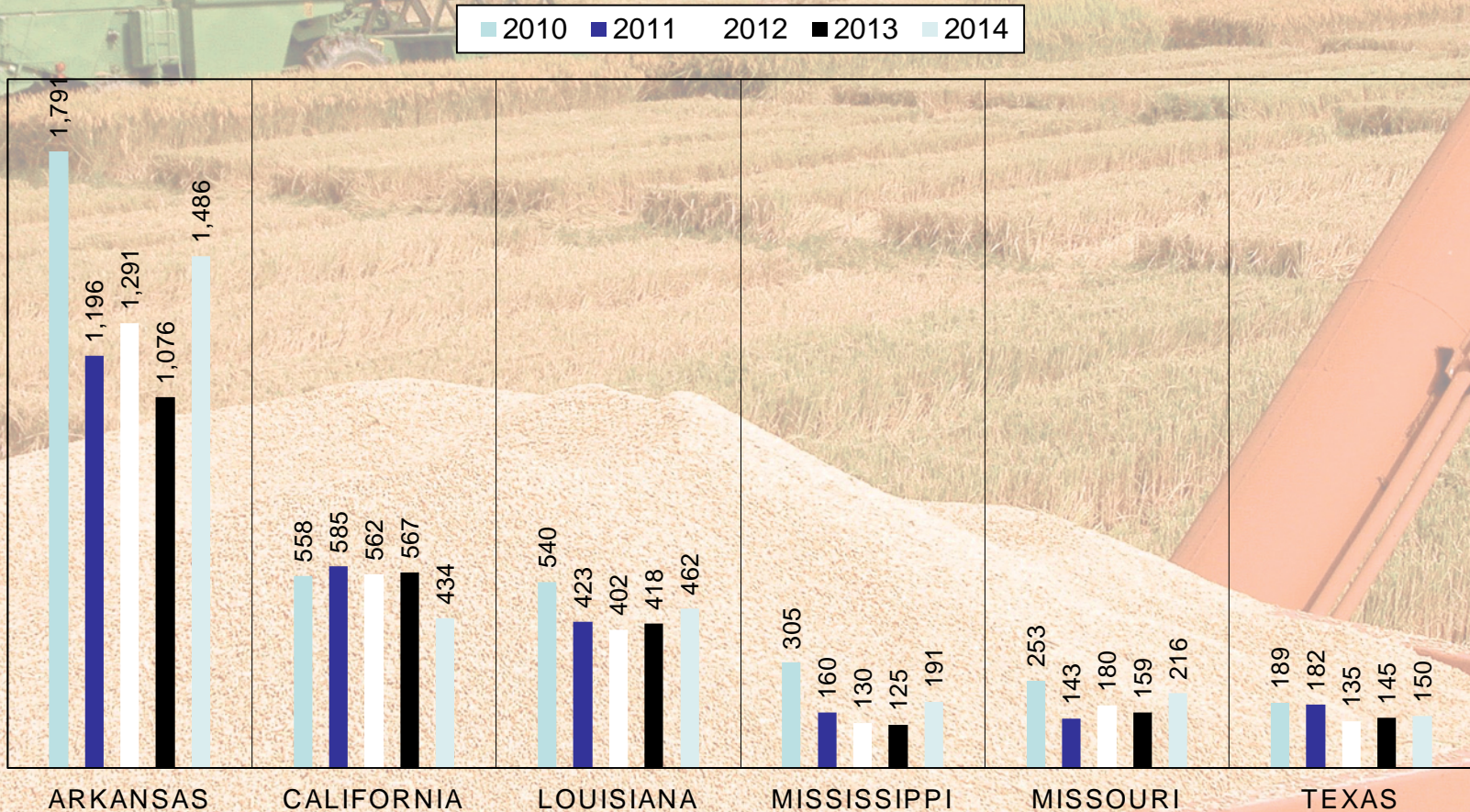
# Average Urea Price



Source: DTN. "Retail fertilizer price trends." January 29, 2016.



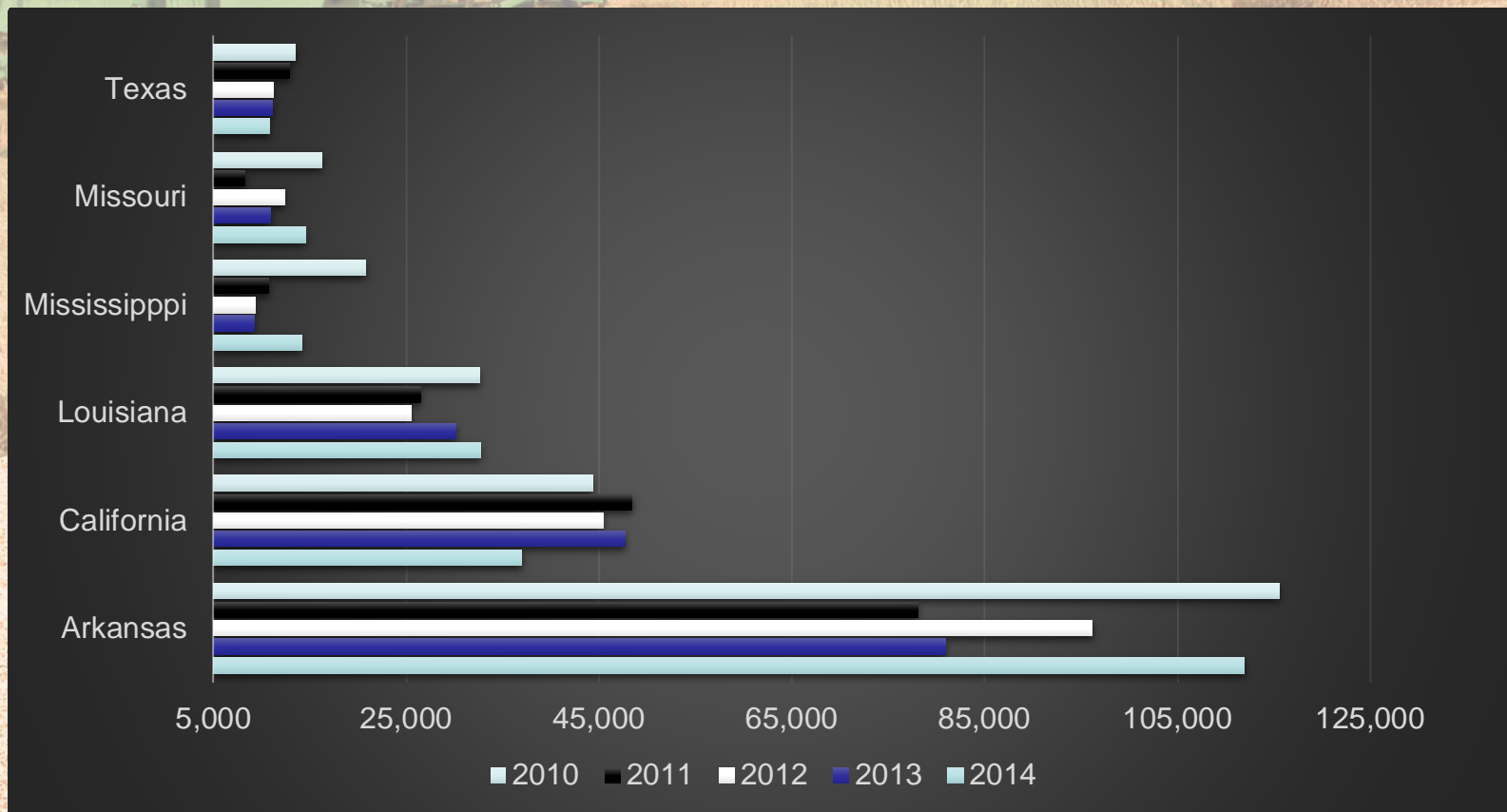
# Rice Acres Planted



Source: USDA. ERS. "Rice Yearbook." March 31, 2015.



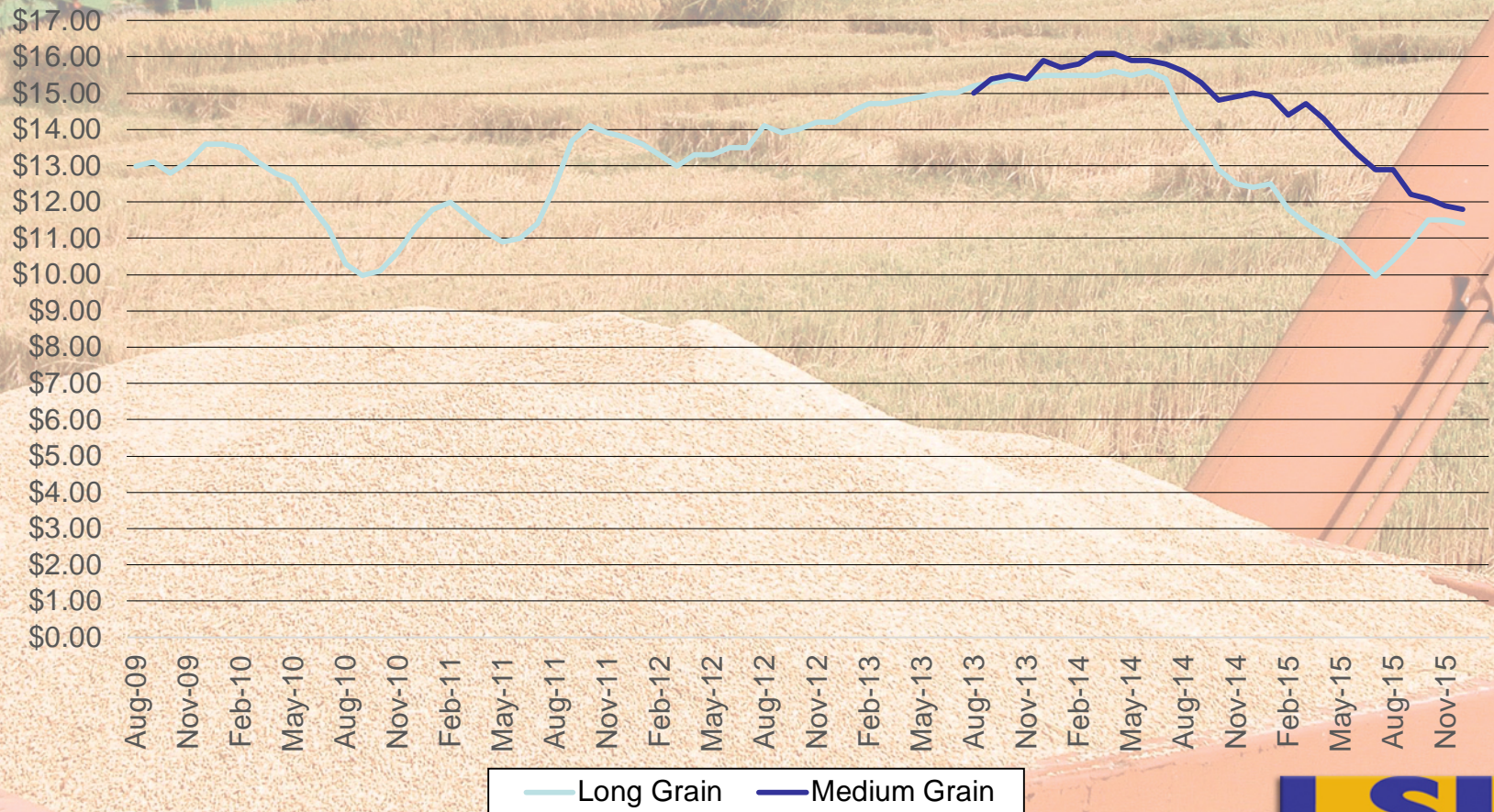
# Production (cwt) by State



Source: USDA. ERS. "Rice Outlook." January 14, 2016.

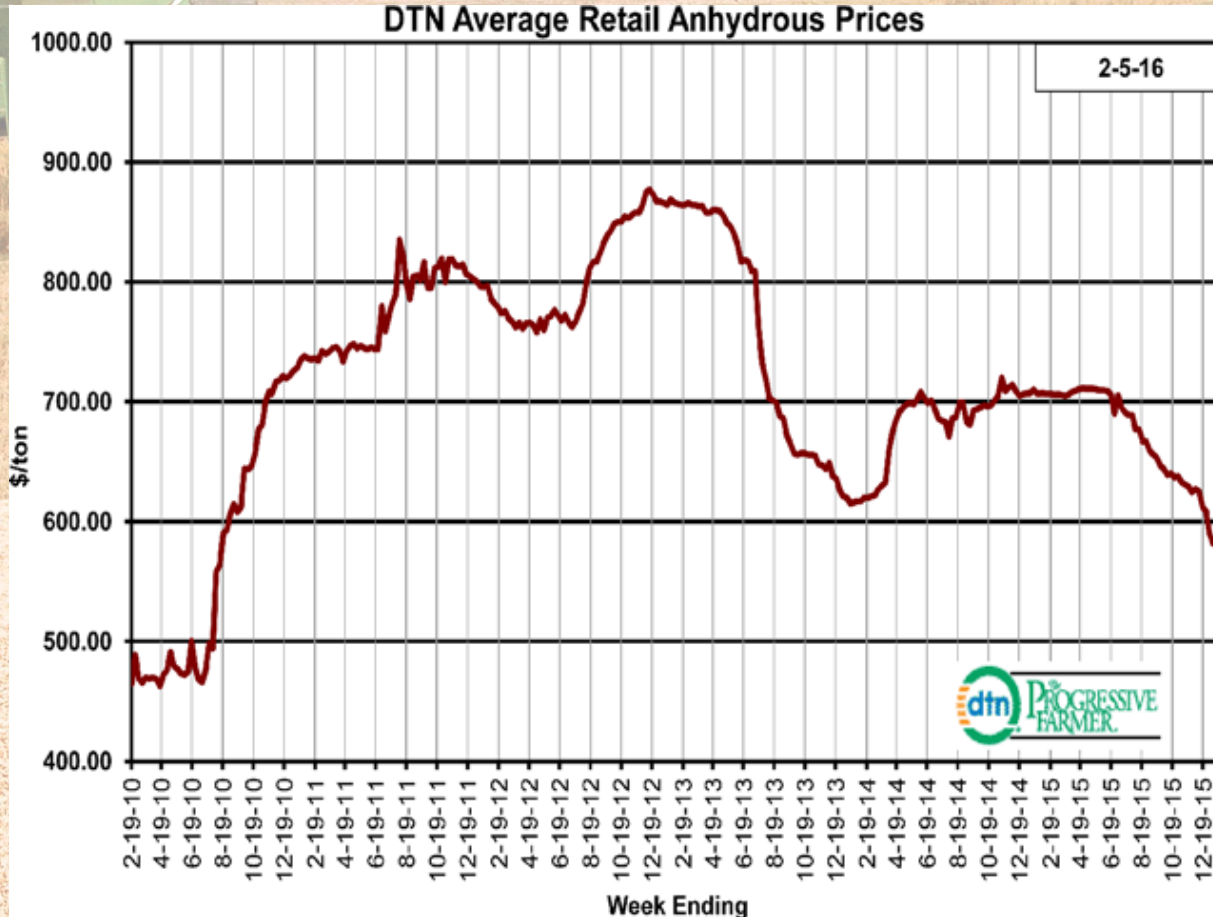


# Monthly Farm Prices, by Class





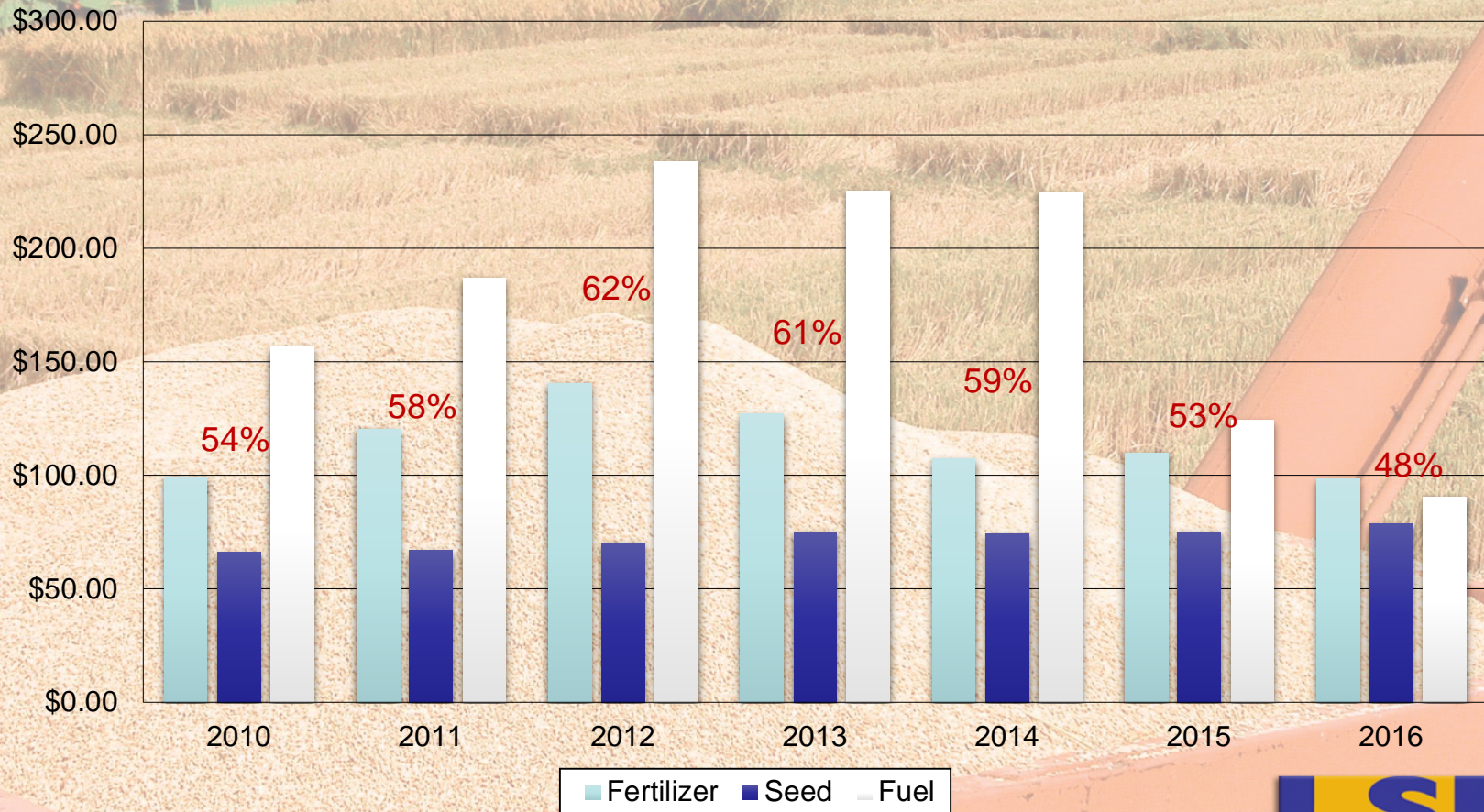
# Average Anhydrous Price



Source: DTN. "Retail fertilizer price trends." February 9, 2016.



# Input Expenditures (\$/ac)



CLEARFIELD® variety, drill planted, southwestern Louisiana.



# NRAVC Tenant Operator CLXL Drill Planted, 2016

		Percent								
		80%	85%	90%	95%	100%	105%	110%	115%	120%
		Rice Market Price (\$/cwt)								
	Yield (cwt.)	\$9.60	\$10.20	\$10.80	\$11.40	\$12.00	\$12.60	\$13.20	\$13.80	\$14.40
80%	64.0	-60	-37	-14	9	33	56	79	102	125
85%	68.0	-33	-9	16	41	66	91	116	141	166
90%	72.0	-7	20	47	73	100	126	153	180	206
95%	76.0	20	49	77	105	133	162	190	218	246
100%	80.0	47	77	107	137	167	197	227	257	287
105%	84.0	74	106	137	169	201	232	264	295	327
110%	88.0	101	134	168	201	234	267	301	334	367
115%	92.0	128	163	198	233	268	303	338	373	408
120%	96.0	155	191	228	265	301	338	375	411	448



# Net Returns Tool (with PLC)

9/11/2014

## Estimated Rice Net Returns With the "Price Loss Coverage (PLC) Program" in the 2014 Farm Bill

Cell values in blue for price, yield, costs, and other factors can be changed by the user.

Values in the table represent net returns above specified costs per planted rice acre. Positive net return values are highlighted in yellow.

### Estimation of Rice Grower and Landlord Net Returns Above Specified Costs per Planted Rice Acre

Land Tract Name/Number = <b>Rice Land Tract No. 1</b>		Projected Rice Production		Percent of Costs Paid By:	
Expected Farm Level Rice Price =	\$14.80 per cwt. 23.98 per barrel	Costs Per Planted Acre	Landlord	Grower	
Expected Farm Level Rice Yield =	6,800 lbs./acre 42.0 barrels/acre	Custom	0%	100%	
Expected National MYA Rice Price =	\$14.50 per cwt. 23.49 per barrel	Fertilizer	0%	100%	
		Herbicides	0%	100%	
Rice Share Rent =	30% crop share	Fungicides, Insecticides	0%	100%	
Rice Cash Rent =	\$0 per planted rice acre	Seed	0%	100%	
<i>Drying and hauling rates entered below will be charged to the grower and the landlord for their proportionate crop shares.</i>		Labor	0%	100%	
Rice Drying Charge	\$1.00 \$/cwt. (dry yield basis)	Fuel & Repairs	0%	100%	
Rice Hauling Charge	\$0.30 \$/cwt. (dry yield basis)	Irrigation Pumping	100%	0%	
<i>To enter alternate charges for drying and/or hauling, enter zero values in the cells above and enter a cost per acre in the cost table to the right</i>		Other Variable Costs	0%	100%	
		Other Variable Costs	0%	100%	
		Fixed Costs	0%	100%	
		Overhead Costs	0%	100%	
		Other Costs	0%	100%	
		Other Costs	0%	100%	
		Other Costs	0%	100%	
		Other Costs	0%	100%	
Price Loss Coverage (PLC) Reference Price =	\$14.00 per cwt.	Total Specified Costs	\$750	per planted rice acre	
Updated Rice Program Yield =	5,700 lbs./program acre	Proportionate total specified costs =>	\$190	\$560	
Rice Acres Planted on this tract =	85 planted acres				
Total Rice Base Acres on this tract =	100 rice base acres				

*(Farm program payments are shared with landlord only for crop share lease arrangements; no payment share under cash leases)*

Expected Farm Level Rice Price (\$/cwt)	Expected Nat. MYA Rice Price (\$/cwt)	Estimated Grower Net Returns Above Specified Costs Per Planted Rice Acre										Price Loss Coverage PLC Program Payment Rate (\$/program yield cwt)			
		Rice Yield (lbs/acre)													
		5,800	6,050	6,300	6,550	6,800	7,050	7,300	7,550	7,800	8,050				
\$13.05	\$12.75	-\$33	-\$13	\$8	\$29	\$49	\$70	\$90	\$111	\$131	\$151	\$171	\$191	\$211	\$1.25
\$13.30	\$13.00	-\$33	-\$12	\$9	\$30	\$51	\$72	\$93	\$114	\$135	\$155	\$175	\$195	\$215	\$1.00
\$13.55	\$13.25	-\$33	-\$11	\$10	\$32	\$53	\$74	\$96	\$117	\$139	\$159	\$179	\$199	\$219	\$0.75
\$13.80	\$13.50	-\$33	-\$11	\$11	\$33	\$55	\$77	\$99	\$121	\$142	\$162	\$182	\$202	\$222	\$0.50
\$14.05	\$13.75	-\$32	-\$10	\$12	\$35	\$57	\$79	\$102	\$124	\$146	\$166	\$186	\$206	\$226	\$0.25
\$14.30	\$14.00	-\$32	-\$9	\$13	\$36	\$59	\$82	\$104	\$127	\$150	\$170	\$190	\$210	\$230	\$0.00
\$14.55	\$14.25	-\$22	\$1	\$24	\$48	\$71	\$94	\$117	\$140	\$163	\$186	\$209	\$232	\$255	\$0.00
\$14.80	\$14.50	-\$12	\$12	\$35	\$59	\$83	\$106	\$130	\$153	\$177	\$200	\$223	\$246	\$269	\$0.00
\$15.05	\$14.75	-\$2	\$22	\$46	\$70	\$95	\$119	\$143	\$167	\$191	\$214	\$238	\$261	\$285	\$0.00
\$15.30	\$15.00	\$8	\$33	\$57	\$82	\$106	\$131	\$155	\$180	\$204	\$228	\$252	\$276	\$300	\$0.00
\$15.55	\$15.25	\$19	\$43	\$68	\$93	\$118	\$143	\$168	\$193	\$218	\$242	\$267	\$291	\$315	\$0.00
\$15.80	\$15.50	\$29	\$54	\$79	\$105	\$130	\$156	\$181	\$206	\$231	\$256	\$281	\$306	\$331	\$0.00
\$16.05	\$15.75	\$39	\$65	\$90	\$116	\$142	\$168	\$194	\$220	\$245	\$270	\$295	\$320	\$345	\$0.00
\$16.30	\$16.00	\$49	\$75	\$102	\$128	\$154	\$180	\$207	\$233	\$259	\$285	\$311	\$337	\$363	\$0.00
\$16.55	\$16.25	\$59	\$86	\$113	\$139	\$166	\$193	\$219	\$246	\$273	\$300	\$327	\$354	\$381	\$0.00

### Parameters:

- Farm Price Received
- Farm Yield
- MYA Price
- Rental Share (or cash eq.)
- Cost Shares (%)
- PLC Program Yield
- Base Acres

NRAVC to the GRW