Mississippi Agricultural Land Values Sales Report: 2015

MISSISSIPPI STATE UNIVERSITY EXTENSION

This report is intended to provide producers, lenders, and others involved in the agricultural industry a guide for benchmarking land values and cash rental rates for crop and pastureland across Mississippi. This report is based on historical data looking at the movement of land prices prior to January 2015.

Cropland

According to USDA data, national averages for agricultural land trended upward between 2011 and 2014, averaging between 7 percent and 8 percent appreciation per year. The 2013–14 change in agricultural land values was largest in the Northern Plains region, including Kansas, Nebraska, and the Dakotas, where the year's appreciation approached 23 percent. Most Corn Belt states experienced appreciations around 8 percent during that same period, with the exception of Iowa, which saw agricultural land values increase around 10.5 percent.

The Delta states, including Arkansas, Louisiana, and Mississippi, had an average annual appreciation of around 3.5 percent for 2011–14, less than half the national average annual appreciation in agricultural land. Lower still was the appreciation in Mississippi agricultural land values, where 2011–14 saw an appreciation rate at between 1 percent and 3 percent annually. In terms of overall average dollar values, farm real estate averaged $2,950 per acre nationally, $6,370 per acre in the Corn Belt, $2,640 per acre in the Delta region, and $2,340 per acre in Mississippi alone in 2014[1].

Examining previous tract sales gives a clear picture of agricultural cropland value movement in Mississippi. Actual sales data was collected by Mississippi State University for cropland in Mississippi and stratified by region, by dryland or irrigated, and by irrigation method for 2012–14. Sales where the highest and best use had changed, or homestead-type properties where the dwelling was the largest share of overall value, were excluded. Sales from 2015 are approximated from a survey conducted by Mississippi State University in April 2015[2].

Tables 1–6 show average sales prices from 2012 to 2014 for irrigated and nonirrigated cropland in Mississippi in and out of the Delta region. Irrigation is further divided into flood-irrigated or pivot-irrigated parcels.

Table 1. Mississippi Delta Area: 2014

	Mean	Min	Max	N
Pivot-irrigated	4,880	4,102	6,500	6
Flood-irrigated	4,284	2,481	6,950	38
Nonirrigated	3,104	1,200	5,350	39

Table 2. Mississippi Delta Area: 2013

	Mean	Min	Max	N
Pivot-irrigated	3,628	1,875	4,280	19
Flood-irrigated	3,996	2,762	5,450	54
Nonirrigated	2,852	1,250	5,000	39

Table 3. Mississippi Delta Area: 2012

	Mean	Min	Max	N
Pivot-irrigated	3,569	2,000	4,800	15
Flood-irrigated	3,421	2,189	5,000	53
Nonirrigated	2,497	1,000	3,966	68

Table 4. Mississippi Non-Delta Area: 2014

	Mean	Min	Max	N
Pivot-irrigated	*	*	*	*
Flood-irrigated	*	*	*	*
Nonirrigated	2,473	1,032	6,000	44

*Not enough data

Table 5. Mississippi Non-Delta Area: 2013

	Mean	Min	Max	N
Pivot-irrigated	*	*	*	*
Flood-irrigated	*	*	*	*
Nonirrigated	2,353	1,358	4,000	51

*Not enough data

Table 6. Mississippi Non-Delta Area: 2012

	Mean	Min	Max	N
Pivot-irrigated	*	*	*	*
Flood-irrigated	*	*	*	*
Nonirrigated	2,494	957	4,500	51

*Not enough data

[1]USDA Land Values 2014 Summary. August 2014. http://usda.mannlib.cornell.edu/usda/nass/AgriLandVa//2010s/2014/AgriLandVa-08-01-2014.pdf

[2]Mississippi Agricultural Land Values, Cash Rents, and Lending Conditions: Spring 2015. Bryon Parman and Andrew Louis. MSU Extension Publication 2889.

From 2012 to 2014, the lowest valued cropland across Mississippi was nonirrigated or dry cropland outside the Delta region. As recently as 2012, non-Delta dry cropland was selling for roughly the same dollar-per-acre price as Delta dry cropland. However, the 3-year period captured in the tables shows no real movement in dry cropland outside of the Delta, while dry cropland in the Delta region increased nearly 19.5 percent during that same period. Another important note is that there were very few irrigated non-Delta cropland sales in the 3-year period captured in this report and, thus, no averages are reported.

Within the Delta region, all three cropland categories appreciated during the 3-year period shown. Pivot-irrigated cropland in the Delta increased nearly 25 percent, while flood-irrigated cropland appreciated almost 21 percent. Dry cropland appreciated more modestly, at approximately 10 percent.

One interesting observation regarding cropland values during the period spanning 2012–14 concerned the widening price gap between dry and irrigated cropland. In 2012, irrigated cropland on average was 29 percent higher in value than dry cropland in the Delta region. In 2014, that difference was closer to 37 percent. While this may be simply a function of a relatively short sampling period, it could also indicate that productivity/value growth in irrigated cropland outpaced its dry counterpart.

Statewide averages for irrigated and nonirrigated cropland in Mississippi are shown in **Tables 7–10**. While Tables 7–9 are based on actual sales data throughout the state, Table 10 is based upon lenders' survey data from April 2015. Flood- and pivot-irrigated sales were averaged since the survey data from 2015 was an average of all irrigation types.

Survey data from 2015 shows a substantial drop in irrigated cropland values from 2014 and a modest gain in dry cropland values. Lenders described irrigated cropland in 2015 averaging $3,700 per acre, while 2014 actual sales averaged $4,365 per acre. That is an approximately 18 percent drop in the average from the price land was selling the year before. Dry cropland statewide was mostly flat, appreciating at a meager 1.5 percent. However, caution must be taken when comparing the actual sales prices from 2012 to 2014 and the observed survey prices from 2015, as the final sales prices from 2015 may differ somewhat once that data becomes available.

Table 7. Statewide Average: 2012 $/Acre

	Mean	Min	Max	N
Irrigated	3,519	2,000	5,000	17
Nonirrigated	2,769	919	4,500	158

Table 8. Statewide Average: 2013 $/Acre

	Mean	Min	Max	N
Irrigated	3,898	2,762	5,450	76
Nonirrigated	2,624	1,250	5,000	85

Table 9. Statewide Average: 2014 $/Acre

	Mean	Min	Max	N
Irrigated	4,365	2,481	6,950	44
Nonirrigated	2,769	1,032	6,000	83

Table 10. Statewide Average: 2015 $/Acre (Survey Data)

	Mean	Min	Max	N
Irrigated	3,700	2,500	4,800	*
Nonirrigated	2,810	1,500	4,300	*
*Not enough data				

Pasture/Grazing Land

Nationally, pastureland values averaged $1,300 per acre in 2014, which was an 11.1 percent increase from 2013's average of $1,170 per acre. Regionally, the highest value pasture ground on a dollars-per-acre basis in 2014 was the Southeast, including Alabama, Florida, Georgia, and South Carolina; pastureland in this region averaged $3,790 per acre. The lowest cost region on a dollar-per-acre basis in 2014 was the Rocky Mountain region, where pastureland averaged $490 per acre. The Delta region states, including Arkansas, Mississippi, and Louisiana, averaged $2,270 per acre, a 3.7 percent increase from 2013[3].

Statewide sales data for Mississippi alone in 2014 showed a pastureland value of $2,447 per acre (**Table 11**). This was nearly 25 percent more than the 2013 state average pastureland value of $1,985 per acre. With a stocking rate recommendation from Mississippi State University being 1.2 AU/2 acres[4], the land cost to run a cow/calf pair increased to $4,078.

Table 11. Mississippi Pastureland Values $/acre for 2012, 2013, 2014

Year	Mean	Min	Max	N
2014	2,447	916	4,955	133
2013	1,985	1,200	2,900	69
2012	2,197	970	3,850	90

Surveys of lenders from April 2015 revealed no significant change from the sales values for pastureland in 2014. Survey results indicated a pastureland value of $2,455 per acre.

While Mississippi and other Delta states have much higher pastureland values than many of the Plains states or Mountain states, the cost of grazing in Mississippi continues to be relatively inexpensive. In some of the Mountain states, the stocking rate approaches 20 acres per cow/calf pair. At $480 per acre, that would make the land cost of grazing a pair $8,167, and that land may only be available to graze 5 months per year. This is significantly above Mississippi's $4,078 per pair, which may be grazed year-round.

[3]USDA Land Values 2014 Summary. August 2014. ISSN: 1949-1867.
[4]1 AU = 1,000 lb. 1.2AU = 1,200 lb or the equivalent of 1 cow/calf pair.

Profitability

Cropland

Tables 12–14 are a general profit/loss matrix for Delta, top-quality, irrigated cropland for 2014. The three primary crops for Mississippi in that year are shown (corn, soybeans, and cotton). The operating costs per acre are from the 2015 MSU crop budgets, which use data from 2014.

For each crop, the cropping method assumed is one of the more common practices employed. A land payment is included in the cost for each crop and is estimated using **Table 1**, the average cost of flood-irrigated land in the Delta. A 20 percent down payment is assumed, along with a 4 percent interest rate on a 15-year loan.

Table 12. Corn Profitability Table

		$/Bu						
		3.25	3.5	3.75	4.25	4.5	4.75	5
Yield in Bu/acre	125	-622	-591	-560	-497	-466	-435	-403
	150	-541	-503	-466	-391	-353	-316	-278
	175	-460	-416	-372	-285	-241	-197	-153
	200	-378	-328	-278	-178	-128	-78	-28
	225	-297	-241	-185	-72	-16	40	97

Table 12 assumes stale seedbed, BtRR, 8-row 38", 185 bu yield goal, furrow-irrigated, 13 ac-in. Operating costs excluding land $677.43/acre.
Table 12 uses 2014 data for Mississippi State Cropping Budgets. Table includes a land payment of $351/acre, which is the average price of top-quality irrigated Delta farm ground, assuming a 4% interest rate and a 20% down payment with a maturity of 15 years.

Table 13. Soybean Profitability Table

		$/Bu						
		9.5	10	10.5	11	11.5	12	12.5
Yield in Bu/acre	35	-446	-428	-411	-393	-376	-358	-341
	45	-351	-328	-306	-283	-261	-238	-216
	55	-256	-228	-201	-173	-146	-118	-91
	65	-161	-128	-96	-63	-31	2	35
	75	-66	-28	10	47	85	122	160

Table 13 assumes early-planted, RR, stale seedbed, 12R 30, furrow-irrigated, 9 ac-in, target yield 65 bu/acre. Operating costs excluding land $427.82/acre.
Table 13 uses 2014 data for Mississippi State Cropping Budgets. Table includes a land payment of $351/acre, which is the average price of top-quality irrigated Delta farm ground, assuming a 4% interest rate and a 20% down payment with a maturity of 15 years.

Table 14. Cotton Profitability Table

		$/lb						
		0.5	0.6	0.7	0.8	0.9	1	1.1
Yield in lb/acre	1000	-780	-680	-580	-480	-380	-280	-180
	1100	-730	-620	-510	-400	-290	-180	-70
	1200	-680	-560	-440	-320	-200	-80	40
	1300	-630	-500	-370	-240	-110	20	150
	1400	-580	-440	-300	-160	-20	120	260

Table 14 assumes 12R-38, solid, conservation tillage B2RF variety, furrow-irrigated, 10.5 ac-in., 1100 lb/acre target yield. Operating costs excluding land $929.36/acre. The profit/loss for cotton is based on lint sales only; sale of seed is NOT included.
Table 14 uses 2014 data for Mississippi State Cropping Budgets. Table includes a land payment of $351/acre, which is the average price of top-quality irrigated Delta farm ground, assuming a 4% interest rate and a 20% down payment with a maturity of 15 years.

In 2014, the U.S. average corn price was $4.11 per bushel, the average soybean price was $12.48 per bushel, and the average cotton price was $0.635 per pound. Of the three crops shown, on average, only soybeans covered both operating costs and a land payment based upon 2014 sales prices. It is certainly the case that some Mississippi farmers were able to produce corn, soybeans, and cotton at a lower cost than what is estimated by the MSU budgets. It is also true that there are many more cropping practices or methods employed around the state than the one shown for each crop. However, many farmers in the Delta and around the state produce at a higher cost than the budgets estimated. Therefore, it is reasonable to conclude that a significant portion of Mississippi farmers saw negative returns to land in 2014—especially corn and cotton producers.

Pastureland

The cattle market had a record 2014 as prices for weaned calves across the country were around $300 per hundredweight. Based on a sales price in 2014 for weaned calves near $3 per pound, and an average pastureland price of $2,447, returns per acre over operating costs plus a land payment in Mississippi averaged $72 per acre[5]. Since 2014, cattle prices have declined substantially, and the returns to land in 2014 set a high mark that may not be reached again for some time.

Conclusions and Outlook

Crop commodity prices in 2014 were much lower than in previous years. However, the momentum of land values trending upward continued to carry cropland sales prices higher during the year. As a result, returns to land and profitability based on a 2014 sales price were low and, in many cases, negative.

Early survey data from 2015 revealed a halt to the upward sales price trend for cropland. However, actual sales data from 2015 will determine exactly what impact 2 years of low commodity prices have had on quality cropland values. The outlook moving forward for cropland sales prices hinges on how long commodity prices stay low, how long input costs stay high, and what happens with interest rates moving forward. Another low crop commodity price year may start a market correction for land sooner rather than later.

Pastureland prices saw a sharp spike in value in 2014. However, the survey results suggest this movement upward may not have carried into 2015 as cattle prices failed to maintain their record high of $300 per hundredweight for long. Because the market did not stay near its record high, it probably will not require a substantial correction for pastureland values to settle where they will remain for the foreseeable future.

[5] Total specified expenses for cow/calf producers is based on MSU cow/calf budget in 2014, which was $1,027/cow.

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