



www.agmanager.info
abarnaby@agecon.ksu.edu
(785) 532.1515 (phone)
(785) 532.6925 (fax)

G.A. "Art" Barnaby Jr.

Copyright 2009. All rights reserved. Contact Art to be added to e-mail list

Disclaimer: This web page is designed to aid farmers with their marketing and risk management decisions. The risk of loss in trading futures, options, forward contracts, and hedge-to-arrive can be substantial and no warranty is given or implied by the author or any other party. Each farmer must consider whether such marketing strategies are appropriate for his or her situation. This web page does not represent the views of Kansas State University.

Wheat Will Likely Benefit the Most From ACRE?¹

Back on August 14, the final day for ACRE sign up, AgManager.info contained a ranking by crop and state where farmers were most likely to collect ACRE payments. The winter wheat estimates were the most accurate because wheat was 3 months in to the marketing year and many winter wheat states had NASS yields already published. For fall harvested crops including spring wheat, August 12 was the date of the first NASS yield estimates. In addition several states had their yields split between irrigated and non-irrigated production. NASS will report its first yield estimates split by practices in February.

Currently, only combined yields are reported for crops that ACRE will split by practice between irrigated and non-irrigated. Therefore, the updated estimated ACRE payments include KSU's estimated irrigated/non-irrigated yields that was derived from the NASS reported combined yield. It is likely that in states with below average yields the KSU method will over estimate the non-irrigated yield and under estimate the non-irrigated yield in states with above average 2009 combined yields.

Also the marketing year for feedgrains and soybeans had not started at the time of ACRE sign up on August 14. With so many estimates, clearly one would expect the estimated ACRE payments would change based on newly published NASS yields and prices.

¹Prepared by G. A. (Art) Barnaby, Jr., Professor, Department of Agricultural Economics, K-State Research and Extension, Kansas State University, Manhattan, KS 66506, December 17, 2009, Phone 785-532-1515, e-mail – barnaby@ksu.edu.

In the tables below are all of the states/crops analyzed by KSU and ranked by the most likely to receive ACRE payments. The larger the projected gross percentage of guarantee paid, the deeper ACRE is in the money and the more likely to pay. For example Oklahoma wheat is very likely to pay with a value of 42.3% (payment is capped at 25%), while Colorado wheat is way out of the money at a negative 40.1% and very unlikely to pay.

If projected gross percentage of the guarantee that is lost is over 20% then the odds favor payment, if less than 10%, then it is less likely, and a coin flip for the rest of the states. The NASS yield will change from current NASS estimates but they too are getting close to their final value. There are no NASS irrigated and dryland yield estimates and the remaining source for most of the errors in the KSU estimates. Also NASS does not publish yield estimates for some of the smaller states. KSU estimated the yields when there was no published NASS yields but future KSU estimated ACRE payments will use the NASS yields once they are published.

The KSU estimated wheat Marketing Year Average (MYA) price was \$5.16 on August 14, has declined to \$5.13 (table 1). The mid-point of the USDA wheat price estimate is \$4.85. The KSU price estimate puts Kansas wheat ACRE payments out of the money, but the lower USDA price would trigger small ACRE payments on Kansas wheat. This also assumes the KSU forecasted FSA failed acres were estimated correctly. A lower MYA wheat price will have no effect on Oklahoma and Texas wheat because it is expected the ACRE payment will hit the maximum limit, 25% of the guarantee, and a lower price will not increase the payment. Even if FSA failed acres are severely under reported, the ACRE payment will still hit the maximum in Texas and Oklahoma on wheat.

The KSU estimated corn price of \$3.24 on August 14, has increased to \$3.70 but is still below the strike price of \$4.13. The grain sorghum price estimate has increased from \$2.91 to \$3.25 but is also below the strike price of \$3.64. The KSU estimated soybean MYA price has declined from \$9.67 to \$9.59 and is below the \$10.04 strike price (tables 1, 2, 3, and 4). The higher feedgrain prices will decrease the ACRE payment from the August 14 estimate. While the estimated wheat and soybean MYA price is slightly lower, it will have little effect on the estimated ACRE payments compared with the forecasted payments at sign up back on August 14.

There were some major changes in NASS yields. For example the North Dakota NASS wheat yield increased from 39.2 to 44.8 bushels. This 14.3% increase in yields has eliminated the ACRE payment for North Dakota wheat based on current KSU price estimates (table 1). The Wisconsin NASS corn yield increased from 135.8 to 146.0 bushels. This 7.5% increase in yields has eliminated the ACRE payment for Wisconsin corn based on current KSU price estimates (table 2).

Using the mid-point of the USDA price estimates released on 12/10/09, USDA has not changed their price estimates from the previous month. The KSU estimated MYA price

is close to the USDA estimated soybean price estimate but USDA estimated prices for wheat and feedgrains are much lower. If USDA is correct, then the ACRE payments will be larger than the ones forecasted in table 1, 2, and 4.

The current KSU estimates suggest wheat will benefit the most from ACRE and only Texas shows an ACRE payment on soybeans. With wheat payments nearing final yields and more than half of the MYA wheat price has been determined; it is unlikely there will be large changes from the current estimated wheat ACRE payments, except in the states that have yields split by practice by irrigated and non-irrigated. The first NASS yields separated by practice will be published in February and that yield could cause a large change in the estimates for Idaho and New Mexico wheat.

The most recent NASS corn yield for Iowa was 183.0 bushels that was adjusted down to 182.7 based on the KSU estimated FSA failed acres. The 5 year Olympic Average yield was 171.0 bushels and the ACRE strike price was \$4.13. With the current KSU price forecast of \$3.70 and 182.7 bushel yield the ACRE payment is zero. A price of \$3.52 is close to the \$3.55 USDA price forecast but would also generate a zero payment for ACRE in Iowa.

The most recent NASS corn yield for Illinois was 175.0 bushels that was adjusted down to 174.1 to account for FSA failed acres. The 5 year Olympic Average yield was 172.0 bushels and the ACRE strike price was \$4.13. With the current KSU price forecast of \$3.70 and 174.1 bushel yield the ACRE payment is zero in Illinois.

Because the Illinois yield is near the 5 year Olympic average yield, any payment will depend on the final MYA price being lower than the KSU estimated \$3.70. For example a lower MYA price of \$3.52 will generate a payment of \$37.30 but it is unlikely the final payment will be anywhere near the maximum payment of \$159.83.

Because the Iowa yield is well above the 171 Olympic Average yield, or 6.8% higher ACRE will likely generate no payment even with a price below the \$4.13 strike price. By contrast Illinois' yield was only 1.2% higher than the Olympic average.

The analysis in the tables below shows the ACRE payments estimated on August 14 at sign up. Those estimates were updated with the current NASS yield and the current KSU price estimates. The ranking of most likely collected is also posted for August 14 and the current ranking. For example Washington wheat moved up from 10th to 7th. Texas wheat moved ahead of Oklahoma but it is unlikely to make any difference because both states are expected to receive the maximum ACRE payment. However, only about 1% of Texas farmers elected ACRE while both Oklahoma and Washington had "large" participation. With such large forecasted wheat ACRE payments, it is unclear why more Texas farmers did not elect ACRE. Cotton base cannot be the total answer because there are regions of Texas that nearly all of the crop acres are in wheat or feedgrains.

Kansas wheat moved up from 26th to 23rd and is near the money. If price declines or if USDA price forecast is correct then ACRE would pay \$8.50 in Kansas but nowhere near

the maximum payment of \$52.66. Also, if the FSA failed acres are larger than the KSU estimated failed acres that could also trigger or increase a Kansas wheat ACRE payment.

The KSU and USDA MYA price estimates have been updated on AgManager.info.

The links are: HTML:

http://www.agmanager.info/crops/insurance/risk_mgt/rm_html09/AB_MYAprice_ACRE_12102009.asp

PDF:

http://www.agmanager.info/crops/insurance/risk_mgt/rm_pdf09/AB_MYAprice_ACRE_12102009.pdf

Table 1. ACRE Wheat Estimated 2009/10 Payments ranked in order of States most likely to make ACRE payments. Payments are capped at 25%. States with irrigated and non-irrigated practice are estimated yields all other yields are NASS estimates.

Cur- rent Rank	Sign- up Rank		8/14/09 Projections			Current Projections			Percent Yield Change
			Projected Gross Percent of Guar- anteed Lost	Projected State ACRE Payment	Projected State ACRE Yield	Projected Gross Percent of Guar- anteed Lost	Projected State ACRE Payment	Projected State ACRE Yield	
		USDA Price and Range	5.20	4.70	5.70	4.85	4.65	5.05	
		KSU Price and Range	5.16	4.39	5.94	5.13	4.36	5.90	
1	2	Texas Wheat	38.7%	42.96	27.0	46.7%	42.96	25.0	(7.4%)
2	1	Oklahoma Wheat	40.2%	\$46.84	22.0	42.3%	46.84	22.0	0.0%
3	4	Arkansas Wheat	21.3%	66.35	47.0	28.9%	77.72	44.0	(6.4%)
4	5	North Carolina Wheat	20.8%	68.36	49.0	23.9%	78.42	49.0	0.0%
5	3	Virginia Wheat	24.5%	94.60	55.0	23.4%	90.62	58.0	5.5%
6	6	Kentucky Wheat	20.3%	77.48	57.0	23.3%	88.88	57.0	0.0%
7	10	Washington Wheat	15.7%	57.32	57.8	22.3%	81.14	55.3	(4.3%)
8	8	Maryland Wheat	19.2%	75.54	60.0	22.2%	87.48	60.0	0.0%
9	14	Delaware Wheat	13.0%	53.00	66.4	21.8%	88.78	62.0	(6.6%)
10	12	Illinois Wheat	13.2%	47.55	59.0	20.7%	74.50	56.0	(5.1%)
11	11	Missouri Wheat	13.8%	41.02	49.0	19.7%	58.60	47.0	(4.1%)
12	18	Idaho Irrigated Wheat	10.1%	98.95	102.4	16.8%	102.45	100.2	(2.1%)
13	21	Pennsylvania Wheat	9.2%	31.22	58.0	15.6%	53.15	56.0	(3.4%)
14	16	South Dakota Wheat	12.1%	30.40	42.5	14.0%	35.20	42.9	1.0%
15	13	Oregon Wheat	13.2%	43.41	54.0	13.5%	44.46	55.7	3.2%
16	23	Indiana Wheat	8.4%	33.12	68.0	13.1%	51.79	67.0	(1.5%)
17	19	Michigan Wheat	9.9%	39.12	67.0	12.8%	50.32	69.0	3.0%
18	9	Idaho Dryland Wheat	18.3%	59.05	54.2	11.6%	37.41	56.1	3.6%
19	22	Minnesota Wheat	8.9%	26.59	51.0	9.2%	27.40	52.8	3.5%
20	17	Montana Wheat	10.2%	18.67	32.5	7.8%	14.21	33.3	2.5%
21	20	Wisconsin Wheat	9.7%	35.89	63.0	6.2%	22.72	68.0	7.9%
22	24	Ohio Wheat	4.8%	18.73	71.0	6.1%	24.00	72.0	1.4%
23	26	Kansas Wheat	(5.5%)	0.00	42.0	(1.5%)	0.00	42.0	0.0%
24	27	Nebraska Wheat	(8.6%)	0.00	48.0	(3.9%)	0.00	48.0	0.0%
25	25	North Dakota Wheat	0.9%	1.83	39.2	(9.1%)	0.00	44.8	14.3%
26	15	New Mexico Irrigated	12.4%	42.14	57.0	(11.1%)	0.00	75.0	31.6%
27	28	Colorado Wheat	(37.8%)	0.00	39.0	(40.1%)	0.00	40.6	4.1%
28	7	New Mexico Dryland	20.3%	15.85	13.1	(60.3%)	0.00	25.3	92.8%

Date of Printing 12/10/2009

Table 2. ACRE Corn Estimated 2009/10 Payments ranked in order of States most likely to make ACRE payments. Payments are capped at 25%. States with irrigated and non-irrigated practice are estimated yields all other yields are NASS estimates.

		8/14/09 Projections			Current Projections				
USDA Price and Range		3.50	3.10	3.90	3.55	3.25	3.85		
KSU Price and Range		3.24	2.60	3.89	3.70	2.96	4.44		
Cur- rent Rank	Sign- up Rank	Projected			Projected			Percent Yield Change	
		Percent of Guar- anteed Lost	Projected State ACRE Payment	Projected State ACRE Yield	Percent of Guar- anteed Lost	Projected State ACRE Payment	Projected State ACRE Yield		
1	1	Texas Dryland Corn	20.8%	61.46	73.7	12.5%	36.80	71.0	(3.7%)
2	15	Oklahoma Dryland Corn	11.0%	32.76	83.2	11.9%	35.52	71.7	(13.8%)
3	2	Colorado Irrigated Corn	20.0%	137.89	171.0	9.7%	66.65	168.2	(1.6%)
4	8	Oregon Corn	12.7%	86.98	184.2	9.5%	64.72	166.4	(9.7%)
5	3	Texas Irrigated Corn	17.4%	119.88	176.7	7.5%	51.43	172.5	(2.4%)
6	22	Kansas Irrigated Corn	7.4%	51.85	201.0	5.1%	35.53	179.5	(10.7%)
7	14	Arkansas Irrigated Cor	11.4%	70.55	170.4	3.8%	23.52	161.2	(5.4%)
8	5	Delaware Irrigated Cor	15.6%	108.65	182.0	3.7%	25.68	181.0	(0.5%)
9	7	Idaho Corn	12.8%	81.09	171.0	0.5%	3.28	170.0	(0.6%)
10	9	Delaware Dryland Corn	12.7%	51.80	109.7	0.5%	1.89	109.0	(0.6%)
11	24	Arkansas Dryland Corn	7.2%	32.47	130.7	(0.8%)	0.00	123.7	(5.4%)
12	13	Illinois Corn	11.6%	74.60	176.1	(0.8%)	0.00	175.0	(0.6%)
13	4	Washington Corn	15.7%	121.22	201.2	(1.0%)	0.00	210.0	4.4%
14	12	Michigan Corn	11.6%	59.94	140.9	(2.2%)	0.00	142.0	0.8%
15	10	North Dakota Corn	12.2%	53.10	118.6	(2.7%)	0.00	121.0	2.0%
16	21	Kansas Dryland Corn	7.5%	26.84	102.8	(3.3%)	0.00	99.9	(2.7%)
17	6	Wisconsin Corn	14.9%	76.70	135.8	(5.0%)	0.00	146.0	7.5%
18	18	Indiana Corn	9.2%	53.62	164.0	(5.4%)	0.00	166.0	1.2%
19	17	Minnesota Corn	9.5%	57.22	168.1	(6.3%)	0.00	172.0	2.3%
20	26	Iowa Corn	5.7%	36.51	186.2	(6.4%)	0.00	183.0	(1.7%)
21	16	Oklahoma Irrigated Cor	10.8%	69.00	176.8	(7.1%)	0.00	185.1	4.6%
22	20	Missouri Corn	8.1%	41.75	146.9	(8.4%)	0.00	151.0	2.8%
23	23	Nebraska Irrigated Corn	7.3%	49.90	196.9	(9.1%)	0.00	201.9	2.6%
24	11	Maryland Corn	12.1%	59.59	133.8	(9.3%)	0.00	145.0	8.3%
25	28	Ohio Corn	4.1%	23.02	166.0	(10.0%)	0.00	166.0	(0.0%)
26	19	Virginia Corn	8.9%	38.44	120.8	(12.5%)	0.00	130.0	7.6%
27	27	Pennsylvania Corn	5.1%	24.05	137.8	(13.7%)	0.00	144.0	4.5%
28	25	Kentucky Corn	5.8%	30.06	151.0	(14.6%)	0.00	160.0	5.9%
29	31	Colorado Dryland Corn	(8.1%)	0.00	52.6	(14.7%)	0.00	48.6	(7.5%)
30	29	Nebraska Dryland Corn	1.4%	6.34	137.7	(14.8%)	0.00	139.8	1.5%
31	30	South Dakota Corn	0.1%	0.54	141.8	(21.2%)	0.00	150.0	5.7%

Date of Printing 12/17/2009

Table 3. ACRE Soybean Estimated 2009/10 Payments ranked in order of States most likely to make ACRE payments. Payments are capped at 25%. States with irrigated and non-irrigated practice are estimated yields all other yields are NASS estimates.

		8/14/09 Projections			Current Projections				
USDA Price and Range		9.40	8.40	10.40	9.48	8.75	10.20		
KSU Price and Range		9.67	7.89	11.45	9.59	7.82	11.35		
Cur- rent Rank	Sign- up Rank	Projected			Projected			Percent Yield Change	
		Gross Percent of Guar- anteed Lost	Projected State ACRE Payment	Projected State ACRE Yield	Gross Percent of Guar- anteed Lost	Projected State ACRE Payment	Projected State ACRE Yield		
1	1	Texas Soybean Estima	7.9%	17.44	25.0	10.3%	23.03	23.0	(8.0%)
2	2	North Dakota Soybean	4.8%	13.47	29.0	(0.5%)	0.00	30.0	3.4%
3	21	Mississippi Soybean Es	(12.5%)	0.00	41.0	(0.8%)	0.00	36.0	(12.2%)
4	3	Indiana Soybean Estim	3.2%	13.93	45.0	(1.0%)	0.00	46.0	2.2%
5	4	Illinois Soybean Estima	2.7%	11.43	44.0	(1.6%)	0.00	45.0	2.3%
6	6	Arkansas Irrigated Soy	0.6%	2.16	38.4	(1.7%)	0.00	38.0	(1.1%)
7	7	Minnesota Soybean Es	0.4%	1.44	40.0	(6.7%)	0.00	42.0	5.0%
8	5	Michigan Soybean Estim	0.8%	2.66	37.0	(6.7%)	0.00	39.0	5.4%
9	15	Iowa Soybean Estimate	(6.8%)	0.00	52.0	(6.9%)	0.00	51.0	(1.9%)
10	10	Nebraska Dryland Soy	(2.9%)	0.00	41.1	(8.2%)	0.00	52.0	26.5%
11	12	Nebraska Irrigated Soy	(3.8%)	0.00	56.8	(9.6%)	0.00	52.0	(8.5%)
12	14	Ohio Soybean Estimate	(5.6%)	0.00	47.0	(10.1%)	0.00	48.0	2.1%
13	11	Wisconsin Soybean Es	(2.9%)	0.00	39.0	(10.4%)	0.00	41.0	5.1%
14	8	Oklahoma Soybean Es	(0.2%)	0.00	25.0	(14.1%)	0.00	28.0	12.0%
15	16	North Carolina Soybear	(7.4%)	0.00	32.0	(16.5%)	0.00	34.0	6.3%
16	9	Kentucky Soybean Estim	(2.6%)	0.00	40.0	(20.4%)	0.00	46.0	15.0%
17	23	Arkansas Dryland Soy	(18.3%)	0.00	29.8	(21.4%)	0.00	38.0	27.6%
18	22	Pennsylvania Soybean	(15.8%)	0.00	45.0	(23.4%)	0.00	47.0	4.4%
19	19	Missouri Soybean Estim	(10.8%)	0.00	40.0	(24.4%)	0.00	44.0	10.0%
20	20	South Dakota Soybean	(11.9%)	0.00	37.0	(26.5%)	0.00	41.0	10.8%
21	17	Virginia Soybean Estim	(7.7%)	0.00	32.0	(27.0%)	0.00	37.0	15.6%
22	18	Kansas Soybean Estim	(9.5%)	0.00	38.0	(28.3%)	0.00	43.0	13.2%
23	13	Maryland Soybean Estim	(4.8%)	0.00	33.0	(39.3%)	0.00	43.0	30.3%
24	24	Delaware Soybean Estim	(25.5%)	0.00	34.0	(46.8%)	0.00	39.0	14.7%

Date of Printing 12/10/2009

Table 4. ACRE Grain Sorghum Estimated 2009/10 Payments ranked in order of States most likely to make ACRE payments. Payments are capped at 25%. States with irrigated and non-irrigated practice are estimated yields all other yields are NASS estimates.

		8/14/09 Projections			Current Projections				
USDA Price and Range		3.00	2.70	3.30	3.15	2.85	3.45		
KSU Price and Range		2.91	2.48	3.35	3.25	2.76	3.73		
Cur- rent Rank	Sign- up Rank	Projected			Projected			Percent Yield Change	
		Gross Percent of Guaran- teed Lost	Projected State ACRE Payment	Projected State ACRE Yield	Gross Percent of Guaran- teed Lost	Projected State ACRE Payment	Projected State ACRE Yield		
1	3	Texas Grain Sorghum I	31.5%	47.82	47.0	26.8%	46.66	44.0	(6.4%)
2	2	New Mexico Dryland G	31.9%	25.17	23.7	22.6%	22.21	44.0	86.0%
3	4	New Mexico Irrigated G	25.0%	68.79	70.6	14.8%	39.65	44.0	(37.7%)
4	1	Oklahoma Grain Sorgh	33.1%	41.94	39.0	7.9%	12.86	47.0	20.5%
5	6	Illinois Grain Sorghum I	13.3%	41.85	94.0	5.5%	16.93	90.0	(4.3%)
6	7	Missouri Grain Sorghur	13.1%	40.33	92.0	4.4%	13.31	89.0	(3.3%)
7	10	Colorado Grain Sorghu	0.4%	0.41	35.0	3.0%	2.97	30.0	(14.3%)
8	9	Nebraska Grain Sorghu	7.5%	21.44	90.0	1.8%	4.94	84.0	(6.7%)
9	5	Arkansas Grain Sorghu	22.3%	62.73	84.0	(3.7%)	0.00	93.0	10.7%
10	8	Kansas Grain Sorghum	9.6%	24.56	79.0	(7.9%)	0.00	83.0	5.1%
11	11	South Dakota Grain So	(1.9%)	0.00	60.0	(31.3%)	0.00	68.0	13.3%

Date of Printing 12/10/2009