

***“Analysis of Crop Insurance as a Risk Management Strategy for Georgia Peanut Producers: An Investigation of the Effectiveness of Crop Insurance as a Safety Net for Peanut Producers from a Whole Farm, Multi-Year Perspective.”; A.S. Luke-Morgan\*, S.M. Fletcher, Z. Shi, Abraham Baldwin Agricultural College.***

**Issue:** By nature, agricultural production is a risky venture facing uncertainty from multiple factors, many of which cannot be controlled. To ensure long-run viability, economic stability is vital to Georgia’s peanut producers. Catastrophic events in recent years provide harsh examples of the economic impact Georgia agriculture faces from uncertainty in production and marketing. Many producers utilize risk management tools to mitigate the economic impact of uncertainty. Crop insurance is one risk management tool often regarded as providing a safety net for producers. This study continued to investigate the effectiveness of crop insurance in providing a safety net for peanut producers in the state. This study expanded prior research to a whole farm scenario utilizing representative peanut farm data.

**Response:** Crop insurance selection for a specific enterprise within a whole farm continues to be multi-faceted. Decisions must be made on policy type for a range of coverage levels and pricing options. This study considered a portion of those options. As evidenced in prior research, the yield protection model generated a greater level of effectiveness than the revenue protection or catastrophic policies but was effective on less than one-third of the total observations for the peanut enterprises of representative peanut farms. Prior research also found that a higher coverage level resulted in higher levels of effectiveness, but even at the maximum level tested, 75 percent coverage, less than three out of five of the observations were deemed effective. To remain economically viable, producers must weigh the benefit of every dollar spent for not only the peanut enterprise but the farm as a whole.

**Methods:** First, historical crop insurance data was analyzed for peanuts, cotton, corn, and soybeans to provide a foundation of trends over time in the number and types of policies sold and indemnified for each commodity. Similarities and differences between commodities, regions, insurance types, and resulting indemnities are under analysis. Next, the expected and payment yields are being considered for peanuts, cotton, and corn. Using the provided representative farm data, the types and levels of crop insurance coverage and the resulting premium will be considered for each enterprise of a representative farm.

**Preliminary Findings:** The findings show great variability across crop insurance decisions for representative peanut farms. It will be of great interest in the next round of updates to see how producers have changed in crop insurance selection. A mix of policy types and coverage levels both within and across farms were reported. Similar trends are evident in national data. This analysis, coupled with discussions with RMA, has emphasized the importance of a knowledgeable crop insurance agent as farm management decisions are being made. National data shows that revenue protection policies are more favored across other commodities in many regions and often result in an overall loss ratio greater than 1, which indicates indemnity payments were made to producers.

**Moving Forward:** As preparations begin for the next Farm Bill, it is vital to obtain a clear understanding of the relevance of crop insurance for peanut producers. While crop insurance is considered the primary risk management tool for producers to recover from natural disasters and volatile market fluctuations, research indicates that the reliability of crop insurance as a safety net varies for many peanut producers when considering the total operating costs for the enterprise. In the upcoming months, focus will be placed on determining the cause of the differences in the effectiveness of crop insurance as a risk management tool for different crops, regions, and crop insurance products. Gaining this understanding will allow decision-makers to be better prepared for the next round of Farm Bill negotiations. As the representative peanut farm database is updated this summer, greater details will be gathered about the decision-making process for crop insurance to gain additional perspective on peanut producers.

**Type of Crop Insurance Purchased on Representative Peanut Farms (Percent of total farms, n=22)**

	Peanuts	Cotton	Corn
<b>Insurance Type:</b>	% of Farms Using Insurance Type		
<i>Catastrophic</i>	11%	6%	43%
<i>Yield Protection</i>	72%	33%	36%
<i>Revenue Protection</i>	17%	61%	21%

States	2019 U.S. States PEANUT Insured Acres And Shares By Types							Overall Loss Ratio
	RP	YP	CAT	TOTAL	RP Share(%)	YP Share(%)	CAT Share(%)	
AL	61,630	83,844	8,082	153,556	40%	55%	5%	1.25
AR	12,113	11,060	2,342	25,515	47%	43%	9%	2.25
FL	64,279	71,101	14,430	149,810	43%	47%	10%	1.38
GA	315,476	259,957	66,270	641,703	49%	41%	10%	1.34
LA	988	417	318	1,723	57%	24%	18%	0.19
MS	12,150	7,938	0	20,088	60%	40%	0%	1.72
NC	29,872	57,493	3,590	90,955	33%	63%	4%	0.32
NM	2,926	509	200	3,635	80%	14%	6%	1.29
OK	2,652	6,129	664	9,445	28%	65%	7%	0.51
SC	33,574	24,503	4,101	62,178	54%	39%	7%	1.01
TX	99,397	39,561	9,338	148,296	67%	27%	6%	1.83
VA	3,620	17,697	0	21,317	17%	83%	0%	0.05
<b>Grand Total*</b>	<b>638,677</b>	<b>580,209</b>	<b>109,335</b>	<b>1,328,221</b>	<b>48%</b>	<b>44%</b>	<b>8%</b>	<b>1.29</b>
<b>SPFF(AL,FL,GA,MS)</b>	<b>453,535</b>	<b>422,840</b>	<b>88,782</b>	<b>965,157</b>	<b>47%</b>	<b>44%</b>	<b>9%</b>	<b>1.42</b>
<b>SW(AR,LA,NM,OK,TX)</b>	<b>118,076</b>	<b>57,676</b>	<b>12,862</b>	<b>188,614</b>	<b>63%</b>	<b>31%</b>	<b>7%</b>	<b>1.21</b>
<b>VC(NC,SC,VA)</b>	<b>67,066</b>	<b>99,693</b>	<b>7,691</b>	<b>174,450</b>	<b>38%</b>	<b>57%</b>	<b>4%</b>	<b>0.46</b>
<i>*for specified states</i>								

States	2019 U.S. States COTTON Insured Acres And Shares By Types							Overall Loss Ratio
	RP	YP	CAT	TOTAL	RP Share(%)	YP Share(%)	CAT Share(%)	
AL	472,829	24,078	18,478	515,385	92%	5%	4%	0.64
AR	216,024	93,337	213,262	522,623	41%	18%	41%	0.98
FL	86,488	7,710	9,885	104,083	83%	7%	9%	0.68
GA	1,041,820	214,599	86,983	1,343,402	78%	16%	6%	0.88
LA	233,892	25,915	38,161	297,968	78%	9%	13%	1.19
MS	520,151	89,333	131,534	741,018	70%	12%	18%	1.08
NC	436,600	47,111	4,183	487,894	89%	10%	1%	0.32
NM	46,386	2,965	3,785	53,136	87%	6%	7%	1.71
OK	566,202	32,575	5,647	604,424	94%	5%	1%	1.14
SC	236,712	54,533	5,985	297,230	80%	18%	2%	1.01
TX	6,353,044	512,351	94,462	6,959,857	91%	7%	1%	1.41
VA	97,181	1,449	0	98,630	99%	1%	0%	0.15
<b>Grand Total*</b>	<b>10,307,329</b>	<b>1,105,956</b>	<b>612,365</b>	<b>12,025,650</b>	<b>86%</b>	<b>9%</b>	<b>5%</b>	<b>1.23</b>
<b>SPFF(AL,FL,GA,MS)</b>	<b>2,121,288</b>	<b>335,720</b>	<b>246,880</b>	<b>2,703,888</b>	<b>78%</b>	<b>12%</b>	<b>9%</b>	<b>0.82</b>
<b>SW(AR,LA,NM,OK,TX)</b>	<b>7,415,548</b>	<b>667,143</b>	<b>355,317</b>	<b>8,438,008</b>	<b>88%</b>	<b>8%</b>	<b>4%</b>	<b>1.29</b>
<b>VC(NC,SC,VA)</b>	<b>770,493</b>	<b>103,093</b>	<b>10,168</b>	<b>883,754</b>	<b>87%</b>	<b>12%</b>	<b>1%</b>	<b>0.49</b>
<i>*for specified states</i>								

States	2019 U.S. States CORN Insured Acres And Shares By Types							Overall Loss Ratio
	RP	YP	CAT	TOTAL	RP Share(%)	YP Share(%)	CAT Share(%)	
AL	230,277	13,968	7,866	252,111	91%	6%	3%	0.71
AR	421,930	345,493	144,893	912,316	46%	38%	16%	1.89
FL	25,087	12,344	19,638	57,069	44%	22%	34%	0.71
GA	169,381	55,553	76,418	301,352	56%	18%	25%	0.94
LA	527,143	116,237	49,951	693,331	76%	17%	7%	1.65
MS	764,163	115,142	71,856	951,161	80%	12%	8%	2.09
NC	724,016	83,093	38,504	845,613	86%	10%	5%	1.54
NM	58,132	9,305	14,337	81,774	71%	11%	18%	2.57
OK	256,410	26,776	12,247	295,433	87%	9%	4%	0.95
SC	275,843	52,217	14,070	342,130	81%	15%	4%	1.48
TX	1,663,499	341,781	98,633	2,103,913	79%	16%	5%	0.93
VA	350,464	17,232	12,979	380,675	92%	5%	3%	0.31
<b>Grand Total*</b>	<b>5,466,345</b>	<b>1,189,141</b>	<b>561,392</b>	<b>7,216,878</b>	<b>76%</b>	<b>16%</b>	<b>8%</b>	<b>1.08</b>
<b>SPFF(AL,FL,GA,MS)</b>	<b>1,188,908</b>	<b>197,007</b>	<b>175,778</b>	<b>1,561,693</b>	<b>76%</b>	<b>13%</b>	<b>11%</b>	<b>1.11</b>
<b>SW(AR,LA,NM,OK,TX)</b>	<b>2,927,114</b>	<b>839,592</b>	<b>320,061</b>	<b>4,086,767</b>	<b>72%</b>	<b>21%</b>	<b>8%</b>	<b>1.60</b>
<b>VC(NC,SC,VA)</b>	<b>1,350,323</b>	<b>152,542</b>	<b>65,553</b>	<b>1,568,418</b>	<b>86%</b>	<b>10%</b>	<b>4%</b>	<b>1.11</b>
<i>*for specified states</i>								

Source: USDA RMA, Summary of Business Reports

Overall Loss Ratio = Total Indemnity relative to Total Premiums; for values greater than or equal to 1, it indicates losses paid were greater than or equal to premiums received for the year.