

**PROJECTED U.S. COTTON PRODUCTION, SEED COTTON PRICE, AND PRICE LOSS COVERAGE
PROGRAM PAYMENTS**

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PROJECTED U.S. COTTON PRODUCTION, SEED COTTON PRICE, AND PRICE LOSS COVERAGE PROGRAM PAYMENTS

The Bi-Partisan Budget Act of 2018 altered U.S. policy towards cotton. In the 2014 Farm Bill, cotton was not included as a Title I covered commodity, and therefore not eligible for payments under the Average Revenue Coverage (ARC) or Price Loss Coverage (PLC) programs. The Budget Act again labeled cotton as a covered commodity making it eligible for payments under the ARC or PLC programs. However, unlike previous iterations of cotton policy, the Budget Act created a new mechanism that subsumed both traditional cotton lint and cotton seed price/revenue, calling it the “seed cotton program.” The cotton industry had attempted to get cottonseed included as a minor oilseed for several years given the importance of the previously not included revenue source.²

The new program relies on two marketing year average (MYA) prices established by USDA—cotton lint and cotton seed. The total pounds of cotton produced is added to the total pounds of cotton seed produced to determine the total pounds of seed cotton. The weighted average of those prices:

$$\text{Seed Cotton MYA} = \frac{(\text{Lint MYA} * \text{Lint \#})}{\text{Total \#}} + \frac{(\text{Seed MYA} * \text{Seed \#})}{\text{Total \#}}.$$

The PLC price was administratively fixed at \$0.367/lb.³ Thus, in a year where the Seed Cotton MYA price falls below the PLC price, producers would receive a payment. Thus, the MYA price for seed cotton will depend on both lint and seed, and, therefore, can be triggered by adverse prices in both or either.

A second component of the Budget Act revision of the cotton program is that it requires a reallocation of the “generic base” acres. In the 2014 Farm Bill, all previous cotton base (approximately 18.8 million acres in 2015 according to the Farm Service Agency) were converted to “generic base” which allowed cotton producers to use those acres as base acres for planted crops other than cotton and participate in those crop program payments. The 2018 Act forces those acres to be reallocated. Producers have the option of allocating all generic base acres to cotton regardless of what was planted on those acres during the 2009-2012 period. If they elect this option, they must “set aside” 20% of those base acres (that is, those acres will lose their base but can still be planted to crops the producer chooses). Alternatively, they can allocate generic base to seed cotton based on their average plantings of 2009-2012. Finally, producers can use the average planted acres of each crop from the 2009-2012 period

² However, cottonseed has been recently included as an endorsement on the Common Crop Insurance Program (CCIP) products.

³ For this analysis, we assume that all cotton base acres are enrolled in the PLC program. Although there may be some ARC enrollment, it will be minimal based on the program construction as it relates to cotton revenue nationwide.

and allocate those base acres to those crops. For example, if 85% of their acres were in cotton and 15% in peanuts, they can allocate 85% of their generic base acres to cotton and 15% to peanuts. Most producers will choose to allocate seed cotton based on 2009-2012 cotton plantings, but the third option may be best for some producers. Anecdotal evidence suggests that suggests that anywhere from 13.5 – 14.5 million acres will be allocated to the seed cotton base for the program, suggesting a loss of payment acres of roughly 4 million acres. For this analysis, we assume a midpoint of 14 million acres allocated to “Anticipated Base.” For comparison, we also simply consider that all previous generic base is converted to cotton less the mandatory 20% set aside, called “Generic Base” here in this analysis. All other program components (such as the 85% payment rate) are maintained as is.

To project the new seed cotton payments, we utilized the March 2018 cotton baseline estimates from the International Center for Agricultural Competitiveness (ICAC-TTU) for the 2017-2027 crop years (the 2017 data were simply the USDA-WASDE estimates for 2017 as of January 2018). There are no reliable forecasts for cottonseed production. Therefore, we use a factor of 1.6 lbs. of seed per pound of lint produced. The current ratio for upland cotton is 1.3, but the seed produced also includes Pima/ELS cottonseed, so we utilized as assumed rate of 1.36. Both lint and cottonseed prices are also projected from the ICAC-TTU baselines. Results of the projections are shown in Table 1.

The upland bales/pounds produced and upland and cottonseed prices are model projections, which the seed pounds produced is simply upland pounds multiplied by 1.36. The Seedcotton price is given by using those data and the equation above. The results of these calculations are compared the Seedcotton PLC price, which gives the producer payment in cents per pound of seedcotton. To calculate payments, we used the most recent national average payment yield for cotton from the Farm Service Agency. Results show that producers would be eligible from seedcotton payments beginning with the 2017 crop year in the \$0.03-\$0.04 per pound range. However, projected cotton prices are shown to increase over time thereby decreasing producer payments. The average over the 10-year baseline is \$0.02 per pound.

Using the most likely “Anticipated Base” scenario, total program payments are anticipated to be approximately \$3.8B, or an average \$346M per year. For perspective, use the program payments made to cotton farmers during 2009-2012 (the period used by the Budget Act to establish cotton base). During that time, program payments average \$1.5B per year.⁴ Thus, even though cotton is being added back as a Title I program crop, program payments are projected to be 77% lower, on average.

Overall, the program does provide a new program payment mechanism for cotton. Preliminary estimates by ICAC-TTU show no evidence that this new program will alter

⁴ Data based on the annual reports of the Commodity Credit Corporation for Upland Cotton specific programs. https://www.fsa.usda.gov/Assets/USDA-FSA-Public/usdfiles/AboutFSA/Budget/pdf/pb16_table_35a.pdf Accessed, 4/14/2018.

planted/harvested acres for cotton as it is (1) decoupled, (2) paid on a smaller number of base acres than previously, and (3) payments are delayed. The fact that the projected payments are, on average, 77% lower per year than previous programs also suggests limited, if any, impacts on planting and production decisions. Finally, because producers must forgo participation in the Stacked Income Protection (STAX) insurance program after the 2018 crop year to participate in the seedcotton PLC program, both program payments and budget outlays will become easier to project and improve producer financing options.

Table 1. Projected Cotton Production, Average Farm Price, and Marketing Year Average Seed Cotton Price, 2017-2027 Along with Project Price Loss Coverage (PLC) Payment Rates, Anticipated Base Acres and Yield, and Total PLC Government Outlays Based on January International Center for Agricultural Competitiveness (ICAC-TTU) Projections for U.S. Cotton.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Upland Production (1000 bales)	20570.13	18512.25	17081.74	17504.13	17475.63	17729.51	17948.65	18224.78	18364.09	18644.57	18859.48
Upland Pounds	987366143.23	888588235.25	819923750.11	840198393.74	838830324.53	851016712.61	861535131.50	874789609.92	881476201.01	894939265.63	905254915.56
Cottonseed Production (lbs)	1342817954.80	1208479999.94	1115096300.15	1142669815.49	1140809241.36	1157382729.15	1171687778.85	1189713869.49	1198807633.37	1217117401.26	1231146685.19
Total Production (lbs)	2330184098.03	2097068235.19	1935020050.26	1982868209.24	1979639565.89	2008399441.75	2033222910.35	2064503479.41	2080283834.38	2112056666.89	2136401600.76
Upland cotton price (cents/lb)	69.06	64.64	66.43	67.51	69.37	70.83	72.66	72.31	73.23	74.81	77.45
Upland Price (\$/lb)	0.69	0.65	0.66	0.68	0.69	0.71	0.73	0.72	0.73	0.75	0.77
Seedcotton Price (cents/lb)	0.335	0.322	0.332	0.336	0.344	0.350	0.357	0.355	0.358	0.365	0.376
Cottonseed Price (\$/ton)	147.77	166.07	174.45	172.40	173.41	172.10	169.01	167.21	166.83	165.77	166.28
Cottonseed (\$/lb)	0.07	0.08	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08
Seedcotton PLC Price (cents/lb)	0.367	0.367	0.367	0.367	0.367	0.367	0.367	0.367	0.367	0.367	0.367
Producer Payment	0.032	0.045	0.035	0.031	0.023	0.017	0.010	0.012	0.009	0.002	0.000
Budgetary Analysis											
Generic Base	599,467,057.98	852,678,165.74	664,291,999.93	589,325,325.36	435,473,607.44	325,706,745.19	196,264,685.52	234,400,311.55	162,691,691.43	42,513,582.71	-
Anticipated Base	556,336,218.41	791,329,131.32	616,497,093.94	546,924,169.65	404,141,873.61	302,272,587.82	182,143,708.31	217,535,527.90	150,986,245.49	39,454,788.25	-
									Total Outlay		
									Generic Base	4,102,813,172.85	
									Anticipated Base	3,807,621,344.70	

Note: “Generic Base” here assumes that all 18.9 million acres of current generic base acres are allocated to cotton less the 20% mandatory set aside. However, anecdotal evidence from industry experts suggest that as few as 14 million acres (“Anticipate Base” here) will be allocated through the total 2009-2012 planted acre calculation (which is not subject set aside. In either case, the change in policy will result in a minimum 20% reduction in cotton base acres the are eligible for payments. The last available national average payment yield for cotton from the Farm Service Agency was used for yield calculations. Finally, program payments are matched here with the crop year and not matched with the payment year. So, for example, the payment for the 2017 crop year would not actually occur until 2019. CBO estimates are matched with payment year.