

Seed Cotton PLC/ARC Program for Upland Cotton
Beginning with the 2018 Crop
Draft Updated February 14, 2018

Program:

Seed Cotton is designated as a covered commodity eligible for Title I Price Loss Coverage (PLC) and Agriculture Risk Coverage (ARC) programs in the 2014 Farm Bill beginning with the 2018 crop. The Reference Price is set at \$0.367 per lb. Seed Cotton refers to unginned upland cotton that includes both lint and cottonseed.

Structure:

Seed Cotton Marketing Year Average (MYA) Price is a weighted average of the upland cotton lint price and the cottonseed price.

$$\text{Seed Cotton MYA Price} = \frac{(\text{U.S. Upland Cotton Lint Production} * \text{U.S. Upland Cotton Lint MYA Price} + \text{U.S. Cottonseed Production} * \text{U.S. Cottonseed MYA Price})}{(\text{U.S. Upland Cotton Lint Production} + \text{U.S. Cottonseed Production})}$$

- USDA data is used for price and production
- Production is measured in pounds
- Lint and cottonseed prices are weighted based on annual shares of production
- The MYA Price is not final until the end of the marketing year (Aug. 1 – July 31) and is generally published in late September or early October
- USDA publishes monthly estimates throughout the marketing year which can be used to calculate an estimated MYA Price

2017/18 Seed Cotton MYA Price Example (based on USDA Feb. 2018 estimates):

- U.S. Upland Cotton Lint MYA Price (\$/lb) = \$0.690
- U.S. Cottonseed MYA Price (\$/lb) = \$0.075 (or \$150/ton)
- U.S. Upland Cotton Lint Production (lbs) = 20,570,000 bales * 480 lbs/bale = 9,873,600,000 lbs
- U.S. Cottonseed Production (lbs) = 6,725,000 tons * 2,000 lbs/ton = 13,450,000,000 lbs
- Total U.S. Cotton Lint and Cottonseed Production (lbs) = 9,873,600,000 + 13,450,000,000
= 23,323,600,000 lbs

$$\text{Seed Cotton Price (\$/lb)} = \frac{(9,873,600,000 * \$0.690 + 13,450,000,000 * \$0.075)}{(9,873,600,000 + 13,450,000,000)}$$

$$= \frac{(9,873,600,000 * \$0.690 + 13,450,000,000 * \$0.075)}{23,323,600,000}$$

$$= \frac{9,873,600,000}{23,323,600,000} * \$0.690 + \frac{13,450,000,000}{23,323,600,000} * \$0.075$$

$$= (0.4233 * \$0.690) + (0.5767 * \$0.075) = \$0.3353$$

Seed Cotton Payment Yield will be based on the upland cotton lint payment yield.

Seed Cotton Payment Yield = $2.4 * \text{Upland Cotton Lint Payment Yield}$

- Upland Cotton Lint Payment Yield = Higher of current CCP lint yield or updated lint yield
- One-time opportunity to update the payment yield for upland cotton based on 90% of the average of 2008-2012 actual yields, not counting years in which cotton was not grown

Seed Cotton Payment Yield Example (assuming an 800 lb/acre upland cotton lint payment yield):

- Seed Cotton Payment Yield (lbs/acre) = $2.4 * 800 = 1,920$

Seed Cotton Reference Price is set at \$0.367 per lb. The **Seed Cotton Price Floor** is set at \$0.250 per lb.

Seed Cotton PLC Payment Rate is made when the Reference Price exceeds the higher of the MYA Price and the Price Floor.

Seed Cotton PLC Payment Rate (\$/lb) = Reference Price – the higher of (MYA Price, Price Floor)

- Seed Cotton Payment = \$0 if Seed Cotton MYA Price is greater than \$0.367

Seed Cotton PLC/ARC Payments will be made on 85% of the farm's decoupled seed cotton base.

Seed Cotton PLC Payment (\$/base acre) = PLC Payment Rate * Payment Yield * 0.85

Seed Cotton PLC Payment Rate Example:

- 2017/18 Seed Cotton MYA Price = \$0.3353
- Seed Cotton PLC Payment Rate (\$/lb) = \$0.367 – higher of (\$0.3353, \$0.250) = \$0.0317

Seed Cotton PLC Payment Example:

- Seed Cotton PLC Payment (\$/base acre) = $\$0.0317 * 1,920 * 0.85 = \51.73

The Seed Cotton ARC program is structured in the same manner as ARC for other covered commodities.

Seed Cotton Base Acres will only be established through the conversion of generic base acres. Generic base acres are not in effect beginning with the 2018 crop.

For any farms with generic base and no covered commodities (including seed cotton) planted from 2009 through 2016, those generic base acres will become unassigned crop base and ineligible for PLC/ARC.

For all other farms with generic base, producers shall choose one of the following options to convert generic base acres to seed cotton and other covered commodity base acres:

Option 1: Seed cotton base equal to higher of 80% of generic base or 2009–12 average seed cotton plantings, not to exceed total generic base – any unconverted generic base becomes unassigned crop base and ineligible for PLC/ARC; or

Option 2: All generic base converted proportionally based on 2009–12 average plantings of seed cotton and other covered commodities.

Farms failing to make the choice between Option 1 and Option 2 will be treated as if they chose Option 1.

Example of Determination of Seed Cotton Base Acreage:

Total generic base: 500 acres

2009-12 average planted acres:

Program Crops: 800 acres

Cotton: 300 acres

Corn: 200 acres

Peanuts: 200 acres

Soybeans: 100 acres

Option 1: Convert 400 acres of generic base to seed cotton base based on higher of:
80% * 500 generic base acres = 400
2009-12 average planted cotton acres = 300

or

Option 2: Reallocate 500 acres of generic base to base acres for the following crops:
Seed Cotton: $500 * (300/800) = 187.5$
Corn: $500 * (200/800) = 125.0$
Peanuts: $500 * (200/800) = 125.0$
Soybeans: $500 * (100/800) = 62.5$

A 1-Time **PLC/ARC Election** will be given to producers on a farm with seed cotton base. A farm failing to make a unanimous election between the two will be assumed to choose PLC for seed cotton.

For the 2018 crop, the **STAX** insurance product MAY be purchased for acres of upland cotton planted on a farm enrolled in the seed cotton PLC/ARC program. (Restrictions apply in subsequent crop years.)

The non-recourse marketing assistance loan for upland cotton lint remains unchanged in the 2014 Farm Bill with an upland cotton loan rate of \$0.52/lb for the 2018 crop.

Illustration of Seed Cotton Marketing Year Average Price per Pound*															
Lint MYA Price (\$/Lb)	Cottonseed MYA Price (\$/Ton)														
	\$140	\$150	\$160	\$170	\$180	\$190	\$200	\$210	\$220	\$230	\$240	\$250	\$260	\$270	\$280
\$0.50	\$0.252	\$0.255	\$0.258	\$0.261	\$0.264	\$0.266	\$0.269	\$0.272	\$0.275	\$0.278	\$0.281	\$0.284	\$0.287	\$0.290	\$0.292
\$0.51	\$0.256	\$0.259	\$0.262	\$0.265	\$0.268	\$0.271	\$0.274	\$0.276	\$0.279	\$0.282	\$0.285	\$0.288	\$0.291	\$0.294	\$0.297
\$0.52	\$0.260	\$0.263	\$0.266	\$0.269	\$0.272	\$0.275	\$0.278	\$0.281	\$0.284	\$0.286	\$0.289	\$0.292	\$0.295	\$0.298	\$0.301
\$0.53	\$0.265	\$0.268	\$0.270	\$0.273	\$0.276	\$0.279	\$0.282	\$0.285	\$0.288	\$0.291	\$0.294	\$0.296	\$0.299	\$0.302	\$0.305
\$0.54	\$0.269	\$0.272	\$0.275	\$0.278	\$0.280	\$0.283	\$0.286	\$0.289	\$0.292	\$0.295	\$0.298	\$0.301	\$0.304	\$0.306	\$0.309
\$0.55	\$0.273	\$0.276	\$0.279	\$0.282	\$0.285	\$0.288	\$0.290	\$0.293	\$0.296	\$0.299	\$0.302	\$0.305	\$0.308	\$0.311	\$0.314
\$0.56	\$0.277	\$0.280	\$0.283	\$0.286	\$0.289	\$0.292	\$0.295	\$0.298	\$0.300	\$0.303	\$0.306	\$0.309	\$0.312	\$0.315	\$0.318
\$0.57	\$0.282	\$0.285	\$0.287	\$0.290	\$0.293	\$0.296	\$0.299	\$0.302	\$0.305	\$0.308	\$0.310	\$0.313	\$0.316	\$0.319	\$0.322
\$0.58	\$0.286	\$0.289	\$0.292	\$0.295	\$0.297	\$0.300	\$0.303	\$0.306	\$0.309	\$0.312	\$0.315	\$0.318	\$0.320	\$0.323	\$0.326
\$0.59	\$0.290	\$0.293	\$0.296	\$0.299	\$0.302	\$0.305	\$0.307	\$0.310	\$0.313	\$0.316	\$0.319	\$0.322	\$0.325	\$0.328	\$0.330
\$0.60	\$0.294	\$0.297	\$0.300	\$0.303	\$0.306	\$0.309	\$0.312	\$0.315	\$0.317	\$0.320	\$0.323	\$0.326	\$0.329	\$0.332	\$0.335
\$0.61	\$0.299	\$0.301	\$0.304	\$0.307	\$0.310	\$0.313	\$0.316	\$0.319	\$0.322	\$0.325	\$0.327	\$0.330	\$0.333	\$0.336	\$0.339
\$0.62	\$0.303	\$0.306	\$0.309	\$0.311	\$0.314	\$0.317	\$0.320	\$0.323	\$0.326	\$0.329	\$0.332	\$0.335	\$0.337	\$0.340	\$0.343
\$0.63	\$0.307	\$0.310	\$0.313	\$0.316	\$0.319	\$0.321	\$0.324	\$0.327	\$0.330	\$0.333	\$0.336	\$0.339	\$0.342	\$0.345	\$0.347
\$0.64	\$0.311	\$0.314	\$0.317	\$0.320	\$0.323	\$0.326	\$0.329	\$0.331	\$0.334	\$0.337	\$0.340	\$0.343	\$0.346	\$0.349	\$0.352
\$0.65	\$0.316	\$0.318	\$0.321	\$0.324	\$0.327	\$0.330	\$0.333	\$0.336	\$0.339	\$0.341	\$0.344	\$0.347	\$0.350	\$0.353	\$0.356
\$0.66	\$0.320	\$0.323	\$0.326	\$0.328	\$0.331	\$0.334	\$0.337	\$0.340	\$0.343	\$0.346	\$0.349	\$0.351	\$0.354	\$0.357	\$0.360
\$0.67	\$0.324	\$0.327	\$0.330	\$0.333	\$0.336	\$0.338	\$0.341	\$0.344	\$0.347	\$0.350	\$0.353	\$0.356	\$0.359	\$0.361	\$0.364
\$0.68	\$0.328	\$0.331	\$0.334	\$0.337	\$0.340	\$0.343	\$0.346	\$0.348	\$0.351	\$0.354	\$0.357	\$0.360	\$0.363	\$0.366	\$0.369
\$0.69	\$0.332	\$0.335	\$0.338	\$0.341	\$0.344	\$0.347	\$0.350	\$0.353	\$0.356	\$0.358	\$0.361	\$0.364	\$0.367	\$0.370	\$0.373
\$0.70	\$0.337	\$0.340	\$0.342	\$0.345	\$0.348	\$0.351	\$0.354	\$0.357	\$0.360	\$0.363	\$0.366	\$0.368	\$0.371	\$0.374	\$0.377
\$0.71	\$0.341	\$0.344	\$0.347	\$0.350	\$0.352	\$0.355	\$0.358	\$0.361	\$0.364	\$0.367	\$0.370	\$0.373	\$0.376	\$0.378	\$0.381
\$0.72	\$0.345	\$0.348	\$0.351	\$0.354	\$0.357	\$0.360	\$0.362	\$0.365	\$0.368	\$0.371	\$0.374	\$0.377	\$0.380	\$0.383	\$0.386
\$0.73	\$0.349	\$0.352	\$0.355	\$0.358	\$0.361	\$0.364	\$0.367	\$0.370	\$0.372	\$0.375	\$0.378	\$0.381	\$0.384	\$0.387	\$0.390
\$0.74	\$0.354	\$0.356	\$0.359	\$0.362	\$0.365	\$0.368	\$0.371	\$0.374	\$0.377	\$0.380	\$0.382	\$0.385	\$0.388	\$0.391	\$0.394
\$0.75	\$0.358	\$0.361	\$0.364	\$0.366	\$0.369	\$0.372	\$0.375	\$0.378	\$0.381	\$0.384	\$0.387	\$0.390	\$0.392	\$0.395	\$0.398
\$0.76	\$0.362	\$0.365	\$0.368	\$0.371	\$0.374	\$0.376	\$0.379	\$0.382	\$0.385	\$0.388	\$0.391	\$0.394	\$0.397	\$0.400	\$0.402
\$0.77	\$0.366	\$0.369	\$0.372	\$0.375	\$0.378	\$0.381	\$0.384	\$0.386	\$0.389	\$0.392	\$0.395	\$0.398	\$0.401	\$0.404	\$0.407
\$0.78	\$0.371	\$0.373	\$0.376	\$0.379	\$0.382	\$0.385	\$0.388	\$0.391	\$0.394	\$0.396	\$0.399	\$0.402	\$0.405	\$0.408	\$0.411

* Seed Cotton price is a weighted average of upland cotton lint price and cottonseed price. Sample calculations based on weights of 0.4233 applied to lint price and 0.5767 applied to cottonseed price. Actual weights vary by year based on actual production of upland lint and cottonseed.

Illustration of Seed Cotton PLC Payment per Base Acre*															
Reference Price	\$0.367			Lint Pymt Yield	800			Seed Cotton Pymt Yield	1,920			Seed Cotton Floor	\$0.25		
	Cottonseed MYA Price (\$/Ton)														
Lint MYA Price (\$/Lb)	\$140	\$150	\$160	\$170	\$180	\$190	\$200	\$210	\$220	\$230	\$240	\$250	\$260	\$270	\$280
\$0.50	\$188	\$183	\$178	\$174	\$169	\$164	\$159	\$155	\$150	\$145	\$141	\$136	\$131	\$126	\$122
\$0.51	\$181	\$176	\$171	\$167	\$162	\$157	\$153	\$148	\$143	\$138	\$134	\$129	\$124	\$120	\$115
\$0.52	\$174	\$169	\$164	\$160	\$155	\$150	\$146	\$141	\$136	\$131	\$127	\$122	\$117	\$113	\$108
\$0.53	\$167	\$162	\$158	\$153	\$148	\$143	\$139	\$134	\$129	\$125	\$120	\$115	\$110	\$106	\$101
\$0.54	\$160	\$155	\$151	\$146	\$141	\$136	\$132	\$127	\$122	\$118	\$113	\$108	\$104	\$99	\$94
\$0.55	\$153	\$148	\$144	\$139	\$134	\$130	\$125	\$120	\$115	\$111	\$106	\$101	\$97	\$92	\$87
\$0.56	\$146	\$141	\$137	\$132	\$127	\$123	\$118	\$113	\$109	\$104	\$99	\$94	\$90	\$85	\$80
\$0.57	\$139	\$135	\$130	\$125	\$120	\$116	\$111	\$106	\$102	\$97	\$92	\$88	\$83	\$78	\$73
\$0.58	\$132	\$128	\$123	\$118	\$114	\$109	\$104	\$99	\$95	\$90	\$85	\$81	\$76	\$71	\$67
\$0.59	\$125	\$121	\$116	\$111	\$107	\$102	\$97	\$93	\$88	\$83	\$78	\$74	\$69	\$64	\$60
\$0.60	\$119	\$114	\$109	\$104	\$100	\$95	\$90	\$86	\$81	\$76	\$72	\$67	\$62	\$57	\$53
\$0.61	\$112	\$107	\$102	\$98	\$93	\$88	\$83	\$79	\$74	\$69	\$65	\$60	\$55	\$50	\$46
\$0.62	\$105	\$100	\$95	\$91	\$86	\$81	\$77	\$72	\$67	\$62	\$58	\$53	\$48	\$44	\$39
\$0.63	\$98	\$93	\$88	\$84	\$79	\$74	\$70	\$65	\$60	\$55	\$51	\$46	\$41	\$37	\$32
\$0.64	\$91	\$86	\$82	\$77	\$72	\$67	\$63	\$58	\$53	\$49	\$44	\$39	\$34	\$30	\$25
\$0.65	\$84	\$79	\$75	\$70	\$65	\$60	\$56	\$51	\$46	\$42	\$37	\$32	\$28	\$23	\$18
\$0.66	\$77	\$72	\$68	\$63	\$58	\$54	\$49	\$44	\$39	\$35	\$30	\$25	\$21	\$16	\$11
\$0.67	\$70	\$66	\$61	\$56	\$51	\$47	\$42	\$37	\$33	\$28	\$23	\$18	\$14	\$9	\$4
\$0.68	\$63	\$59	\$54	\$49	\$44	\$40	\$35	\$30	\$26	\$21	\$16	\$12	\$7	\$2	\$0
\$0.69	\$56	\$52	\$47	\$42	\$38	\$33	\$28	\$23	\$19	\$14	\$9	\$5	\$0	\$0	\$0
\$0.70	\$49	\$45	\$40	\$35	\$31	\$26	\$21	\$17	\$12	\$7	\$2	\$0	\$0	\$0	\$0
\$0.71	\$43	\$38	\$33	\$28	\$24	\$19	\$14	\$10	\$5	\$0	\$0	\$0	\$0	\$0	\$0
\$0.72	\$36	\$31	\$26	\$22	\$17	\$12	\$7	\$3	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$0.73	\$29	\$24	\$19	\$15	\$10	\$5	\$1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$0.74	\$22	\$17	\$12	\$8	\$3	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$0.75	\$15	\$10	\$6	\$1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$0.76	\$8	\$3	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$0.77	\$1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$0.78	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

* Payment per base acre calculated for combinations of the lint and cottonseed price given an assumed payment yield. Payment per base acre is determined as Payment Rate per pound multiplied by Payment Yield in pounds multiplied by 85%.