

**County Agriculture Risk Coverage (ARC-CO) Program for Seed Cotton<sup>1</sup>**  
**Beginning with the 2018 Crop**  
***Draft Updated February 23, 2018***

***Program:***

The ARC-CO program provides revenue loss coverage at the county level. ARC-CO payments are issued when the actual county seed cotton revenue is less than the ARC-CO guarantee. The Reference Price is set at \$0.367 per lb. The Price Floor is set at \$0.250 per lb.

***Structure:***

**ARC-CO Guarantee** = 86% \* Benchmark Seed Cotton MYA price \* Benchmark Seed Cotton Yield

**Benchmark Seed Cotton MYA Price** = average of the previous five years Seed Cotton MYA price, excluding the years with the highest and lowest price (Olympic Average)

- If the MYA price in any of the five years is below the reference price, the reference price is substituted for the MYA price in each year the MYA price is less than the reference price.
- **Seed Cotton Marketing Year Average (MYA) Price** is a weighted average of the upland cotton lint price and the cottonseed price.

Seed Cotton MYA Price = (U.S. Upland Cotton Lint Production \* U.S. Upland Cotton Lint MYA Price + U.S. Cottonseed Production \* U.S. Cottonseed MYA Price)  
 / (U.S. Upland Cotton Lint Production + U.S. Cottonseed Production)

- USDA/NASS data are 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

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<sup>1</sup> Information based on NCC's review of the legislative language. Final details are subject to change based on USDA's interpretation of language and implementation.

- $$\begin{aligned} \text{Seed Cotton Price (\$/lb)} &= \frac{(9,873,600,000 * \$0.690 + 13,450,000,000 * \$0.075)}{(9,873,600,000 + 13,450,000,000)} \\ &= \frac{(9,873,600,000 * \$0.690 + 13,450,000,000 * \$0.075)}{23,323,600,000} \\ &= \frac{9,873,600,000}{23,323,600,000} * \$0.690 + \frac{13,450,000,000}{23,323,600,000} * \$0.075 \\ &= (0.4233 * \$0.690) + (0.5767 * \$0.075) = \$0.3353 \end{aligned}$$

**Benchmark Seed Cotton Yield** = average of the previous five years county Seed Cotton Yield, excluding the years with the highest and lowest yield (Olympic Average)

- If the county yield in any of the five years is below 70 percent of the county transitional yield (T yield), then 70 percent of the T yield is substituted for each year the county yield is less than 70 percent of the T yield.

**Benchmark Revenue** = U.S. Benchmark Seed Cotton MYA Price \* Benchmark Seed Cotton Yield

**ARC-CO Guarantee** = Benchmark Revenue \* 86%

**Actual Revenue** = U.S. Seed Cotton MYA Price \* Seed Cotton Yield

**Maximum ARC-CO Payment** = 10% \* Benchmark Revenue

**Revenue Shortfall** = ARC-CO Guarantee – Actual Revenue

**ARC-CO Payment per Base Acre** = minimum of (maximum ARC-CO Payment, Revenue Shortfall) \* 0.85

**ARC-CO Example Calculation using the latest 2017/18 USDA Estimates**

Marketing Year	Seed Cotton MYA Price (\\$/lb)	County Seed Cotton Yield (lbs/acre)
2012/13	\$0.3727	2,280
2013/14	\$0.3933	1,920
2014/15	<del>\$0.3161</del> \$0.3670	1,680
2015/16	<del>\$0.3254</del> \$0.3670	2,160
2016/17	<del>\$0.3456</del> \$0.3670	2,040
2012-16 Oly Avg	\$0.3689	2,040
2017/18	\$0.3353	1,920

2017/18 Benchmark Revenue (\$/acre) = \$0.3689 \* 2,040 = \$752.57

2017/18 ARC-CO Guarantee (\$/acre) = \$752.57 \* 0.86 = \$647.21

2017/18 Actual Revenue (\$/acre) = \$0.3353 \* 1,920 = \$643.87

2017/18 Maximum ARC-CO Payment (\$/acre) = 0.10 \* \$752.57 = \$75.26

2017/18 Revenue Shortfall (\$/acre) = \$647.21 – \$643.87 = \$3.34

2017/18 ARC-CO Payment (\$/base acre) = minimum of (\$75.26, \$3.34) \* 0.85 = \$2.84

### Price Loss Coverage (PLC) Program for Seed Cotton

#### **Program:**

PLC program payments are issued when the Seed Cotton Reference Price exceeds the higher of the Seed Cotton MYA price and the Price Floor. The Reference Price is set at \$0.367 per lb. The Price Floor is set at \$0.250 per lb.

#### **Structure:**

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

Seed Cotton Payment Yield = 2.4 \* 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 PLC Payment Rate** is the difference between the Reference Price and 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 the Reference Price

**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

#### **PLC Example Calculation using the latest 2017/18 USDA Estimates**

2017/18 Seed Cotton MYA Price (\$/lb) = \$0.3353

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

2017/18 Maximum Seed Cotton PLC Payment (\$/base acre) = (\$0.367 - \$0.250) \* 1,920 \* 0.85 = \$190.94

2017/18 Seed Cotton PLC Payment (\$/base acre) = \$0.0317 \* 1,920 \* 0.85 = \$51.73