

THE STACKED INCOME PROTECTION PLAN (STAX)

Training Presentation

July 22, 2014

OVERVIEW

What is STAX?

- STAX is a policy that provides area-based coverage for a portion of expected area revenue
- May be purchased with an individual or area crop policy (“companion policy”), or can be stand-alone
 - Yield Protection (YP), Revenue Protection (RP), Revenue Protection with the Harvest Price Exclusion (RP-HPE) or Area Risk Protection Insurance (ARPI)
 - Or none of the above
- Only for producers of upland cotton

What is STAX?

- STAX provides only revenue coverage and is not tied to the companion policy type
 - Revenue or revenue with the Harvest Price Exclusion
- Liability (max payout) based on expected crop value for the area
 - Area: generally county, but can be larger
- 80% premium subsidy
- Separate Premium and Administrative Fees for STAX
 - In addition to fee for companion policy, if purchased

Overview of STAX

- The amount of STAX coverage depends on the expected area yield and the higher of projected or harvest price (except for harvest price exclusion)
 - Coverage may start at 90% of area revenue (or lower, if selected)
 - Coverage ends at 70% of area revenue (or higher if selected, and cannot overlap coverage from a companion policy)
 - Maximum Coverage Range is 20%
- If there are multiple types or practices for the insured crop in the county, the policy protection for STAX will be determined separately for each coverage level, type, and practice
- Protection Factor – May choose from 80% - 120%

STAX Coverage

Example:

Grower purchases
an individual
revenue policy,
75% coverage

Percent of Expected Grower Revenue	Individual Loss	Area-Based Loss	Percent of Expected County Revenue
100%			100%
95%			95%
90%			90%
85%			85%
80%			80%
75%			75%
70%			70%
65%			65%
60%			60%
55%			55%
50%			50%
45%			45%
40%			40%
35%			35%
30%			30%
25%			25%
20%			20%
15%			15%
10%			10%
5%			5%
0%			0%

STAX
(90% to 75%)

Individual Policy
(75% coverage)
(Optional)

STAX Coverage

Example:

Grower purchases
an individual
revenue policy,
60% coverage

Percent of Expected Grower Revenue	Individual Loss	Area-Based Loss	Percent of Expected County Revenue
100%			100%
95%			95%
90%		STAX (90% to 70%)	90%
85%			85%
80%			80%
75%			75%
70%			70%
65%			65%
60%			60%
55%	Individual Policy (60% coverage) (Optional)		55%
50%			50%
45%			45%
40%			40%
35%			35%
30%			30%
25%			25%
20%			20%
15%			15%
10%			10%
5%			5%
0%			0%

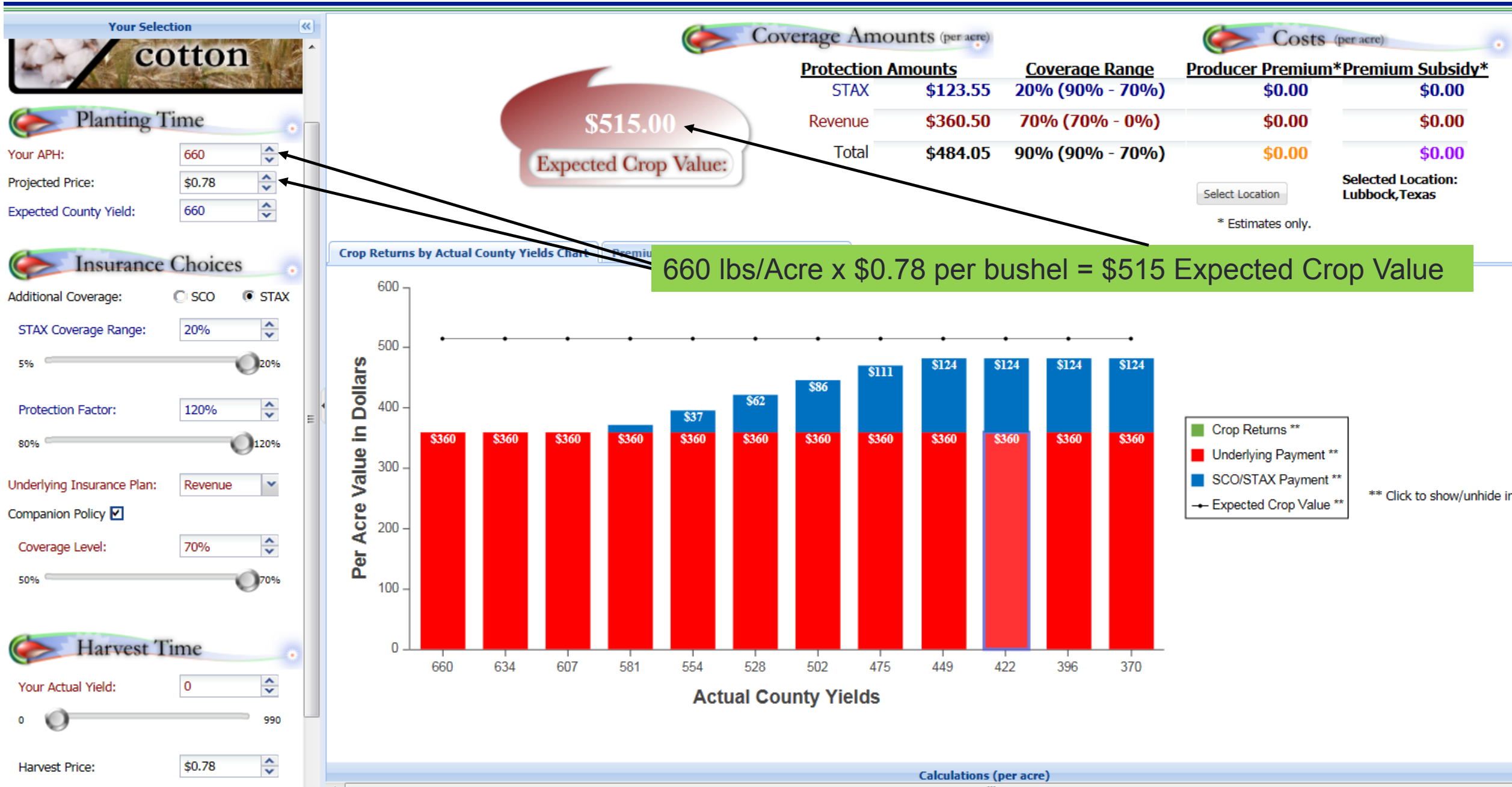
STAX Coverage

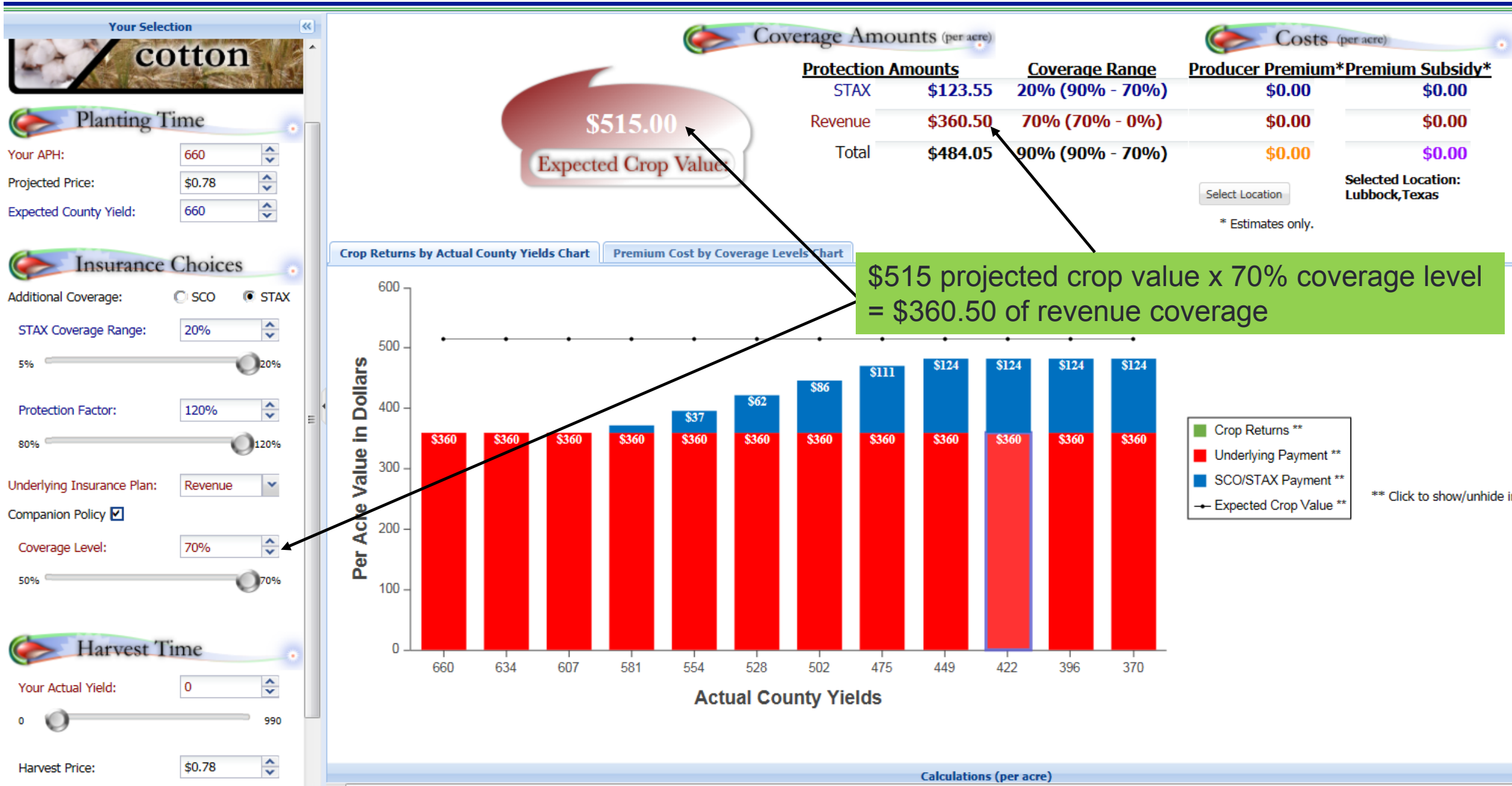
Percent of Expected Grower Revenue	Individual Loss	Area-Based Loss	Percent of Expected County Revenue
100%			100%
95%			95%
90%			90%
85%			85%
80%		STAX (90% to 80%)	80%
75%			75%
70%			70%
65%			65%
60%			60%
55%			55%
50%			50%
45%			45%
40%			40%
35%			35%
30%			30%
25%			25%
20%			20%
15%			15%
10%			10%
5%			5%
0%			0%

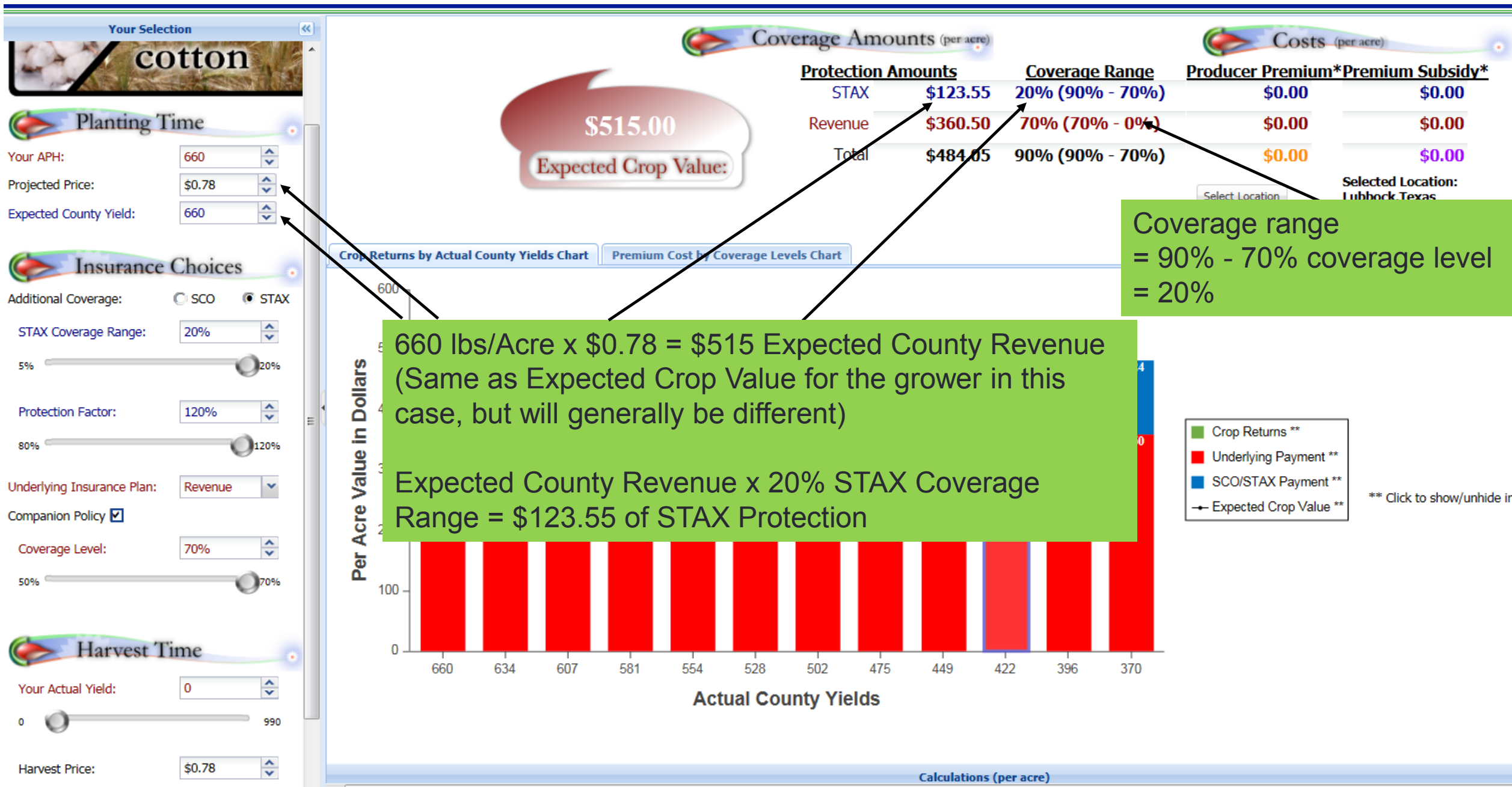
Example:

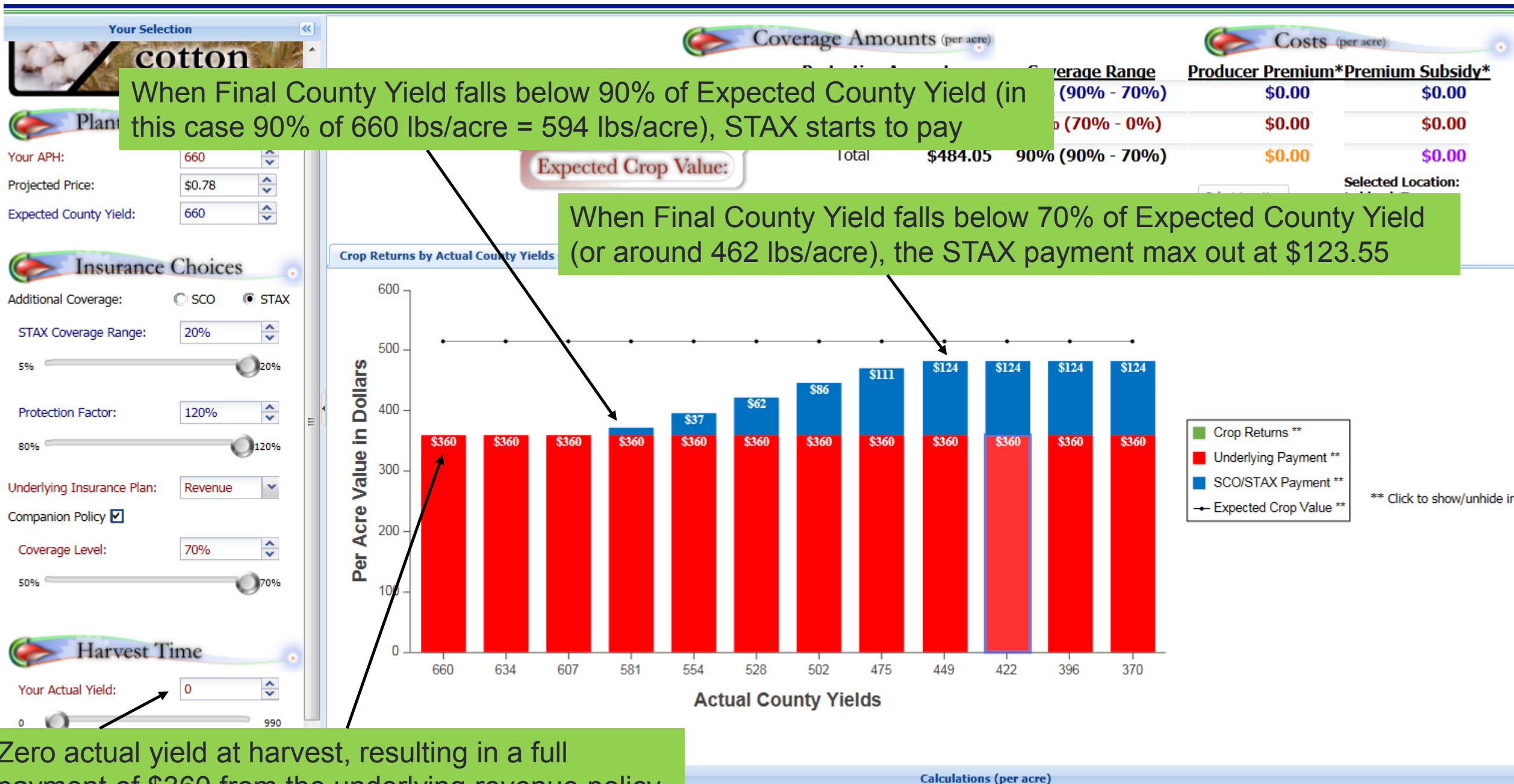
Grower purchases
an individual
revenue policy,
80% coverage

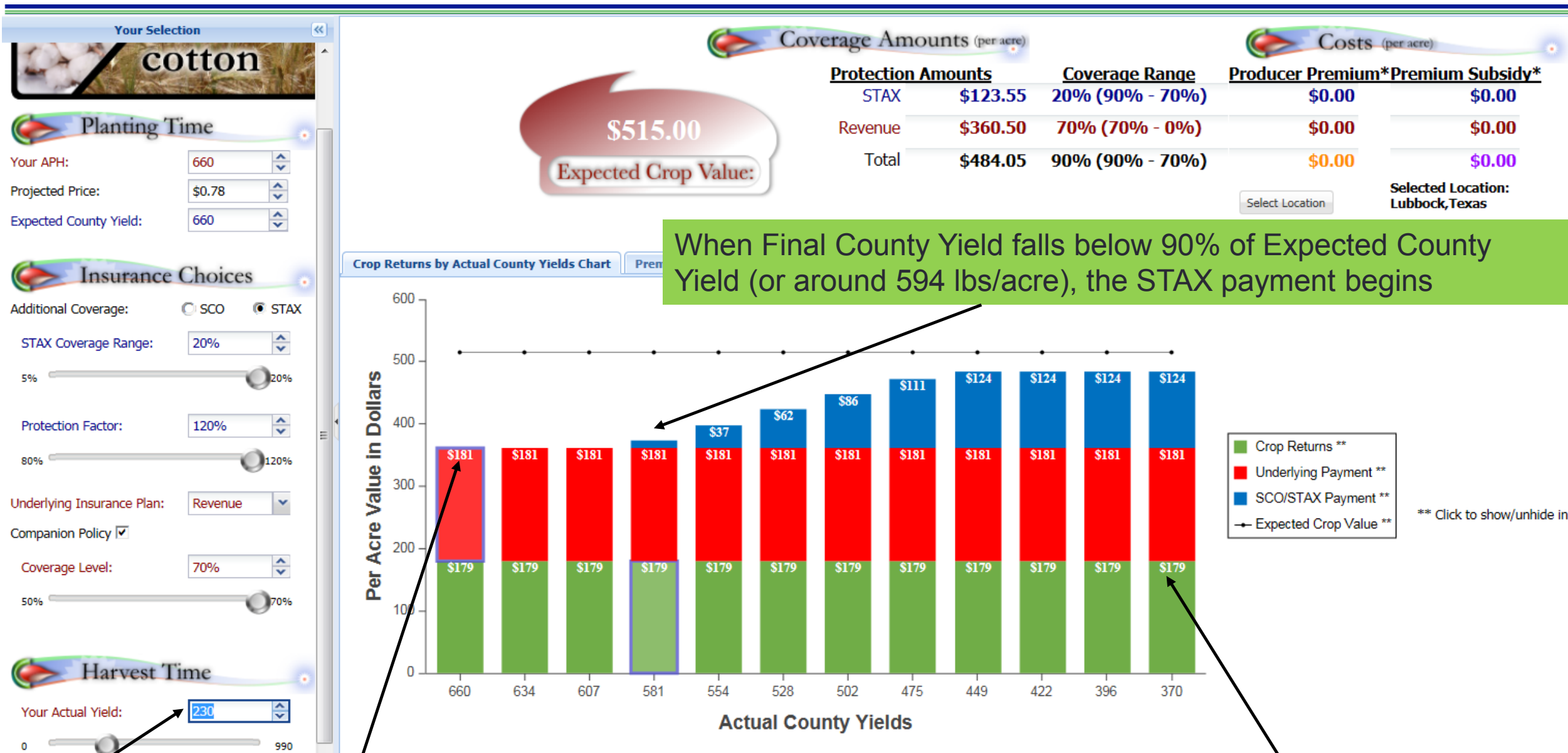
Individual Policy
(80% coverage)
(Optional)











Yield of 230 lbs/Acre at harvest, resulting in a payment of \$181 from the underlying revenue policy

Yield of 230 lbs/acre at \$0.78 per Pound produces a return of \$179

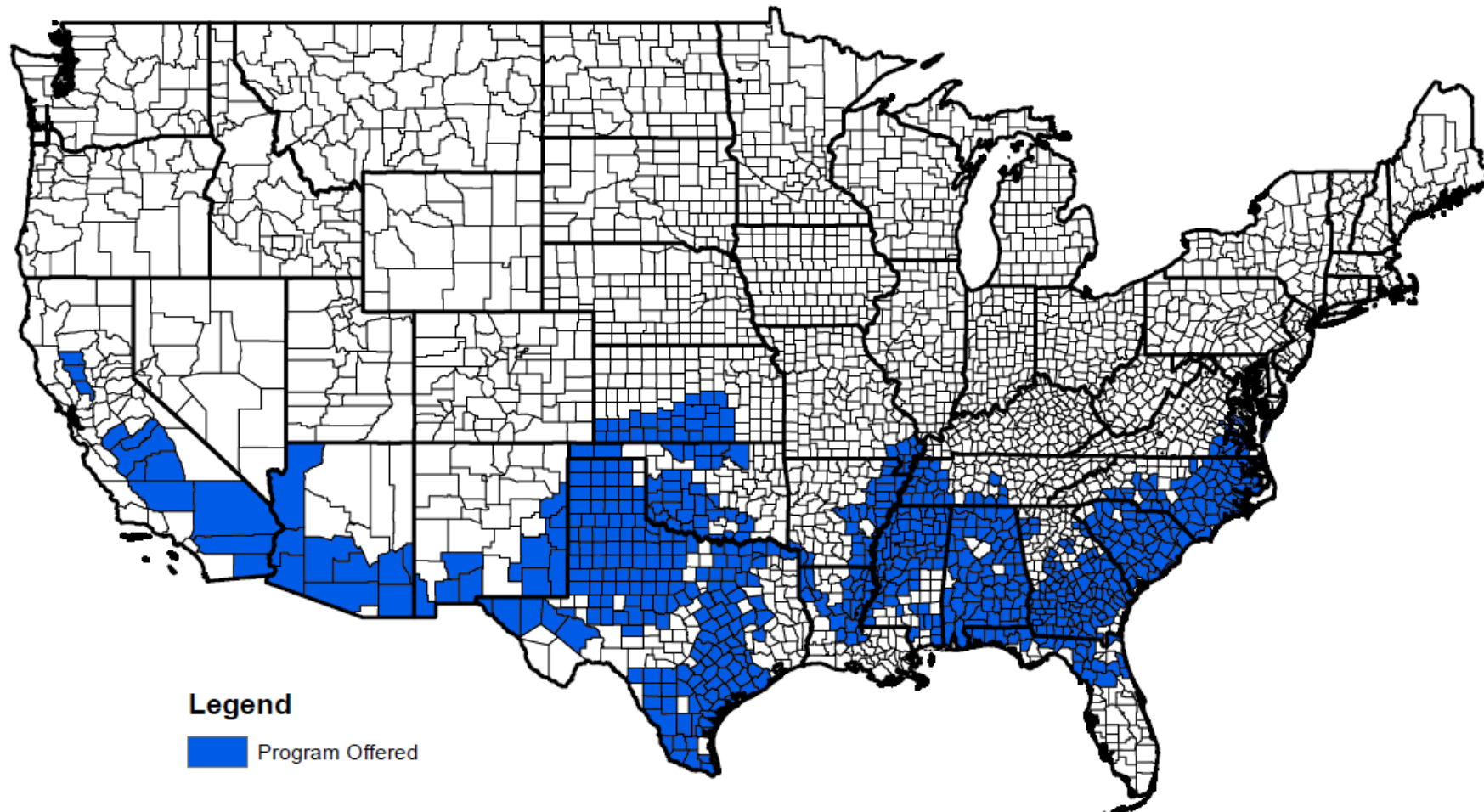
AVAILABILITY AND COST

STAX Data Source and Availability

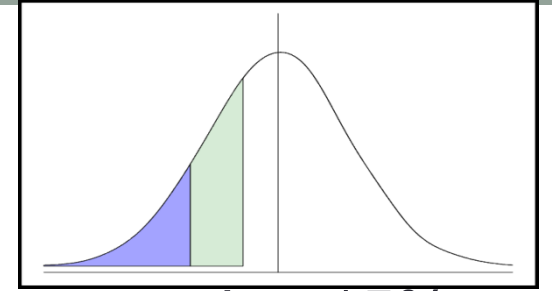
- Use crop insurance yield data
 - Allows for practice-specific (i.e. irrigated vs. non-irrigated) coverage in more areas
- General Guidelines to establish coverage for a county/practice:
 - At least 10 most recent years of data available
 - Most recent 5 years with 20 distinct producer reports per year and an average of 10,000 acres or more
- Otherwise, combine counties to meet the standards:
 - Combine target county with a qualifying neighboring county
 - County group (target county plus surrounding counties)
 - District or other groupings of counties

STAX Data Source and Availability

Crop Year 2015 Stacked Income Protection (STAX) Availability for Cotton



Cost

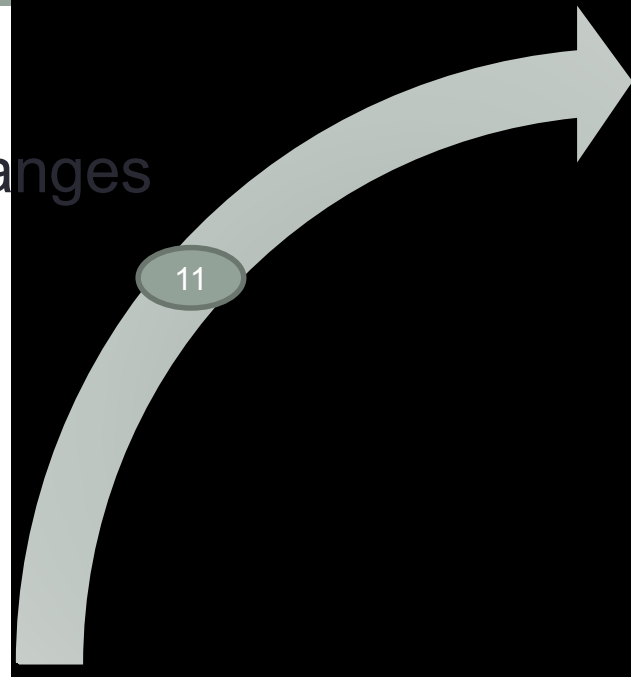


- STAX with a 90% area loss trigger and 20% coverage range, assuming 15% price volatility:
 - Premium rate is likely to average around 40% with majority between 20% and 65%
 - Covers 'active range' of losses
 - Varies based on location and practice
- Assume expected yield of 850 lbs/acre, projected price of \$0.75, productivity factor = 1.2
 - Amount of coverage: \$153 per acre
 - Average grower premium: \$12.24 per acre
 - Will vary significantly based on location and practice

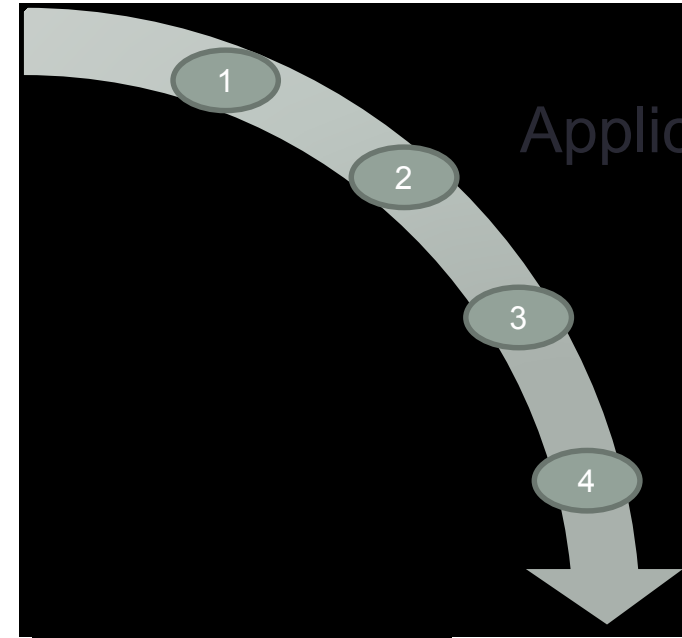
INSURANCE CYCLE

STAX Insurance Cycle

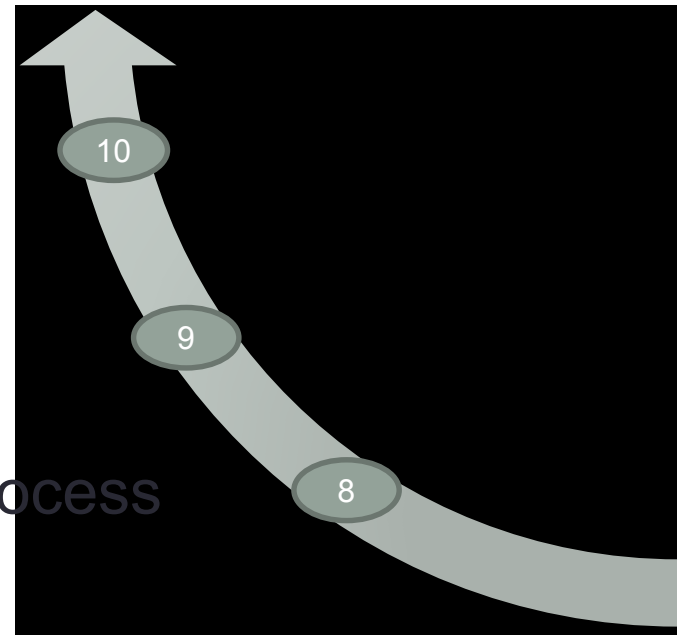
Program Changes



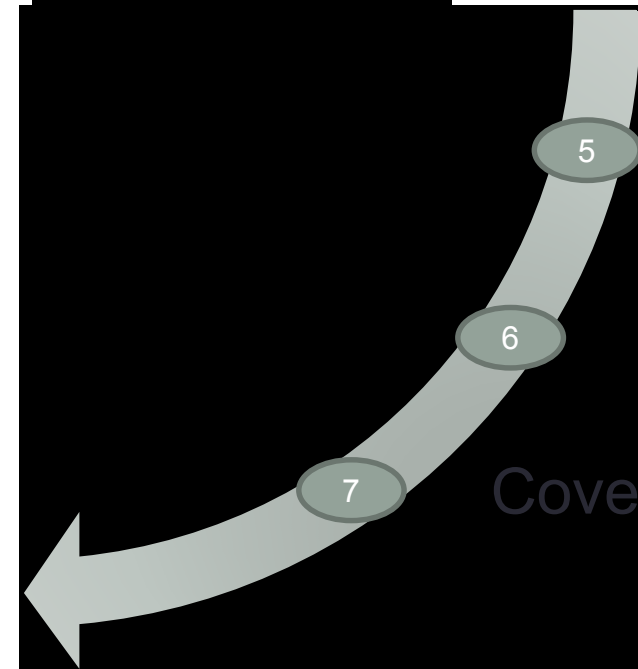
Application Process



Claims Process



Coverage and Billing



1) Policy Renewal/Change Options/Application

- The Insurance Cycle begins each year with the insurance offer, and the actuarial documents published annually by the contract change date
- STAX is available for upland cotton only, and will have its own actuarial documents
- STAX will be identified in the Actuarial Information Browser by its own plan code

2) Sales Closing/Cancellation/Termination Dates

- Insurance applications to add STAX must be completed and signed no later than the applicable sales closing date
- The policyholder can elect STAX as a stand alone policy for cotton or can have a companion policy under the Common Crop Insurance Provisions or Area Risk Protection Insurance
 - Companion policy and STAX must be with the same AIP.
- If the companion policy has the Supplemental Coverage Option (SCO) it can't be for the same cotton acres as STAX.
 - Must designate STAX acres and SCO acres by sales closing date
 - Done by providing production reports

2) Sales Closing/Cancellation/Termination Dates

- The STAX coverage is continuous
 - Can be cancelled by providing a written notice no later than the cancellation date
 - Any changes a policyholder wishes to make to STAX coverage must be made by the applicable crop sales closing date
- STAX may be terminated by the insurance provider for the following crop year for nonpayment of outstanding debt by the termination date

2) Sales Closing/Cancellation/Termination Dates

- Insurance choices
 - Select a protection factor:
 - 80 to 120 percent for each type/practice
 - Select an area loss trigger and coverage range
 - The area loss trigger may be 90%, 85%, 80%, or 75%
 - This is the percent of expected revenue at which a loss is triggered
 - The coverage range may from 5%, 10%, 15%, or 20%
 - The range is limited by the difference between area loss trigger and 70% (or the coverage level of the companion policy if greater than 70%)
 - Example: Area loss trigger selected is 90%, and a 75% companion policy is purchased. In this case the maximum coverage range is $90\% - 75\% = 15\%$.
 - Available values will be shown in the actuarial documents
 - Selected for each type/practice

2) Sales Closing/Cancellation/Termination Dates

- STAX decision: Some factors to consider
 - Area coverage aspect – how closely does grower's yield move with county average yield ('basis risk')?
 - If they do not move together, greater chance of not getting paid when there is a loss, vice-versa
 - How much area risk can the grower tolerate?
 - Decision on companion policy

3) Acceptance

- Upon receipt of the insurance application to add STAX, the insurance provider issues a confirmation of insurance
- The appropriate STAX policy documents will be issued to the applicant

4) Insurance Attaches

- STAX insurance attaches annually when planting begins
- STAX only covers planted acreage of the crop
 - STAX does not provide payments for replanting or prevented planting
- No late planting period, all acreage must be planted by the final planting date
 - FPD similar to ARPI
- Written agreements are not available for STAX

5) Acreage and Production Reports

- All insurable planted acreage of the crop in the county will be insured by STAX
 - **EXCEPTION:** Acreage designated for SCO can't be covered by STAX
- Acreage report will establish the amount of coverage and premium for STAX
- Production report required for STAX
 - Date specified in the actuarial documents if stand alone
 - Covered by companion policy, if applicable

6) Summary of Coverage

- After the acreage report is processed, the policyholder is issued a summary of coverage that specifies:
 - Insured crop, acres, and amount of insurance or guarantee (policy protection)
 - Amounts are shown separately for STAX and any companion policy if applicable
- STAX policy protection is calculated for each type and practice for all the planted acreage of upland cotton in the county

7) Premium Billing

- The annual premium is earned and payable at the time insurance coverage begins and is due by the premium billing date specified in the crop actuarial documents
 - All information needed to calculate a STAX premium rate will be contained in the actuarial documents
- A separate administrative fee is owed for STAX
 - Waivers of the STAX administrative fee are applicable for insureds who qualify as a limited resource farmer or a beginning farmer/rancher

8) Notice of Damage or Loss of Production

For Individual Companion Policy

- A written notice of damage or loss of production filed by the policyholder within 72 hours of the policyholder's initial discovery of damage or loss of production
- But not later than 15 days after the end of the insurance period unless otherwise stated in the individual crop policy.

For STAX

- Notice of loss provisions contained in the CCIP BP are not applicable to STAX
- Individual farm yields or revenues are not considered under STAX for determination of any indemnity

9) Inspection

For Individual Companion Policy

- After the insurance provider receives the written notice of damage or loss, it will be processed and, if necessary, a loss adjuster will be sent to inspect the damaged crop and gather pertinent information concerning the damage

For STAX

- The inspection has no impact on the STAX coverage

10) Indemnity Claim

For Individual Companion Policy

- After the claim for indemnity is processed for the underlying policy, an indemnity check and a summary of indemnity payment will be issued showing any deductions to the amount of indemnity for outstanding premium, interest, or administrative fees

For STAX

- Any indemnity for STAX will be determined later than the indemnity process for the individual companion policy
- STAX indemnities are calculated following the release by FCIC of the Final Area Yields
 - Will likely be in the summer of the subsequent year

10) Indemnity Claim

- The actuarial documents will specify the data source for the Final Area Yields and the release dates
 - Payment factors will be calculated and published by RMA
 - Occurs later, after area yield data becomes available, similar to ARPI
- If an indemnity is due for STAX then the loss will be paid within 30 days after FCIC releases the Final Area Yields
- 1st crop 2nd crop premium and indemnity reductions apply for STAX

10) Indemnity Claim

- Indemnities for STAX are not included in the calculation and notification process for AIP's on large claims (\$500,000 or greater).
- The 2015 Large Claim Handbook states:
 - *For the purposes of a LC Review, ECIC claims that the AIP must forward to the RO for review include:*
 - *****;
 - (4) *For Actual Revenue History, Nursery, Whole Farm Revenue Protection, Dollar plan, and any other plans of insurance, any ECIC claim that exceeds the large claim threshold. However, area and index based plans of insurance are not included in policies subject to Large Claims Reviews.*

11) Program Changes

- RMA changes to STAX are made no later than the contract change date 11/30
- The policyholder will have the opportunity to review the changes and, if desired:
 - Continue the insurance coverage for the following crop year
 - Change the policy coverage:
 - Protection factor, area loss trigger, and coverage range
 - Cancel the insurance coverage by the sales closing date
- If the policyholder wishes to cancel STAX, then a written notice must be submitted to the insurance provider on or before the crop cancellation date

EXAMPLES

Example Scenario

100 Acres of Irrigated Cotton

- Share - 100%

STAX Policy Protection

- Area Loss Trigger - 90%
- Coverage Range - 20%
- Protection Factor - 1.20
- Expected Area Yield - 690
- **Policy Protection = \$12,917**

Premium

- Projected Price - \$0.78
- STAX Premium Rate - 0.4363
- Producer Premium Rate $\approx$ 0.0873
- STAX Premium = \$5,636
- Subsidy Amount = \$4,509
- **Producer Premium = \$1,127**

Indemnity

- Final Area Yield - 520
- Harvest Price - \$0.78
- Final Area Revenue - \$405.60
- Area Performance $\approx$ 75.36%
- Payment Factor = 0.732
- **Indemnity = \$9,455**

Companion Policy

- Insurance Plan - RP
- Coverage Level - 70%
- APH - 660
- **Companion Liability = \$36,036**

Total Liability = \$48,953

STAX Terminology

From the policy

Area Loss Trigger

- STAX indemnities are only due if the county revenue is below the trigger
- Selected by producer – max 90%

Coverage Range

- Different from Coverage Level, but serves a similar purpose
- Selected by producer – max 20%

Companion Policy

- A CCIP or ARPI policy for the same crop

For example purposes

Producer Premium Rate

- Estimated cost per dollar of STAX coverage paid by the producer

Area Performance

- Estimate of actual outcome relative to expected outcome

Total Liability

- STAX liability added to the liability of a companion policy.

STAX Calculations – Policy Protection

- The calculation for Policy Protection uses the higher of the Projected or Harvest price
- Protection Factor allows producer to customize STAX coverage
- The Policy Protection is Expected Area Yield times (higher of Projected or Harvest) Price times Coverage Range times Protection Factor times Acres times Share

Price for Policy Protection = \$0.78

- (Higher of Projected or Harvest)

Protection Factor = 1.20

Policy Protection = **\$12,917**

- (690 x \$0.78 x 20% x 1.20 x 100 x 100%)

STAX Calculations – Premium

- STAX Premium Rates are separate from ARPI rates (and usually much higher)
- Subsidy Factor for STAX is 80%
- To calculate STAX Premium:
 1. Same steps as Policy Protection using the projected price, then
 2. multiply by the Premium Rate
- Producer owes about 20% of the total STAX Premium

STAX Premium Rate - 0.4363

Subsidy Factor - 80%

STAX Premium = \$5,636

1. $(690 \times \$0.78 \times 20\% \times 1.20 \times 100 \times 100\%)$
2. $(1. \times 0.4363)$

Subsidy Amount = \$4,509

- $(\$5,636 \times 80\%)$

Producer Premium = **\$1,127**

- $(\$5,636 - \$4,509)$

STAX Calculations – Indemnity

- STAX indemnities are driven by the Area Performance
 - Producer's individual experience is not considered
- Payment Factor is based on area performance and Coverage Range
 - Measures how far into the Coverage Range the Area Performance fell
 - Limited to 1.000
- Indemnity is Policy Protection times the Payment Factor

Expected Area Yield - 690

Final Area Revenue - \$405.60

Area Performance $\approx 75.36\%$

- $(\$405.60 \div (690 \times \$0.78))$

Payment Factor = 0.732

- $(90\% - (\$405.60 \div (690 \times \$0.78))) \div 20\%$
- $(90\% - 75.36\%) \div 20\%$

Indemnity = **\$9,455**

- $(\$12,917 \times 0.732)$

STAX Calculations – Indemnity (*Continued*)

\$0.83 Harvest Price (▲ \$0.05)

Policy Protection ▲ \$13,745

- $(690 \times \$0.83 \times 20\% \times 1.20 \times 100 \times 100\%)$

Final Area Revenue ▲ \$431.60

Payment Factor ► 0.732

- $(90\% - (\$431.60 \div (690 \times \$0.83))) \div 20\%$

Indemnity ▲ \$10,061

\$0.73 Harvest Price (▼ \$0.05)

Policy Protection ► \$12,917

- $(690 \times \$0.78 \times 20\% \times 1.20 \times 100 \times 100\%)$

Final Area Revenue ▼ \$379.60

Payment Factor ▲ 0.973

- $(90\% - (\$379.60 \div (690 \times \$0.78))) \div 20\%$

Indemnity ▲ \$12,568

What if... Changes to Protection Factor

- The Protection Factor is used to calculate the Policy Protection
- Changes to the Protection Factor are reflected in the Policy Protection, Producer Premium, and Indemnity

Protection Factor ▼ 1.10

Policy Protection ▼ \$11,840

• $(690 \times 20\% \times 1.10 \times \$0.78 \times 100 \times 100\%)$

Producer Premium ▼ \$1,034

Indemnity ▼ \$8,667

• (Payment Factor ► 0.732)

What if... Changes to Share Arrangement

- Like Protection Factor, the producer's Share is used to calculate the Policy Protection
- Note that changes to Protection Factor or the producer's Share do not affect the Payment Factor

Share ▼ 50%

Policy Protection ▼ \$6,458

• $(690 \times 20\% \times 1.20 \times \$0.78 \times 100 \times 50\%)$

Producer Premium ▼ \$564

Indemnity ▼ \$4,727

• (Payment Factor ► 0.732)

What if... Changes to Coverage Range

- Policy Protection is based on the lower Coverage Range
- Total Liability is lower
- Premium Rate is higher, reflecting a higher likelihood of full payment
- Producer Premium is lower, even with the higher Premium Rate

Coverage Range ▼ 10%

Policy Protection ▼ \$6,458

• $(690 \times 10\% \times 1.20 \times \$0.78 \times 100 \times 100\%)$

Total Liability ▼ \$42,494

Premium Rate ▲ 0.5326

Producer Premium Rate ▲ ≈ 0.1065

Producer Premium ▼ \$688

• $(\$6,458 \times 0.1065)$

What if... Changes to Coverage Range (Continued)

- A change to Coverage Range affects the Payment Factor
 - Coverage Range corresponds to Area Performance between 90% & 80%
 - Area Performance is below 80%, so indemnity is the full Policy Protection
- Some area loss falls in a 'donut hole'
 - STAX Coverage Range ends at 80%
 - Companion coverage begins at 70%
 - No coverage for loss between the two

Coverage Range ▼ 10%

Area Performance = 75.36%

Payment Factor ▲ 1.000

- $((90\% - (\$405.60 \div (690 \times \$0.78))) \div 10\%)$
- Capped at 1.000

Indemnity ▼ \$6,458

What if... Changes to Area Loss Trigger

- Coverage Range must be entirely within the 70%-90% range
 - Lower Area Loss Trigger limits the maximum Coverage Range
- Policy Protection is based on the lower Coverage Range
- Premium Rate is lower, reflecting a lower likelihood of full payment

Area Loss Trigger ▼ 80%

Coverage Range ▼ 10%

Policy Protection ▼ \$6,458

- $(690 \times 10\% \times 1.20 \times \$0.78 \times 100 \times 100\%)$

Premium Rate ▼ 0.3399

Producer Premium Rate ▼ ≈ 0.0680

Producer Premium ▼ \$439

- $(\$6,458 \times 0.0680)$

What if... Changes to Area Loss Trigger (Continued)

- A change to Area Loss Trigger affects the Payment Factor
 - Coverage Range corresponds to Area Performance between 80% & 70%
- No 'donut hole'
 - STAX coverage ends where Companion coverage begins

Area Loss Trigger ▼ 80%

Area Performance = 75.36%

Payment Factor ▼ 0.464

- $((80\% - (\$405.60 \div (690 \times \$0.78))) \div 10\%)$

Indemnity ▼ \$2,997

What if... Changes to a Companion Policy

- Coverage Range + Coverage Level cannot exceed Area Loss Trigger
 - Higher Coverage Levels limit maximum Coverage Range
- Policy Protection lower
 - and...*
- Companion Liability higher
 - but...*
- Total Liability is lower
 - Dependent on Producer's APH and Protection Factor

Coverage Level ▲ 80%

Coverage Range ▼ 10%

Policy Protection ▼ \$6,458

• $(690 \times 10\% \times 1.20 \times \$0.78 \times 100 \times 100\%)$

Companion Liability ▲ \$41,184

• $(660 \times \$0.78 \times 80\% \times 100 \times 100\%)$

Total Liability ▼ \$47,642

What if... 1st Crop / 2nd Crop Reduction

- If the premium and indemnity of the underlying policy are limited to 35 percent because the producer planted and insured a second crop, the STAX premium and indemnity will be subject to the same limit
- Remaining STAX premium and indemnity can be collected and paid as normal

1st Crop Limit = 35%

2nd crop planted...

Producer Premium Owed ▼ \$394

Indemnity Payable ▼ \$3,309

No loss on 2nd crop...

Remaining Premium = \$733

• (\$1,127 - \$394)

Remaining Indemnity = \$6,146

• (\$9,455 - \$3,309)

What if... Beginning Farmer

- If a producer qualifies as a beginning farmer, all authorized benefits apply to STAX
- STAX admin fee is waived and producer premium is reduced

Beginning Farmer Premium

STAX Premium ► \$5,636

Subsidy rate ▲ **90%**

Subsidy ▲ \$5,072

Producer Premium ▼ \$564

ADDITIONAL INFORMATION

Additional Information

- See RMA's website www.rma.usda.gov
 - Policy and handbook
 - Web and mobile app
 - Quick way to calculate coverage amounts, approximate premium cost and show when county losses will trigger an STAX payment.
 - Cost estimator
 - Availability maps
 - Fact sheets