









# What Growers Expect from New Product Introductions and Claims

November 3, 2016







# PERFORMANCE MARKETING

## MOISTURE MANAGEMENT



Keeps you dry 58%



Comfortable **54%** 



Breathable 41%

## THERMAL COOLING



Breathable **61%** 



Keeps you cool **56%** 



Comfortable **47%** 

## THERMAL WARMING



Keeps you warm 64%



Insulated **52%** 



Comfortable **51%** 



## PERFORMANCE EDUCATION

## HOW U.S. CONSUMERS WANT TO BE EDUCATED ON PERFORMANCE PROPERTIES



HANG TAGS



PRODUCT PAGES



SALES TEAM



STORE SIGNAGE



ONLINE VIDEOS

50%

31%

21%

20%

8%



## **Agricultural Data Sources**

#### Multi Commodity Input

- corn, soy, wheat, sorghum and cotton
- Producer surveys
  - 2011 and 2015 Producer Priority Surveys
  - 2008 and 2015 Producer Information Survey
- Producer outreach
  - What works and does not
- Producer decisions summary

## Please rank the following recommendation sources with regards to influencing an early adoptor's decision regarding a new technology?

	soybeans	cotton	corn	wheat	sorghum
Neighboring farmers	1	1		4	2
Company tech expert	2	6		1	
The farmer's consultant	4	2	1	2	3
Extension Specialist	3	3		6	4
Well known consultant	8	4		3	1
Company sales staff	5	7		5	5
Magazine article regarding a producer leader	6	5		7	6
Web-based information	7	8		8	7
other			on-farm data		

## Please rank the following statistical designs with regards to influencing an early adopter grower?

	soybeans	cotton	corn	wheat	sorghum
Large plot replicated trials	2	1		1	3
Large plot strip trials	1	2	1	3	2
Yields from treated & non-treated split fields	3	4		2	1
Small plot replicated trials	4	3		4	4
other	Their own on-farm comparisons				

For grain harvesters, accuracy is >99%

## What statistical metrics do early adopter growers recognize and trust in evaluating data?

	soybeans	cotton	corn	wheat	sorghum
LSD	1	1			
CV	2		1	1	
p value	4				1
Duncan's multiple range					
other (Means +/- Std. Deviation)	3				

## What level of statistics and evidence will be necessary to convince growers to try biological products on their farm?

soybeans	cotton	corn	wheat	sorghum
These products will need to provide sufficient performance improvement to be competitive with existing synthetic products for growers to accept. Won't be willing to invest in these products if control is less. Simple side-by-side comparisons with means compared using some standard statistical measure will be sufficient.	High level of transparency need. Small plot University trials and well designed onfarm trials employing spatial statistics.  Hard to overcome "snake oil" perception	They will need more data and on-field trials.	Performance on-farm, large areas. Application across multiple fields in strips (half planter). Measured by combine monitor.	Farmers are skeptical of biological products. Large scale statistics will help convince.

## Should product suppliers lower their performance thresholds for biological products to assure greater market options to synthetics?

soybeans	cotton	corn	wheat	sorghum
NO. I don't think this is appropriate. If performance thresholds can't be met, then it is doubtful these products will be accepted.	NO. Unless the only synthetic alternative is high risk for humans or the environment.	Don't know.	YES. Value may be so thin that costs may not be covered. May need direct marketing model to reduce marketing costs	NO.

## **Agricultural Data Sources**

- Multi Commodity Input
  - corn, soy, wheat, sorghum and cotton
- Producer surveys
  - 2011 and 2015 Producer Priority Surveys
  - 2008 and 2015 Producer Information Survey
- Producer outreach
  - What works and does not
- Producer decisions summary

## **2015 Cotton Grower Survey**

- Survey objectives
  - Gather grower concerns for research prioritization
  - Collect primary data for 2015 Global Cotton LCA
  - Support Sustainability claims
  - Benchmark against 2008 and 2011 Surveys
- Electronic survey from April 1 to June 30, 2015



### 2015 Data Integrity

- 925 electronic responses
- 818,504 upland cotton acres (approx. 10% of cotton acres)
- R<sup>2</sup> between planted acres & respondents acres was 0.90
- 65% requested custom analysis & provided their contact



- Question 25 focused on producer priorities
  - Randomly presented 27 concerns selected from 2011 survey along with new concerns
  - Included two "obvious" answers to test whether respondents read the questions
  - 22 of the concerns were rated by growers as high priority (major + moderate > 65%)
  - 3 were rate low (not an issue > 65%)

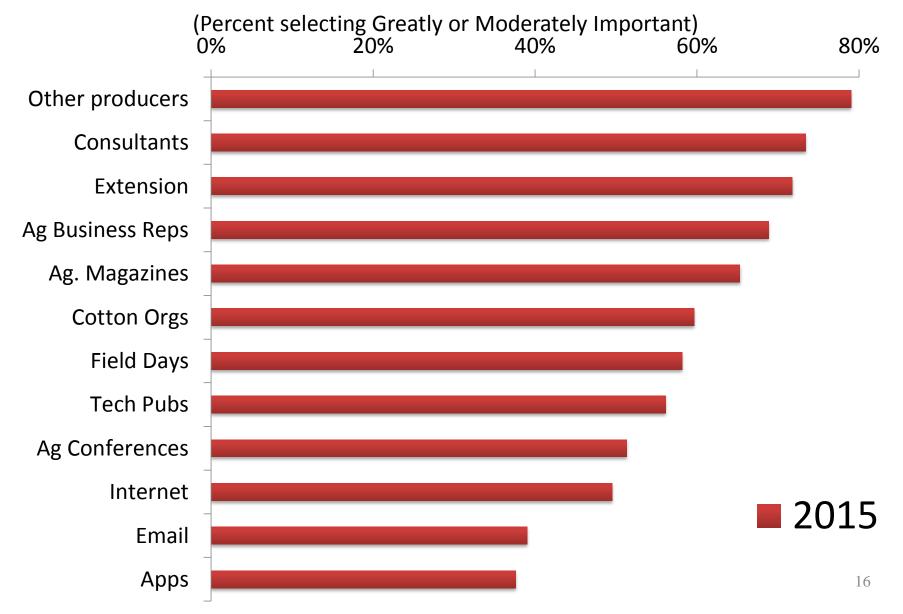
## **Top 12 Producer Priorities**

Q25. How would you rate the following cotton production concerns or challenges on your farm?	Major	Moderate	Not an Issue	2011 Rank	2015 Rank
Cotton production input costs	81%	16%	3%	1	1
Weed resistance to herbicides	69%	25%	6%	5	2
Weed control	64%	31%	5%	4	3
Cottonseed value	51%	40%	8%	7	4
Spread of plant disease and weeds	42%	43%	14%	New	5
Seedling vigor and stand establishment	42%	40%	18%	6	6
Consumer attitudes about Ag's impact on the environment	40%	38%	22%	31	7
Cotton's tolerance to heat and drought	39%	48%	13%	3	8
Efficient use of fertilizer	37%	43%	20%	19	9
Adequate water supply	37%	35%	28%	15	10
Variety selection	34%	43%	23%	2	11
Plant bug control	32%	44%	24%	9	12

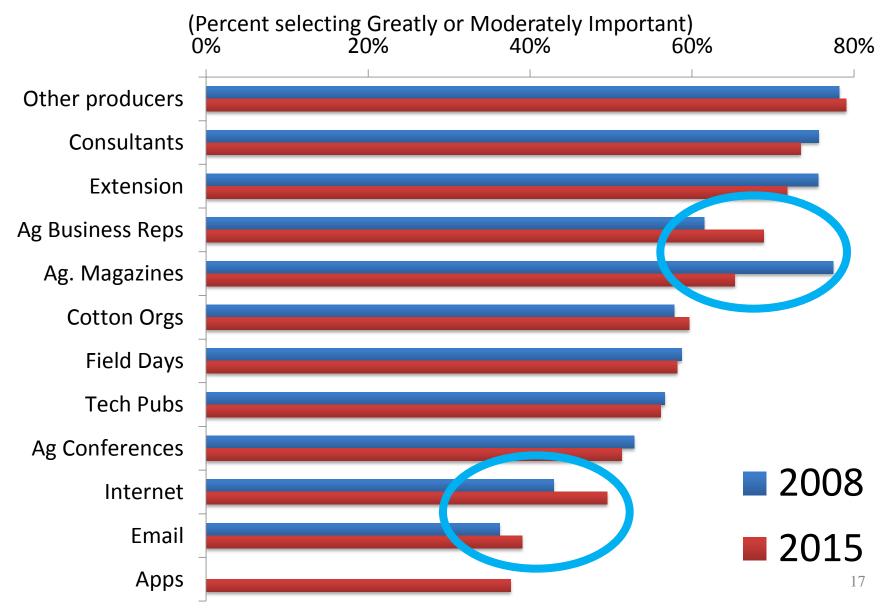
## **Middle 10 Producer Priorities**

Q25. How would you rate the following cotton production concerns or challenges on your farm?	Major	Moderate	Not an Issue	2011 Rank	2015 Rank
Climate change - rainfall & temperature	30%	45%	24%	new	13
Lack of new crop protection products	29%	49%	22%	7	14
Pesticide drift	28%	55%	17%	new	15
Insect resistance to insecticides and Bt cotton	28%	44%	28%	19	16
Soil sampling and analysis for fertilization	27%	41%	33%	10	17
Monitoring cotton's plant growth	25%	49%	26%	16	18
Harvest aid materials and application timing	24%	48%	27%	11	19
Stink bug control	23%	47%	30%	12	20
Soil erosion	19%	52%	28%	new	21
Soil compaction	17%	57%	26%	new	22

# Where do growers get production research information?



# Where do growers get production research information?



## **Agricultural Data Sources**

- Multi Commodity Input
  - corn, soy, wheat, sorghum and cotton
- Producer surveys
  - 2011 and 2015 Producer Priority Surveys
  - 2008 and 2015 Producer Information Survey
- Producer outreach
  - What works
- Producer decisions summary

#### **APS Crop Protection and Management Collection**

Plant Management Network

Log In

About Us

Journals

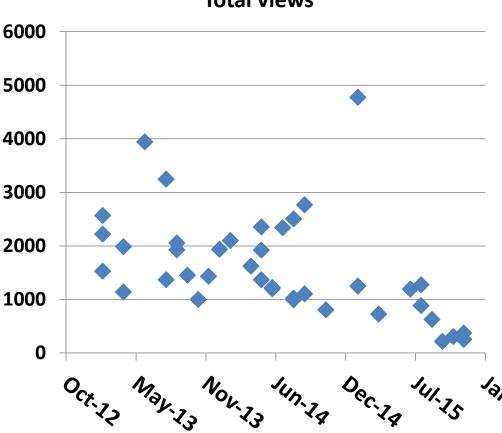
Resources

Webcasts

Search

Subscribe





#### **CULTIVATED** CottonCultivated.Cottoninc.com

#### **FOCUS ON COTTON**

Enhancing the Health, Management, and Production of Cotton Crops



#### **Educational Webcasts**



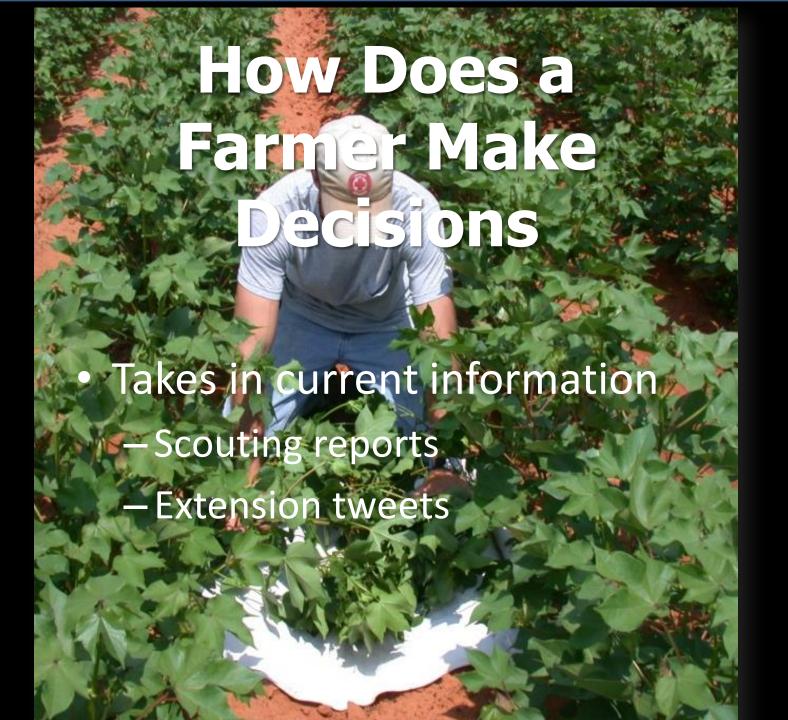
#### Latest Webcasts

- Target Spot of Cotton Six Years After First Report Robert C. Kemerait, Jr., University of Georgia, November 2016.
- Impact of Leaf Pubescence on Fiber Quality Gaylon D. Morgan, Texas A&M University, October 2016.
- Changing Bt Technologies and Bollworm Management in Bt Cotton -David Kerns, Louisiana State University, October 2016.
- Zero Tolerance: Designed for Seedbank Reduction Tom Barber, University of Arkansas, October 2016.
- Utilizing Tissue and Petiole Sampling in Cotton Production Hunter Frame, Virginia Tech, September 2016.

## **Agricultural Data Sources**

- Multi Commodity Input
  - corn, soy, wheat, sorghum and cotton
- Producer surveys
  - 2011 and 2015 Producer Priority Surveys
  - 2008 and 2015 Producer Information Survey
- Producer outreach
  - What works and does not
- Producer decisions summary



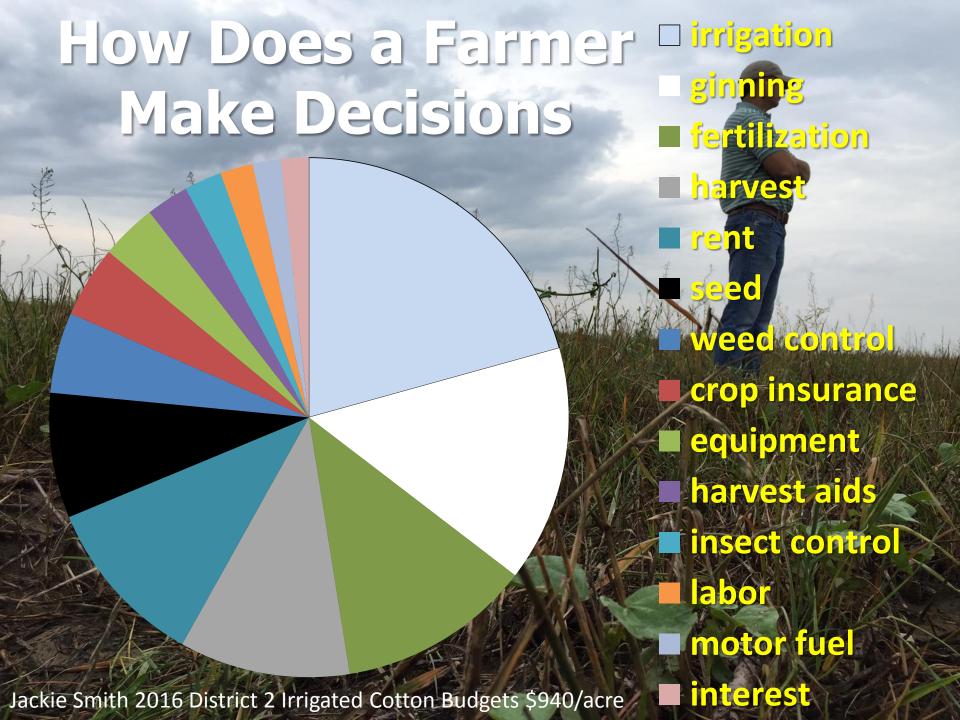


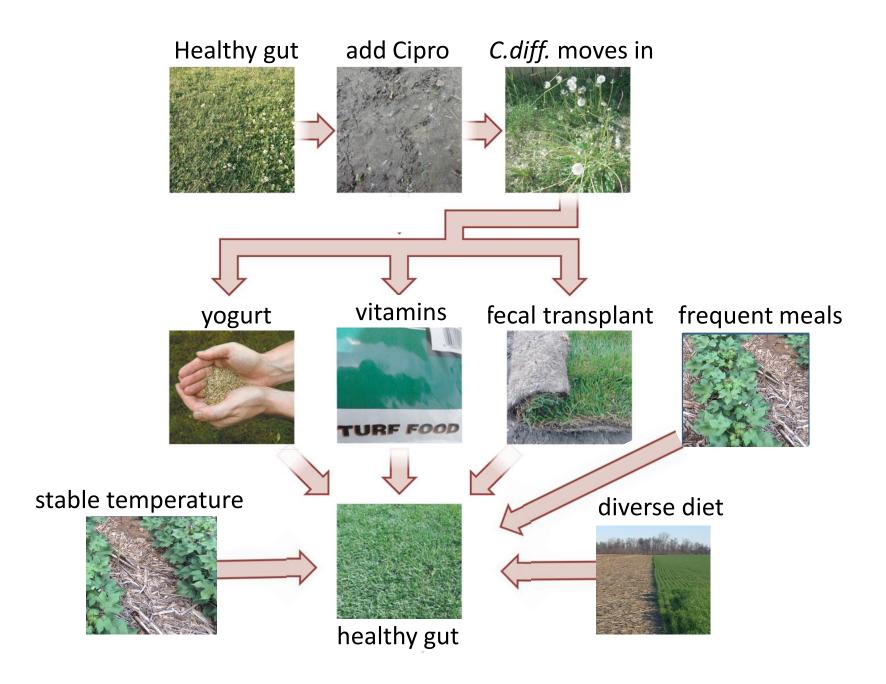




# How Does a Farmer Make Decisions

- Often it is a family decision
  - Spouse
  - Multigenerational
  - Large and small family partnerships





Nature 2012 478-220 & Nature 2015 528-69

# Help farmers get here in just 5 years

**No-Till** 

**Tilled Annually** 



28 years of corn/cotton rotation

#### **Thank You**

