

Sustainability – An Important Aspect of Tobacco Production

2018 Tobacco Workers Conference

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Sustainability - Outline

- Introduction
 - What is Sustainability?
 - Overview on STP
- Area of Focus – People, Planet, & Profit
 - Farmers & Workers
 - Tobacco Regulations & New Products
 - Follow the Money
 - The Lab Report
- Summary

Sustainability

- Sustainability is a widely used term, but what does it really mean? There is no universally agreed upon definition of sustainability and there are different views on what it is and how it can be achieved.
- In the narrowest sense, sustainability focus upon: People; Profit; and Planet.
- In the broadest sense, sustainability is an all-encompassing holistic view that addresses each aspect of a supply chain and its stakeholders: from the environmental impact where a given material is produced; to the people producing the material; and to the socioeconomic conditions of those individuals and entities connected to the material.

STP - Development & Objectives

- The creators of the STP Program define sustainable tobacco production as the efficient production of quality tobacco, under conditions that limit the negative impact to the environment, in a manner that improves the socio-economic conditions of the people and their communities in the tobacco production areas.
- The Program was developed in collaboration between the manufacturers who participated in the Social Responsibility in Tobacco Production (SRTP) Program and the Good Agronomic Practices (GAP) Program (2002).
- Globally, all major tobacco dealers participate in the Program, and had the opportunity to provide feedback during the initial development.
- AB Sustain, a division of AB Agri, an international group of companies founded in 1935 that is involved in food/food ingredient manufacturing and food retailers, manages the STP Program.

STP –A Global Program



STP - Objectives

- **Robust:** Ability to face future challenges
- **Comprehensive:** Greater level of detail than previous programs; inclusive of more types of tobaccos
- **Focused:** Embraces the key areas of importance to the manufacturers
- **Sustainable Program:** Capacity to provide a breakdown of data and a tool for making decisions based on risk.
- **Continual Improvement:** Establishes realistic, but challenging, expectations for improvement over time.
- **Clear Measurement:** Provides steps to create plans of action.

STP - Program Structure



- **Guiding Principle:** Aspirational objective for the Company to meet
- **Criteria:** What the Company (Farmer) will be measured against
- **Guidance:** Provides information as to how to achieve the Criteria and suggested steps to follow
- **Indicators:** Measure alignment against the Criteria



Central Focus of the STP Program

- Farmer / Farm
- Work / Worker / Labor / People / Employment
- Crop / Tobacco / Agronomy / Production
- Identified / Risk / Best Practice
- Data / Percentage / Indicator / Implementation / Monitoring
- Ensure / Require / Define
- Guide / Training / Communication / Guidance / Program
- Sustain / Water / Fuel & Wood / Curing / Soil / Environment
- CPA

Tobacco Farmer & Workers

- Safety
 - Exposure
 - New Products?
 - New Equipment/Methods?
- Training & Education
 - Technical
 - Regulatory
 - Engagement
- Documentation

Regulation



Public Law 111-31
111th Congress

An Act

To protect the public health by providing the Food and Drug Administration with certain authority to regulate tobacco products, to amend title 5, United States Code, to make certain modifications in the Thrift Savings Plan, the Civil Service Retirement System, and the Federal Employees' Retirement System, and for other purposes.

June 22, 2009
[H.R. 1256]

*Be it enacted by the Senate and House of Representatives of
the United States of America in Congress assembled,*

Family Smoking
Prevention and
Tobacco Control
Act.

DIVISION A—FAMILY SMOKING PRE- VENTION AND TOBACCO CONTROL ACT

Regulation & New Products - Impact on Tobacco Research

- Nicotine - How Low is “Low” (X% to 0.04%)
- TSNAs – NNN (STPs not to exceed 1.0 microgram per gram ($\mu\text{g/g}$) of tobacco - on a dry weight basis)
- Other Constituents
- Leaf Chemistry
 - Increased Consistency
 - Will There be a Change in the Profile/Requirements?
- Land Grant Universities – Scientific Voice for Farmers
 - Genetics
 - Crop Management
 - What can be done vs. is it acceptable

Follow The Money

- Identify the cost centers that have the greatest economic impact upon the farm operation
 - Positively and negatively
- Identify low-cost solutions that maximize value for the farmer to meet “Requirements”
- Identify the People, Profit, & Planet connection to practices and implemented solutions

Flue-Cured Variable Costs Per Acre (NCSU)

• Transplants	\$240	• Curing Fuel	\$ 425
• Lime	\$18	• Electricity	\$125
• Fumigation	\$180	• Crop Insur.	\$120
• Fertilizer	\$250 - \$370	• Bailing Supp.	\$8
• Herb. and Fung.	\$120	• Machinery	\$250
• Insecticides	\$55	• Labor	\$900 - \$1300
• Sucker Control	\$190	• Interest	\$55
• Cover Crop	\$25	• Total Variable	\$2961 - \$3481
		• Average Var. Cost	\$3221

Flue-Cured Fixed Costs Per Acre (NCSU)

- Tractor/Machinery \$166 - \$335
- Barns and Equipment \$180
- Average Fixed Cost \$430
- Total Cost (Fixed + Var.) \$3307 – \$3996
- Average Total Cost \$3652

Flue-Cured Variable Costs Per Acre (NCSU)

• Labor	\$1,100	34.2%	• Herb. & Fung	\$120	3.7%
• Curing Fuel	\$425	13.2%	• Crop Insur.	\$120	3.7%
• Fertilizer	\$310	9.6%	• Insecticides	\$55	1.7%
• Machinery	\$250	7.8%	• Interest	\$55	1.7%
• Transplants	\$240	7.5%	• Cover Crop	\$25	0.8%
• Sucker Cntrl.	\$190	5.9%	• Lime	\$18	0.6%
• Fumigation	\$180	5.6%	• Baling Supp.	\$8	0.2%
• Electricity	\$125	3.9%	<i>(Total CPAs</i>	<i>\$545</i>	<i>16.9%)</i>
			• Average Var. Cost	\$3221	

Lab Report - Summary of Results

	Detection Limit	Residues Found	Test Date
Flumetralin	0.05 ppm	0.170 ppm	12-12-2017
Imidacloprid	0.09 ppm	0.126 ppm	12-04-2017
Nitrates – Nitrates-expressed as N			
	0.01 %	0.018 %	12-07-2017
TSNAs			
NNN	0.10 ppm	0.170 ppm	12-07-2017
NAT	0.10 ppm	0.439 ppm	12-07-2017
NNK	0.10 ppm	0.191 ppm	12-07-2017
Total TSNA	0.10 ppm	0.800 ppm	12-07-2017

Summary

- Predicting the future isn't foolproof nor highly accurate, but there are clear expectations for increased regulation of tobacco, increased monitoring and testing requirements from the industry (and regulators?), and that change is unavoidable.
- Traditional tobacco research will continue to be needed, however new aspects of this research are likely, as are completely new research areas.
- Being able to link the impact of ones research/recommendation on People, Profit, and Planet are becoming more important in the holistic view of tobacco sustainability.

Thank You

