



# Healthy Soils for Sustainable Cotton

## Field Day



### IMPROVING SOIL HEALTH THROUGH A SYSTEMS APPROACH

## FIELD DAY AGENDA

**Robeson County Agriculture Center**  
**1027 US-74 ALT, Lumberton, NC**  
**Thursday, August 22, 2019**

	Time	Speaker
<b>Welcome and Overview of Activities</b> (Board bus from Robeson County Agriculture Center to Sonny Price's Farm)	8:00 a.m. – 8:30 a.m.	
<b>Soil Health Farmer Mentor: Sonny Price</b> 1. Overview of Soil Health Management System a. How long? b. Equipment used? c. Acres farmed? d. Results	9:00 a.m. – 9:30 a.m.	<b>Sonny Price</b> Farmer Mentor
<b>DEMONSTRATIONS</b>		
<b>Rain Fall Simulator</b> 1. Impacts of management on soil function 2. Soil Health Management Principles a. Minimize disturbance b. Maximize diversity c. Keep living roots growing d. Maintain residue cover	9:30 a.m. – 10:00 a.m.	<b>Nathan Lowder</b> NRCS Soil Health Specialist
<b>Stop 1 Adapting Equipment for Soil Health</b> (discuss adjustments and challenges with equipment when moving into a soil health system) 1. Spreading residue during harvest 2. Seeding cover crops, e.g. drilling, broadcasting, aerial application 3. Terminating cover crops, e.g. when & how 4. Planting into high residue levels 5. Sprayer tips	10:00 a.m. – 10:30 a.m.	<b>Sonny Price</b> Farmer Mentor

Cotton Field Day Agenda <i>continued</i>	Time	Speaker
<p><b>Stop 2 Cover Crops used in Cotton Systems</b></p> <ol style="list-style-type: none"> <li>1. Single species versus multi-species cover crops</li> <li>2. How do you determine success?</li> <li>3. High vs. low biomass: Benefits of letting cover crop grow</li> <li>4. Results of testing from Sonny's fields</li> </ol>	10:30 a.m. – 11:00 a.m.	<p><b>Buz Kloot</b> USC Research Associate Professor</p>
<p><b>Stop 3 Linking Soil Biology to Soil Health</b></p> <ol style="list-style-type: none"> <li>1. Soil health indicators used to evaluate soil health in the field</li> <li>2. Linking key soil health indicators to the soil health principles and soil function</li> <li>3. Soil functions performed by soil organisms</li> <li>4. Three broad functional groups for soil organisms</li> <li>5. Identify and define biological hot spots in soil and key organisms in each zone/sphere</li> </ol>	11:00 a.m. – 11:30 a.m.	<p><b>David Lamm</b> SHI Project Manager</p>
<p><b>Lunch at Robeson County Agriculture Center</b></p>		
<p><b>Why Soil Health Now?</b></p> <ol style="list-style-type: none"> <li>1. Wrangler Jeans and Walmart Foundation involvement</li> <li>2. 10-Year Cotton Sustainability Goals</li> <li>3. Cotton Trust Protocol</li> <li>4. Soil Health Institute</li> </ol>	11:30 a.m. – 1:00 p.m.	<p><b>David Lamm</b> SHI Project Manager</p>
<p><b>DESIGNING A SOIL HEALTH MANAGEMENT SYSTEM</b></p>		
<p><b>Cover Cropping with a Purpose</b></p> <ol style="list-style-type: none"> <li>1. Cover crops benefits and impact on soil function</li> <li>2. Consideration for successful cover crop planning</li> <li>3. Designing multi-species cover crop mixes</li> <li>4. Trouble shooting cover crop problems</li> <li>5. Examples of cover crops in cotton production systems</li> <li>6. Cover Crop decision tool (SmartMix Calculator)</li> </ol> <p><b>Cover Crop Group Exercise</b></p> <ul style="list-style-type: none"> <li>• Group exercise: Designing your cover crop mixture</li> <li>• Group presentations &amp; discussion</li> </ul>	1:00 p.m. – 1:30 p.m.	<p><b>Nathan Lowder</b> NRCS Soil Health Specialist</p> <p><b>Buz Kloot</b> USC Research Associate Professor</p>
<p><b>Healthy Soils for Sustainable Cotton Challenge</b></p> <ol style="list-style-type: none"> <li>1. Opportunity to commit to a soil health management system in 2 fields: one coming out of cotton and another rotating to cotton</li> <li>2. Spend the afternoon developing a strategy to implement in the fall. Goal: leave with a cover crop mix to use, seeding method, timing and field prep plan</li> <li>3. Discuss follow-up meeting in December to cover: <ol style="list-style-type: none"> <li>a. Cover crop termination</li> <li>b. Planting challenges</li> <li>c. Nutrient management</li> <li>d. Pest management</li> </ol> </li> </ol>	1:30 p.m. to 3:00 p.m.	<p><b>David Lamm</b> SHI Project Manager</p>

