Sustainable Soils Forum

Learn how sustainable industrial materials add value in traditional agricultural operations, as well as in horticulture, landscaping and soil reclamation projects.

September 18, 2014, McKimmon Center, NCSU, Raleigh, NC

Who Should Attend?

- Extension Agents
- Conservation Districts
- Nursery Operators
- Soil Blenders
- Landscapers
- Material Suppliers
- Agricultural Consultants
- Soil Scientists
- Regulators
- Environmental Engineers

A number of byproduct materials generated by Southeastern industrial sectors have proven value as soil amendments, soil blending ingredients, drainage aids or landscaping components. These materials include Pulp and Paper industry residuals, FGD Gypsum, Recovered Wallboard, Wood Waste, Steel Furnace Slag, Foundry Sand, and Tire-Derived Rubber.

The Forum will impart practical knowledge of how regionally available materials can improve soil characteristics, protect water resources, save energy and virgin material resources, and add economic value to farms and soils-based businesses. Plenary sessions will describe soil properties and how industrial byproducts can be used in soils. Presentations will be organized into two tracks. One track will showcase benefits of using these materials in a responsible manner in agriculture. The second track will describe benefits of using these materials in soil manufacturing, landscaping, horticulture and water remediation efforts.

Register at: www.industrialresourcescouncil.org/ncssf/forum

This Sustainable Materials Forum represents a collaboration among the Departments of Soil Science, Horticultural Science, and Biological & Agricultural Engineering at North Carolina State University; the North Carolina Cooperative Extension Service; the North Carolina Department of Environment & Natural Resources; the U.S. Department of Agriculture-Agricultural Research Service; and the Industrial Resources Council.
# AGENDA
Sustainable Soils Forum

## PLENARY SESSION
**Welcome & Opening Remarks**  
*Soil Science Basics*  
Dr. David Lindbo, NCSU  
*Soil Science in Horticulture*  
Dr. Bill Fonteno, NCSU  
*Overview of Industrial Byproducts Applications in Soils*  
Industrial Resources Council

### Break

## AGRICULTURE TRACK

*Development of Gypsum Conservation Practice Standard*  
Dr. Allen Torbert, USDA-ARS  
*Gypsum in Land Application and Phosphorus Remediation*  
Dr. Ray Bryant, USDA-ARS  
*Research Protocols for Byproduct Use: Foundry Sand Study*  
Dr. Rufus Chaney, USDA-ARS

## HORTICULTURE, LANDSCAPING & URBAN SOILS

*Horticultural Mulch Certification Program*  
Dr. Bill Fonteno, NCSU  
*Forest Resources and Wood Waste Use in Horticulture*  
Dr. Brian Jackson, NCSU  
*Biochar Feedstocks and Processing*  
Dr. Michael Boyette, NCSU

### Lunch

**Lunchtime Panel: Obtaining Regulatory Approvals for Soils-Based Applications**  
Michael Scott, NC Dept. of Environment & Natural Resources  
Danny Turner, NC Dept. of Agriculture & Consumer Services

### Developing and Operating Land Application Programs**  
Dr. Elwood Black, Advanced Residuals Management  
**Suitability Study: Pulp Mill Byproducts as Soil Amendments**  
Dr. Greg Evanylo, Virginia Tech  
**Land Application of Pulp Mill Alkaline Byproducts**  
Woody Graham, Domtar Corp.

### Stormwater BMP’s**  
Dr. Deanna Osmond, NCSU  
**Tire Chips as a Septic Field Drainage Medium**  
John Sheerin, Rubber Manufacturers Association  
**Substrate Materials for Rain Gardens**  
Dr. Helen Kraus, NCSU

### Steel Furnace Slag for Phosphorus Remediation**  
Dr. Chad Penn, Oklahoma State Univ.  
**Steel Slag in Agricultural Applications**  
John Yzenas, Edw. C. Levy Co.

### Introduction to Compost and Vermicompost**  
Rhonda Sherman, NCSU Extension Service  
**Composting and Vermicomposting Programs at a Pulp Mill**  
Saul Furstein, Georgia Pacific Corp.

### Wrap-Up and Identification of Action Items

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Supporters of the Southeast Sustainable Soils Forum include the North Carolina Soil Science Society, the North Carolina Nursery & Landscape Association, the North Carolina Farm Bureau, and the North Carolina Green Industries Council. Please contact the IRC if your organization is interested in becoming a Supporter.