# 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

#### **SPONSORS**

## NC STATE UNIVERSITY









### 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

September 18, 2014 8:15 am – 5:00 pm

# 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

#### Break

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.

#### **PLENARY SESSION**

Wrap-Up and Identification of Action Items

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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.