Big Impact; Small Scale

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The Problem

- West Virginia Agricultural Enhancement Program
  - Nutrient Management Program
    - Small Scale operations didn't fit the program criteria.
    - How can we better support small scale operations?



Small Scale Soil Amendment

- Began development in Fall 2023
  - Define “small scale”
  - What to include



Purpose

The application of soil amendments to budget, supply, and conserve nutrients for plant production and soil health.

To manage the rate, source, method of application, and timing of plant nutrients and soil amendments.

Associated Practices

Agricultural Lime

Nutrient Management

Biochar & Compost Mix



Agricultural Lime

- Should be applied to land that needs maintenance and improvement.
- Must be on a small scale operation of 10 acres or less.
- Current (less then 3 years old) soil samples required.
- Lifespan is 3 years.

Benefits of Liming

- Adjusts soil pH
- Enhances nutrient availability
- Improves fertilizer efficiency
- Adds calcium and magnesium
- Promotes beneficial microbes
- Reduces soil toxicity
- Boosts soil structure

Nutrient Management

- Manage rate, source, placement, and timing of plant nutrients while reducing environment impacts.
- Must be on small scale operation of 10 acres or less.
- Soil samples required within 1 year.
- Lifespan is 1 growing year.

Benefits of Nutrient Management

- Healthier plants
- Improved soil fertility
- Increased yields
- Reduced environmental impacts



Biochar & Compost Mix



- Biochar and compost mix enhances soil health.
- Must be on small scale operations of 10 acres or less.
- Soil samples required.

Benefits of Biochar & Compost Mix

- Better water management
- Increased nutrient retention
- Improved soil structure
- Boosts beneficial microbes
- pH regulation



Resource Concerns

Nutrients to surface water

Nutrients to ground water

Aggregate instability

Organic matter depletion

Soil organism habitat

Plant productivity and health

THANK YOU

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