Developing Sustainable Roller Crimped Cover Cropping Systems for Corn and Soybean Production: Effects on Cover Crop Winter Hardiness, Biomass, N Mobilization, Weed Suppression and Yields

### What We Learned

- Apply cover crop seed at a sufficient rate by mid-September
- Use early maturing cultivars to allow for timely cash crop planting
- Thick cover crops provide effective roller crimping and weed suppression
- Wait until full flowering for adequate roller crimping termination
- Have a back-up termination strategy ready for action
- The Bio-soil enhancer showed promise accelerating fall root growth
- Ineffective hairy vetch termination lowered corn yields and N mobilization on No-Till plots
- Soybean yields on both farms, No-till and Till, were well above organic County average

#### Cereal Rye Cover Crop

**Day 2 (9/17/15)**

**Anthesis (pollen shedding)**

**Day 8 (9/25/16)**

**Roller Crimping (5/2/16)**

**Soybeans (7/11/16)**

#### Hairy Vetch Cover Crop

**Day 8 (9/25/16)**

**Hairy Vetch 10/31/16**

**50% flower blossom (5/20/17)**

**Need 4” roots to overwinter**

**Roller Crimping (5/26/17)**

**Corn (9/9/17)**

**Greene County Conservation District**

**Our Farms, Our Future Conference**

**SARE PROJECT** FNC16-1055

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