Local Opportunities for Biomass Energy Production
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Fueling the Future:
The Role of Woody and Agriculture Biomass for Energy Workshop
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www.extension.umn.edu/agroforestry
AURI Mission

• Identification and expansion of markets for new or existing commodities, ingredients and products;

• The development of new uses or value improvements for Minnesota agricultural commodities;

• The development of ag-based, renewable energy opportunities
What we do

Sole focus is adding value to MN agriculture

-**Scientific, technical assistance**
  - *R&D for MN agriculture and rural processors*
  - *Technical and market feasibility*
  - *Analytical testing of processes/products*

-**Broad impact initiatives**
  - *Identify emerging opportunities with potential to impact large number of producers*
AURI Facilities

- Meat Lab, Marshall
- Fats & Oils Lab, Marshall
- Coproducts Lab, Waseca
- Product Development Kitchen, Crookston
- Microbiology Lab, Crookston
Biomass

- Abundant resource
- Economics – biomass vs. fossil fuels
- CO2 balance
- Federal, State, and Local incentives
- Value-added opportunities
- Bulk, moisture, handling, storage, harvest and transportation are primarily limiting issues
Logistical Challenges

- Densification
  - Pelletizing
  - Briquetting
  - Pyrolysis

- Collection and storage
  - *Corn Cob Collection Demonstration*
    - *Chippewa Valley Ethanol Coop, WCROC, ARS-Lab Morris, Department of Commerce, MN Corn Growers and AURI*
MN Biomass Activities

• **Renewable Energy Assessment Template**
• **Central Minnesota Ethanol Cooperative**
• **Northern Excellence Growers, grass screening gasification**
• **Roseau Gasification-natural gas and nitrogen**
• **Chippewa Valley Ethanol Cooperative**
MN Biomass Activities

- Hill Wood Products
- Sunrise Agra Fuel
- Alternative Energy Solutions
- Kota Energy
- Fibrominn
Co-products Opportunities

• Ash
  – *Fertilizer*

• Stabilized manure
  – *Bedding/fuel/fertilizer*
Biomass Bio-Products

- Compost-A-Mat
- Limpert Brothers
- American Crystal Sugar
- Environ
- Pet Care Systems
The Opportunities Are Here!
Questions?