

# Grassland Birds

Grassland birds are an important conservation target due to widescale population declines

We know grassland bird densities decrease in landscapes dominated by row-crop agriculture or high amounts of wood

Growing switchgrass or native prairie grass mixtures and forbs as an alternative has potential for reducing impacts on natural resources

# Herbaceous Crops

**Producers have several options for herbaceous bioenergy production systems that are possible, feasible, and sustainable.**

**The impediments to producer involvement are economic uncertainty, economic opportunity, and market availability.**

**Build the plants, provide an economic incentive for farmers, and feedstock will be supplied.**

# Woody Bioenergy in Canada

Biomass energy systems are possible and feasible in Canada with some caveats

What are the impediments to producer involvement:

Sound agronomic practices and expertise

High establishment costs

Planting material – variety of clones and need ramp up phase to produce

Harvesting equipment

Registered chemicals – weeds, pests and diseases

Crop insurance programs

Markets – where is material going?

Issues: farmer mindset, rotation time scale

Older generation farmers may not adopt biomass energy systems

Current commodity prices

# Woody Bioenergy in the US

**Productivity needs to be measured in terms of economic and environmental units**

**Woody systems should be sustainable by strategically placing them in the landscape and using appropriate cultural practices**

**The most substantial impediment is tradition**

# Economics and Social Aspects

**We have many options to choose from:**

**Land-use options**

**Feedstock options**

**Conversion/Process Technologies**

**There is still significant investment risk to biorefinery development**

**World markets and infrastructure matters – biomass location, biorefinery location, population location**