



Bioenergy Feedstock Crop Production Module Overview

ASP Training Description

Learning objectives

Participants in this session will understand the potential of various energy crops in bioenergy feedstock production. Content will focus on adaptation, crop management, cost of production, and methods to add value to bioenergy crop enterprises.

1. Review adaptation of crop residues such as corn cobs, oilseed crops such as canola and soybeans, biomass crops such as Miscanthus, and woody biomass crops such as willow.
2. Review crop management best practices for producing bioenergy feedstocks including field operations, fertilizer, pesticides and other inputs.
3. Estimate production costs of various feedstocks.
4. Review methods of adding value to feedstock production.

Supporting Materials:

Presentation File: Bioenergy Feedstock Production—ASP Presentation (45 minutes)

Presentation Script: Bioenergy Feedstock Production—ASP Presentation Outline

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|-------|---|
| 5 min | Introduction–Bioenergy feedstock production–overview of considerations for a potential bioenergy feedstock enterprise |
| 9 min | Crop residues–corn cobs–adaptation, production and harvest |
| | Utilization |
| | Cost of production |
| | Adding value or value added markets |
| 9 min | Oilseed crop–Canola–Adaptation, production and harvest |
| | Utilization |
| | Cost of production |
| | Adding value or value added markets |
| 9 min | Biomass Crops–Miscanthus–adaptation, production and harvest |
| | Utilization |
| | Cost of production |
| | Adding value or value added markets |
| 9 min | Woody Biomass Crops–Willow–adaptation, production and harvest |
| | Utilization |
| | Cost of production |
| | Adding value or value added markets |
| 4 min | Wrap up |

ASP Activity Sheet

In several mini-cases, participants will estimate the production cost of a biomass feedstock. Participants will use the *Biomass Feedstock Calculator* to estimate the cost and the potential savings of biomass feedstock compared to fuel oil or propane heating.

Farmer Training Description

Presentation Objectives: Farmers who participate in this presentation will learn about several potential bioenergy feedstocks and these critical considerations:

1. What they are and approximate cost per ton
2. How they are produced, co-products which add value to the feedstock, and how they can be incorporated into a farm enterprise.
3. Where to go for more information

Presentation Outline

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|-------|---|
| 2 min | Introduction—Bioenergy Feedstock Production—brief overview of considerations for a potential bioenergy feedstock enterprise |
| 3 min | Crop residues—corn cobs—adaptation, production and harvest |
| 3min | Oilseed crop—canola—adaptation, production and Harvest |
| 3 min | Biomass crops—Miscanthus—adaptation, production and harvest |
| 3min | Woody biomass crops—willow—adaptation, production and harvest |
| 1 min | Wrap up |

Supporting Materials

A fact sheet, *Corn Cob Production and Utilization for Heating*, a case study of on-farm biomass energy enterprise, and cost calculators accompany this presentation.

- Ag Service Provider Training Description: *Bioenergy Feedstock Production—ASP Presentation Outline*
- Slide File for ASP Presentation: *Bioenergy Feedstock Production—ASP*
- Biomass Energy Crop Worksheets: *Excel-based calculators for various feedstocks*
- Calculation Tool—Farm Energy IQ Calculator Exercise: *Bioenergy Feedstock Production—Activity*
- Farmer Training Description: *Bioenergy Feedstock Production—Farmer Presentation Outline*
- Slide File for Farmer Training: *Bioenergy Feedstock Production—Farmer*
- Fact sheet for Farmer Training: *Bioenergy Feedstock Production—Fact Sheet*
- Case study for Farmer Training: *Bioenergy Feedstock Production-Case Study*

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