

Report Out II: Herbaceous Crops— 2030 Target

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A Scenario for Supplying 30% of 2004
Motor Gasoline with Biofuels by 2030

Biomass

Herbaceous Crops: Role of Herbaceous Crops in 2030

- Unless aggressive policies are put in place by the 2007 Farm Bill, herbaceous energy crops may fall short of Billion Ton estimates, i.e.:
 - » 55M acres
 - » 44 billion gallons

Herbaceous Crops – Timeline for Development

Decided on 3 land types available for herbaceous perennial crop production:

» Crop Land (20M acres)

- ♦ Immediately: impact 2007 Farm Bill
- ♦ 2010: Ramp up R&D to prove economic feasibility; 5 year CRP sign-up changes
- ♦ 2014: next Farm Bill – change to reflect future needs
- ♦ 2020: need 85% of total acreage committed
- ♦ 2020 – 2030: several R&D requirements in genetics, production techniques, yield & modeling, handling & processing

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Herbaceous Crops – Timeline for Development

Decided on 3 land types available for herbaceous perennial crop production:

» Pasture Land (20M acres)

- ♦ Difficult to anticipate timeline
- ♦ Billion Ton availability estimate is high; maximum 7M acres by 2030 more realistic
- ♦ Requires cultural and economic shifts
- ♦ No existing policy drivers

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Herbaceous Crops – Timeline for Development

Decided on 3 land types available for herbaceous perennial crop production:

» CRP Land (15M acres)

- ♦ 2007: Farm Bill should authorize 3M acres for dedicated energy crops; develop education programs for farmers
- ♦ 2010: Designated land strategically & environmentally selected
- ♦ 2014: next Farm Bill, up 3M to 15M acres
- ♦ 2020: total 15M acres in production = 60 80M gallon biorefineries
- ♦ 2030: 80 80M gallon biorefineries

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Herbaceous Crops: Priority Research & Development Needs

- Conduct national, regional, and local production potential assessment
- Identify other herbaceous energy crops beyond switchgrass
- Genomics, genetics and transgenics
- Educating a workforce in herbaceous energy crop genetics, agronomy and compositional analysis.

Insert additional slides as needed

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Herbaceous Crops: Priority Policy Needs

- Develop a working land use policy and/or modify CRP that includes bioenergy reserve as a land type.
- Increased funding for R&D priorities listed in previous slide – project and educational funding (Land Grant universities, Feds, States, companies).
- Farm Bill revisions to include R&D priorities identified.

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Herbaceous Crops: Federal Role

- Feedstock genetics:
 - » Genome sequence (in crops and soil microbes)
 - » Importing germplasm
- Feedstock production and delivery systems:
 - » Support farm community to be able to supply enough feedstock
- Support deployment of regional biomass technologies
- Support training programs for biomass field (agriculture, conversion, engineering)
- Provide longer-term (10 yr) funding (short-term grants not sufficient for these feedstocks)
- Ensure coordination across government agencies, industry, and international entities

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