



GreenWood Resources

Global Investment and Asset Management Company for
Plantation Forestry and Biomass Feedstock



Workshop
Vancouver, WA
October 15, 2015

**Poplar Farms as a Wastewater
Management Tool**

- Site Preparation
- Multiple rotation operational stand at Lower Columbia Tree Farm (LCTF)
- Prepped for planting
- Alleyways cultivated for new planting bed
- Minimal mechanical work in previous stump row



AHB/IBSS demonstration site

- Plant stock – cuttings
- Mississippi location
- Material in back is good quality
- Material in front is reject (too small caliper)



LCTF

- Whip planting stock
- Butt diameter < 1.3 inches



LCTF

- Plant stock – poles
- Butt diameter 2 – 3 inches



LCTF

- Two month old cutting with root and shoot development



Riverbend

- Landfill phytoremediation
- August of 2nd growing season
- Whip planting stock
- OP367 Varietal
- Drip Irrigation
- 5.5 feet X 13 feet



Riverbend

- SEVERE RUST
- September of 2nd growing season
- Whip planting stock
- OP367 Varietal
- Drip Irrigation
- 5.5 feet X 13 feet



Riverbend

- Close up of rust



AHB demonstration site

- August of establishment year
- Proprietary DxM varietal
- High density biofuel planting
- 3 feet by 10 feet





- Operational stand
- Two varieties
- Proprietary *p. generosa* (TxD or DxT) varieties

LCTF

- May of 5th growing season
- Operational stand
- 9 feet X 15 feet spacing (equivalent)
- Proprietary DxM varietal



Gervais

- Municipal wastewater site
- June of third growing season
- 14 feet X 14 feet
- Micro- sprinklers at 28 feet X 28 feet
- Trees have been pruned
- Proprietary DxM varietal



Gervais

- October of third growing season
- Trees have been pruned again
- Proprietary DxM varietal



Gervais

- August of 4th growing season
- Multiple varieties



Gervais

- August of 4th growing season
- Multiple varieties



Woodburn

- Municipal wastewater site
- 14+ year stand
- 6.5 feet X 13 feet
- Stands have differentiated due to high density stocking & stand age
- Micro sprinkler irrigated
- Bio-solid application on portions of poplar plantings
- 52-225 varietal



Woodburn

- 14+ year stand
- 6.5 feet X 13 feet
- Stands have differentiated due to high density stocking & stand age
- Micro sprinkler irrigated
- Bio-solid application on portions of poplar plantings
- 15-29 varietal



Woodburn

- Disked, tilled, and herbicides applied
- Irrigation system in place and planting locations marked
- May planting



Woodburn

- Newly planted cutting
- Weed seeds sprouting
- May



Woodburn

- Establishment year
- July



Woodburn

- Establishment year
- August



Woodburn

- Establishment year
- August



Woodburn

- Establishment year
- October



Woodburn

- Replant (July) next to dead original cutting
- October picture



MWMC

- Gun type irrigation
- 14 feet by 14 feet



MWMC

- Gun type irrigation
- 14 feet by 14 feet



MWMC

- MWMC
- Near end of 6th growing season



- Harvesting



- Post harvest



LCTF

- Harvesting
- 12 year old trees



LCTF

- Harvesting
- 12 year old trees



