

2014 Marginal Site Agronomic Protocol

January 19, 2014

G5: Perennial Grass – Monoculture Switchgrass	
Planting	No planting planned: evaluate stands once switchgrass is 2 to 4 inches tall to determine if replanting is necessary. Use the protocol of Vogel & Masters (2001) to evaluate stand counts. Anything >40% will be considered successful.
Cover Crop	N/A
Tillage	None
Harvest	2014- Harvest post killing frost (or after Oct 1)
Fertilization	No fertilizer in 2014 to discourage annual weeds
Weed Control	<p>As needed: Glyphosate in plots with quackgrass issues</p> <p>Pre-emergence (options):</p> <ul style="list-style-type: none"> • Prowl (1-2pts) • Paramount (5.3 to 8 oz/ac) • 2,4-D • Glyphosate or Atrazine (see WI note) <p>Post-emergence (options):</p> <ul style="list-style-type: none"> • 2,4-D ester 0.61 l ha⁻¹ (8oz ac⁻¹)
Micro-plots	No micro-plots in 2014 (initiate 2015) – maintain consistency with BCSE protocol
MI – Notes	
WI - Notes	Atrazine restriction rules may apply

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G6: Perennial Grass – Monoculture Miscanthus	
Planting	Replant as needed in May or early June to fill gaps caused by poor germination and/or winter kill <ul style="list-style-type: none"> Row spacing: 30" Plant spacing (in row): 30" Plant rhizomes ~4" deep
Cover Crop	N/A
Tillage	None
Harvest	2014- Harvest post killing frost (or after Oct 1)
Fertilization	No fertilizer in 2014 to discourage annual weeds
Weed Control	<p>As needed</p> <p>Pre-emergence (options):</p> <ul style="list-style-type: none"> Prowl (1-2pts) Paramount (5.3 to 8 oz/ac) 2,4-D Glyphosate or Atrazine (see WI note) <p>Post-emergence (options):</p> <ul style="list-style-type: none"> 2,4-D ester 0.61 l ha⁻¹ (8oz ac⁻¹)
Micro-plots	No micro-plots in 2014 (initiate 2015) – maintain consistency with BCSE protocol
MI – Notes	
WI - Notes	Atrazine restriction rules may apply

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G7: Perennial Grass – Multi-species	
Planting	No planting planned: evaluate stands once grasses are 2 to 4 inches tall to determine if replanting is necessary. Use the protocol of Vogel & Masters (2001) to evaluate stand counts. Anything >40% will be considered successful.
Cover Crop	N/A
Tillage	None
Harvest	2014- Harvest post killing frost (or after Oct 1)
Fertilization	No fertilizer in 2014 to discourage annual weeds
Weed Control	<p>As needed: Scout for Canada rye, limit herbicide options accordingly</p> <p>Pre-emergence (options):</p> <ul style="list-style-type: none"> • Prowl (1-2pts) • Paramount (5.3 to 8 oz/ac) • 2,4-D • Glyphosate or Atrazine (see WI note) <p>Post-emergence (options):</p> <ul style="list-style-type: none"> • 2,4-D ester 0.61 l ha⁻¹ (8oz ac⁻¹)
Micro-plots	No micro-plots in 2014 (initiate 2015) – maintain consistency with BCSE protocol
MI – Notes	
WI - Notes	Atrazine restriction rules may apply

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G8: Short-rotation trees (Poplars)	
Planting	Replant as needed in April to fill gaps caused by poor germination and/or winter kill <ul style="list-style-type: none"> • Row spacing: 8' • Plant spacing (in row): 5' • Plant poplar "whips" as close to flush with the soil surface as possible.
Cover Crop	N/A
Tillage	None
Harvest	No harvest 2014
Fertilization	No fertilizer in 2014 to discourage annual weeds
Weed Control	<p>As needed</p> <p>Pre-emerge: before "bud break"</p> <ul style="list-style-type: none"> • 3 qts/ac – Pendulum Aquacap • 5.6 dry oz/ac – Scepter • Spray mix per 25-30gallons water
Micro-plots	No micro-plots in 2014
MI – Notes	
WI - Notes	

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G9: Old Field Community	
Planting	N/A
Cover Crop	N/A
Tillage	None
Harvest	2014- Harvest post killing frost (or after Oct 1)
Fertilization	Split plot in half: no-N one side, 56 kg N ha ⁻¹ the other side
Weed Control	None
Micro-plots	N/no-N micro-plot
MI – Notes	
WI - Notes	

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G10: Native Prairie	
Planting	No planting planned: evaluate stands once plants can be accurately identified to determine if replanting is necessary. Use the protocol of Vogel & Masters (2001) to evaluate stand counts. Anything >40% will be considered successful.
Cover Crop	N/A
Tillage	None
Harvest	2014- Harvest post killing frost (or after Oct 1)
Fertilization	No fertilizer in 2014 to discourage annual weeds
Weed Control	In season weed control by clipping if necessary
Micro-plots	No micro-plots in 2014 (initiate 2015) – maintain consistency with BCSE protocol
MI – Notes	
WI - Notes	

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G11: Undisturbed Check	
Planting	None
Cover Crop	N/A
Tillage	None
Harvest	TBD
Fertilization	TBD
Weed Control	None
Micro-plots	TBD
MI – Notes	
WI – Notes	

References

Vogel, K. P., & Masters, R. A. (2001). Frequency grid-a simple tool for measuring grassland establishment. *Journal of Rangeland Management*, 54(6), 653–655.