



Alger and Delta counties

Variety Trials
Other

Switchgrass biomass variety trial

MICHIGAN
AGRICULTURAL
EXPERIMENT STATION

MICHIGAN STATE
UNIVERSITY
EXTENSION

Counties	Alger, Delta
Cooperator	Upper Peninsula Experiment Station, UPTIC and Herioux Farms
Nearest town	Chatham, Escanaba and Bark River
Soil type	Eben very cobbly sandy loam
Tillage	Fall plowed, disked, field cultivated
Previous crop	Fallow
Planting date	See table
Seeding rate	2 lbs/A pure live seed
Fertilizer	175 lbs/A 46-0-0
Herbicide	1 qt. Atrazine 4l, 1 pt. Dicamba applied at greenup
Row width	6 inches
Variety	See tables
Harvest date	See tables
Exp. design	RCBD, 4 replications

UP Experiment Station, Chatham				
Variety	2007 total	2008 total	2009 total	3 yr. total
Blackwell	2.38	5.04	3.58	11.01
Carthage	2.00	4.55	2.49	9.05
Cave-in-Rock	2.26	5.33	3.52	11.11
Dacotah	1.20	2.99	1.81	6.01
Forestburg	2.21	3.58	2.22	8.02
Nebraska 28	1.82	3.61	2.08	7.52
Pathfinder	1.82	3.68	2.14	7.65
Shawnee	1.73	4.15	2.75	8.64
Sunburst	1.91	3.36	1.78	7.06
Mean	1.93	4.03	2.48	8.5
LSD @0.05	0.6	0.8	1.0	2.0
C.V. %	19.6	14.3	26.2	16.2

Seeding date: 06/05/06

Harvest dates: 10/24/07; 10/24/08; 10/29/09

Results

Based on a three-year total yield, "Cave-in-Rock" had the highest yield (4.60 dry matter tons/A/year) and "Dacotah" the lowest (2.10 dry matter tons/A/year) in all three locations. Switchgrass yielded the highest at Herioux Farms in Bark River (Menominee County) and the switchgrass yield tended to increase further south in the UP region.

Sponsored by MAES and MSUE.

Purpose

Evaluate the yield potential of switchgrass varieties for biomass yield within the Upper Peninsula region.

UP Tree Improvement Exp. Station, Escanaba				
Variety	2007 total	2008 total	2009 total	3 yr. total
Blackwell	3.37	4.57	4.46	12.41
Carthage	2.43	3.97	3.65	10.06
Cave-in-Rock	2.95	5.06	4.88	12.89
Dacotah	1.61	2.56	2.02	6.20
Forestburg	2.37	4.30	3.85	10.54
Nebraska 28	2.59	4.82	3.54	10.95
Pathfinder	2.71	4.59	3.77	11.08
Shawnee	1.68	4.03	3.67	9.37
Sunburst	2.24	4.38	3.79	10.41
Mean	2.44	4.25	3.74	10.43
LSD @0.05	0.8	1.1	1.3	2.5
C.V. %	21.4	18.0	24.6	16.3

Seeding date: 07/06/06

Harvest dates: 11/01/07; 10/28/08; 10/28/09

Herioux Farms, LLC., Schaffer				
Variety	2007 total	2008 total	2009 total	3 yr. total
Blackwell	3.47	6.61	6.54	16.64
Carthage	3.22	6.24	5.77	15.24
Cave-in-Rock	3.16	7.07	7.19	17.44
Dacotah	1.98	2.79	1.87	6.65
Forestburg	2.81	4.73	5.26	12.81
Nebraska 28	2.62	4.00	3.53	10.15
Pathfinder	2.63	4.41	3.62	10.67
Shawnee	2.30	4.82	5.56	12.68
Sunburst	2.71	4.37	4.61	11.70
Mean	2.77	5.00	4.88	12.66
LSD @0.05	0.5	1.2	1.3	2.0
C.V. %	13.3	16.2	18.3	10.5

Seeding date: 07/10/06

Harvest dates: 11/01/07; 10/28/08; 10/28/09

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