

**Generalized Performance of Preemergence Herbicides
on Various Willow Clones
Tested in 2007 - 2010 in Escanaba, Michigan**

Treatment		Height	Survival	Weeds
Goal & Princep Group	Goal-1.0 (2010)	1.469	1.009	0.875
	Goal-2.0 (2010)	1.568	1.000	0.500
	Princep-2.0 (2010)	0.802	0.706	1.000
	Princep-4.0 (2010)	0.867	0.477	1.000
	Goal-1.0+Princep-2.0 (2008)	1.099	0.818	0.263
	Goal-2.0+Princep-2.0 (2008)	1.127	0.831	0.158
	Goal-1.0+Princep-2.6 (2007)	0.782	0.767	☒
	Goal-2.0+Princep-2.6 (2007)	0.790	0.478	☒
	Goal-1.0+Princep-4.0 (2008)	1.036	0.740	0.118
	Goal-2.0+Princep-4.0 (2008)	1.299	0.714	0.092
	Goal-1.0+Princep-5.2 (2007)	0.781	0.389	☒
	Goal-2.0+Princep-5.2 (2007)	0.721	0.322	☒
Pendulum Group	Goal-1+Prowl-1.9 (2010)	1.590	1.018	0.750
	Prowl-1.9 (2010)	1.558	1.028	1.000
	Prowl-3.8 (2010)	1.403	0.991	0.938
	Scepter-0.25+Pendulum-2.0 (2007)	0.360	0.578	☒
	Scepter-0.25+Pendulum-4.0 (2007)	0.370	0.489	☒
	Scepter-0.50+Pendulum-2.0 (2007)	0.252	0.356	☒
	Scepter-0.50+Pendulum-4.0 (2007)	0.260	0.244	☒
Solicam Group	Solicam-0.6 (2008)	1.220	1.013	0.842
	Solicam-1.2 (2008)	1.180	1.039	0.855
	Solicam-2.0 (2009)	0.961	0.981	0.481
	Solicam-2.0 (2010)	1.337	0.945	1.000
	Solicam-2.4 (2008)	1.204	1.039	0.750
	Solicam-3.6 (2008)	1.271	0.948	0.566
	Solicam-4.0 (2010)	1.279	0.670	0.625
	Solicam-4.0 (2009)	0.922	0.985	0.284
	Solicam-6.0 (2009)	0.940	0.957	0.143
	Solicam-8.0 (2009)	0.929	0.918	0.215
	Solicam-12.0 (2009)	0.914	0.881	0.260
	Solicam-16.0 (2009)	0.890	0.797	0.301
SureGuard Group	Sureguard-0.125 (2009)	0.976	1.000	0.022
	Chateau-0.188 (2010)	1.419	0.844	0.938
	Sureguard-0.25 (2009)	0.980	0.994	0.136
	Chateau-0.375 (2010)	1.289	0.651	0.813
	Sureguard-0.375 (2009)	0.829	0.967	0.000
	Sureguard-0.50 (2009)	0.969	0.961	0.075
	Sureguard-0.75 (2009)	0.904	0.941	0.055
	Sureguard-1.0 (2009)	0.880	0.966	0.041
Other Chemicals	Dual-1.9 (2010)	1.337	1.028	1.000
	Dual-3.8 (2010)	1.493	1.000	0.625
	Dual-1.9+Prowl-1.9 (2010)	1.641	1.018	0.813
	Galigan-1 (2010)	1.429	1.000	1.000
	Galigan-2 (2010)	1.415	1.028	1.000
	Karmex-2 (2010)	1.453	0.752	0.813
	Karmex-4 (2010)	1.407	0.330	0.250

Herbicide names are followed by pounds of active ingredient applied per acre and (year tested). Performance is reported as a proportion of the response of the unweeded control plots (1=same as control, <1=less than control, >1=greater than control). Red shaded cells are significantly worse than control and green shaded cells are significantly better than control.

Miller, R.O.* and B.A. Bender. 2010. Four year of herbicide trials for shrub willow biomass production systems in the Upper Peninsula of Michigan. In: Short Rotation Woody Crops in a Renewable Energy Future; Challenges and Opportunities. Syracuse, NY, October 17-19, 2010. *rmiller@msu.edu