Great Lakes Bioenergy Research Center (GLBRC) Marginal Lands Experiment (MLE)

Table 1. MLE sites overview: Soil, climate, land use, and pre-settlement vegetation

Site	Soil taxonomic class*	Latitude	Precipitation, temperature (NOAA Station)**	Previous land use***	Pre-European settlement vegetation
Lux Arbor (MI-S)	Typic Hapludalf	42.476	33.15", 48.2 F (Battle Creek)	Idle for 20 years; alfalfa or row crops prior	oak-hickory forest
Lake City (MI-C)	Oxyaquic Haplorthod	44.310	31.98",43.7 F (Houghton Lake)	unimproved pasture	hemlock-white pine forest
Escanaba (MI-N)	Inceptic Hapludalf	45.765	28.67", 41.6F (Escanaba)	unimproved pasture	beech-sugar maple-hemlock forest
Oregon (WI-S) (Retired after 2018)	Typic Hapludalf	42.966	37.27", 46.7 F (WI Arboretum)	unmanaged	burr oak, hickory, and other oak
Hancock (WI-C)	Typic Udipsamment	44.119	31.59",46.4 F (Oshkosh)	unmanaged for at least 10 years	oaks - black, burr, white, and undergrowth
Rhinelander (WI-N)	Entic Haplorthod	45.667	32.23", 39.6 F (North Pelican)	non-irrigated small grains on center pivot field corners	white pine, yellow pine, aspen, birch, tamarack

*From: Kasmerchak, C. S. and R. Schaetzl. 2018. Soils of the GLBRC Marginal Land Experiment (MLE) Sites. Kellogg Biological Station Long-term Ecological Research Special Publication. Zenodo. http://doi.org/10.5281/zenodo.2578238

** 30-year averages (1981-2010) of precipitation and temperature; data are from the NOAA station in parentheses and are available at https://www1.ncdc.noaa.gov/pub/data/normals/1981-2010/

***For a more detailed description, see https://lter.kbs.msu.edu/docs/glbrc/michigan-marginal-land-sites-history.pdf and https://lter.kbs.msu.edu/docs/glbrc/wisconsin-marginal-land-sites-history.pdf

For description of soil physical, morphological and chemical attributes, see Kasmerchak, C. S. and R. Schaetzl. 2018. Soils of the GLBRC Marginal Land Experiment (MLE) Sites. Kellogg Biological Station Long-term Ecological Research Special Publication. Zenodo. http://doi.org/10.5281/zenodo.2578238. Chemical data of soils collected from the excavated pits in this study are available at https://data.sustainability.glbrc.org/datatables/579

For additional soil data from surface and deep cores, see https://data.sustainability.glbrc.org/datatables/438 and https://data.sustainability.glbrc.org/datatables/495

Assembled in 2014; revised June 2019