Title	Data from: Plant Tissue characteristics of *Miscanthus x giganteus*
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Abstract	As part of a study identifying relationships between environmental variables and insect distributions within a bioenergy crop, giant miscanthus (Miscanthus x giganteus) samples were collected in October 2016 at 33 locations within a field in southeast Georgia, USA. At each location, one plant sample was collected every 3-4 meters along a 15-m transect, resulting in 5 replicates per sampling location. The plant samples were separated into leaves and stems, air-dried, and ground. The chemical composition of the ground material was assessed by measuring total carbon and nitrogen, total macro- and micronutrients (aluminum, arsenic, boron, calcium, cadmium, cobalt, chromium, copper, iron, potassium, magnesium, manganese, molybdenum, sodium, nickel, phosphorus, lead, sulfur, selenium, silicon, titanium, vanadium, and zinc) using Inductively Coupled Plasma with Optical Emission Spectroscopy (ICP-OES), and optical characteristics of the water extractable organic matter using UV-Visible and Fluorescence Excitation Emission Matrix (EEM) spectroscopy. This dataset will be useful to identify relationships between the chemical composition of giant miscanthus tissues and pest distributions within a bioenergy crop field.
Notes	1), MDL = Minimum Detection Limit; 2), if XX_Conc_True is < MDL for XX, then XX_Conc_MDL provides XX_MDL, where XX is the element name (e.g., Al, As, B, etc.); 3), if XX_Conc_True < 0, then negative values were replaced with 0.

FIELD NAME	DESCRIPTION
ID_Sym	Text string describing the symbol ID used by investigators
SiteID	Site number
Rep	Replication number
FieldID	Field number
Longitude	Easting (Projected: NAD 1983; UTM 17N; meters; EPSG 26917)
Latitude	Northing (Projected: NAD 1983; UTM 17N; meters; EPSG 26917)
Longitude_DD	Longitude (Geographic: WGS84; decimal degrees; EPSG 4326)
Latitude_DD	Latitude (Geographic: WGS84; decimal degrees; EPSG 4326)
ID_Key	Unique location identifier
L_S	Plant tissue part: L = leaf; S = stem
Al_MDL	Aluminum MDL (mg/kg)
Al_Conc_MDL	Aluminum concentration (mg/kg) with values <MDL replaced with the MDL
Al_Conc_True	Aluminum concentration (mg/kg) with true values
As_MDL	Arsenic MDL (mg/kg)
As_Conc_MDL	Arsenic concentration (mg/kg) with values <MDL replaced with the MDL
As_Conc_True	Arsenic concentration (mg/kg) with true values
B_MDL	Boron MDL (mg/kg)
B_Conc_MDL	Boron concentration (mg/kg) with values <MDL replaced with the MDL
B_Conc_True	Boron concentration (mg/kg) with true values
Ca_MDL	Calcium MDL (mg/kg)
Ca_Conc_MDL	Calcium concentration (mg/kg) with values <MDL replaced with the MDL
Ca_Conc_True	Calcium concentration (mg/kg) with true values
Cd_MDL	Cadmium MDL (mg/kg)
Cd_Conc_MDL	Cadmium concentration (mg/kg) with values <MDL replaced with the MDL

Cd_Conc_True	Cadmium concentration (mg/kg) with true values
Co_MDL	Cobalt MDL (mg/kg)
Co_Conc_MDL	Cobalt concentration (mg/kg) with values <MDL replaced with the MDL
Co_Conc_True	Cobalt concentration (mg/kg) with true values
Cr_MDL	Chromium MDL (mg/kg)
Cr_Conc_MDL	Chromium concentration (mg/kg) with values <MDL replaced with the MDL
Cr_Conc_True	Chromium concentration (mg/kg) with true values
Cu_MDL	Copper MDL (mg/kg)
Cu_Conc_MDL	Copper concentration (mg/kg) with values <MDL replaced with the MDL
Cu_Conc_True	Copper concentration (mg/kg) with true values
Fe_MDL	Iron MDL (mg/kg)
Fe_Conc_MDL	Iron concentration (mg/kg) with values <MDL replaced with the MDL
Fe_Conc_True	Iron concentration (mg/kg) with true values
K_MDL	Potassium MDL (mg/kg)
K_Conc_MDL	Potassium concentration (mg/kg) with values <MDL replaced with the MDL
K_Conc_True	Potassium concentration (mg/kg) with true values
Mg_MDL	Magnesium MDL (mg/kg)
Mg_Conc_MDL	Magnesium concentration (mg/kg) with values <MDL replaced with the MDL
Mg_Conc_True	Magnesium concentration (mg/kg) with true values
Mn_MDL	Manganese MDL (mg/kg)
Mn_Conc_MDL	Manganese concentration (mg/kg) with values <MDL replaced with the MDL
Mn_Conc_True	Manganese concentration (mg/kg) with true values
Mo_MDL	Molybdenum MDL (mg/kg)
Mo_Conc_MDL	Molybdenum concentration (mg/kg) with values <MDL replaced with the MDL
Mo_Conc_True	Molybdenum concentration (mg/kg) with true values
Na_MDL	Sodium MDL (mg/kg)
Na_Conc_MDL	Sodium concentration (mg/kg) with values <MDL replaced with the MDL
Na_Conc_True	Sodium concentration (mg/kg) with true values
Ni_MDL	Nickel MDL (mg/kg)
Ni_Conc_MDL	Nickel concentration (mg/kg) with values <MDL replaced with the MDL
Ni_Conc_True	Nickel concentration (mg/kg) with true values
P_MDL	Phosphorus MDL (mg/kg)
P_Conc_MDL	Phosphorus concentration (mg/kg) with values <MDL replaced with the MDL
P_Conc_True	Phosphorus concentration (mg/kg) with true values
Pb_MDL	Lead MDL (mg/kg)
Pb_Conc_MDL	Lead concentration (mg/kg) with values <MDL replaced with the MDL
Pb_Conc_True	Lead concentration (mg/kg) with true values
S_MDL	Sulfur MDL (mg/kg)
S_Conc_MDL	Sulfur concentration (mg/kg) with values <MDL replaced with the MDL
S_Conc_True	Sulfur concentration (mg/kg) with true values
Se_MDL	Selenium MDL (mg/kg)
Se_Conc_MDL	Selenium concentration (mg/kg) with values <MDL replaced with the MDL
Se_Conc_True	Selenium concentration (mg/kg) with true values
Si_MDL	Silicon MDL (mg/kg)
Si_Conc_MDL	Silicon concentration (mg/kg) with values <MDL replaced with the MDL
Si_Conc_True	Silicon concentration (mg/kg) with true values
Ti_MDL	Titanium MDL (mg/kg)

Ti_Conc_MDL	Titanium concentration (mg/kg) with values <MDL replaced with the MDL
Ti_Conc_True	Titanium concentration (mg/kg) with true values
V_MDL	Vanadium MDL (mg/kg)
V_Conc_MDL	Vanadium concentration (mg/kg) with values <MDL replaced with the MDL
V_Conc_True	Vanadium concentration (mg/kg) with true values
Zn_MDL	Zinc MDL (mg/kg)
Zn_Conc_MDL	Zinc concentration (mg/kg) with values <MDL replaced with the MDL
Zn_Conc_True	Zinc concentration (mg/kg) with true values
Dry_weight	Dry weight of plant tissue (g)
Stem_l	Length of stem (cm)
N_perc	Nitrogen concentration (percent of dry weight)
C_perc	Carbon concentration (percent of dry weight)
Abs_254	Absorbance at 254nm (m-1)
Abs_254:365	Ratio of absorbance at 254nm to 365nm
Abs_280:465	Ratio of absorbance at 280nm to 465nm
SR	Spectral slope ratio; spectral slope from 275-295nm divided by the spectral slope from 3
FI	Fluorescence Index; ratio of emission intensities at 470nm and 520nm, obtained at excita
HIX	Humification Index, area under the emission spectra from 435-480nm divided by the pea
BIX	Biological Index, ratio of emission intensity at 380nm divided by 430nm, at excitation 31(
b_a	Freshness Index, ratio of emission intensity at 380nm divided by the maximum emission i
Peak_A	Fluorescene Intensity at an excitation wavelength of 260nm and emission wavelength of
Peak_C	Fluorescene Intensity at an excitation wavelength of 340nm and emission wavelength of
Peak_M	Fluorescene Intensity at an excitation wavelength of 300nm and emission wavelength of
Peak_B	Fluorescene Intensity at an excitation wavelength of 275nm and emission wavelength of
Peak_T	Fluorescene Intensity at an excitation wavelength of 275nm and emission wavelength of

k area from 300-345nm plus 435-480nm, at excitation 254nm.