	Variables (units)	Period	Data sets	References
Climate data	Monthly mean temperature (°C) and monthly mean diurnal temperature range (°C) Monthly mean precipitation (mm) and number of days per month with precipitation	1901–2012	Model "climatic monthly", software BioSIM	Environment Canada (2013)
	Monthly mean of wind speed ($\mathrm{m\,s^{-1}}$)	1969–2010		
	Monthly mean of total cloud cover percentage Monthly mean convectible available potential energy ($\mathrm{J\,kg^{-1}}$)	1901–2012	20th century reanalysis	Compo et al. (2011)
	Lightning flashes ($\mathrm{number\,day^{-1}\,km^{-2}}$)	1999–2010	Canadian lightning detection network	Orville et al. (2011)
Environmental constraints	Soil particle size distribution and volume fraction of coarse fragments (%)	–	ISRIC – World Soil Information	Hengl et al. (2014)
	Elevation (m) and slope (°)	–	Canada 3-D	Natural Resources Canada (2007)
	Water fraction	–	National Hydro Network (NHN)	Natural Resources Canada (2010)
	Atmospheric CO_2 concentrations (ppm)	–	Composite CO_2 time series	Keeling et al. (2009), Pfeiffer et al. (2013)