



**Supplementary Figure 1.** Distribution of data represented by normal quantile plot (top), outlier box plot (middle) and histogram (bottom) for three site-year environments (Montcalm Research Center (MRC) in 2014 and 2015, and Botany and Plant Pathology Farm (BPP) in 2015) and eight traits: A. Total tuber yield (TTY) in g/plant, B. average tuber weight (ATW) in g, C. tuber set (TS) as number of tubers per plant, D. plant height (Height) in cm, E. plant vigor (Vigor) 1: low vigor, 5: high vigor, F. specific gravity (SPGR), G. number of inflorescences per plant (Infl/plant), and H. tuber shape (Shape) 1=compressed, 2=round, 3= oval, 4=oblong and 5= long.