

Natural Variability Estimation

24 October, 2018



Variability of Crops' Compositional Characteristics: What Do Experimental Data Show? Claudia Paoletti, Stefania Favilla, Alessandro Leo, Franco M. Neri, Hermann Broll, and Antonio Fernandez. *Journal of Agricultural and Food Chemistry* 2018 66 (36), 9507-9515.

- Estimation of natural variability is important
- Historical composition data is of value for natural variability estimation
- We continue to contribute technical expertise to global efforts to use historical data

Key considerations: dataset



- All potential datasets are a sample of natural variation. The representativeness of that sample is key to estimating true natural variability
 - Requires genetic and environmental diversity
 - Insufficiently diverse samples will underestimate natural variation

Key considerations: goal



- Goal of interval is exclusion of erroneous values
 - All conventionally-bred maize and soy are considered to have a History of Safe Use
 - Accurate extreme values are an important part of the natural variation
 - Methods should be chosen to remove erroneous values with minimal loss of true biological variation

Key considerations: method



