

Supplementary Figures

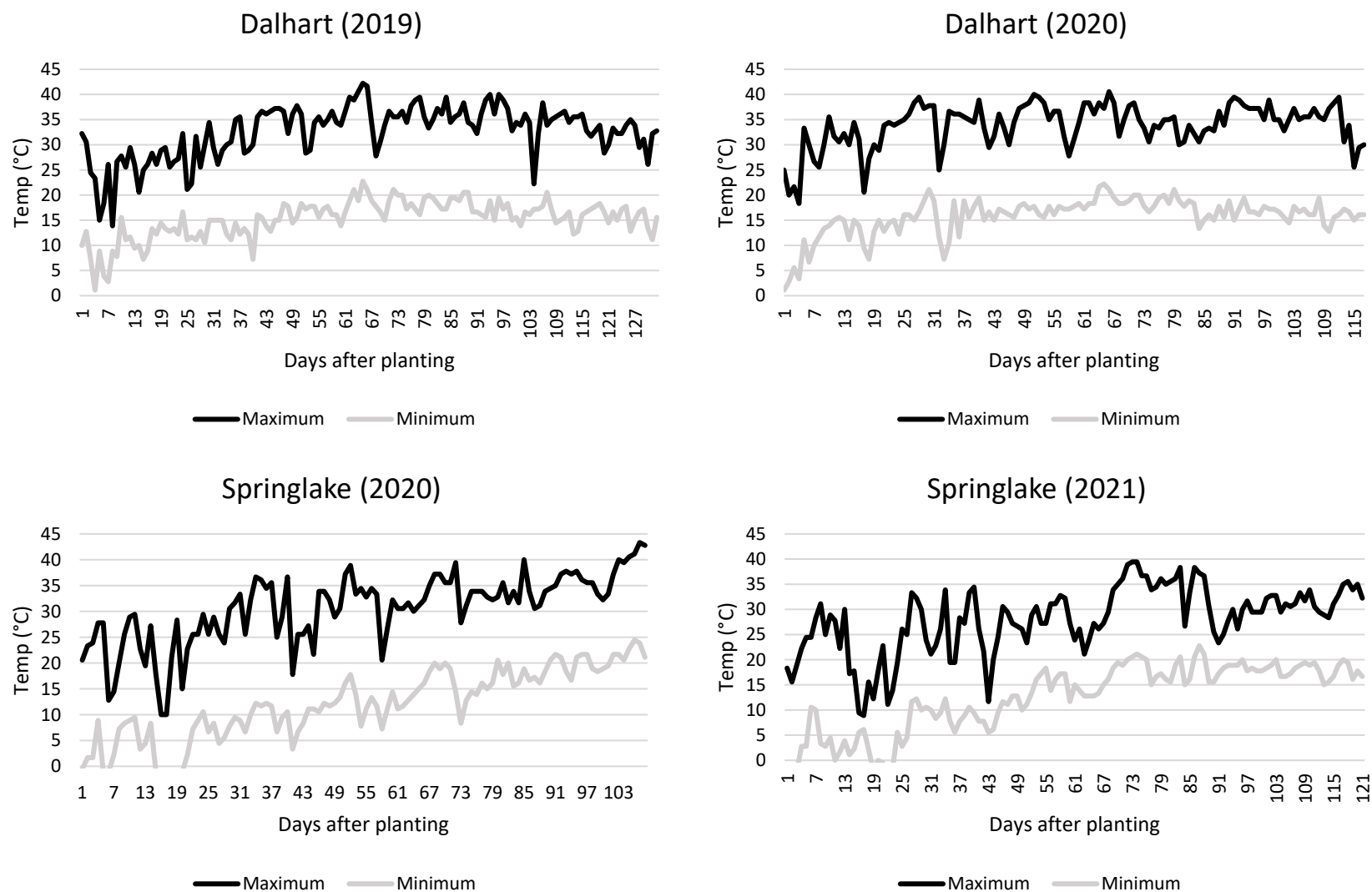


Figure S1. Temperature conditions during the potato crop period in Dalhart (2019 and 2020) and Springlake (2020 and 2021), Texas.

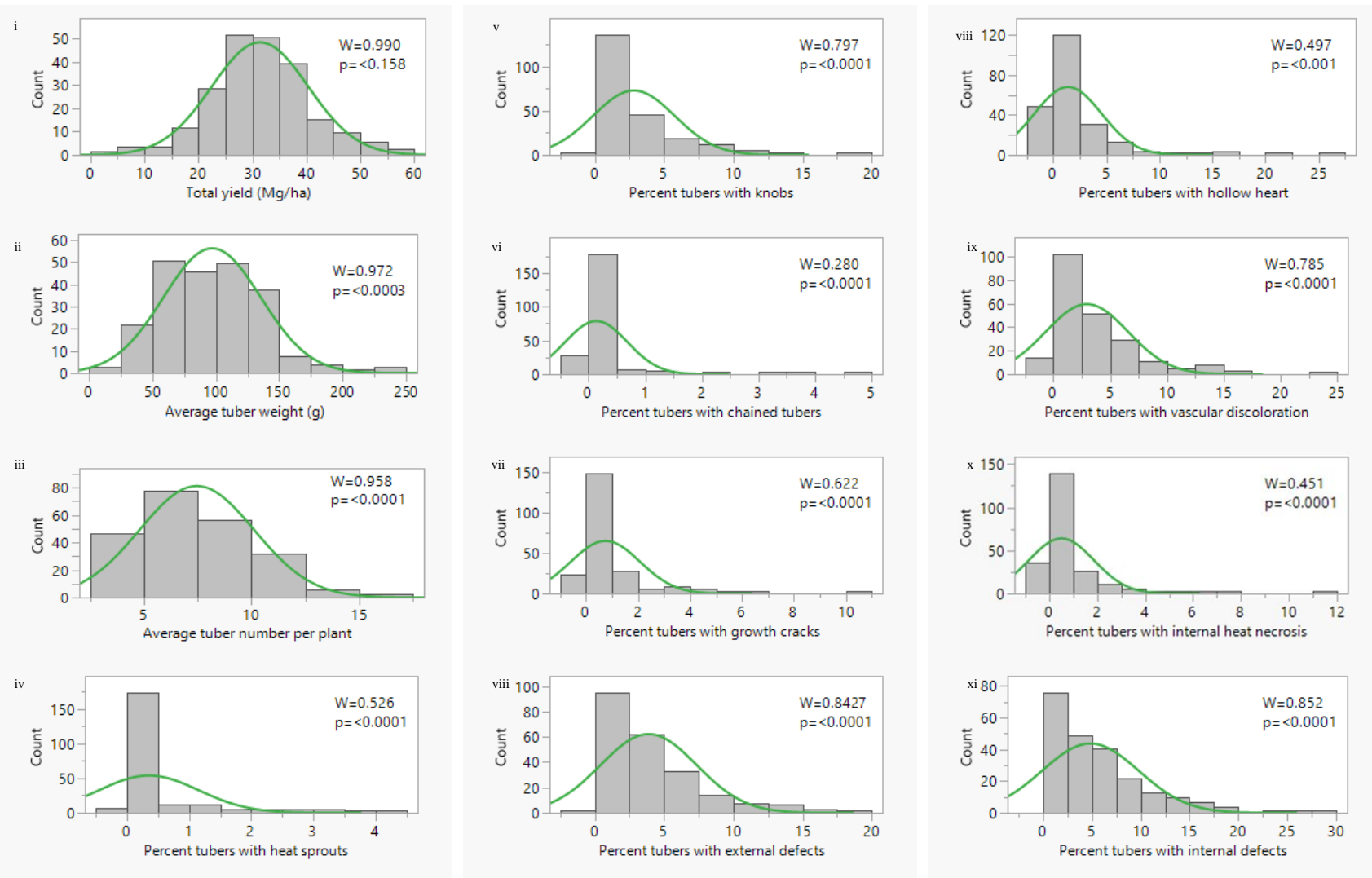
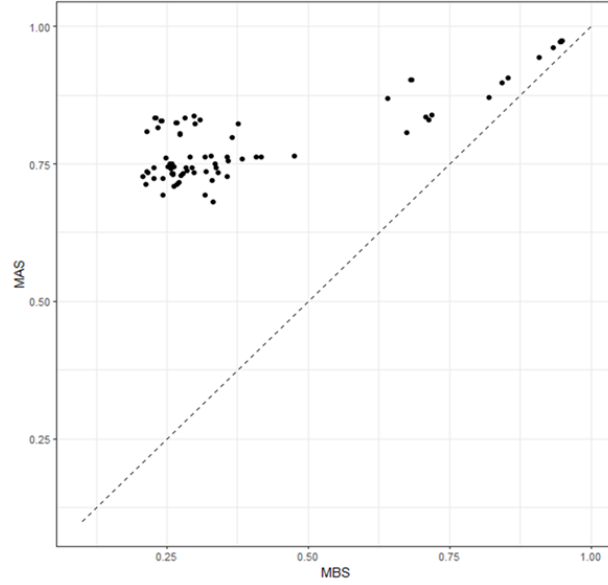
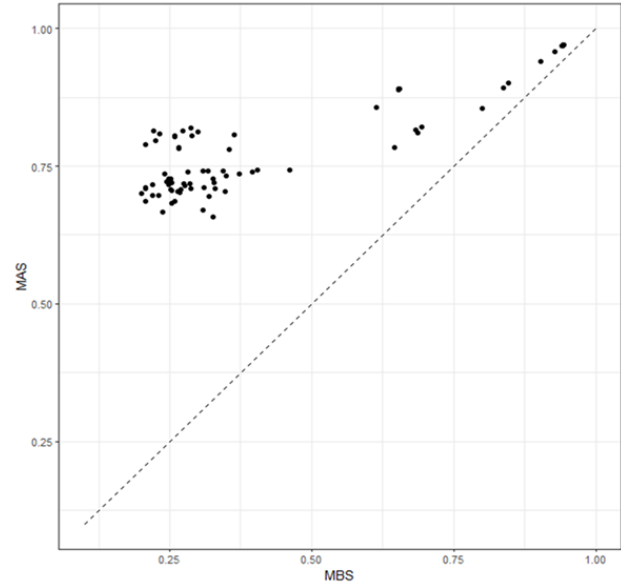


Figure S2. Distribution of potato yield and tuber defect traits measured in 217 potato genotypes in Dalhart (2019 and 2020) and Springlake (2020 and 2021).

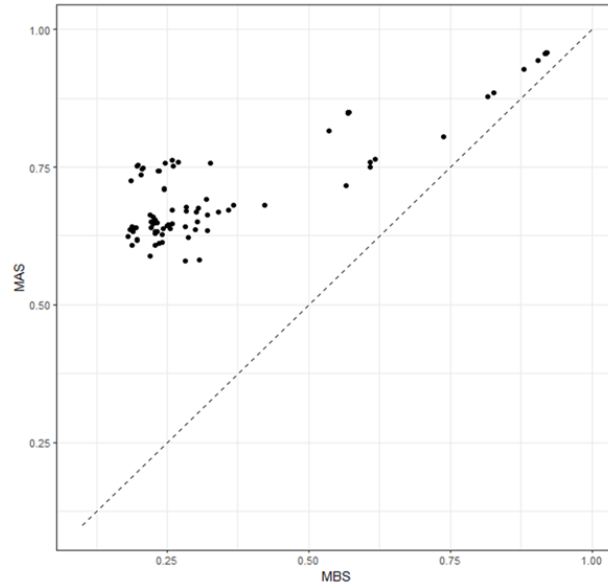
Reliability of total yield



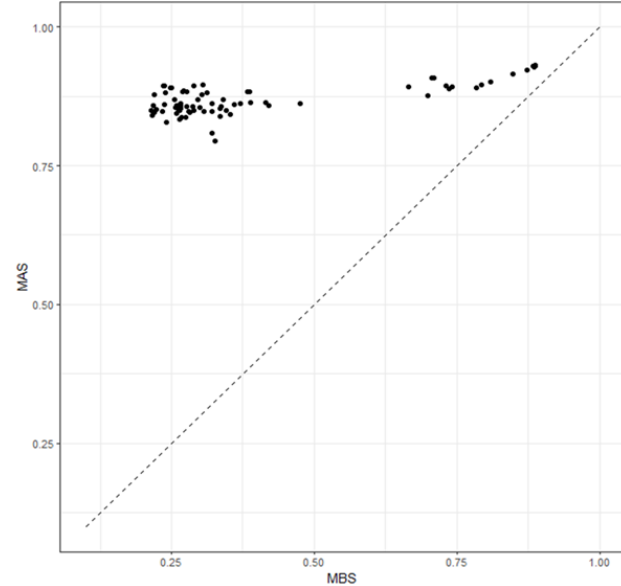
Reliability of yield without culls



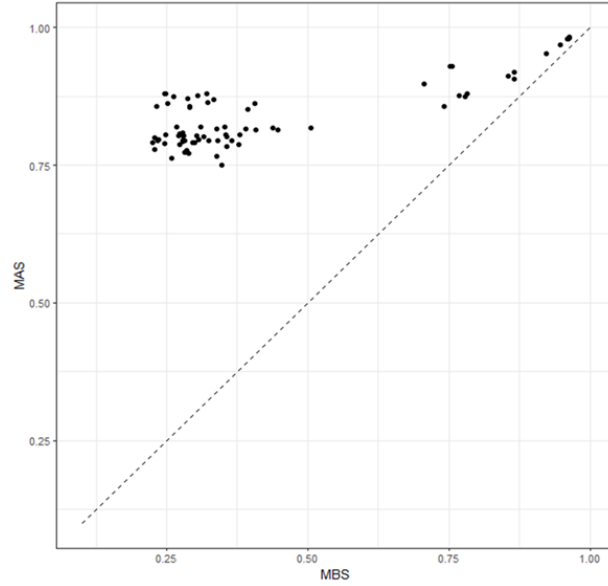
Reliability of culls yield



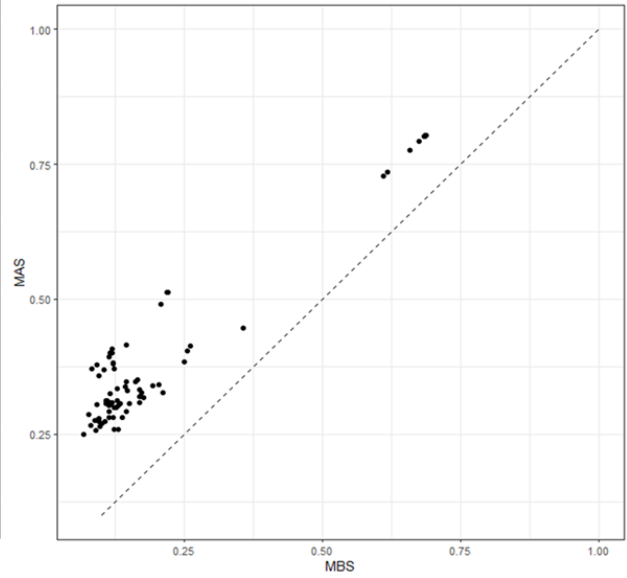
Reliability of average tuber weight



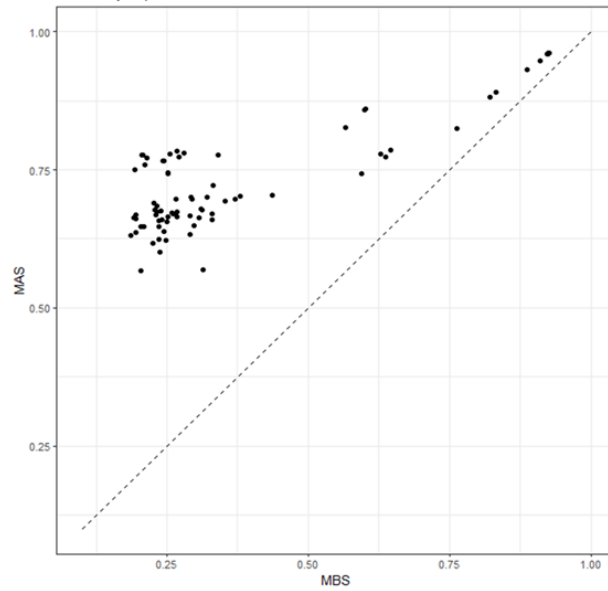
Reliability of tuber number per plant



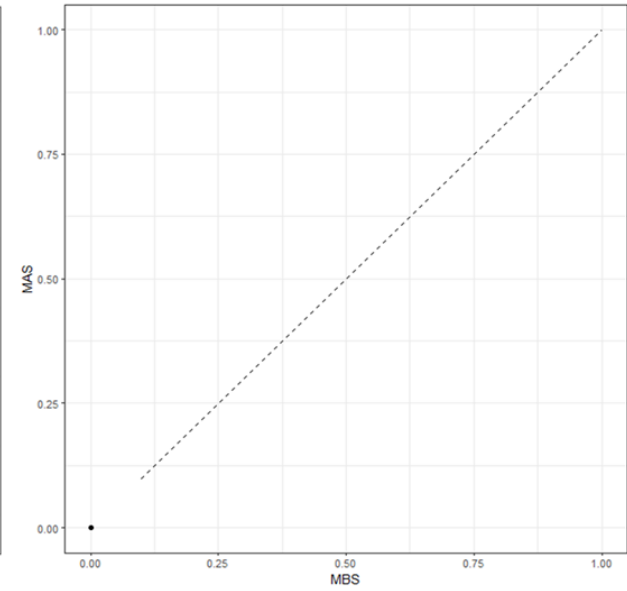
Reliability of percent tubers with heat sprouts



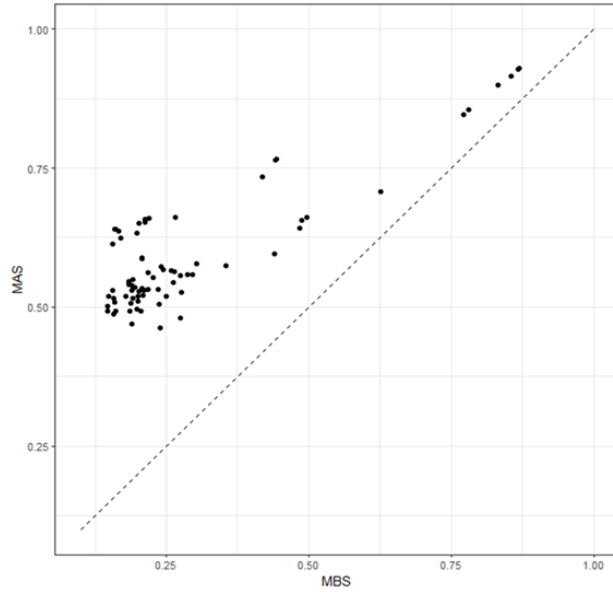
Reliability of percent tubers with knobs



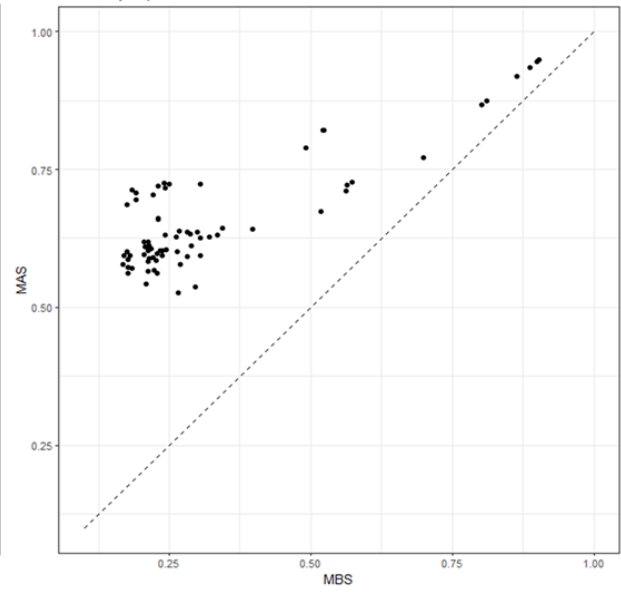
Reliability of percent tubers with chained tubers



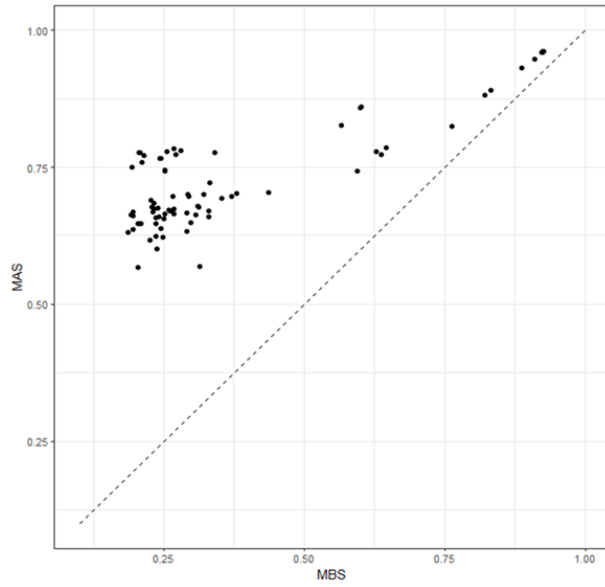
Reliability of percent tubers with growth cracks



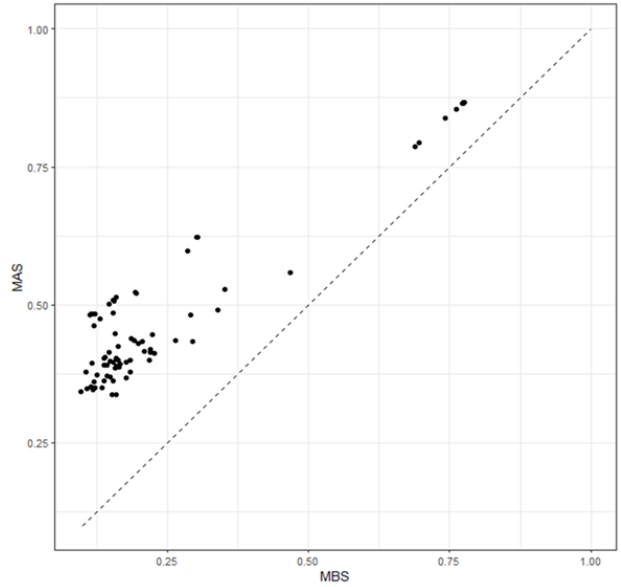
Reliability of percent tubers with external defects



Reliability of percent tubers with hollow heart



Reliability of percent tubers with vascular discoloration



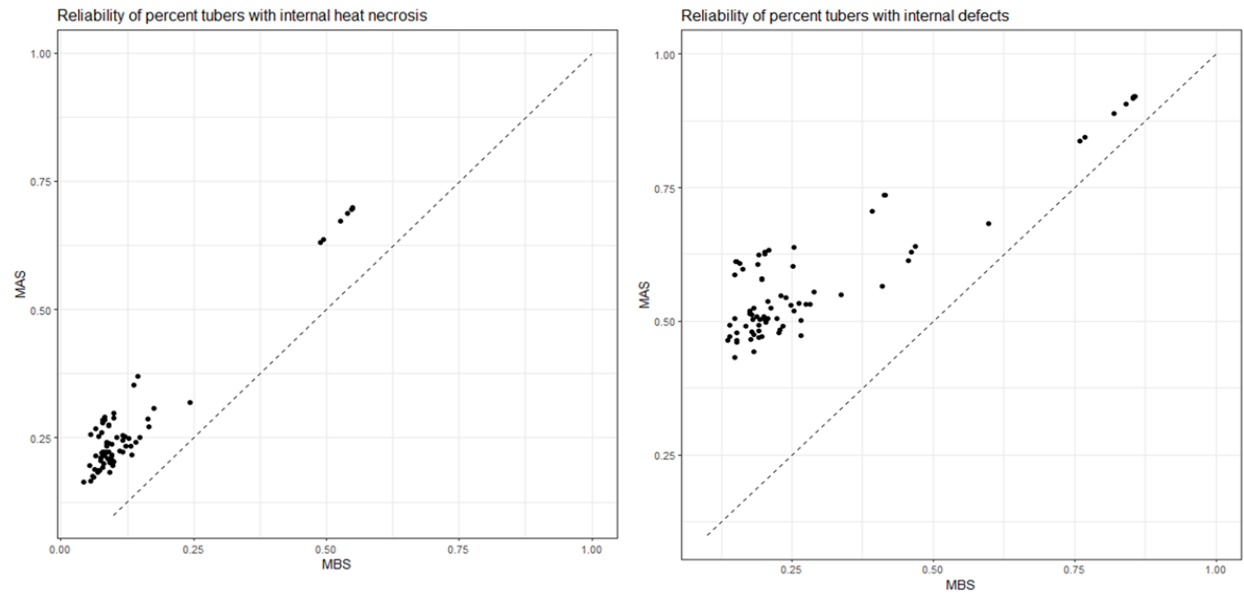


Figure S3. Comparison of the reliability of the phenotypic predictions for Aberdeen crossed clones in the dataset (86 clones) when phenotypic values were predicted based on both observed phenotype and marker data (marker-assisted selection - MAS) and when only on marker data (no observed phenotype) (marker-based selection - MBS).