

Table S1: Variance components for the six domestication traits in the UMN_C4 intermediate wheatgrass population.

Trait	Variance component						
	H	Genetic (G)	Location (L)	Year (Y)	GxL	GxY	Error
Height (cm)	0.73	1.03E+02	1.34E-08	0.00E+00	1.87E+01	1.22E+01	9.23E+01
Shattering	0.71	5.39E-01	0.00E+00	0.00E+00	5.54E-02	6.95E-02	6.50E-01
Threshability	0.79	2.60E+00	3.24E-03	4.81E-03	1.51E-01	8.07E-01	8.15E-01
TKW (g)	0.79	9.18E-01	0.00E+00	0.00E+00	1.26E-01	6.30E-02	6.26E-01
Seed Width (mm)	0.92	7.04E-03	0.00E+00	0.00E+00	8.90E-04	3.74E-04	3.51E-03
Seed Length (mm)	0.82	1.18E-01	0.00E+00	0.00E+00	5.35E-03	5.51E-03	2.14E-02

Figure S1: Squared allele-frequency correlations (r^2) plotted against physical distance (mega base pairs, Mbp) in the UMN_C4 intermediate wheatgrass population. The decline of linkage disequilibrium is shown by plotting the LOWESS curve in blue color.

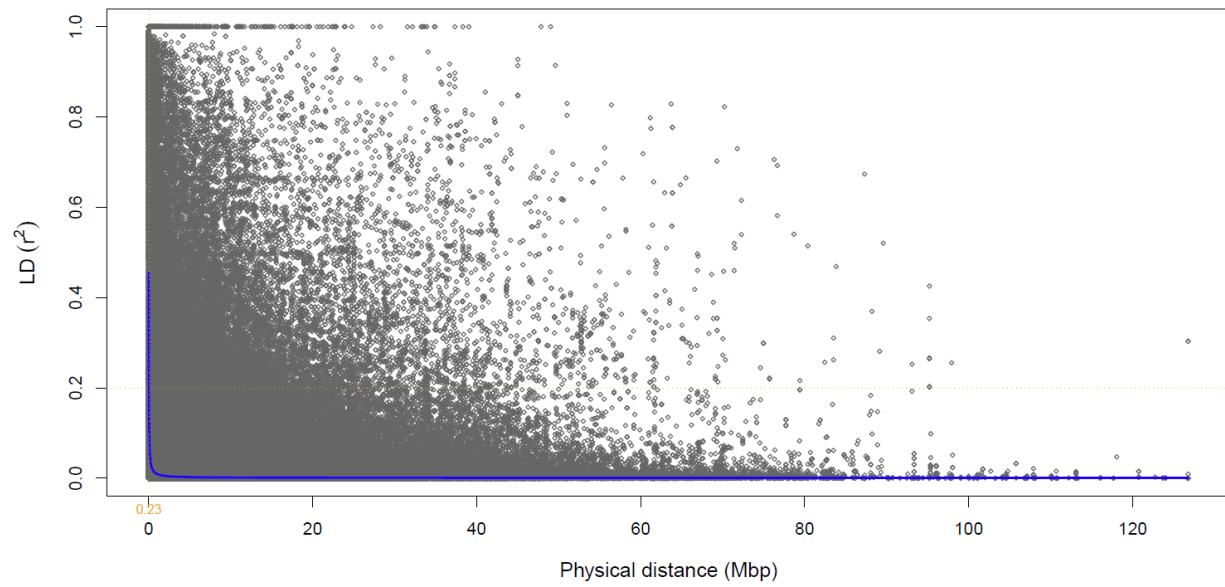


Figure S2: QQ-plots generated by FarmCPU model during genome-wide association scan for significant SNP markers. **A:** Height (cm), **B:** Seed length (mm), **C:** Seed width (mm), **D:** Shattering, **E:** Threshability, **F:** Thousand kernel weight (TKW, g)

