

Figure S1: Bootstrapping results for plant and grain analyses with the PLS-Full model. The vertical green line represents the mean R^2 value. Abbreviations: SG: Savitsky-Golay; FDR: first derivative; US: United States; ET: Ethiopia.

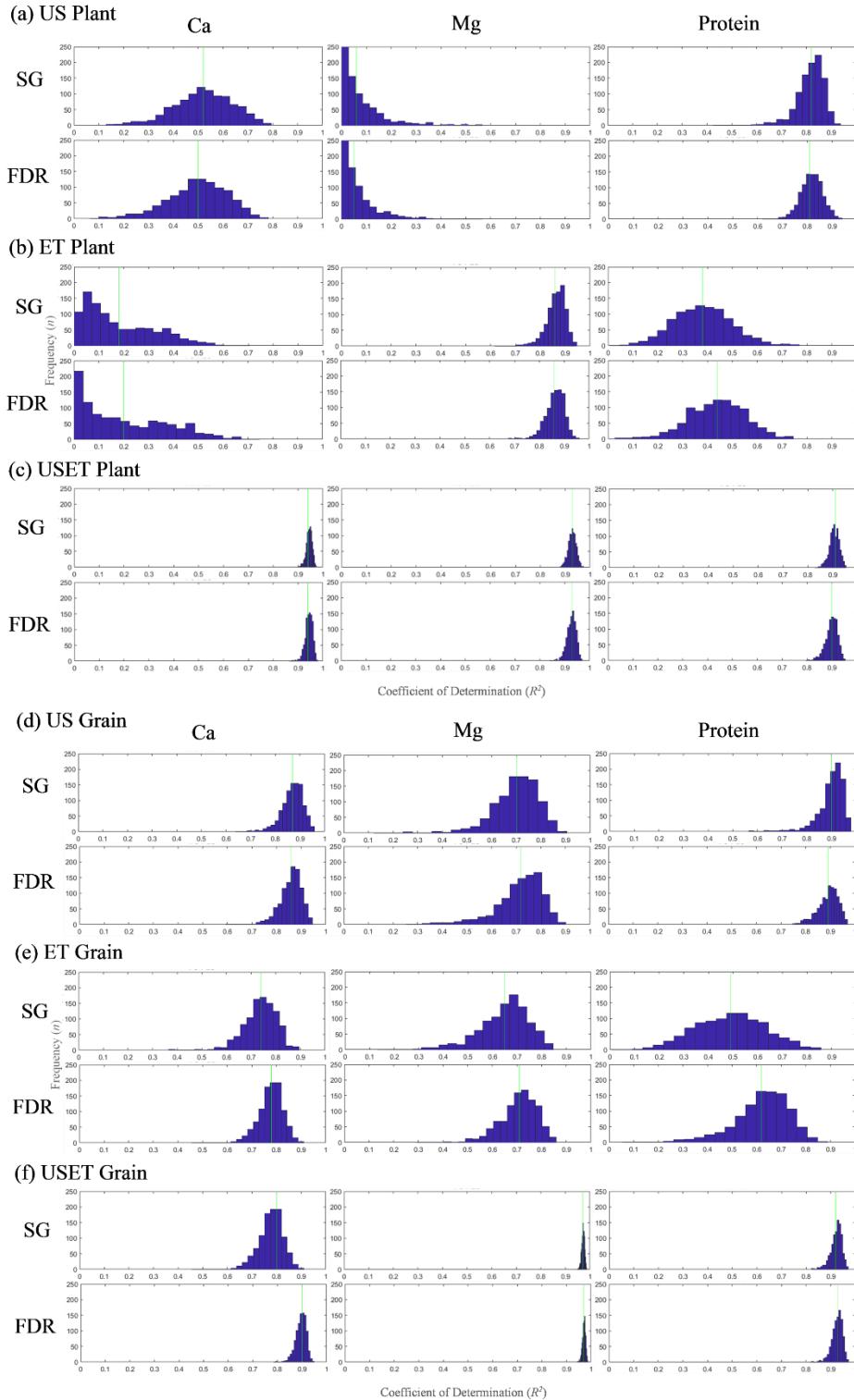


Figure S2. Bootstrapping results for plant and grain analyses with the PLS-Wave model. The vertical green line represents the mean R^2 value. Abbreviations: SG: Savitsky-Golay; FDR: first derivative; US: United States; ET: Ethiopia.

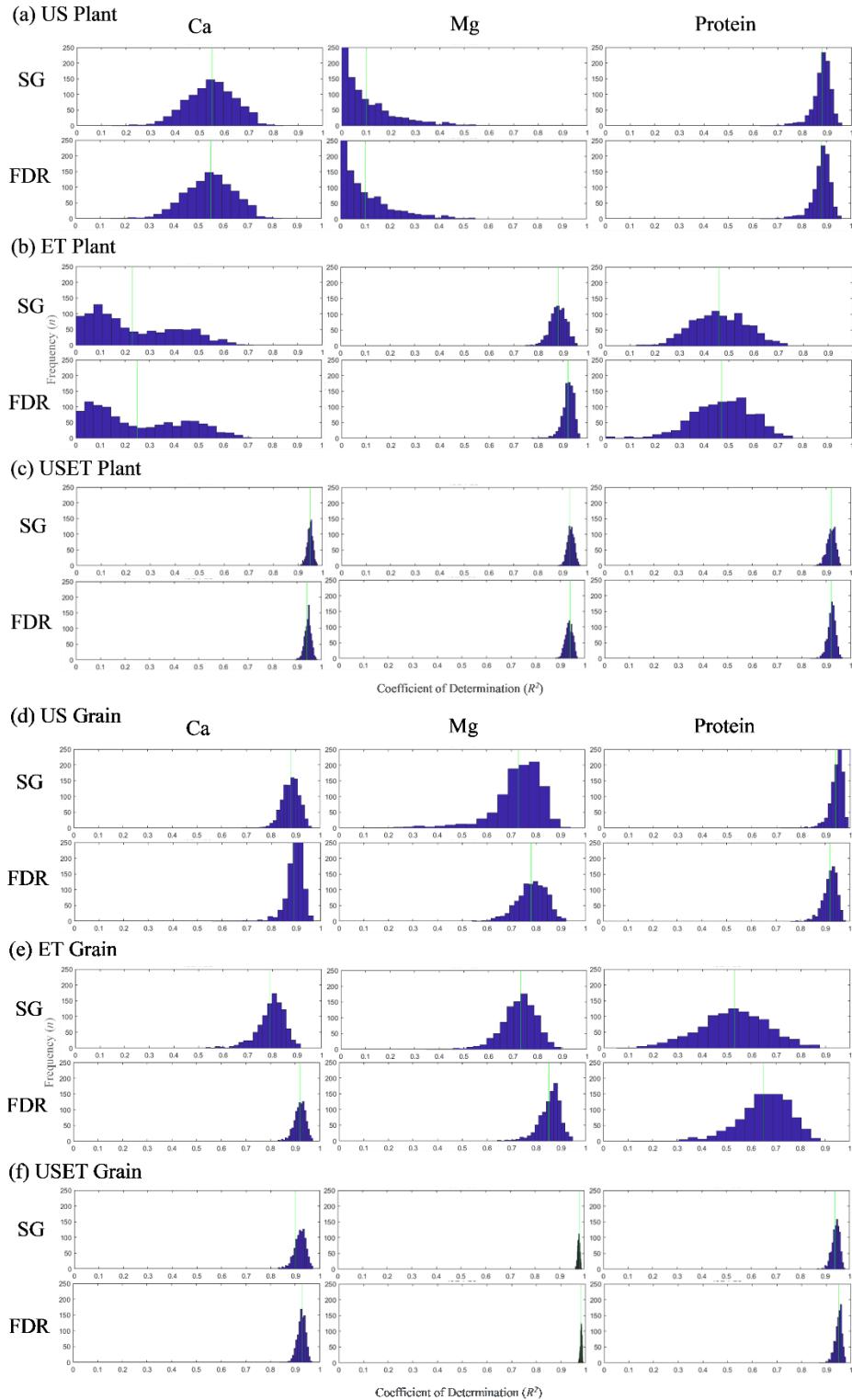


Table S1. Selected wavebands from the partial least square regression (PLS) using waveband selection (PLS-Wave) for protein in plant and grain for the combined United State and Ethiopia samples (USET). Abbreviations: SG: Savitsky-Golay; FD: first derivative.

Plant/Grain	Spectral Processing	Bands
Plant	SG	605-620, 720-730, 785, 860, 1500-1510, 1680
	FD	430, 525, 545-565, 640-645, 655-665, 675, 695-715, 725-810, 835, 925, 945, 955, 965, 995-1000, 1030, 1040, 1140-1160, 1565-1580, 1700, 2245, 2265, 2340
Grain	SG	560, 570-575, 590, 615-635, 680, 785, 910, 965, 1020, 1100, 1565, 2175-2180, 2345
	FD	415, 425-445, 530, 555-570, 580, 670, 725, 795, 805-815, 845-850, 940-950, 960, 1000, 1020, 1230, 1535, 1675-1680, 2130