Table S5 BLUPs and Heritabilities for 9 Carotenoid Traits

Trait	No. Lines	BLUPs			Heritabilities	
		Mean	S.D.[a]	Range	Estimate	S.E.[b]
Phytofluene	199	0.90	0.42	0.20 - 2.22	0.65	0.058
ζ-Carotene	200	0.62	0.25	0.28 - 1.61	0.45	0.067
Tetrahydrolycopene	197	0.24	0.07	-0.06 - 0.52	0.60	0.067
Total β-Xanthophylls	195	14.10	7.62	0.89 - 35.95	0.96	0.006
Total α-Xanthophylls	200	12.07	5.40	1.50- 28.02	0.91	0.013
Provitamin A[c]/Total Carotenoids	199	0.07	0.03	0.02 - 0.20	0.86	0.023
Acyclic Carotenes/Cyclic Carotenes	190	0.08	0.06	0 - 0.30	0.74	0.028
β-Carotene/(β-Cryptoxanthin+Zeaxanthin)	196	0.10	0.06	0.03 - 0.38	0.93	0.015
Total Carotenes/Total Xanthophylls	190	0.15	0.05	0 - 0.32	0.62	0.056

Means and ranges (μg/g) for untransformed best linear unbiased predictors (BLUPs) of an additional 9 carotenoid grain traits evaluated on a maize inbred association panel, and estimated heritability on a line mean basis in two summer environments, in West Lafayette, IN, across two years.

[a]S.D., Standard deviation.

[b]S.E., Standard error.

[c]Provitamin A is calculated as the sum of β-carotene, ½ α-carotene and ½ β-cryptoxanthin.