Table S1. Least significance difference values for maize agronomic traits analyzed.

Maize Trait	LSD p 0.05	LSD p 0.01	LSD p 0.001
Seed yield (kg/ha)	496.00	681.00	930.00
Ear weight (g)	8.10	11.20	15.40
Kernel weight/ear (g)	7.20	9.90	13.50
Ear length (cm)	0.50	0.70	1.00
No. kernels/row	1.70	2.30	3.10
No. rows/ear	0.80	1.10	1.50
Kernel dry matter (%)	1.60	2.20	2.90
TKW (g)	21.80	30.10	41.50
Kernel depth (cm)	0.04	0.06	0.08
Ear diameter (cm)	0.10	0.14	0.18
Cob diameter (cm)	0.07	0.09	0.12

Table S2. Influence of experimental factors on maize seed yield 2015–2017.

Source of Variance	DF	s^2	F Test
Years (Y)	2	91,943,970	113.1 **
Detasseling (D)	3	31,770,770	113.4 **
Inbred line (L)	4	14,795,130	105.2 **
Y × L	8	7,649,773	54.4 **
Y × D	6	5,018,351	17.9 **
D × L	12	1,095,526	7.7 **
Y × D × L	24	489,054	3.5 **

Note: ANOVA; significance $p < 0.05$ (*), $p < 0.01$ (**), $p < 0.001$ (***).

Table S3. Influence of experimental factors on maize ear characters 2015–2017.

Source of Variance	DF	Ear Weight (gr.)	Kernel Weight (g.)	Ear Length (cm)	No. kernels/row	No. rows/ear	Kernels Dry Matter (%)	TKW (g.)	Kernel Depth (cm)	Ear Diameter (cm)	Cob Diameter (cm)
Overall	119					s^2					
Years (Y)	2	22,640 **	19,330.00 **	152.62 **	806.60 **	12.60	39.24 **	3,099	0.222 *	1.08 *	0.12 *
Replicates (R)	1	50.06	49.40	0.06	3.57	0.02	0.93	51	0.00001	0.001	0.0002
Error (Y)	2	27.55	12.84	0.49	1.36	1.21	0.13	195	0.002	0.02	0.005
Detasseling (D)	3	8,070.27 **	4,890.92 **	40.24 **	142.39 **	4.76 **	4.91 *	5,177 **	0.009 **	0.31 **	0.155 **
Y × D	6	573.59 **	498.00 **	2.08 **	17.08 **	0.52	1.35	1,203	0.002	0.01 **	0.003
Error (D)	9	86.46	54.73	0.22	2.17	0.36	0.97	640	0.001	0.002	0.005
Inbred line (L)	4	5,997.72 **	5,878.37 **	58.50 **	359.08 **	178.24 **	108.54 **	25,081 **	0.206 **	4.97 **	1.838 **
Y × L	8	2,280.62 **	1,801.50 **	13.47 **	81.48 **	12.00 **	71.85 **	3,061 **	0.041 **	0.37 **	0.063 **
D × L	12	605.69 **	393.80 **	4.87 **	19.83 **	1.12 *	4.09 *	642 **	0.003 *	0.06 **	0.064 **
Y × D × L	24	100.51 **	89.30 **	0.42 *	5.29 **	0.44	3.33	249	0.002 *	0.008	0.006 **
Error (L)	48	33.93	31.06	0.20	1.92	0.48	2.12	241	0.001	0.009	0.003

Note: ANOVA; significance $p < 0.05$ (*), $p < 0.01$ (**), $p < 0.001$ (***).

Table S4. Standard deviation and standard error of mean values for key maize agronomics traits 2015–2017.

Factors		Ear Weight (g)		Kernels weight/ear (g)		Ear Length (cm)		No. kernels/row		TKG (g)	
Inbred line	Detasseling	±SD	±SE	±SD	±SE	±SD	±SE	±SD	±SE	±SD	±SE
TC 344	D1	44.27	18.07	38.58	15.75	3.42	1.40	8.12	3.31	9.02	3.68
	D2	44.05	17.98	37.61	15.35	3.71	1.52	8.46	3.46	14.96	6.11
	D3	42.61	17.40	38.55	15.74	3.54	1.44	8.04	3.28	14.36	5.86
	D4	31.20	12.74	29.41	12.00	3.34	1.36	8.18	3.34	27.33	11.16
TA 426	D1	37.27	15.21	36.99	15.10	2.40	0.98	7.17	2.93	26.55	10.84
	D2	37.77	15.42	35.13	14.34	1.96	0.80	7.56	3.08	25.53	10.42
	D3	37.69	15.39	37.50	15.31	1.86	0.76	3.69	1.51	25.26	10.31
	D4	19.20	7.84	16.52	6.74	1.62	0.66	5.15	2.10	40.35	16.47
TC 385A	D1	27.00	11.02	24.34	9.94	1.90	0.77	4.01	1.64	31.00	12.66
	D2	20.13	8.22	18.88	7.71	1.29	0.53	3.80	1.55	23.38	9.55
	D3	24.21	9.88	21.78	8.89	1.57	0.64	4.24	1.73	32.81	13.40
	D4	16.17	6.60	14.04	5.73	1.51	0.62	3.39	1.38	28.41	11.60
TA 447	D1	11.58	4.73	10.92	4.46	1.46	0.60	2.88	1.17	14.19	5.79
	D2	11.21	4.58	10.19	4.16	1.37	0.56	1.60	0.65	17.82	7.27
	D3	18.52	7.56	16.81	6.86	1.34	0.55	2.16	0.88	23.52	9.60
	D4	4.01	1.64	4.34	1.77	1.12	0.46	2.38	0.97	21.08	8.61
TA 452	D1	12.21	4.98	11.12	4.54	1.82	0.74	3.63	1.48	27.29	11.14
	D2	12.76	5.21	11.50	4.69	1.39	0.57	2.07	0.85	14.96	6.11
	D3	11.02	4.50	8.95	3.65	1.16	0.47	1.60	0.65	35.55	14.51
	D4	7.12	2.91	6.01	2.45	1.12	0.46	1.89	0.77	17.74	7.24

±SD standard deviation, ±SE standard error.