

Table S1. Influence of experimental gradients on plant characteristics (Mean±SD)

Factor		Gradient	Plant height (m)	Ear insertion (m)	Leaf length (m)	Leaf width (cm)	Leaves number
Year	2018		2.38 ±0.13	1.16 ±0.11	0.85 ±0.05	8.20 ±0.36	5.39 ±0.33
	2019		2.66 ±0.07	1.04 ±0.09	0.85 ±0.03	9.63 ±0.39	5.94 ±0.29
	2020		2.73 ±0.17	1.04 ±0.14	0.94 ±0.04	10.37 ±0.48	5.61 ±0.36
Hybrid	Turda 332		2.57 ±0.25	1.09 ±0.11	0.89 ±0.06	9.51 ±1.07	5.60 ±0.42
	Turda 344		2.66 ±0.17	1.14 ±0.13	0.89 ±0.06	9.37 ±1.00	5.59 ±0.38
	PR37N01		2.54 ±0.14	1.01 ±0.11	0.86 ±0.05	9.31 ±0.90	5.75 ±0.38
Fertilizer	Basal + CAN		2.59 ±0.21	1.08 ±0.12	0.88 ±0.07	9.45 ±1.00	5.76 ±0.43
	Eurofertil Top 51 NPK + CAN		2.63 ±0.21	1.12 ±0.13	0.89 ±0.05	9.35 ±1.01	5.69 ±0.41
	Basal + Synertec NK35 N-process		2.60 ±0.20	1.09 ±0.15	0.89 ±0.06	9.47 ±1.05	5.59 ±0.33
	Basal + CAN + Fertiactyl Starter		2.58 ±0.21	1.07 ±0.13	0.87 ±0.05	9.34 ±1.04	5.61 ±0.41
	Basal + CAN + Rootip Basic + Energevo		2.58 ±0.16	1.08 ±0.12	0.87 ±0.07	9.47 ±0.93	5.66 ±0.43
	NovaTec Classic		2.56 ±0.21	1.05 ±0.11	0.87 ±0.05	9.31 ±0.99	5.57 ±0.38

Table S2. Influence of experimental gradients on agronomic productivity components of maize (Mean±SD)

Factor	Gradient	TKG (g.)	HLM (kg/hl)	Yield (kg/ha)
Year	2018	320.80 ±32.19	70.37 ±4.01	10,964.54 ±1095.09
	2019	254.11 ±33.38	68.04 ±9.26	7,482.28 ±579.03
	2020	307.41 ±38.96	68.96 ±3.96	12,432.48 ±979.08
Hybrid	Turda 332	282.11 ±34.87	65.23 ±8.44	10,607.98 ±2657.89
	Turda 344	269.96 ±38.14	68.24 ±1.84	9,793.76 ±1992.58
	PR37N01	330.24 ±38.24	73.90 ±2.46	10,477.56 ±2059.38
Fertilizer	Basal + CAN	290.44 ±45.30	66.79 ±12.71	9,697.70 ±1918.74
	Eurofertil Top 51 NPK + CAN	306.15 ±43.71	70.07 ±3.39	10,425.07 ±2289.76
	Basal + Synertec NK35 N-process	296.93 ±46.26	70.17 ±3.52	10,547.00 ±2595.37
	Basal + CAN + Fertiactyl Starter	294.37 ±53.02	68.74 ±4.75	10,269.85 ±2265.72
	Basal + CAN + Rootip Basic + Energevo	295.33 ±43.03	69.57 ±3.81	10,484.81 ±2299.45
	NovaTec Classic	281.41 ±39.22	69.40 ±3.78	10,334.15 ±2314.83

Table S3. Influence of experimental gradients on grain quality of maize (Mean±SD)

Factor		Gradient	Starch (%)	Protein (%)
Year	2018		73.77 ±4.88	7.35 ±0.84
	2019		60.80 ±1.67	8.39 ±0.71
	2020		74.31 ±1.69	6.85 ±0.62
Hybrid	Turda 332		68.80 ±5.99	7.10 ±0.87
	Turda 344		69.68 ±8.15	7.97 ±1.08
	PR37N01		70.39 ±6.72	7.53 ±0.73
Fertilizer	Basal + CAN		68.71 ±6.06	7.50 ±0.77
	Eurofertil Top 51 NPK + CAN		70.89 ±9.72	7.62 ±1.31
	Basal + Synertec NK35 N-process		69.75 ±7.30	7.65 ±1.18
	Basal + CAN + Fertiactyl Starter		68.76 ±6.65	7.62 ±0.55
	Basal + CAN + Rootip Basic + Energevo		69.29 ±5.54	7.82 ±0.88
	NovaTec Classic		70.37 ±6.32	6.98 ±0.77

Table S4. Influence of experimental gradients on disease and pest incidence (Mean±SE)

Factor	Gradient	<i>Fusarium</i> sp. (%)	<i>Ostrinia nubilalis</i> (%)
Year	2018	52.89 ±3.04	48.44 ±2.62
	2019	24.30 ±2.51	42.15 ±2.19
	2020	23.69 ±1.92	20.54 ±1.10
Hybrid	Turda 332	50.46 ±2.91	47.80 ±2.92
	Turda 344	30.04 ±2.66	36.80 ±2.48
	PR37N01	20.37 ±2.29	26.54 ±1.42
Fertilizer	Basal + CAN	31.96 ±4.07	40.93 ±4.05
	Eurofertil Top 51 NPK + CAN	32.56 ±4.33	39.52 ±3.35
	Basal + Synertec NK35 N-process	37.19 ±4.75	41.30 ±4.12
	Basal + CAN + Fertiactyl Starter	38.74 ±5.23	36.33 ±3.42
	Basal + CAN + Rootip Basic + Energevo	28.78 ±3.70	25.70 ±3.12
	NovaTec Classic	32.52 ±4.46	38.48 ±3.57