

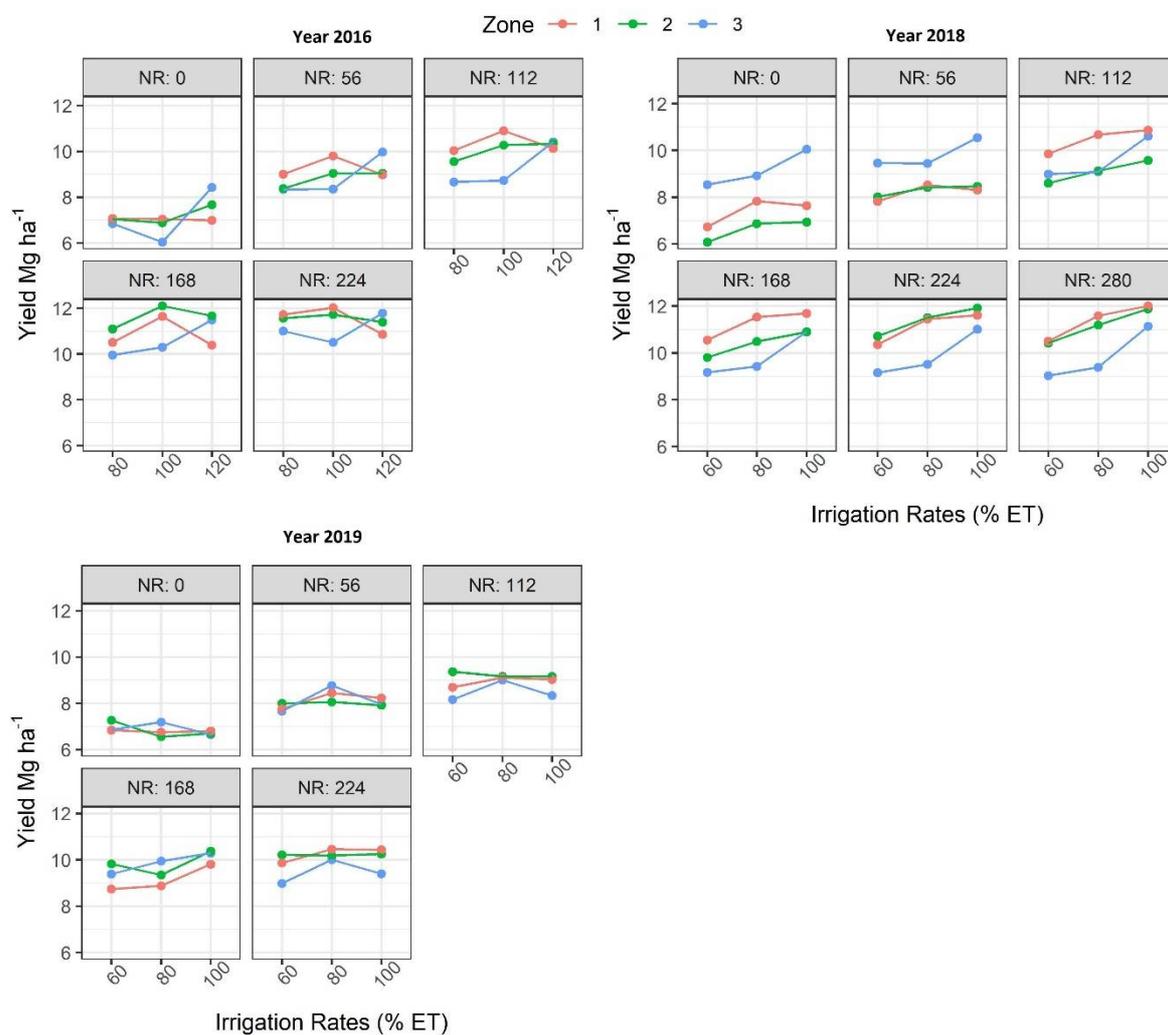
Supplementary Materials


Figure 1. Interaction plots between Zone and Irrigation rates within each nitrogen rate for year 2016 (top-left), 2018 (top-right), and 2019 (bottom-left).

Table 1. Comparison of maize yield within management zones across nitrogen rates for year 2016, 2018, and 2019.

Year	Zone	IR	Mean Yield	SE	L1	L2
2016	1	80	9.66	0.203	b	A
2016	1	100	10.28	0.2	a	B
2016	1	120	9.47	0.191	b	B
2016	2	80	9.52	0.187	b	AB
2016	2	100	10	0.179	a	A
2016	2	120	10.02	0.177	a	A
2016	3	80	8.96	0.287	b	B
2016	3	100	8.78	0.276	b	A
2016	3	120	10.41	0.331	a	A
2018	1	60	9.3	0.497	b	A
2018	1	80	10.26	0.5	a	A
2018	1	100	10.35	0.501	a	A
2018	2	60	8.94	0.491	c	A
2018	2	80	9.6	0.489	b	A
2018	2	100	9.94	0.485	a	A
2018	3	60	9.05	0.697	b	A
2018	3	80	9.29	0.697	c	A
2018	3	100	10.71	0.697	a	A
2019	1	60	8.38	0.209	b	A
2019	1	80	8.73	0.211	a	A
2019	1	100	8.86	0.209	a	A
2019	2	60	8.93	0.21	a	A
2019	2	80	8.66	0.205	a	A
2019	2	100	8.88	0.206	a	A
2019	3	60	8.21	0.275	b	A
2019	3	80	8.98	0.265	a	A
2019	3	100	8.52	0.273	ab	A

Yield is aggregated across nitrogen rates in each group. SE=Standard error, IR=Irrigation rate. L1: Same lowercase letters in significance column indicate no significant difference between compared groups (irrigation rates within zones), whereas different letters indicate statistically significant difference ($p=0.05$). L2: Same uppercase letters in significance column indicate no significant difference between compared groups (zones within irrigation rates), whereas different letters indicate statistically significant difference ($p=0.05$).

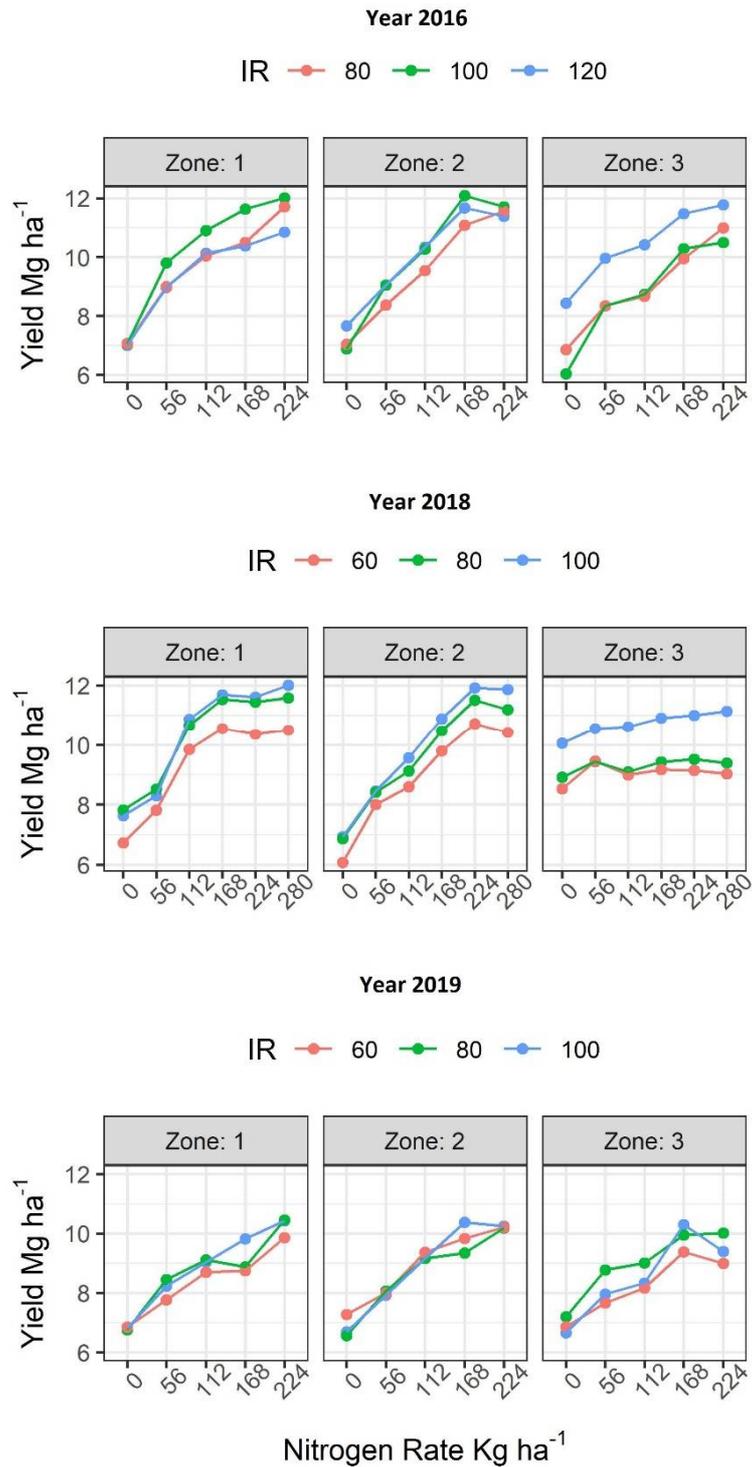


Figure 2. Interaction plots between Nitrogen rate and Irrigation rates within each Zone for year 2016 (top), 2018 (middle), and 2019 (bottom).

Table 2. Comparison of maize yield among nitrogen rates, within irrigation rates across zones, for year 2016, 2018, and 2019.

Year	IR	NR	Mean Yield	SE	L1	L2	Year	IR	NR	Mean Yield	SE	L1	L2
2016	80	0	6.99	0.344	d	B	2019	60	0	6.99	0.41	d	A
2016	80	56	8.57	0.343	c	B	2019	60	56	7.8	0.382	cd	B
2016	80	112	9.42	0.343	bc	B	2019	60	112	8.74	0.398	ab	A
2016	80	168	10.51	0.379	ab	B	2019	60	168	9.32	0.387	ab	B
2016	80	224	11.42	0.409	a	A	2019	60	224	9.68	0.387	a	B
2016	100	0	6.66	0.348	d	B	2019	80	0	6.83	0.404	d	A
2016	100	56	9.07	0.343	c	A	2019	80	56	8.43	0.384	cd	A
2016	100	112	9.97	0.361	bc	A	2019	80	112	9.09	0.393	ab	A
2016	100	168	11.34	0.368	ab	A	2019	80	168	9.38	0.381	ab	B
2016	100	224	11.41	0.365	a	A	2019	80	224	10.21	0.389	a	A
2016	120	0	7.7	0.364	c	A	2019	100	0	6.71	0.412	c	A
2016	120	56	9.33	0.352	bc	A	2019	100	56	8.03	0.383	bc	AB
2016	120	112	10.3	0.371	ab	A	2019	100	112	8.84	0.397	ab	A
2016	120	168	11.17	0.373	a	A	2019	100	168	10.16	0.386	a	A
2016	120	224	11.34	0.373	a	A	2019	100	224	10.02	0.38	a	AB
2018	60	0	7.11	0.925	a	C							
2018	60	56	8.42	0.925	a	C							
2018	60	112	9.14	0.925	a	C							
2018	60	168	9.84	0.924	a	C							
2018	60	224	10.07	0.924	a	C							
2018	60	280	9.98	0.925	a	C							
2018	80	0	7.87	0.926	a	B							
2018	80	56	8.79	0.926	a	B							
2018	80	112	9.63	0.926	a	B							
2018	80	168	10.48	0.925	a	B							
2018	80	224	10.82	0.926	a	B							
2018	80	280	10.72	0.926	a	B							
2018	100	0	8.21	0.925	a	A							
2018	100	56	9.1	0.924	a	A							
2018	100	112	10.35	0.924	a	A							
2018	100	168	11.16	0.923	a	A							
2018	100	224	11.51	0.925	a	A							
2018	100	280	11.67	0.924	a	A							

Yield is aggregated across nitrogen rates in each group. SE=Standard error, IR=Irrigation rate, NR=Nitrogen rate. L1: Same lowercase letters in significance column indicate no significant difference between compared groups (nitrogen rates within irrigation rates), whereas different letters indicate statistically significant difference (p=0.05). L2: Same uppercase letters in significance column indicate no significant difference between compared groups (irrigation rates within nitrogen rates), whereas different letters indicate statistically significant difference (p=0.05).