

Table 3 Maize inbred lines used in the study

Lines	Code	Origin	Characteristics
4001	1	IITA	Tolerant to low N
88069	2	IRAD	Good root volume
9450 (1)	3	IITA	Temperate adapted
ATP 32	4	IRAD	Acid soil tolerant
ATP 50	5	IRAD	Acid soil tolerant
ATP S5 31Y – 2	6	IRAD	Acid soil tolerant
ATP S6 20Y – 1	7	IRAD	Acid soil tolerant
ATP S6 31Y-2	8	IRAD	Acid soil tolerant
ATP S6 31Y-BB	9	IRAD	Acid soil tolerant
ATP S8 26Y – 2	10	IRAD	Acid soil tolerant
ATP S8 30Y – 2	11	IRAD	Acid soil tolerant
ATP S9 30Y – 1	12	IRAD	Acid soil tolerant
ATP S9 36Y – 1	13	IRAD	Acid soil tolerant
CI gp1 17	14	IRAD	Tolerant and P efficient
CI gp1 17 (F)	15	IRAD	/
CLA 135	16	CIMMYT	Susceptible
CLA 183	17	CIMMYT	Acid soil tolerant
CML 304	18	CIMMYT	Susceptible
CML 332	19	CIMMYT	Susceptible
CML 434	20	CIMMYT	Acid soil tolerant
CML 435	21	CIMMYT	Acid soil tolerant
CML 437	22	CIMMYT	Acid soil tolerant
CML 439	23	CIMMYT	Acid soil tolerant
CML 479	24	CIMMYT	Acid soil tolerant
CML 486	25	CIMMYT	Acid soil tolerant
CML 533	26	CIMMYT	Acid soil tolerant
CML 534	27	CIMMYT	Acid soil tolerant
CML 535	28	CIMMYT	Acid soil tolerant
D300-17	29	CIMMYT	Acid soil tolerant
KU 1414	30	IITA	Tolerant to low N