

Table S1. Rain fall, relative humidity, minimum and maximum temperature of MUARIK and NaSARRI in 2019, 2020 and 2021

Month	NaSARRI				MUARIK											
	2019				2019				2020				2021			
	RF (mm)	Max (°C)	Min (°C)	RH (%)	RF (mm)	Max (°C)	Min (°C)	RH (%)	RF (mm)	Max (°C)	Min (°C)	RH (%)	RF (mm)	Max (°C)	Min (°C)	RH (%)
JAN	46.0	31.4	17.9	67	45.7	30.3	17.6	86	83.3	28.7	17.5	87	35.8	27.3	17.5	90
FEB	150	34.1	18.6	67	73.2	31.4	17.9	83	129	29.1	17.6	91	108	28.9	17.4	89
MAR	130	34.2	18.8	69	39.8	31.3	18.4	85	238	28.6	18.2	90	98.1	29.3	18.2	87
APR	137	32.1	18.4	77	110	29.8	18.7	87	164	28.3	18.5	90	225	27.7	18.4	88
MAY	281	29.6	17.5	77	206	28.0	18.5	90	78.9	27.5	18.2	91	169	27.4	18.3	88
JUN	85.1	27.7	17.9	78	232	26.8	18.2	92	40.1	26.7	17.3	86	162	27.4	18.0	87
JUL	97.5	27.8	17.8	79	45.0	27.1	17.1	93	66.5	26.8	17.1	90	35.3	27.0	17.6	90
AUG	174	28.2	16.0	83	126	27.2	17.7	90	112	28	17.4	88	43.2	28.1	18.3	88
SEP	214	29	16.0	82	146	27.7	17.7	91	146	28.1	17.9	87	126	27.5	18.2	89
OCT	217	27.6	15.8	83	201	27.0	18.1	86	82.6	27.6	18.0	89	141	29.2	18.1	89
NOV	131	27.2	15.9	80	220	27.5	18	89	260	26.7	17.5	89	89.5	28.6	18.1	88
DEC	264	28.2	15.5	83	215	26.8	17.6	89	97.4	27.9	17.3	88	98.7	28.7	18.3	89

RF - rain fall, Max - maximum temperature, Min - minimum temperature and RH - relative humidity

Source: (Namulonge, 2022)

Table S2. Mean and ranges of traits evaluated at MUARIK and NaSARRI during 2019, 2020 and 2021

		Incidence			Severity			HSW	DTF	PQ	SV	PH	PL
		14WAP	15WAP	16WAP	14WAP	15WAP	16WAP						
MUARIK 2020	Min	3.0	11.5	6.0	1.0	1.5	1.5	1.5	57.5	5.3	2.0	62.1	9.5
	Max	100	100	100	5.0	5.0	5.0	5.6	99.0	8.8	5.0	284	56.0
	Mean	34.2	60.8	69.4	2.0	2.8	2.8	3.1	78.1	6.9	4.0	118	25.1
MUARIK 2021	Min	8.5	9.0	8.0	1.7	1.8	1.8	1.1	64.0	5.5		38	8.7
	Max	100	100	100	4.5	5.0	5.0	4.7	108	8.0		245	54.3
	Mean	54.3	61.2	66.8	3.0	3.1	3.2	3.0	83.7	6.6		105	24.6
MUARIK 2019	Min			8.5			1.5	1.7	45.5	4.5	1.0		
	Max			100			5.0	4.7	96.0	8.5	4.0		
	Mean			59.6			3.7	3.0	68.6	6.7	2.0		
NaSARRI 2019	Min			0.0			1.0		47.5	5.0	1.0		
	Max			100			5.0		93.0	8.0	4.0		
	Mean			23.8			1.9		71.9	6.8	19		

WAP - weeks after planting, HSW – hundred seed weight, DTF - days to 50% flowering, PQ - pollen quantity, PH – plant height, PL – panicle length and SV – seedling vigourity