

Appendix I: Physical and chemical properties of soil at experimental site, Main Agricultural Research Station, Dharwad, Karnataka state, India.

A. physical properties	Values
Particle size	(%)
a. Coarse sand	6.01
b. Fine sand	13.21
c. Silt	27.83
Textural class	Clayey
Soil moisture constants	
Field capacity	
0-15 cm	32.03
15-30 cm	34.18
30-45 m	38.23
Permanent wilting point (%)	
0-15 cm	13.63
15-30 cm	15.78
30-45 m	16.81
Bulk density (g/cc)	
0-15 cm	1.23
15-30 cm	1.26
30-45 cm	1.30
B. Chemical properties	
1. Organic carbon (%)	0.73
2. pH	7.50
3. Available nitrogen (kg ha ⁻¹)	223.8
4. Available P ₂ O ₅ (kg ha ⁻¹)	31.60
5. Available K ₂ O, (kg ha ⁻¹)	332.3

Appendix II: Weather factors during *khariif* 2012 at Main Agricultural Research Station, Dharwad, Karnataka state, India.

Standard week	Temperature (°C)		Relative humidity (%)		Cumulative rainfall (mm)
	Maximum	Minimum	Morning	Evening	
25	28.7	20.7	92	66	15.6
26	27.6	20.7	92	79	28.8
27	26.6	20.7	94	75	58.0
28	28.8	20.8	92	66	66.0
29	26.6	20.9	93	79	114.4
30	27.0	21.0	93	74	139.2
31	26.7	20.4	93	76	163.4
32	26.6	20.8	95	80	203.6
33	27.5	20.2	93	69	218.0
34	28.3	20.6	93	68	226.2
35	25.8	20.2	95	84	238.6
36	26.4	20.7	94	85	267.0
37	27.8	20.1	93	75	268.8
38	28.8	18.6	85	59	270.0
39	30.7	19.3	88	55	319.8
40	27.3	20.5	93	73	363.0
41	30.5	18.4	77	48	400.6
42	31.2	17.1	69	40	400.6
43	29.9	18.0	83	47	409.0
44	27.6	17.8	82	58	443.5

Appendix III: Weather factors during *khariif* 2013 at Main Agricultural Research Station, Dharwad, Karnataka state, India.

Standard week	Temperature (°C)		Relative humidity (%)		Cumulative rainfall (mm)
	Maximum	Minimum	Morning	Evening	
25	27.7	20.7	93	71	-
26	27.3	20.6	94	76	33.4
27	26.7	20.6	95	74	49.6
28	25.5	20.3	95	81	77.4
29	25.7	20.7	95	84	114.2
30	23.9	20.1	95	88	199.8
31	25.0	20.1	95	85	259.4
32	27.2	20.0	94	78	277.8
33	26.3	20.5	95	79	289.8
34	26.3	19.5	92	79	301.4
35	29.4	19.3	91	63	309.4
36	28.6	20.0	94	73	318.8
37	28.0	21.0	95	73	415.8
38	27.2	20.4	95	75	431.2
39	26.5	19.7	94	77	437.6
40	27.5	20.0	93	73	447.8
41	29.2	19.4	93	59	447.8
42	30.3	19.4	90	50	465.4
43	27.8	20.0	92	73	513.0
44	31.03	17.7	87	50	513.0

