

Table 3 Effect of water stress on at proline and polyphenol oxidase enzyme activity and yield at different growth stages of banana cultivar and hybrids in main crop and ratoon crop

Treatments	proline ($\mu\text{g g}^{-1}$) (main crop)		polyphenol oxidase (unit mg-1 of protein) (main crop)		proline ($\mu\text{g g}^{-1}$) (ratoon crop)		polyphenol oxidase (unit mg-1 of protein) (ratoon crop)		Yield (t ha^{-1})	
	7 th MAP	9 th MAP	7 th MAP	9 th MAP	7 th MAP	9 th MAP	7 th MAP	9 th MAP	Main	Ratoon
Main Plot										
M ₁	79.6	74.0	0.89	0.96	71.3	75.4	0.42	0.49	36.5	34.1
M ₂	98.3	92.3	0.80	0.84	89.4	94.3	0.33	0.36	30.6	27.4
Mean	88.96	83.20	0.85	0.90	80.3	84.8	0.37	0.43	33.5	30.8
SEd	2.01	2.01	0.06	0.06	2.01	2.01	0.06	0.06	0.06	0.05
CD (P= 0.05)	8.64	8.67	0.27	0.28	8.64	8.67	0.27	0.28	0.26	0.21
Sub Plot										
S ₁	99.8	94.2	1.25	1.31	92.7	94.4	0.77	0.84	67.3	64.6
S ₂	97.8	95.1	1.13	1.19	92.1	93.8	0.65	0.72	37.5	35.7
S ₃	94.9	92.9	1.05	1.12	89.9	90.9	0.58	0.65	55.8	54.7
S ₄	94.4	92.4	0.82	0.93	89.4	90.4	0.34	0.45	41.3	39.4
S ₅	87.6	85.6	0.82	0.88	82.6	83.6	0.35	0.40	52.4	48.1
S ₆	86.9	84.9	0.77	0.86	81.9	82.9	0.29	0.38	35.1	32.8
S ₇	83.2	81.2	0.75	0.84	78.2	79.2	0.27	0.36	33.4	28.5
S ₈	83.4	79.5	0.74	0.83	76.5	79.4	0.27	0.35	14.9	12.9
S ₉	82.1	74.9	0.73	0.74	71.9	78.1	0.25	0.27	32.2	27.3
S ₁₀	84.6	72.8	0.72	0.71	69.8	80.6	0.25	0.24	11.1	9.2
S ₁₁	85.3	72.5	0.71	0.69	69.5	81.3	0.23	0.22	10.6	8.2
S ₁₂	87.5	72.3	0.70	0.69	69.3	83.5	0.23	0.21	10.3	8.0
Mean	88.96	83.20	0.85	0.90	80.3	84.8	0.37	0.43	33.5	30.8
SEd	0.90	0.91	0.10	0.10	0.90	0.91	0.09	0.09	1.05	0.90
CD (P= 0.05)	1.82	1.84	0.20	0.21	1.82	1.84	0.19	0.20	2.13	1.81
Interaction effect:										
M ₁ S ₁	83.2	79.3	1.29	1.36	79.2	76.3	0.82	0.88	70.4	68.0
M ₁ S ₂	83.5	81.5	1.17	1.24	78.5	79.5	0.70	0.76	39.8	37.4
M ₁ S ₃	80.6	78.6	1.09	1.17	75.6	76.6	0.62	0.69	59.7	57.3
M ₁ S ₄	80.1	78.1	0.86	0.98	75.1	76.1	0.39	0.50	44.4	42.0
M ₁ S ₅	79.8	77.8	0.86	0.94	74.8	75.8	0.39	0.46	56.6	54.3
M ₁ S ₆	79.1	77.1	0.81	0.93	74.1	75.1	0.34	0.45	38.3	35.9
M ₁ S ₇	75.4	73.4	0.79	0.91	70.4	71.4	0.32	0.43	36.7	34.4
M ₁ S ₈	75.6	71.7	0.78	0.89	68.7	71.6	0.31	0.41	16.8	14.5
M ₁ S ₉	76.8	69.6	0.77	0.84	66.6	72.8	0.30	0.36	36.7	34.4
M ₁ S ₁₀	79.3	67.5	0.76	0.80	64.5	75.3	0.29	0.32	13.8	11.4
M ₁ S ₁₁	80.0	67.2	0.75	0.78	64.2	76.0	0.28	0.30	12.2	9.9
M ₁ S ₁₂	82.2	67.0	0.74	0.78	64.0	78.2	0.27	0.30	12.2	9.9
M ₂ S ₁	116.5	109.2	1.20	1.27	106.2	112.5	0.73	0.80	64.3	61.2
M ₂ S ₂	112.1	108.7	1.08	1.15	105.7	108.2	0.61	0.68	35.2	34.0
M ₂ S ₃	109.2	107.2	1.01	1.08	104.3	105.3	0.54	0.61	52.0	52.0
M ₂ S ₄	108.7	106.7	0.77	0.88	103.8	104.8	0.30	0.41	38.3	36.7
M ₂ S ₅	95.4	93.4	0.78	0.82	90.4	91.4	0.31	0.35	48.2	41.9
M ₂ S ₆	94.7	92.7	0.72	0.79	89.7	90.7	0.25	0.32	32.0	29.7
M ₂ S ₇	91.0	89.0	0.70	0.77	86.0	87.0	0.23	0.30	30.2	22.6
M ₂ S ₈	91.2	87.3	0.70	0.77	84.3	87.2	0.23	0.30	13.0	11.3
M ₂ S ₉	87.4	80.2	0.68	0.65	77.3	83.5	0.21	0.18	27.7	20.2
M ₂ S ₁₀	89.9	78.1	0.68	0.63	75.2	86.0	0.21	0.16	8.4	7.0
M ₂ S ₁₁	90.6	77.8	0.66	0.61	74.9	86.7	0.19	0.14	9.0	6.4
M ₂ S ₁₂	92.8	77.6	0.66	0.60	74.7	88.9	0.19	0.13	8.4	6.1
Mean	88.96	83.20	0.85	0.92	80.35	84.87	0.37	0.43	33.5	30.8
SEd										
M at S	2.35	2.36	0.150	0.160	2.35	2.36	0.150	0.160	1.43	1.22
S at M	1.27	1.29	0.142	0.152	1.27	1.29	0.142	0.152	1.49	1.27
CD (P= 0.05)										
M at S	8.67	8.69	0.364	0.386	8.67	8.69	0.364	0.386	2.89	2.46
S at M	2.57	2.60	0.288	0.307	2.57	2.60	0.288	0.307	3.01	2.56

Note: 7th MAP – Shooting stage, 9th MAP – Finger filling stage, M₁- Control plots; M₂ – Stress plots S₁: Karpuravalli (ABB), S₂: Karpuravalli x Pisang Jajee, S₃: Saba (ABB), S₄: Sanna Chenkathali (AA), S₅: Poovan (AAB), S₆: Ney poovan (AB), S₇: Anaikomban (AA), S₈: Matti x Cultivar Rose, S₉: Matti (AA), S₁₀: Pisang Jajee x Matti, S₁₁: Matti x Anaikomban and S₁₂: Anaikomban x Pisang Jajee