

Table 2. Changes in glutathione reductase (GR), guaiacol peroxidase (G-POD), catalase (CAT), ascorbate peroxidase (APX) and glutathione-S-transferase (GST) activities, in ascorbate (AA), glutathione (GSH) and γ -glutamyl-cysteine (γ -EC) content and in the ratios of ascorbate/dehydroascorbate (AA/DHA) and reduced/oxidised glutathione (GSH/GSSG) of the leaves and roots of 24 day-old wheat plant after 24 days of 50 μ M cadmium treatment. Data presented as mean \pm s.d. * , ** and *** denote significant differences from the control of the same day at the 0.05, 0.01 and 0.001 level, respectively.

leaf	Cd (mM)	nkatal g ⁻¹ FW					AA	AA/DHA	GSH	GSH/GSSG	γ -EC
		GR	G-POD	CAT	APX	GST	(nmol g ⁻¹ FW)	ratio	(nmol g ⁻¹ FW)	ratio	(nmol g ⁻¹ FW)
TC 19	0	33.9 \pm 3.6	572.3 \pm 109.2	9168.6 \pm 1954.2	84.6 \pm 14.3	15.3 \pm 2.0	435.3 \pm 83.6	19.9 \pm 1.4	14.9 \pm 4.7	18.0 \pm 11.8	1.6 \pm 0.2
	50	30.5 \pm 0.2	777.1 \pm 22.1 *	9476.3 \pm 313.3	95.4 \pm 4.3	15.5 \pm 0.7	300.6 \pm 4.7	2.1 \pm 1.4 ***	10.1 \pm 3.8	10.9 \pm 4.4	2.1 \pm 0.5
TC 33	0	28.0 \pm 5.1	387.8 \pm 70.2	6548.2 \pm 560.0	52.1 \pm 9.6	10.8 \pm 2.8	283.0 \pm 40.3	16.7 \pm 2.1	10.1 \pm 4.2	10.6 \pm 2.6	1.2 \pm 0.3
	50	19.4 \pm 6.6	470.6 \pm 159.8	7568.8 \pm 1785.0	56.0 \pm 21.0	9.1 \pm 2.6	312.0 \pm 21.0	5.3 \pm 2.0 ***	8.6 \pm 7.6	12.1 \pm 7.6	2.2 \pm 0.7
Mv8	0	30.5 \pm 1.7	404.7 \pm 98.6	10986.2 \pm 518.5	76.8 \pm 7.5	11.6 \pm 1.8	493.3 \pm 6.4	13.8 \pm 3.7	6.8 \pm 4.0	16.7 \pm 7.2	1.0 \pm 0.3
	50	29.1 \pm 1.2	574.7 \pm 112.0	11624.6 \pm 666.4	90.0 \pm 6.0	9.1 \pm 1.0	575.5 \pm 72.8	7.8 \pm 3.0	9.3 \pm 1.9	26.3 \pm 11.8	1.2 \pm 0.4
Mv Hombár	0	41.3 \pm 4.2	415.5 \pm 38.0	10374.6 \pm 1364.0	78.6 \pm 1.6	15.0 \pm 1.5	535.6 \pm 73.5	12.8 \pm 2.2	10.4 \pm 2.0	12.1 \pm 4.0	1.2 \pm 0.2
	50	33.8 \pm 4.5	560.9 \pm 95.6	11207.9 \pm 213.1	79.3 \pm 2.9	8.2 \pm 1.4 **	469.0 \pm 17.0	13.8 \pm 4.0	10.7 \pm 1.4	17.0 \pm 5.6	1.1 \pm 0.3
root	Cd (mM)										
TC 19	0	6.9 \pm 0.5	928.2 \pm 162.9	1100.9 \pm 218.8	65.8 \pm 13.9	5.0 \pm 0.4	46.7 \pm 2.5	1.5 \pm 0.2	19.8 \pm 13.0	16.7 \pm 6.4	0.3 \pm 0.1
	50	7.4 \pm 1.2	967.8 \pm 106.5	493.1 \pm 125.1***	62.4 \pm 42.4	9.5 \pm 0.6 ***	96.0 \pm 16.6 *	4.1 \pm 2.8	35.3 \pm 15.9	23.4 \pm 8.0	1.2 \pm 0.4 **
TC 33	0	7.9 \pm 0.7	1169.1 \pm 73.8	711.0 \pm 189.5	83.2 \pm 5.3	8.2 \pm 1.0	51.7 \pm 14.9	2.6 \pm 1.6	43.2 \pm 16.5	23.3 \pm 4.2	0.3 \pm 0.1
	50	7.0 \pm 0.9	945.4 \pm 47.8 *	412.8 \pm 114.2***	80.6 \pm 21.5	14.2 \pm 2.2 *	81.0 \pm 10.8 *	2.8 \pm 3.7	57.4 \pm 17.1	28.3 \pm 5.2	1.8 \pm 0.5 **
Mv8	0	5.1 \pm 1.1	1015.5 \pm 134.6	527.5 \pm 64.1	83.1 \pm 8.1	7.8 \pm 2.0	45.0 \pm 4.0	2.9 \pm 1.6	14.5 \pm 3.0	5.6 \pm 0.2	0.3 \pm 0.1
	50	7.8 \pm 0.4 *	968.0 \pm 36.3	378.4 \pm 58.4 **	78.7 \pm 11.3	15.9 \pm 1.1 **	99.5 \pm 13.4 **	4.5 \pm 2.7	64.4 \pm 36.2 *	24.6 \pm 7.0 ***	1.7 \pm 0.9 *
Mv Hombár	0	4.4 \pm 0.02	1255.9 \pm 295.7	114.7 \pm 51.9	80.8 \pm 16.9	6.3 \pm 2.4	57.0 \pm 7.0	2.5 \pm 0.8	10.9 \pm 3.0	6.8 \pm 2.4	0.3 \pm 0.1
	50	9.1 \pm 0.6 **	1117.0 \pm 110.1	401.4 \pm 49.8 ***	90.9 \pm 20.1	17.6 \pm 4.3 *	127.0 \pm 1.4 ***	5.4 \pm 1.5 *	36.5 \pm 21.7 *	20.2 \pm 6.0 **	1.6 \pm 0.3 ***