

Phytogrowth-Inhibitory Activity of Isolated Compounds from *Edenia gomezpompae* on the Germination, Root Elongation, and Seedling Respiration of *Amaranthus hypochondriacus*, *Solanum lycopersicum* and *Echinochloa crus-galli*.

Compound	Seed	% of inhibitions								
		Germination			Root growth			Seedling Respiration		
		50	100	200	50	100	200	50	100	200
		$\mu\text{g/mL}$			$\mu\text{g/mL}$			$\mu\text{g/mL}$		
2	<i>A. hypochondriacus</i>	33.7 $\pm$ 1.1*	74.8 $\pm$ 2.1*	100 $\pm$ 0.0*	37.9 $\pm$ 1.3*	78.4 $\pm$ 1.1*	100 $\pm$ 0.0*	12.7 $\pm$ 1.5	34.9 $\pm$ 1.4*	66.5 $\pm$ 1.4*
	<i>S. lycopersicum</i>	32.0 $\pm$ 1.3*	60.0 $\pm$ 1.6*	78.2 $\pm$ 2.0*	7.3 $\pm$ 1.1	20.9 $\pm$ 1.5*	45.6 $\pm$ 1.5*	19.1 $\pm$ 1.2*	38.4 $\pm$ 1.6*	69.3 $\pm$ 1.5*
	<i>E. crus-galli</i>	15.7 $\pm$ 1.8*	29.3 $\pm$ 1.3*	56.2 $\pm$ 1.2*	33.9 $\pm$ 1.9*	66.4 $\pm$ 1.4*	84.3 $\pm$ 1.2*	14.7 $\pm$ 1.1*	26.7 $\pm$ 1.2*	55.6 $\pm$ 1.4*
3	<i>A. hypochondriacus</i>	29.0 $\pm$ 1.5*	53.3 $\pm$ 1.5*	76.9 $\pm$ 1.6*	19.3 $\pm$ 1.5*	41.6 $\pm$ 1.2*	75.4 $\pm$ 1.6*	-34.2 $\pm$ 1.4*	-25.3 $\pm$ 1.7*	14.8 $\pm$ 1.2*
	<i>S. lycopersicum</i>	8.9 $\pm$ 1.1	39.8 $\pm$ 1.2*	71.8 $\pm$ 1.4*	0.0 $\pm$ 2.3	13.3 $\pm$ 1.8	47.6 $\pm$ 1.8*	32.9 $\pm$ 1.6*	54.9 $\pm$ 1.8*	90.0 $\pm$ 2.3*
	<i>E. crus-galli</i>	30.0 $\pm$ 1.6*	72.5 $\pm$ 2.4*	95.1 $\pm$ 1.7*	0.0 $\pm$ 1.8	8.1 $\pm$ 1.8	78.3 $\pm$ 1.1*	6.8 $\pm$ 1.8	16.7 $\pm$ 1.1*	39.7 $\pm$ 1.7*
4	<i>A. hypochondriacus</i>	34.3 $\pm$ 1.9*	78.4 $\pm$ 1.1*	100 $\pm$ 0.0*	10.3 $\pm$ 1.2	21.5 $\pm$ 1.7*	100 $\pm$ 0.0*	3.4 $\pm$ 1.0	10.8 $\pm$ 1.0	48.6 $\pm$ 1.8*
	<i>S. lycopersicum</i>	32.2 $\pm$ 1.4*	65.0 $\pm$ 1.9*	79.9 $\pm$ 1.4*	16.0 $\pm$ 1.6*	28.7 $\pm$ 1.5*	57.9 $\pm$ 1.4*	9.7 $\pm$ 1.8	22.7 $\pm$ 1.6*	35.8 $\pm$ 1.7*
	<i>E. crus-galli</i>	30.1 $\pm$ 1.1*	57.5 $\pm$ 1.7*	81.5 $\pm$ 1.9*	22.6 $\pm$ 1.1*	46.4 $\pm$ 1.3*	87.2 $\pm$ 1.3*	24.3 $\pm$ 1.6*	50.6 $\pm$ 1.9*	85.8 $\pm$ 1.5*
5	<i>A. hypochondriacus</i>	10.1 $\pm$ 1.3	26.6 $\pm$ 1.5*	53.8 $\pm$ 1.5*	11.9 $\pm$ 1.9	26.2 $\pm$ 1.4*	54.2 $\pm$ 1.5*	0.0 $\pm$ 1.4	6.0 $\pm$ 1.8	21.3 $\pm$ 1.6*
	<i>S. lycopersicum</i>	19.6 $\pm$ 1.6*	41.0 $\pm$ 1.3*	52.5 $\pm$ 2.2*	21.4 $\pm$ 1.5*	32.7 $\pm$ 1.6*	69.8 $\pm$ 1.9*	29.6 $\pm$ 1.7*	59.5 $\pm$ 1.7*	85.8 $\pm$ 2.5*
	<i>E. crus-galli</i>	6.4 $\pm$ 1.7	29.2 $\pm$ 1.8*	100 $\pm$ 0.0*	0.0 $\pm$ 2.4	4.6 $\pm$ 1.0	100 $\pm$ 0.0*	0.0 $\pm$ 1.6	0.0 $\pm$ 1.8	16.7 $\pm$ 1.1*
6	<i>A. hypochondriacus</i>	24.0 $\pm$ 1.8*	36.7 $\pm$ 1.2*	68.9 $\pm$ 1.3*	13.2 $\pm$ 1.8	27.2 $\pm$ 1.9*	55.0 $\pm$ 1.7*	0.0 $\pm$ 1.1	3.6 $\pm$ 1.1	12.9 $\pm$ 1.2
	<i>S. lycopersicum</i>	12.7 $\pm$ 1.3	38.8 $\pm$ 1.3*	91.2 $\pm$ 1.5*	0.0 $\pm$ 1.7	11.3 $\pm$ 1.5	46.4 $\pm$ 1.8*	32.6 $\pm$ 1.5*	59.2 $\pm$ 1.3*	78.8 $\pm$ 2.0*
	<i>E. crus-galli</i>	19.5 $\pm$ 1.5*	43.3 $\pm$ 1.9*	68.3 $\pm$ 1.9*	0.0 $\pm$ 1.2	3.8 $\pm$ 1.5	44.3 $\pm$ 1.0*	4.3 $\pm$ 1.4	9.8 $\pm$ 1.2	27.3 $\pm$ 1.8*
7	<i>A. hypochondriacus</i>	19.1 $\pm$ 1.6*	51.8 $\pm$ 1.1*	87.4 $\pm$ 1.2*	20.1 $\pm$ 1.8*	40.2 $\pm$ 1.2*	92.4 $\pm$ 1.5*	5.3 $\pm$ 1.8	13.3 $\pm$ 1.1	30.5 $\pm$ 1.7*
	<i>S. lycopersicum</i>	33.1 $\pm$ 1.5*	65.0 $\pm$ 1.5*	76.8 $\pm$ 1.1*	9.1 $\pm$ 1.1	25.4 $\pm$ 1.1*	53.1 $\pm$ 1.2*	22.0 $\pm$ 1.7*	52.9 $\pm$ 1.7*	78.4 $\pm$ 2.1*
	<i>E. crus-galli</i>	27.9 $\pm$ 1.9*	69.1 $\pm$ 1.4*	96.0 $\pm$ 1.4*	3.4 $\pm$ 1.2	13.1 $\pm$ 1.6	39.3 $\pm$ 1.1*	29.6 $\pm$ 1.2*	62.9 $\pm$ 1.9*	93.5 $\pm$ 1.4*

8	<i>A. hypochondriacus</i>	29.7±1.2*	64.3±1.0*	85.8±1.4*	23.0±1.1*	59.1±1.1*	97.2±2.3*	3.6±1.3	10.8±1.5	30.4±1.6*
	<i>S. lycopersicum</i>	33.5±1.2*	82.5±1.5*	100±0.0*	26.5±1.2*	68.6±1.0*	100±0.0*	20.1±1.8*	51.4±1.9*	86.2±1.2*
	<i>E. crus-galli</i>	33.1±1.8*	70.8±1.6*	100±0.0*	23.4±1.1*	63.8±1.5*	100±0.0*	-45.6±1.4*	-33.6±1.2*	8.7±1.1
9	<i>A. hypochondriacus</i>	33.6±1.3*	74.9±2.0*	100±0.0*	36.0±1.4*	74.3±1.6*	100±0.0*	-15.4±1.7*	-8.4±1.3	24.3±1.0*
	<i>S. lycopersicum</i>	29.9±1.5*	63.8±1.1*	89.6±2.5*	19.5±1.8*	33.5±1.4*	68.0±1.6*	20.3±1.9*	55.4±1.5*	87.2±1.4*
	<i>E. crus-galli</i>	28.3±1.9*	73.3±1.3*	100±0.0*	24.9±1.9*	68.2±1.8*	100±0.0*	12.1±1.1*	19.4±1.8*	43.3±1.8*
Rival	<i>A. hypochondriacus</i>	12.3±1.0	27.4±1.5*	39.0±1.0*	15.6±1.3*	42.1±1.5*	76.0±1.7*	22.1±1.5*	41.3±1.1*	74.2±2.0*
	<i>S. lycopersicum</i>	0.0±1.5	10.0±1.6	28.8±1.4*	19.3±1.6*	41.9±1.4*	86.0±2.1*	18.9±1.9*	62.1±1.2*	94.1±1.9*
	<i>E. crus-galli</i>	9.6±1.9	28.5±1.4*	45.2±2.1*	24.5±1.2*	47.2±1.8*	88.2±1.8*	26.4±1.3*	56.3±1.8*	87.6±1.4*

Rival = glyphosate: *N*-(phosphonomethyl) glycine (positive control).

A positive value represents inhibition; a negative value represents stimulation. $n = 4$; * $p < 0.05$

