

Supplementary material

Table S1. The mean percentage (\pm SDM) for the control and experimental groups.

Groups %	2 days	14 days	21 days
DW	4.2 (\pm 1.92)	2.8 (\pm 1.79)	3.4 (\pm 2.7)
E 35	84 (\pm 1.58)	89.8 (\pm 1.92)	90.2 (\pm 1.92)
E 17.5	70.2 (\pm 2.39)	74.2 (\pm 2.77)	78.2 (\pm 1.48)
E 8.75	52 (\pm 2.55)	50.2 (\pm 3.11)	56 (\pm 2.74)
E 4.35	28.6 (\pm 1.52)	31.2 (\pm 1.92)	33.2 (\pm 2.28)
E 2.187	15.2 (\pm 1.92)	14 (\pm 1.58)	16.4 (\pm 1.52)
AS 5	94.6 (\pm 2.07)	99.8 (\pm 0.45)	99.6 (\pm 0.89)
AS 2.5	91 (\pm 1.58)	93.6 (\pm 2.07)	96.6 (\pm 2.3)
AS 1.25	73.4 (\pm 2.07)	75.2 (\pm 1.92)	74 (\pm 1.58)
AS 0.625	51 (\pm 1.58)	48.8 (\pm 3.03)	51.2 (\pm 3.49)
AS 0.312	25.2 (\pm 2.59)	24 (\pm 2.24)	24.2 (\pm 1.92)
AA 5	93.2 (\pm 2.39)	99.4 (\pm 0.89)	99.2 (\pm 1.30)
AA 2.5	87.4 (\pm 1.67)	93 (\pm 1.58)	94.2 (\pm 2.39)
AA 1.25	72.4 (\pm 2.07)	70.4 (\pm 3.44)	74.4 (\pm 2.07)
AA 0.625	47.8 (\pm 1.92)	50 (\pm 2.12)	52.6 (\pm 2.70)
AA 0.312	23.6 (\pm 2.97)	22.2 (\pm 2.17)	22.8 (\pm 2.77)
CS 5	85 (\pm 1.58)	90.2 (\pm 2.59)	91.2 (\pm 1.92)
CS 2.5	72 (\pm 1.58)	74.4 (\pm 4.83)	84. 4 (\pm 3.05)
CS 1.25	53.6 (\pm 2.07)	51.6 (\pm 1.67)	57.2 (\pm 3.19)
CS 0.625	29 (\pm 2.12)	31.8 (\pm 1.92)	34.2 (\pm 1.79)
CS 0.312	17 (\pm 1.58)	14.8 (\pm 1.79)	16.8 (\pm 1.48)
CP 5	95.4 (\pm 1.14)	99.8 (\pm 0.45)	98.2 (\pm 2.49)
CP 2.5	88.4 (\pm 1.95)	88.6 (\pm 1.52)	91.6 (\pm 2.3)
CP 1.25	71.4 (\pm 2.07)	72 (\pm 1.58)	72.6 (\pm 2.3)
CP 0.625	45.4 (\pm 2.07)	44.2 (\pm 2.17)	44.6 (\pm 2.08)
CP 0.312	23.8 (\pm 1.48)	22.6 (\pm 1.82)	22 (\pm 1.58)
SH 5	91 (\pm 1.58)	95.6 (\pm 2.07)	96 (\pm 2.55)
SH 2.5	87.6 (\pm 1.67)	90.6 (\pm 1.14)	89.8 (\pm 2.17)
SH 1.25	69.6 (\pm 2.07)	72.4 (\pm 2.41)	71 (\pm 2.92)
SH 0.625	47.6 (\pm 2.3)	46.6 (\pm 1.67)	49.4 (\pm 1.67)
SH 0.312	22.4 (\pm 1.14)	21.8 (\pm 1.64)	23.2 (\pm 1.30)
CO 5	86.2 (\pm 1.92)	91 (\pm 1.87)	91.4 (\pm 1.67)
CO 2.5	71.6 (\pm 1.14)	74.4 (\pm 1.14)	81.8 (\pm 2.17)
CO 1.25	52.8 (\pm 1.79)	50.8 (\pm 1.30)	56.2 (\pm 1.64)
CO 0.625	29.6 (\pm 1.82)	32.4 (\pm 2.30)	35 (\pm 2.24)
CO 0.312	18 (\pm 1.59)	15.6 (\pm 1.67)	17.4 (\pm 1.14)

SDM- standard deviation of the mean; E (ethanol), PD (potassium dichromate), AS (*A. sativum* L.), AA (*A. absinthium* L.), CP (*C. pepo* L.), CS (*C. sativum* L.), SH (*S. hortensis* L.), CO (*C. officinalis* L.).

Table S2. The mean percentage of embryogenesis inhibition (\pm SDM) from the experimental groups and controls, at 2, 14 and 21 days.

Time	DW	E 35	AS 5	AA 5	CS 5	CP 5	SH 5	CO 5	F	P
2	4.2 \pm 1.92 ^d	84 \pm 1.12 ^c	94.6 \pm 1.2 ^{ab}	93.2 \pm 1.2 ^{ab}	85 \pm 0.71 ^c	95.4 \pm 0.47 ^a	91 \pm 0.6 ^b	86.2 \pm 0.68 ^c	362.67	0
14	2.8 \pm 1.79 ^d	89.8 \pm 1.36 ^c	99.8 \pm 0.26 ^a	99.4 \pm 0.44 ^a	90.2 \pm 1.16 ^c	99.8 \pm 0.18 ^a	95.6 \pm 0.78 ^b	91 \pm 0.66 ^c	418.56	0
21	3.4 \pm 2.7 ^c	90.2 \pm 1.36 ^b	99.6 \pm 0.51 ^a	99.2 \pm 0.65 ^a	91.2 \pm 0.86 ^b	98.2 \pm 1.02 ^a	96 \pm 0.96 ^a	91.4 \pm 0.59 ^b	299.37	0
Time	DW	E 17.5	AS 2.5	AA 2.5	CS 2.5	CP 2.5	SH 2.5	CO 2.5	F	P
2	4.2 \pm 1.92 ^c	70.2 \pm 1.69 ^b	91 \pm 0.91 ^a	87.4 \pm 0.84 ^a	72 \pm 0.71 ^b	88.4 \pm 0.8 ^a	87.6 \pm 0.63 ^a	71.6 \pm 0.4 ^b	443.58	0
14	2.8 \pm 1.79 ^c	74.2 \pm 1.96 ^b	93.6 \pm 1.2 ^a	93 \pm 0.79 ^a	74.4 \pm 2.16 ^b	88.6 \pm 0.62 ^a	90.6 \pm 0.43 ^a	74.4 \pm 0.4 ^b	242.09	0
21	3.4 \pm 2.7 ^d	78.2 \pm 1.05 ^c	96.6 \pm 1.33 ^a	94.2 \pm 1.2 ^{ab}	84.4 \pm 1.36 ^c	91.6 \pm 0.94 ^{ab}	89.8 \pm 0.82 ^b	81.8 \pm 0.77 ^c	206.42	0
Time	DW	E 8.75	AS 1.25	AA 1.25	CS 1.25	CP 1.25	SH 1.25	CO 1.25	F	P
2	4.2 \pm 1.92 ^c	52 \pm 1.8 ^b	73.4 \pm 1.2 ^a	72.4 \pm 1.03 ^a	53.6 \pm 0.93 ^b	71.4 \pm 0.85 ^a	69.6 \pm 0.78 ^a	52.8 \pm 0.63 ^b	220.75	0
14	2.8 \pm 1.79 ^c	50.2 \pm 2.2 ^b	75.2 \pm 1.11 ^a	70.4 \pm 1.72 ^a	51.6 \pm 0.75 ^b	72 \pm 0.65 ^a	72.4 \pm 0.91 ^a	50.8 \pm 0.46 ^b	243.53	0
21	3.4 \pm 2.7 ^c	56 \pm 1.94 ^b	74 \pm 0.91 ^a	74.4 \pm 1.03 ^a	57.2 \pm 1.43 ^b	72.6 \pm 0.94 ^a	71 \pm 1.1 ^a	56.2 \pm 0.58 ^b	148.62	0
Time	DW	E 4.375	AS 0.625	AA 0.625	CS 0.625	CP 0.625	SH 0.625	CO 0.625	F	P
2	4.2 \pm 1.92 ^d	28.6 \pm 1.07 ^c	51 \pm 0.91 ^a	47.8 \pm 0.96 ^{ab}	29 \pm 0.95 ^c	45.4 \pm 0.85 ^b	47.6 \pm 0.87 ^{ab}	29.6 \pm 0.64 ^c	146.42	0
14	2.8 \pm 1.79 ^d	31.2 \pm 1.36 ^c	48.8 \pm 1.75 ^{ab}	50 \pm 1.06 ^a	31.8 \pm 0.86 ^c	44.2 \pm 0.89 ^b	46.6 \pm 0.63 ^{ab}	32.4 \pm 0.81 ^c	105.66	0
21	3.4 \pm 2.7 ^d	33.2 \pm 1.61 ^c	51.2 \pm 2.01 ^a	52.6 \pm 1.35 ^a	34.2 \pm 0.8 ^c	44.6 \pm 0.85 ^b	49.4 \pm 0.63 ^a	35 \pm 0.79 ^c	100.57	0
Time	DW	E 2.187	AS 0.312	AA 0.312	CS 0.312	CP 0.312	SH 0.312	CO 0.312	F	P
2	4.2 \pm 1.92 ^c	15.2 \pm 1.36 ^b	25.2 \pm 1.5 ^a	23.6 \pm 1.49 ^a	17 \pm 0.71 ^b	23.8 \pm 0.6 ^a	22.4 \pm 0.43 ^a	18 \pm 0.56 ^b	27.90	0
14	2.8 \pm 1.79 ^c	14 \pm 1.12 ^b	24 \pm 1.29 ^a	22.2 \pm 1.08 ^a	14.8 \pm 0.8 ^b	22.6 \pm 0.74 ^a	21.8 \pm 0.62 ^a	15.6 \pm 0.59 ^b	32.32	0
21	3.4 \pm 2.7 ^c	16.4 \pm 1.07 ^b	24.2 \pm 1.11 ^a	22.8 \pm 1.38 ^a	16.8 \pm 0.66 ^b	22 \pm 0.65 ^a	23.2 \pm 0.49 ^a	17.4 \pm 0.4 ^b	32.06	0

SDM-standard deviation of mean; F-statistical value (degree of freedom); p-value < 0.05 was considered significant; E (ethanol), PD (potassium dichromate), AS (*A. sativum* L.), AA (*A. absinthium* L.), CP (*C. pepo* L.), CS (*C. sativum* L.), SH (*S. hortensis* L.), CO (*C. officinalis* L.); Values with no common superscript in a column within an experiment were significantly different (p < 0.05). ^a-These values are not statistically significant from those with superscript ^{ab}. ^b – these values are statistically significant or different from those with superscript ^a. ^c – these values are statistically significant or different from those with superscript ^{a, b, ab}. ^d – these values are statistically significant or different from those with superscript ^{a, b, ab, c}.

Table S3. The mean percentage of embryogenesis inhibition (\pm SDM) from the experimental groups, at 2, 14 and 21 days.

Time	AS 5	AA 5	CS 5	CP 5	SH 5	CO 5	F	P
2	10.6 \pm 2.3 ^{ab}	9.2 \pm 2.57 ^{ab}	1 \pm 0.33 ^c	11.4 \pm 1.15 ^a	7 \pm 0.84 ^b	2.2 \pm 0.63 ^c	17.50	0
14	10 \pm 9.4 ^{ab}	9.6 \pm 1.28 ^{ab}	0.4 \pm 0.16 ^c	10 \pm 0.79 ^a	5.8 \pm 1.4 ^b	1.2 \pm 0.3 ^c	18.30	0
21	9.4 \pm 1.81 ^a	9 \pm 0.86 ^a	1 \pm 0.24 ^b	8 \pm 1.17 ^a	5.8 \pm 1.24 ^a	1.2 \pm 0.34 ^b	12.71	1e-04
Time	AS 2.5	AA 2.5	CS 2.5	CP 2.5	SH 2.5	CO 2.5	F	P
2	20.8 \pm 0.83 ^a	17.2 \pm 2.57 ^a	1.8 \pm 0.73 ^b	18.2 \pm 1.94 ^a	17.4 \pm 1.4 ^a	1.4 \pm 0.4 ^b	39.46	0
14	19.4 \pm 4.61 ^a	18.8 \pm 1.05 ^a	0.2 \pm 0.08 ^b	14.4 \pm 1.35 ^a	16.4 \pm 1.16 ^a	0.2 \pm 0.04 ^b	81.09	0
21	18.4 \pm 2.88 ^a	16 \pm 2.23 ^a	6.2 \pm 1.32 ^{bc}	13.4 \pm 1.44 ^a	11.6 \pm 0.87 ^{ab}	3.6 \pm 1.04 ^c	15.78	0
Time	AS 1.25	AA 1.25	CS 1.25	CP 1.25	SH 1.25	CO 1.25	F	P
2	21.4 \pm 3.28 ^a	20.4 \pm 1.37 ^a	1.6 \pm 0.65 ^b	19.4 \pm 1.99 ^a	17.6 \pm 1.57 ^a	0.8 \pm 0.23 ^b	48.03	0
14	25 \pm 3.08 ^a	20.2 \pm 3.54 ^a	1.4 \pm 0.57 ^b	21.8 \pm 0.9 ^a	22.2 \pm 2.03 ^a	0.6 \pm 0.17 ^b	57.68	0
21	18 \pm 2 ^a	18.4 \pm 3.1 ^a	1.2 \pm 0.48 ^b	16.6 \pm 0.98 ^a	15 \pm 1.49 ^a	0.2 \pm 0.04 ^b	51.33	0
Time	AS 0.625	AA 0.625	CS 0.625	CP 0.625	SH 0.625	CO 0.625	F	P
2	22.4 \pm 2.4 ^a	19.2 \pm 2.36 ^a	0.4 \pm 0.16 ^b	16.8 \pm 1.08 ^a	19 \pm 0.71 ^a	1 \pm 0.29 ^b	131.62	0
14	17.6 \pm 3.04 ^{ab}	18.8 \pm 2.57 ^a	0.6 \pm 0.18 ^c	13 \pm 1.7 ^b	15.4 \pm 0.68 ^{ab}	1.2 \pm 0.27 ^c	56.32	0
21	18 \pm 4.35 ^a	19.4 \pm 2.58 ^a	1 \pm 0.42 ^b	11.4 \pm 2.02 ^a	16.2 \pm 1.62 ^a	1.8 \pm 0.52 ^b	26.145	0
Time	AS 0.312	AA 0.312	CS 0.312	CP 0.312	SH 0.312	CO 0.312	F	P
2	10 \pm 4.41 ^{ab}	8.4 \pm 3.02 ^{ab}	1.8 \pm 0.73 ^c	8.6 \pm 0.67 ^a	7.2 \pm 1.06 ^a	2.8 \pm 0.8 ^{bc}	7.577	0.001
14	10 \pm 2.34 ^a	8.2 \pm 2.2 ^a	0.8 \pm 0.32 ^b	8.6 \pm 1.4 ^a	7.8 \pm 1.11 ^a	1.6 \pm 0.46 ^b	11.90	1e-04
21	7.8 \pm 1.3 ^a	4.4 \pm 2.38 ^{ab}	0.4 \pm 0.12 ^b	5.6 \pm 1.03 ^a	6.8 \pm 0.49 ^a	1 \pm 0.19 ^b	15.61	0

SDM-standard deviation of mean; F-statistical value (degree of freedom); p-value < 0.05 was considered significant; AS (*A. sativum* L.), AA (*A. absinthium* L.), CP (*C. pepo* L.), CS (*C. sativum* L.), SH (*S. hortensis* L.),

CO (*C. officinalis* L.); Values with no common superscript in a column within an experiment were significantly different (p < 0.05). ^a-These values are not statistically significant from those with superscript ^a, ^{ab}, ^b – these values are statistically significant or different from those with superscript ^a, ^{ab}, ^c, ^c – these values are statistically significant or different from those with superscript ^a, ^{ab}, ^{bc}.

Table S4. Ontologies/pathogens, diseases, medicinal plants and chemical compounds used in the experiment.

Traits	ATOL*, AHOL**, OPL***, IPNI****, and ChEBI***** References
Parasite load traits	
Parasite Eggs	Egg Stage
Parasite Larvae	Larvae Stage
Parasite used	
<i>Ascaris suum</i>	AHOL_0004179
Disease description	
Ascariidiosis	AHOL_0005382
Medicinal plants used	
<i>Allium sativum</i> L.	528796-1
<i>Artemisia absinthium</i> L.	300106-2
<i>Coriandrum sativum</i> L.	840760-1
<i>Cucurbita pepo</i> L.	292416-1
<i>Calendula officinalis</i> L.	187894-1
<i>Satureja hortensis</i> L.	457680-1
Chemical compounds detected	
Polyphenols (µg/mL)	26195
Tocopherols (ng/mL)	135821
Sterols (µg/mL)	15889
Methoxylated flavones (ng/mL)	25241
Sesquiterpene lactones (ng/ml)	37667
Sulfoxide (µg/mL)	22093

*Traits in reference to the ontology ATOL: <https://www.atol-o.com/en/atol-2/>; **Traits in reference to the ontology AHOL: <https://www.atol-ontology.com/ahol/>; *** Ontology for Parasite Life cycle: http://wiki.aiisc.ai/index.php/Ontology_for_Parasite_Life_Cycle; **** International Plant Names Index-IPNI: <https://www.ipni.org/p/3>; ***** Chemical Entities of Biological Interest-ChEBI: <https://www.ebi.ac.uk/chebi/>.