

Table 1. Effect of dry leaf powders of horticultural tree leaves against root-knot nematode, *Meloidogyne javanica* on broad bean cv. Maser1.

Dry leaf powder of horticulture treatments	g /kg Soil	No. galls	No. Juveniles in soil /Pot	Develop. stages /root	No. egg-masses /Root	No. eggs / egg-mass	Nematode final popul. (P _f)	Rate of nematode reprod. (P _f /P _i)	Egg produc. %
China berry <i>(Melia azedarachta)</i>	5	27 b	381 a	37 b	27 b	78 cd	2524	2.52	21.27
	10	19 c	275 b	25 c	18 c	70 cde	1560	1.56	12.73
	15	6 hji	128 d	13 efg	6 fghi	60 def	499	0.49	3.64
	20	3 j	60 e	7 gh	4 hi	39 fgh	223	0.22	1.57
Golden Chain <i>(Cassia fistula)</i>	5	19 c	360 a	23 c	19 c	69 cde	1694	1.69	13.24
	10	12 ef	185 c	15 def	12 def	65 def	980	0.98	7.88
	15	7 ghi	130 d	11 efg	8 efg hi	43 fgh	485	0.48	3.47
	20	5 ij	40 ef	7 gh	5 ghi	23 h	162	0.16	1.16
Luciana <i>(Lucaena leucocephala)</i>	5	16 cd	179 cd	23 c	17 cd	197 a	3551	3.55	33.83
	10	14 de	77 e	19 cd	14 cde	147 b	2154	2.15	20.79
	15	10 fg	45 ef	12 efg	10 efg h	94 c	997	0.99	9.50
	20	3 j	0 f	4 h	3 i	29 gh	91	0.09	0.78
Poinciana <i>(Poinciana regia)</i>	5	19 c	214 c	24 c	19 c	140 b	2898	2.89	26.87
	10	11 ef	200 c	14 def	11 efg	76 cd	1050	1.05	8.44
	15	11 ef	160 cd	16 de	10 efg h	57 defg	746	0.74	5.75
	20	4 ij	45 ef	6 efg h	4 fghi	44 efg h	227	0.22	1.77
Purple Orchid <i>(Bauhinia Variegata)</i>	5	10 fg	30 ef	15 def	11 efg	40 fgh	485	0.48	4.44
	10	9 fgh	0 f	12 efg	9 efg hi	30 gh	282	0.28	2.72
	15	7 ghi	0 f	9 fgh	7 fghi	31 gh	226	0.22	2.19
	20	5 ij	0 f	7 gh	5 ghi	25 h	132	0.13	1.26
Check		36 a	375 a	75 a	49 a	202 a	10438	10.43	100.00

Means in each column followed by the same letters are not significantly different by (P=0.05) according to Duncan's multiple range test.

$$\text{Egg production \%} = \frac{\text{Egg masses} \times \text{Eggs, of test material}}{\text{Egg masses} \times \text{Eggs, of check}} \times 100$$

Table 2. Plant growth of broad bean plants cv. Maser 1 treated with dry leaf powders of horticultural tree leaves against root-knot nematode, *Meloidogyne javanica*.

Dry leaf powder of horticulture treatments	g / kg soil	Shoot				Root			
		Length		Weight		Length		Weight	
		Treated	Increase %	Treated	Increase %	Treated	Increase %	Treated	Increase %
China berry <i>(Melia azedarachta)</i>	5	56.00 a	40.65	40.25 a	68.96	35.25 abc	56.73	15.29 ab	70.04
	10	54.00 a	38.42	24.75 bcdef	49.53	31.25 abcd	51.20	13.00 ab	64.76
	15	54.25 a	38.70	21.32 defg	41.41	33.50 abcd	54.47	9.27 ab	50.59
	20	44.75 abcd	25.69	23.10 cdef	45.93	32.50 abcd	53.07	12.78 ab	64.16
Golden Chain <i>(Cassia fistula)</i>	5	55.00 a	39.54	23.44 cdef	46.71	41.75 a	63.47	10.30 ab	55.53
	10	54.00 a	38.42	22.62 cdef	44.78	37.50 ab	59.33	7.63 ab	39.97
	15	45.75 abcd	27.32	18.88 efg	33.84	25.50 bcde	40.19	9.66 a	52.58
	20	45.25 abcd	26.51	15.63 efg	20.08	33.50 abcd	54.47	10.85 ab	57.78
Luciana <i>(Lucaena leucocephala)</i>	5	46.50 abc	28.49	20.99 defg	40.49	34.25 abcd	55.47	15.44 ab	70.33
	10	45.25 abcd	26.51	18.24 efg	31.52	31.75 abcd	51.96	6.04 ab	24.17
	15	39.50 bcd	15.82	10.03 g	--	22.25 de	31.46	7.52 ab	39.09
	20	35.00 cd	5.00	9.35 g	--	21.75 de	29.88	5.32 b	13.90
Poinciana <i>(Poinciana regia)</i>	5	57.75 a	42.42	41.61 a	69.98	38.25 ab	60.13	10.99 ab	58.32
	10	45.25 abcd	26.51	25.90 bcde	51.77	32.75 abcd	53.43	10.91 ab	58.02
	15	49.25 ab	32.48	23.69 cdef	47.27	26.00 bcde	41.34	7.60 ab	39.73
	20	51.25 ab	35.12	25.10 bcdef	50.23	31.75 abcd	51.96	14.49 ab	68.39
Purple Orchid <i>(Bauhinia Variegata)</i>	5	47.50 abc	3.00	33.14 abcd	62.31	42.00 a	63.69	16.23 ab	71.78
	10	44.75 abcd	25.69	17.44 efg	28.38	22.50 cde	32.22	6.91 ab	33.71
	15	57.00 a	41.66	36.39 ab	65.67	31.25 abcd	51.20	10.87 ab	57.86
	20	52.75 a	36.96	34.10 abc	63.37	30.75 abcd	50.40	9.48 ab	51.68
Check		33.25 d	--	12.49 fg	--	15.25 e	--	4.58 b	--

Means in each column followed by the same letters are not significantly different by (P=0.05) according to Duncan's multiple range test.

$$\text{Increase \%} = \frac{\text{Treated plants} - \text{Untreated plants (Control)}}{\text{Treated plants}} \times 100$$

Table 3. Effect of fresh chopped horticultural tree leaves against root-knot nematode, *Meloidogyne javanica* on broad bean cv. Maser1.

Fresh chopped horticulture tree leafs treatments	g. /kg. Soil	No. galls	No. juveniles in soil /Pot	Develop. stages /root	No. egg-masses / root	No. eggs / egg-mass	Nematode final population (P _f)	Rate of nematode reproduc. (P _f /P _i)	Egg produc. %
China berry (<i>Melia azedarachta</i>)	5	11 fgh	45 ij	17 efg	14 cde	94 de	1378	1.37	13.29
	10	10 ghi	35 ij	14 fghi	11 efg	67 fg	786	0.78	7.44
	15	8 hij	35 ij	9 ijkl	7 gh	60 fgh	464	0.46	4.24
	20	6 jkl	35 ij	7 jkl	5 h	52 ghij	302	0.30	2.62
Golden Chain (<i>Cassia fistula</i>)	5	28 b	172 cde	36 b	29 b	113 cd	3485	3.48	33.11
	10	19 d	71 hi	23 d	19 c	72 efg	1462	1.46	13.28
	15	13 fg	0 j	17 efg	13 def	57 ghi	758	0.75	7.48
	20	3 l	0 j	6 kl	4 h	39 hijk	162	0.16	1.57
Luciana (<i>Lucaena leucocephala</i>)	5	24 c	234 b	33 bc	25 b	148 b	4867	4.86	46.47
	10	14 ef	160 cdef	19 def	14 cde	130 bc	1999	1.99	18.38
	15	8 hij	133 ef	11 hijk	8 fgh	81 ef	793	0.79	6.55
	20	7 ijk	73 hi	9 ijkl	7 gh	54 ghi	460	0.46	3.82
Poinciana (<i>Poinciana regia</i>)	5	25 bc	200 bc	30 c	26 b	120 c	3350	3.35	31.52
	10	17 de	154 def	20 de	17 cd	82 ef	1568	1.56	14.10
	15	14 ef	90 gh	16 efgh	14 cde	39 hijk	652	0.65	5.52
	20	3 l	40 ij	5 l	3 h	30 jk	135	0.13	0.91
Purple Orchid (<i>Bauhinia Variegata</i>)	5	17 de	178 cd	21 de	17 cd	56 ghi	1151	1.15	9.62
	10	8 hij	125 fg	12 ghij	8 fgh	34 ijk	409	0.40	2.75
	15	7 ijk	65 hi	9 ijkl	7 gh	26 k	256	0.25	1.84
	20	4 kl	35 ij	5 l	4 h	39 hijk	196	0.19	1.57
Check		36 a	375 a	75 a	49 a	202 a	10348	10.34	100.00

Means in each column followed by the same letters are not significantly different by (p=0.05) according to Duncan's multiple range test.

$$\text{Egg production \%} = \frac{\text{No. egg-masses of test treatments} \times \text{No. ggs}}{\text{No. egg-masses per check} \times \text{No. eggs}} \times 100$$

Table 4. Plant growth of fresh chopped horticultural tree leaves against root-knot nematode, *Meloidogyne javanica* infecting broad bean cv. Maser 1.

Fresh chopped horticulture tree leaf treatments	g. / kg. soil	Shoot				Root			
		Length		Weight		Length		Weight	
		Treated	Increase %	Treated	Increase %	Treated	Increase %	Treated	Increase %
China berry <i>(Melia azedarachta)</i>	5	45.25 bcd	26.51	20.95 cdef	40.38	25.21 cdef	39.50	12.16 ab	62.33
	10	46.00 bcd	27.71	4.40 gh	--	20.50 ef	25.60	3.70 de	--
	15	26.75 f	--	7.56 h	--	21.25 def	28.23	3.02 e	--
	20	45.50 bcd	26.92	20.56 cdef	39.25	31.00 bcde	50.80	11.97 ab	61.73
Golden Chain <i>(Cassia fistula)</i>	5	45.00 cd	26.11	19.97 cdef	37.45	29.50 bcde	48.30	6.29 bcde	27.18
	10	39.00 de	14.74	13.45 efgh	7.13	33.75 abc	54.81	8.31 bcde	44.88
	15	47.25 bcd	29.62	25.24 bcdef	50.51	28.75 cde	46.95	9.83 bcde	53.40
	20	63.75 a	47.84	32.10 bc	61.09	46.50 a	67.20	17.10 a	73.21
Luciana <i>(Lucaena leucocephala)</i>	5	47.00 bcd	29.25	20.34 cdef	38.59	34.25 abc	55.47	6.83 bcde	32.94
	10	43.00 de	22.67	16.68 defg	25.11	22.50 cdef	32.22	9.05 bcde	49.39
	15	36.25 def	8.27	13.80 efgh	9.49	28.25 cde	46.01	9.80 bcde	53.26
	20	45.50 bcd	26.92	16.12 efg	22.51	33.00 abcd	62.15	11.28 abc	59.39
Poinciana <i>(Poinciana regia)</i>	5	46.25 bcd	28.11	20.23 cdef	38.26	35.25 abcd	56.73	6.15 bcde	25.52
	10	47.00 bcd	29.25	16.76 defg	25.47	29.00 cde	47.41	7.76 bcde	40.97
	15	55.75 abc	40.35	25.02 bcde	50.07	28.75 cde	46.95	10.85 abcd	57.78
	20	44.50 d	25.28	20.92 cdef	40.29	30.50 bcde	50.00	12.99 ab	64.74
Purple Orchid <i>(Bauhinia Variegata)</i>	5	56.00 ab	40.62	33.32 ab	62.51	41.25 ab	63.03	12.13 ab	62.24
	10	40.25 de	17.39	16.69 defg	25.16	25.50 cdef	40.19	8.26 bcde	44.55
	15	58.00 a	42.67	28.22 bcd	55.74	30.50 bcde	50.00	13.20 ab	65.30
	20	58.50 a	43.16	41.65 a	70.01	32.50 abcde	53.07	12.87 ab	64.41
Check		33.25 ef	--	12.49 fgh	--	15.25 f	--	4.58 cde	--

Means in each column followed by the same letters are not significantly different by (p=0.05) according to Duncan's multiple range test.

$$\text{Increase \%} = \frac{\text{Treated plants} - \text{Untreated plants (Control)}}{\text{Treated plants}} \times 100$$