

Table 2. Effect of some chemical¹ and biotic inducers as well as Rizolex-T as seed treatments on plant height, shoot dry weight, root dry weight, number of nodules and nodules dry weight of faba bean plants grown in artificial infested soil² by *Rhizoctonia solani* after 60 days under greenhouse conditions

Treatments	Plant height (cm)	Increasing over control %	Shoot dry weight (g/plant)	Increasing over control %	Root dry weight (g/plant)	Increasing over control %	Nodules number/plant	Increasing over control %	Nodules dry weight (mg/plant)	Increasing over control %
Bion 5mM	48.50 a	151.9	7.05 a	141.4	1.60 bc	154.0	26.75 a	205.7	280.25 b	168.8
Salicylic acid 5mM	46.75 ab	142.9	6.05 b	107.2	1.55 cd	146.0	24.75 b	182.9	267.12 c	156.2
<i>P. polymyxa</i> ³	47.00 ab	144.2	5.75 c	96.9	1.35 e	114.3	24.75 b	182.9	269.25 c	158.3
<i>T. harzianum</i> ⁴	44.50 bc	131.2	5.57 c	90.8	1.50 d	138.1	25.50 b	191.4	278.19 b	166.8
Rizolex –T ⁵	49.00 a	154.5	6.97 a	138.7	1.68 ab	166.7	22.50 c	157.1	265.46 c	154.6
Control ⁶ (<i>R. solani</i>)	19.25 d	0	2.92 d	0.0	0.63 f	0.0	8.75 d	0.0	104.25 d	0.0
Control ⁶ healthy (non infested soil)	48.50 a		6.92 a		1.74 a		26.8 5 a		288.50 a	

1- Faba bean seeds (cv. Mistr 1) were soaked in aqueous solutions of Bion and salicylic acid for 6 hours on previous day of sowing then air dried.

2- Soil infestation was achieved by mixing the inoculum of *R. solani* with the soil at the rate of 2% of soil weight.

3- Faba bean seeds were soaked in culture filtrate for 6 hours on previous day of sowing, and then seeds were coated with bacterial cells slurry of *Paenibacillus polymyxa*.

4- Faba bean seeds moistened with 1% methyl cellulose were coated with formulated *Trichoderma harzianum*.

5- Seed dressing by fungicide was carried out at the recommended dose (3 g/kg).

6- Faba bean seeds were soaked in sterilized water for 6 hours on previous day of sowing then air dried.

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

Table 3. Effect of some chemical¹ and biotic inducers as well as Rizolex-T as seed treatments on plant height, shoot dry weight, root dry weight, number of nodules and nodules dry weight of faba bean plants grown in artificial infested soil² by *Fusarium solani* f. sp. *fabae* after 60 days under greenhouse conditions

Treatments	Plant height (cm)	Increasing over control %	Shoot dry weight (g/plant)	Increasing over control %	Root dry weight (g/plant)	Increasing over control %	Nodules number/plant	Increasing over control %	Nodules dry weight (mg/plant)	Increasing over control %
Bion 5mM	50.8 a	170.2	6.78 a	146.5	1.74 a	180.6	26.13 ab	192.0	271.50 b	156.1
Salicylic acid 5mM	47.3 b	151.6	5.48 c	99.3	1.52 c	145.2	24.00 c	168.2	265.00 c	150.0
<i>P. polymyxa</i> ³	48.5 ab	158.0	5.58 c	102.9	1.41 d	127.4	25.15 b	181.0	271.50 b	156.1
<i>T. harzianum</i> ⁴	42.8 c	127.7	4.35 d	58.2	1.33 e	114.5	25.20 b	181.6	265.50 c	150.5
Rizolex –T ⁵	49.5 ab	163.3	6.48 b	135.6	1.61 b	159.7	22.73 d	154.0	258.50 d	143.9
Control ⁶ (<i>F. solani</i>)	18.8 d	0.0	2.75 e	0.0	0.62 f	0.0	8.95 e	0.0	106.00 e	0.0
Control ⁶ healthy (non infested soil)	48.5 ab		6.92 a		1.74 a		26.85 a		288.50 a	

1- Faba bean seeds (cv. Misr 1) were soaked in aqueous solutions of Bion and salicylic acid for 6 hours on previous day of sowing then air dried.

2- Soil infestation was achieved by mixing the inoculum of *F. solani* f. sp. *fabae* with the soil at the rate of 2% of soil weight.

3- Faba bean seeds were soaked in culture filtrate for 6 hours on previous day of sowing, and then seeds were coated with bacterial cells slurry of *Paenibacillus polymyxa*.

4- Faba bean seeds moistened with 1% methyl cellulose were coated with formulated *Trichoderma harzianum*.

5- Seed dressing by fungicide was carried out at the recommended dose (3 g/kg).

6- Faba bean seeds were soaked in sterilized water for 6 hours on previous day of sowing then air dried.

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