

Table 1. Number, name, source and pedigree of promising sesame lines used in the present work.

No.	Name	Source	Pedigree
L ₁	H ₄	Egypt	A cross between two local lines, Ismailia line 10 x Neu H.B
L ₂	H ₁₀	Egypt	A cross between two local lines, Giza 25 x U C. R 11
L ₃	S ₁	Egypt	Selection from local lines under breeding program at Agro. Dept., Agric. Fac., SCA*
L ₄	S ₆	Egypt	Selection from local lines under breeding program at Agro. Dept., Agric. Fac., SCA
L ₅	L.R ₁₀	Egypt	Land race collected from El-Sharkia Governorate
L ₆	L.R ₂₀	Egypt	Land race collected from Ismailia Governorate
Check variety	Taka 2	Egypt	Local line 2 produced by Nuclear Research Center, Atomic Energy Authority, Egypt

- * SCA= Suez Canal University.

Table 2. Evaluation scale used through the current work.

Score	Infection %	Category
0	No infection	Immune (I)
1	0.10 to 5.00	Resistance (R)
2	5.10 to 15.0	Tolerance (T)
3	15.10 to 30	Moderately Susceptible (MS)
4	30.10 to 50	Susceptible (S)
5	> 50	Highly Susceptible (HS)

Table 3. Infection percentage of *Fusarium oxysporum* (FOS), *Macrophomina phaseolina* (MPH) and *Rhizoctonia solani* (RHS) pathogens under non-inoculation conditions for promising sesame lines growing through seasons of 2009 and 2010.

No.	Promising sesame lines	<i>Fusarium oxysporum</i> (FOS)				<i>Macrophomina phaseolina</i> (MPH)				<i>Rhizoctonia solani</i> (RHS)			
		2009		2010		2009		2010		2009		2010	
		Mean %	Category	Mean %	Category	Mean %	Category	Mean %	Category	Mean %	Category	Mean %	Category
Non- inoculation conditions													
1	H ₄	50.06	HS	39.98	S	23.11	MS	15.81	MS	21.35	MS	18.22	MS
2	H ₁₀	29.49	MS	18.27	MS	41.79	S	37.19	S	34.79	S	29.19	MS
3	S ₁	3.30	R	4.26	R	15.00	T	10.19	T	14.40	T	13.10	T
4	S ₆	14.08	T	13.98	T	11.13	T	15.12	MS	13.52	T	15.92	MS
5	L.R ₁₀	28.29	MS	19.80	MS	15.12	MS	10.22	T	14.19	T	13.09	T
6	L.R ₂₀	35.13	S	31.62	S	30.12	S	38.43	S	31.71	S	34.14	S
7	Taka 2	3.20	R	3.40	R	4.50	R	4.90	R	4.10	R	3.94	R
Inoculation conditions													
1	H ₄	18.03	MS	14.11	T	8.10	T	4.91	R	4.05	R	4.29	R
2	H ₁₀	11.10	T	8.21	T	21.00	MS	17.10	MS	14.89	S	5.14	T
3	S ₁	0.50	R	0.96	R	2.50	R	3.11	R	5.01	T	5.10	T
4	S ₆	3.02	T	4.08	R	3.18	R	4.20	R	2.54	T	3.94	T
5	L.R ₁₀	11.21	T	5.90	T	4.19	R	2.12	T	3.29	T	2.50	T
6	L.R ₂₀	14.10	T	10.11	T	5.10	T	9.13	T	8.72	S	11.11	T
7	Taka 2	0.80	R	0.70	R	0.80	R	1.01	R	1.01	R	0.90	R
LSD (0.05)		3.875		3.392		3.284		3.393		3.053		2.967	
LSD (0.01)		5.871		5.139		4.976		5.140		4.625		4.495	

R= resistant, T= Tolerance, MS = moderately susceptible, S = susceptible and HS = Highly susceptible.

Table 4. Source of variation, degree of freedom (df) and mean squares of studied characters for inoculated and non-inoculated promising sesame lines grown in seasons 2009-2010 through infection by FOS, MPH and RHS.

Source of variance	df	Days to 50 % flowering (days)	Maturity date (days)	Plant height (cm)	Height of first fruiting branch (cm)	No. of branches/ plant	No. of capsules/ plant	1000-seed weight (g)	Seed yield/ plant (g)	Oil seed content
<i>Fusarium oxysporum</i> (FOS)										
Year (y)	1	101.32 **	197.28 **	590.38 **	2.29	0.13	9.85 *	19.39 *	49.93 *	140.15 **
Replic. x (y)	3	1.97	2.87	10.97	5.67	0.45	13.95	3.13	0.66	2.90
Inoculation (i)	1	19.87 *	28.17 **	716.35**	109.18 **	49.21 **	241.41**	2.41**	32.23*	27.27 **
y x i	1	10.02 **	14.39 **	26.32	2.16	0.15	3.13	34.19*	6.77	24.17
Error 1	4	0.29	0.49	67.45	0.46	0.48	1.99	2.91	2.70	0.59
Psl	6	158.35 **	226 **	234.35**	3.64	2.34 *	17.97 **	129.12 **	73.23 **	239.02 **
y x Psl	6	7.98 **	17.29 **	138.67*	2.01	1.13 *	0.88	2.89	4.08	15.89 *
i x Psl	6	1.12	2.74	16.54	0.91	0.09	3.46	1.46	2.06	2.77
y x i x Psl	6	0.60	0.99	21.13	2.18	0.11	0.62	0.56	0.62	1.44
Error 2	48	1.18	2.09	43.21	1.94	0.21	5.61	3.04	2.44	2.09
<i>Macrophomina phaseolina</i> (MPH)										
Year (y)	1	130.25 **	201.58 **	637.31 **	2.22	0.31 *	8.45 *	21.58 *	51.05*	149.10 **
Replic. x y	4	2.43	2.98	15.92	4.27	0.61	10.58	2.94	0.49	2.41
Inoculation (i)	1	21.23 **	31.04 **	786.41**	100.10 **	63.01 **	233.12**	2.01**	29.48*	32.25 **
y x i	1	14.97	17.10 **	32.33	1.76	0.11	3.73	37.14*	5.29	29.07
Error 1	4	0.51	0.69	71.05	0.96	0.48	1.77	2.99	2.43	0.53
Psl	6	219.12 **	239 **	264.03**	2.84	1.21 *	14.99 **	134.21**	80.01**	220.04**
y x Psl	6	13.87 *	19.22 **	149.97*	1.41	0.20	1.01	2.79	4.97	16.80*
i x Psl	6	2.17	2.98	19.59	1.09	0.14	3.16	1.42	2.46	2.90
y x i x Psl	6	1.14	1.29	31.11	2.01	0.19	0.42	0.61	0.74	1.45
Error 2	48	2.01	2.59	50.02	1.80	0.28	6.89	3.41	2.94	2.14
<i>Rhizoctonia solani</i> (RHS)										
Year (y)	1	144.56 **	191.68 **	597.11 **	2.92	0.27	7.75 *	18.11*	45.64 *	177.11 **
Replic. x y	4	2.01	2.91	17.02	6.11	0.50	11.08	2.57	0.71	2.49
Inoculation (i)	1	27.51 **	36.11 **	669.51**	120.12 **	43.91 **	223.90**	3.00**	35.84 *	40.20 **
y x i	1	18.41**	22.19 **	28.38	2.16	0.20	4.13	41.05*	5.81	21.09
Error 1	4	0.49	0.81	60.07	1.36	0.39	2.27	2.67	2.19	0.57
Psl	6	241.32 **	257 **	204.33**	3.04	3.28 **	19.91 **	130.58**	69.94 **	241.00**
y x Psl	6	16.59 **	23.32 **	136.38*	2.44	0.17	1.08	2.97	5.01	19.10*
i x Psl	6	2.04	3.18	14.41	2.01	0.22	3.86	1.51	2.76	2.34
y x i x Psl	6	1.77	1.89	35.02	1.71	0.30	0.81	0.47	0.92	1.49
Error 2	48	2.46	2.97	42.00	1.74	0.12	8.04	3.71	2.57	2.10

1 - Psl = Promising sesame lines

2- *,** Significant at the 0.05 and 0.01 probability levels, respectively.

Table 5. Days to 50% flowering (days), maturity date(days) and plant height (cm) under inoculated and non-inoculated promising sesame lines grown in seasons during 2009-2010.

Promising sesame lines	2009									2010								
	FOS			MPH			RHS			FOS			MPH			RHS		
	Non- In.	Inoc.	Mean	Non- In.	Inoc.	Mean	Non- In.	Inoc.	Mean	Non- In.	Inoc.	Mean	Non- In.	Inoc.	Mean	Non- In.	Inoc.	Mean
	Days to 50% flowering (days)																	
H₄	54.21	51.33	52.77	53.24	50.13	51.69	53.89	49.86	51.88	55.27	52.32	53.79	53.78	50.52	52.15	53.49	50.66	52.08
H₁₀	53.02	49.80	51.41	52.52	49.03	50.78	53.04	48.55	50.79	52.92	50.03	51.48	52.41	49.82	51.12	53.11	50.01	51.56
S₁	48.09	45.11	46.60	49.01	46.21	49.61	48.13	46.11	47.12	48.24	45.18	46.71	49.14	45.64	47.39	48.07	46.23	47.15
S₆	49.87	44.88	44.75	48.08	45.01	46.55	47.54	44.59	46.22	49.42	45.03	47.23	48.23	44.41	46.32	47.11	45.12	46.12
L.R₁₀	50.68	48.60	49.37	50.20	48.48	49.34	50.89	47.78	49.34	50.98	48.08	49.53	51.29	48.99	50.14	51.01	49.03	50.02
L.R₂₀	51.06	50.01	50.54	51.39	49.41	50.04	52.38	49.88	51.13	50.16	47.85	49.01	51.09	48.01	49.55	52.07	48.32	50.20
Taka 2	50.04	48.38	49.21	50.50	49.23	49.87	50.97	47.91	49.44	50.26	48.01	49.14	50.67	48.79	49.73	49.68	47.50	48.62
Mean	50.99	48.30	49.24	50.71	48.21	49.70	50.98	47.81	49.42	50.04	48.07	49.56	50.94	48.03	49.49	50.65	48.12	49.39
L.S.D, 0.05		1.44			1.23			1.35			1.45			1.32			1.38	
	Maturity date (days)																	
H₄	125.32	121.14	123.23	123.98	120.07	122.03	126.32	122.14	124.23	123.22	119.92	121.57	125.18	120.77	122.98	127.12	121.88	124.50
H₁₀	123.21	118.79	121.00	123.01	119.42	121.22	123.98	121.01	122.50	124.02	118.73	121.38	123.58	119.59	121.59	124.38	120.44	122.41
S₁	115.20	111.40	113.30	116.89	112.80	114.85	112.30	108.89	110.60	113.59	110.09	111.84	114.81	108.21	111.51	111.48	107.54	109.51
S₆	109.28	105.88	107.58	110.32	107.35	108.84	107.01	103.51	105.26	109.88	105.47	107.68	110.48	104.74	107.61	106.22	102.98	104.60
L.R₁₀	120.31	119.21	119.76	121.03	118.43	119.73	124.32	119.12	121.72	120.89	120.00	120.45	119.84	117.12	118.48	123.02	119.01	121.02
L.R₂₀	118.21	114.01	116.11	117.09	113.75	115.42	115.30	111.11	113.21	116.29	112.23	114.26	117.49	111.57	114.53	115.52	112.01	113.77
Taka 2	116.84	115.87	116.36	117.05	116.23	116.64	115.97	114.86	115.42	115.89	115.77	115.83	116.01	116.85	116.43	112.07	114.89	113.48
Mean	118.34	115.19	116.76	118.48	115.44	116.96	117.89	114.37	116.13	117.68	114.55	116.14	118.20	114.12	116.16	117.12	114.11	115.61
L.S.D, 0.05		2.13			1.97			2.45			2.15			2.18			2.55	
	Plant height (cm)																	
H₄	147.21	149.99	148.60	149.29	150.11	149.70	144.29	146.26	145.28	150.20	153.31	151.76	148.20	149.99	149.10	147.21	150.49	148.85
H₁₀	143.21	144.75	143.98	141.33	143.35	142.34	143.35	147.25	145.30	144.33	149.39	146.89	143.28	147.20	145.24	144.05	146.45	145.25
S₁	134.32	138.40	136.36	130.14	136.23	133.19	127.34	132.30	129.82	132.24	137.44	134.84	130.89	135.87	133.38	128.04	132.84	130.44
S₆	132.69	135.08	133.89	128.38	131.98	130.18	124.04	129.04	126.54	127.34	129.99	128.67	127.80	131.10	129.45	123.94	127.82	125.88
L.R₁₀	140.30	143.00	141.65	139.12	139.99	139.56	135.19	138.34	136.77	141.25	144.11	142.68	138.81	141.85	140.33	133.99	138.08	136.04
L.R₂₀	144.32	148.30	146.30	145.02	148.17	146.60	145.49	148.29	146.89	144.00	147.02	145.51	141.09	143.32	142.21	147.01	149.25	148.13
Taka 2	130.25	141.35	135.80	133.52	140.32	136.92	134.25	139.89	137.07	135.34	140.55	137.95	138.04	143.04	140.54	139.45	142.67	141.06
Mean	138.90	142.98	140.94	138.11	141.45	139.78	136.28	140.19	138.24	139.24	143.12	141.19	138.30	141.77	140.04	137.67	141.08	139.38
L.S.D, 0.05		2.23			2.46			2.62			2.60			2.40			2.76	

1 - FOS= *Fusarium oxysporum* f. sp. *sesami*, MPH= *Macrophomina phaseolina* and RHS *Rhizoctonia solani*.

2 - Means followed by the same letter(s) and column(s) are not significantly different at P = 0.05 level.

3 - Non- In.= non-inoculated, Inoc.= inoculated

Table 6. Height of first fruiting branch, number of branches/ plant and number of capsules/ plant under inoculated and non-inoculated promising sesame lines grown in seasons during 2009- 2010.

Promising sesame lines	2009									2010								
	FOS			MPH			RHS			FOS			MPH			RHS		
	Non- In.	Inoc.	Mean	Non- In.	Inoc.	Mean	Non- In.	Inoc.	Mean	Non- In.	Inoc.	Mean	Non- In.	Inoc.	Mean	Non- In.	Inoc.	Mean
Height of first fruiting branch (cm)																		
H₄	10.35	11.95	11.15	13.35	13.86	13.61	11.40	11.36	11.38	12.15	12.86	12.51	13.95	13.91	13.93	12.16	12.84	12.50
H₁₀	12.35	12.99	12.67	12.68	12.97	12.83	13.20	13.48	13.34	13.23	14.73	13.98	12.89	13.84	13.37	15.28	15.98	15.63
S₁	7.69	7.16	7.43	8.20	8.89	8.55	5.98	6.48	6.23	6.59	6.97	6.78	8.29	8.79	8.54	5.18	6.78	5.98
S₆	7.20	6.94	7.07	6.98	7.01	6.99	6.48	6.03	6.26	7.06	6.65	6.86	6.81	7.00	6.91	6.61	5.91	6.26
L.R₁₀	8.30	10.11	9.21	9.23	9.95	9.59	10.01	10.89	10.45	8.79	9.78	9.29	10.85	10.98	10.92	10.52	10.82	10.67
L.R₂₀	6.35	7.19	6.77	7.35	7.65	7.50	6.32	6.87	6.60	7.85	8.05	7.95	7.89	7.99	7.94	6.82	6.98	6.90
Taka 2	5.85	5.32	5.59	6.38	5.87	6.13	6.30	5.90	6.10	5.68	5.04	5.68	6.20	5.44	5.82	5.50	5.63	5.57
Mean	8.33	8.80	8.56	9.17	9.46	9.31	8.53	8.72	8.62	8.76	9.16	9.01	9.55	9.71	9.63	8.87	9.28	9.07
L.S.D, 0.05		1.49			1.57			1.61			1.65			1.65			1.83	
Number of fruiting branches/ plant																		
H₄	4.12	5.78	4.95	4.01	5.48	4.75	3.69	4.59	4.14	4.40	5.62	5.01	4.21	4.91	4.56	3.81	4.84	4.33
H₁₀	5.04	5.91	5.48	4.87	5.71	5.79	4.25	4.78	4.52	5.11	5.42	5.27	4.90	4.98	4.94	4.05	4.46	4.26
S₁	6.36	6.89	6.61	6.41	6.72	6.67	5.91	5.97	5.94	6.17	7.11	6.64	6.01	6.84	6.43	5.83	5.99	5.91
S₆	6.80	6.92	6.86	6.27	6.57	6.42	6.31	6.67	6.49	6.42	6.67	6.55	6.01	6.55	6.28	6.41	6.79	6.60
L.R₁₀	5.43	5.87	5.65	5.64	5.96	5.80	5.06	5.66	5.36	4.91	4.95	4.93	4.74	5.32	5.03	5.26	5.79	5.53
L.R₂₀	6.04	6.72	6.38	6.10	6.79	6.45	5.48	5.89	5.69	6.09	6.57	6.33	5.73	6.41	6.07	5.48	5.98	5.73
Taka 2	5.89	6.37	6.13	6.12	6.74	6.43	6.03	6.25	6.14	5.71	6.17	5.94	6.02	6.54	6.28	5.73	6.07	5.90
Mean	5.67	6.35	6.15	5.63	6.26	6.04	5.25	5.69	5.47	5.54	6.07	5.81	5.37	5.94	5.66	5.22	5.73	5.47
L.S.D, 0.05		0.76			0.77			0.86			0.80			0.82			0.87	
Number of capsules/ plant																		
H₄	51.32	58.48	54.90	55.61	60.02	57.82	46.21	52.42	49.32	54.31	62.33	58.32	50.63	60.06	55.34	41.96	50.52	46.24
H₁₀	62.32	69.42	65.87	60.32	70.23	65.28	53.64	62.23	57.94	58.93	60.02	59.48	62.02	69.45	65.74	56.02	59.99	50.01
S₁	80.36	86.25	83.31	84.38	89.42	86.90	79.03	82.36	80.70	78.30	82.39	80.35	80.78	89.08	84.93	79.71	84.32	82.02
S₆	78.36	84.39	81.38	80.30	85.44	82.87	72.98	79.97	76.48	72.06	80.45	76.26	80.02	86.25	83.14	70.09	79.75	74.92
L.R₁₀	67.09	71.01	69.05	70.14	76.23	73.19	67.32	71.25	69.29	65.01	69.51	67.26	73.10	78.89	75.99	62.44	69.95	66.20
L.R₂₀	75.58	79.89	77.74	79.32	82.36	80.84	71.35	78.52	74.94	71.08	78.31	74.70	72.44	78.98	75.71	67.33	74.30	70.82
Taka 2	73.21	78.32	75.77	70.32	80.15	75.24	67.98	82.05	75.02	70.24	76.55	73.40	71.55	81.10	76.33	69.90	83.75	76.82
Mean	69.75	75.39	72.57	71.48	77.69	74.59	65.50	72.69	69.10	67.13	72.79	69.97	70.08	77.69	73.88	63.92	71.80	66.72
L.S.D, 0.05		2.93			2.97			3.13			2.71			2.96			3.31	

1 - FOS= *Fusarium oxysporum* f. sp. *sesami*, MPH= *Macrophomina phaseolina* and RHS= *Rhizoctonia solani*.

2 - Means followed by the same letter(s) and column(s) are not significantly different at P = 0.05 level.

3 - Non- In.= non-inoculated, Inoc.= inoculated.

Table 7. Thousand seed weight (g), Single plant yield (g) and oil seed content (%) under inoculated and non-inoculated promising sesame lines grown in seasons during 2009-2010.

Promising sesame lines	2009									2010								
	FOS			MPH			RHS			FOS			MPH			RHS		
	Non- In.	Inoc.	Mean	Non- In.	Inoc.	Mean	Non- In.	Inoc.	Mean	Non- In.	Inoc.	Mean	Non- In.	Inoc.	Mean	Non- In.	Inoc.	Mean
Thousand seed weight (g)																		
H₄	3.52	3.67	3.60	3.46	3.60	3.53	3.40	3.52	3.46	3.59	3.69	3.64	3.66	3.66	3.66	3.46	3.40	3.43
H₁₀	3.77	3.94	3.86	3.72	3.81	3.77	3.80	3.86	3.83	3.79	3.89	3.84	3.68	3.78	3.73	3.80	3.84	3.82
S₁	4.02	4.10	4.06	3.93	3.98	3.96	3.87	3.89	3.88	4.00	4.08	4.04	3.84	3.91	3.88	3.91	3.99	3.95
S₆	4.05	4.13	4.09	4.02	4.10	4.06	3.97	3.99	3.98	4.01	4.10	4.06	4.00	4.03	4.02	4.01	4.09	4.05
L.R₁₀	3.77	3.93	3.86	3.88	3.93	3.91	3.81	3.89	3.85	3.69	3.79	3.74	3.83	3.91	3.87	3.71	3.78	3.75
L.R₂₀	3.88	3.94	3.91	3.73	3.83	3.78	3.92	3.96	3.94	3.72	3.82	3.77	3.77	3.87	3.82	3.87	3.90	3.89
Taka 2	3.91	4.01	3.96	3.70	3.89	3.80	3.87	3.92	3.90	3.81	3.93	3.87	3.78	3.99	3.89	3.91	3.96	3.93
Mean	3.85	3.96	3.91	3.78	3.88	3.83	3.80	3.86	3.83	3.80	3.90	3.85	3.79	3.88	3.84	3.81	3.85	3.83
L.S.D, 0.05		0.37			0.38			0.38			0.36			0.32			0.41	
Single plant yield (g)																		
H₄	10.32	13.39	10.36	12.35	14.85	13.60	9.98	11.97	10.98	11.02	13.12	12.07	12.05	13.45	12.75	10.36	12.67	11.52
H₁₀	11.58	12.74	12.61	11.98	12.19	12.09	10.03	11.90	10.96	10.52	12.04	11.28	11.77	12.69	12.23	11.01	13.04	12.03
S₁	15.02	17.22	16.12	14.68	15.88	15.28	11.60	14.20	12.90	15.00	19.96	17.48	14.78	19.48	17.13	13.44	18.69	16.07
S₆	18.36	21.04	19.70	17.05	19.15	18.01	14.87	17.81	16.34	17.44	18.55	19.99	17.55	18.91	17.87	13.89	17.07	15.48
L.R₁₀	11.89	13.08	12.49	10.68	12.78	11.73	12.69	14.81	13.75	12.19	15.02	13.61	11.77	12.97	12.37	11.19	13.09	12.14
L.R₂₀	9.04	11.32	10.18	8.78	10.49	9.64	7.51	9.55	8.53	10.30	12.52	11.41	9.18	10.89	10.04	7.59	9.19	8.39
Taka 2	17.02	19.23	18.13	16.58	18.87	17.73	15.98	16.23	16.11	16.62	17.04	16.37	16.88	16.47	16.68	16.56	15.30	15.93
Mean	13.32	15.43	14.23	13.16	14.89	14.01	11.81	13.78	12.80	13.30	15.46	14.60	13.43	14.98	14.11	12.01	14.15	13.08
L.S.D, 0.05		1.85			1.65			1.57			1.64			1.64			1.59	
Oil seed content (%)																		
H₄	56.69	56.75	56.72	56.09	56.69	56.39	56.31	56.37	56.34	56.88	56.89	56.89	56.21	56.38	56.30	56.39	56.56	56.48
H₁₀	51.65	52.05	51.85	51.65	51.79	51.72	52.01	52.24	52.13	52.60	52.74	52.67	52.08	52.48	52.28	52.11	52.42	52.27
S₁	53.45	53.68	53.57	53.45	53.86	53.66	53.21	53.47	53.34	53.85	54.05	53.95	53.98	54.14	54.05	53.29	53.69	53.49
S₆	52.35	52.74	52.55	52.35	52.69	52.52	52.89	52.92	52.91	52.31	52.52	52.42	52.08	52.38	52.23	52.45	52.62	52.54
L.R₁₀	57.33	57.65	57.49	57.33	56.92	57.13	57.21	57.44	57.33	57.55	57.77	57.66	56.97	57.14	57.06	57.29	57.42	57.36
L.R₂₀	52.39	52.69	52.54	52.39	52.72	52.56	53.04	53.37	53.21	52.47	52.69	52.58	52.67	52.78	52.73	53.14	53.33	53.24
Taka 2	53.58	53.68	53.63	53.58	53.61	53.60	53.54	52.98	53.26	53.78	53.72	53.75	53.67	53.67	53.67	53.74	53.28	53.51
Mean	53.92	54.18	54.05	53.85	54.04	53.94	54.03	54.11	54.07	54.21	54.34	54.27	54.01	54.14	54.05	54.08	54.19	54.13
L.S.D, 0.05		1.37			1.32			1.29			1.35			1.29			1.30	

1 - FOS= *Fusarium oxysporum* f. sp. *sesami*, MPH= *Macrophomina phaseolina* and RHS= *Rhizoctonia solani*.

2 - Means followed by the same letter(s) and column(s) are not significantly different at P = 0.05 level.

3 - Non- In.= non-inoculated, Inoc.= inoculated.