the number of corn pests were significantly decreased. *Chilo agamemn* infestation decreased to 20±3.3 and 25±3.1 individuals after 90 days during season, 2014 and 2013 as compared to 98±9.3 and 99±9.3 individuals in the control plots in both two seasons. The obtained results are similar to other studies carried out by Castillo *et al.* (2000) and Espin *et al*. (1989) on their work on *C. capitata.*

The yield loss found in table (4) which showed that the weight of corn in the field during season 2013, 4089±82.80 and 4999±66.73 after treatments with *Nano-M. flavoviride* and *Nano-I. fumosorosea* respectively as compared to 2611±33.80 in the control . the percentage of yield loss 47% in the control and 0.1% in the plots treated with *Nano-I. fumosorosea.*

During season 2014 the results show that the weight of corn wer3e significantly decreased to in the control as compared to and in plots treated with *Nano-I. fumosorosea and Nano-M. flavoviride* ., respectively. The percentage of yield loss are 0.02% and52% in plots treated with *Nano-I. fumosorosea* and in the control (Table 4).

Figure (1 & 2) show that the percentage of infestations were significantly decreased durin both two seasons

These results are also agree with Sabbour & Shadia Abd El-Aziz (2002 and 2010) and Shadia Abdel Aziz & Nofel (1998), who proved that the application with bioinsecticides increased the yield and decreased the infestation with insect pests. Also, results were in accordance with Castillo *et al.* (2000) who reported that the virulence of *B. bassiana* against *C. capitata* ranged between 8 to 30% and decrease the infestation among the olive fruits. Espin *et al*. (1989) recorded that *C. capitata* mortality ranged between 69 and 78% after bioinsecticides treatments.

The results were matched with Abdel-Rahman & Abdel-Mallek (2001), Abdel-Rahman (2001) and Abdel-Rahman *et al*. (2004), when they controlled cereal aphids with entomopathogenic fungi. They found that the infestation was reduced after fungi applications under laboratory and field conditions. Sabbour & Sahab (2005, 2007), Tanda and Kaya (1993) and Sahab and Sabbour (2011) found that the fungi reduced insect infestations of cabbage and tomato pests under laboratory and field conditions.

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Table 1: Effect of nano-*M. flavoviride* against the target insect pests larvae under laboratory conditions

Insects	LC_{50}	*slope*	*Variance*	*95% confidence limits*
Ostrinia nubilalis	$88x10^4$	0.1	1.01	69-129
Sesamia cretica	$76x10^4$	0.2	1.00	65-140
Chilo agamemnon	$106x10^4$	0.1	1.03	119-187

Table 2: Effect of nano-*Isaria fumosorosea* against target insect pests under laboratory conditions

Insects	LC_{50}	slope	Variance	95% confidence limits
Ostrinia nubilalis	$56 x10^4$	1.01	0.02	41-76
Sesamia cretica	$68 x10^4$	0.10	1.01	54-87
Chilo agamemnon	$95 x10^4$	0.10	1.01	85-109

Table 3: Effect of different treatments on the three target insect pests under field conditions

Post 1st application date	Treatments	Number of infestation (Mean±SE) during the two seasons					
		Ostrinia nubilalis		*Sesamia cretica*		*Chilo* agamemnon	
		2013	2014	2013	2014	2013	2014
20	Control	44±6.2	68±9.8	61±2.5	79±9.7	69±9.9	78±9.9
50		69±8.9	76±9.1	79±3.4	88±8.9	85±7.9	91±9.3
90		79±8.3	89±9.1	88±5.1	97±2.9	98±9.9	99±9.9
20	*Nano-M.*	12±0.1	14±0.1	16±4.1	15±1.0	16±0.3	17±0.2
50	*flavoviride*	16±0.2	15±0.1	20±0.7 24±0.4	23±0.2	19±0.4	19±0.4
90		20±1.0	18±0.2		19±0.3	20±0.3	20±0.1
20	*Nano-I.*	19±3.1	20±0.1 21±1.0	21±2.1	21±2.0	21±3.1	21±2.1
50	*fumosorosea*	20±1.2 22±0.2	22±1.0	22±3.1 25±1.1	23±0.2	24±2.1 25±1.1	22±1.0
90					26±2.1		24±1.3
F-value		22.2	37.3	34.1	28.8	30.1	24.8
LSD at 5%		11.2	14.4	13.8	15.0	16.8	16.7

Table 4: Assessments of damage caused in corn crop field after the nano- entomopathogenic fungi treatment

Treatments	Season 2013		Season 2014	
	Weight of corn crop (kg/ feddan)	% yield loss	Weight of corn crop (kg/feddan)	yield loss %
Nano-M. flavoviride	4089±82.80	0.1	4990±69.83	0.02
Nano-I. fumosorosea	4999±66.73	-	5099±49.74	-
Control	2611±33.80	47	2400±33.10	52
F-value	33.6		32.9	
LSD at 5%	126.7		126.5	

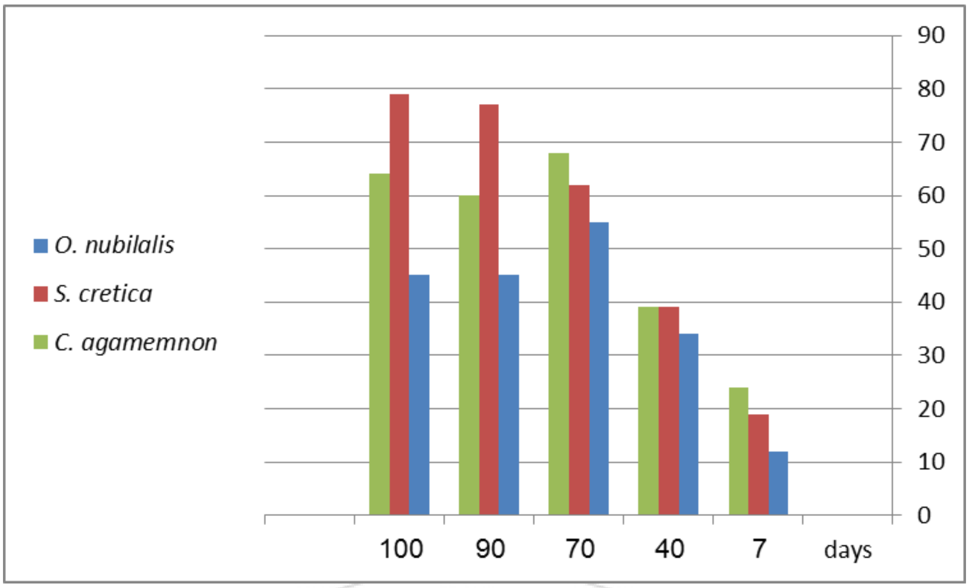

Figure 1: Effect of the nano- fungus *I. fumosorosea* under field conditions

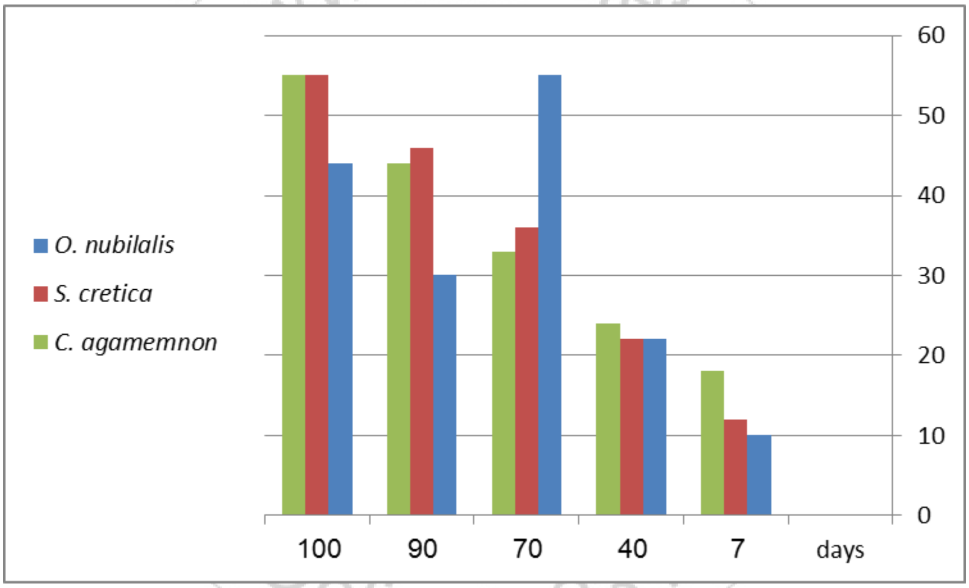

Figure 2: Effect of the nano- fungus M. flavoviride under field conditions