Table (10): Average No of P. pentagona different stages in the pre. treat. Count and three time after winter spraying on peach trees at Meet-Ghamr, Dakahliya. (1st Experiment on 6 December 2000).

Treatment and		Pre-trea	Pre-treat. Count			1st post to	1st post treat. Count (one month)	nt		2 nd post to	2nd post treat. Count (Three months)	t t		3 rd post 1 (six 1	post treat. Count (six months)	unt
Dosage/100L water	Nym.	Ad. F.	Ovip.	Total	Nym.	Ad. F.	Total	Total	Nym.	Ad. F.	Ovip.	Total	Nym.	Ad. F.	Ovip.	Total
	22	65	6	96	7	4	2	7	1	2	2	5	2	3	3	8
1- Capl-2 oil	26	29	9	66	2	S	-	«	2	. ٤	2	7	4	4	3	=
(95%) 1.5L.	23	65	S	93	1	4	-	9	1	3	2	9	3	3	2	8
	25	19	5	91	-	4	-	9	2	2	2	9	3	4	7	6
2- Super Royal	23	63	000	94		3	7	9	1	3	3	7	3	4	က	10
oil (95%) 1.5L.	26	99	9	86	-	4	-	9	7	2	2	9	2	S	2	6
	27	63	7	97	2	4	7	8	7	3	3	8	4	4	4	12
3-Misrona oil	25	70	5	100	-	9	1	8	2	4	2	8	3	9	7	-
(80%) 2.5L.	29	99	∞	103	2	7	2	10	3	3	3	6	4	4	3	
	25	29	9	95	2	9	2	10	2	4	8	6	4	5	3	12
4-Mox oil	22	69	5	96	1	8	-	10	7	4	7	8	3	5	3	11
(82%) 2.0L.	24	63	7	94	7	4	7	8	2	3	3	8	4	4	w	13
a lange	27	69	00	104	7	6	7	13	3	5	3	11	2	5	4	4
5-Tiger oil	24	64	7	95	1	9	2	6	2	3	3	8	4	4	4	12
(80%) 2.5L.	26	29	9	66	7	v	1	10	7	4	2	8	8	S	3	11
Control	24	69	7	86	27	87	10	124	30	72	18	120	43	85	23	151
/0						ļ		126 53			-	122 4				154 08

addition to the untreated check on the *P. pentagona* (Targioni) infesting peach trees.

1) Bio-residual effect of the tested oils on *P. pentagona* (Targioni) different stages :

Average number of *P. pentagona* (Targioni) different stages in the pre-treatment count and three post treatment counts, one, three and six month after Winter spraying are tabulated in Table (10).

Data presented in this table clearly show that, all tested mineral oils gave satisfactory results against *P. pentagona* ovipositing females and excellent results against nymphs and adult females stages especially in case of the miscible oils type; Capl 2 and Super Royal (95%) at 1.5 L /100 L water rate of use.

Also, data in the same table proved that, infestation with white peach scale insect, *P. pentagona* (Targioni) population as to untreated trees increased throughout the monthly period following adopted treatments to, 126.53, 122.44 and 154.08% in case of 1st, 2nd and 3rd post treatment counts, respectively.

Reduction percentage of each stage; nymphs, adult females and ovipositing or gravid females of the studied scale insect as affected by various treatments in three replicates, which estimated according to Henderson & Tilton formula (1955) are presented in Table (11).

Results cleared that, highly efficacy of the tested mineral oils against the diaspidid *P. pentagona* (Targioni) infesting peach trees throughout the experiment period; i-e; six months after winter application. Also, sufficient control occurred in case of nymphs and adult females at the all tested mineral oils in the three post treatment count; one

Table (11): Reduction percentage in *P. pentagona* different stages in the three post treat. Counts after winter spraying on peach trees at Meet-Ghamr, Dakahliya (1st Experiment on 6 December 2000).

Treatment and large treat. Count Count Count Count Count Cone month) Water Nym. Ad. F. Ovip. Mean Mean Nym. Ad. F. Ovip. Mean Mean Mean Mean Mean Mean Mean Mean		į	Reduct	tion % i	n P. penta	agona di	fferent s	tages /2() branch	es, month		atment	
Nym. Ad. F. Ovip. Mean Nym. Ad. F. O 95.9 95.2 84.4 91.83 96.4 97.1 9 93.2 94.2 88.3 91.9 93.8 95.7 9 96.1 95.2 86 92.43 96.5 95.6 8 96.1 96.3 86 92.43 96.5 95.6 8 96.1 96.3 86 92.43 96.5 95.4 8 96.1 96.3 86 91.63 96.5 95.4 95.4 96.4 95.3 88.3 93.4 93.6 94.5 96.4 96.4 93.3 86 91.9 93.6 94.5 94.5 96.4 93.3 86 91.9 93.6 94.5 94.5 95.9 91.9 82.5 89.43 91.7 95.4 95.4 95.9 91. 86 90.97 92.7 96. 92.4	ntment and	1 st	post tre	at. Cour	11	2nd		nonths)	nt	3	3rd post treat. Co (six months)	post treat. Count (six months)	
95.9 95.2 84.4 91.83 96.4 97.1 9 93.2 94.2 88.3 91.9 93.8 95.7 9 96.1 96.1 95.2 86 92.43 96.5 95.6 8 96.1 94.9 86 92.43 96.5 96.9 8 96.9 8 96.9 8 96.9 8 96.9 8 96.9 8 96.9 8 96.9 8 96.9 <t< td=""><td>1</td><td></td><td>Ad. F.</td><td>Ovip.</td><td>Mean</td><td>Nym.</td><td></td><td>Ovip.</td><td>Mean</td><td>Nym.</td><td>Ad. F.</td><td>Ovip.</td><td>Mean</td></t<>	1		Ad. F.	Ovip.	Mean	Nym.		Ovip.	Mean	Nym.	Ad. F.	Ovip.	Mean
93.2 94.2 88.3 91.9 93.8 95.7 96.1 95.2 86 92.43 96.5 95.6 96.1 94.9 86 92.43 96.5 95.6 86.9 96.1 94.9 86 91.63 96.5 96.9 86.9 96.1 96.2 88.3 93.4 93.8 97.1 96.4 95.1 80 89.5 94.1 95.4 96.4 93.3 86 91.9 93.6 94.5 96.4 93.3 86 91.9 93.6 94.5 95.9 91.9 82.5 89.43 91.7 95.6 92.9 91. 86 90.97 93.6 94.5 95.9 91. 86 90.97 92.7 96 95.9 91. 82.5 89.2 91.1 93.1 96.3 93.1 80.2 91.1 93.3 95.4 96.3 94.2	6	6.5	95.2	84.4	91.83	96.4	97.1	91.3	94.93	94.9	96.2	8.68	93.63
96.1 95.2 86 92.43 96.5 95.6 96.1 94.9 86 92.43 93.6 96.9 8 96.1 96.1 82.5 91.63 96.5 95.4 8 96.1 96.2 82.5 91.63 96.5 95.4 8 96.4 95.1 80 89.5 94.1 95.4 97.1 96.4 93.3 86 91.9 93.6 94.5 94.1 95.4 94.5 94.1 95.4 94.5 94.1 95.4 94.5 94.1 95.4 94.5 94.5 94.5 94.5 94.5 94.5 94.5 94.5 94.5 94.5 94.5 94.5 94.5 94.5 94.5 94.5 95.4 95.4 95.4 95.4 95.4 95.4 95.4 95.4 95.4 95.4 95.4 95.4 95.5 95.1 95.2 95.1 95.2 95.1 95.3 95.4 95.2 95.3<	l	3.2	94.2	88.3	91.9	93.8	95.7	87	92.17	91.4	95.1	84.8	90.43
96.1 94.9 86 92.43 93.6 96.9 8 96.1 96.3 82.5 91.63 96.5 95.4 8 96.6 95.3 88.3 93.4 93.8 97.1 96.4 95.1 80 89.5 94.1 95.4 96.4 93.3 86 91.9 93.6 94.5 93.9 91.9 82.5 89.43 91.7 95.6 92.9 91. 86 90.97 92.7 96 92.9 91 86 90.97 92.7 96 92.9 91. 86 90.97 92.7 96 92.9 91. 86 90.97 92.7 96 93.4 91.7 82.5 89.1 93.3 95.4 96.3 93.1 80 89.8 93.3 95.5 96.3 94.2 88.3 91.9 93.8 94.3 93.2 94.2	ļ <u></u>	6.1	95.2	98	92.43	96.5	92.6	84.4	92.17	93	96.2	87.8	92.33
96.1 96.3 82.5 91.63 96.5 95.4 96.6 95.3 88.3 93.4 93.8 97.1 96.4 95.1 80 89.5 94.1 95.4 96.4 93.3 86 91.9 93.6 94.5 96.4 93.3 86 91.9 93.6 94.5 92.9 91.9 82.5 89.43 91.7 95.6 92.9 91. 86 90.97 92.7 96 92.9 91. 86 90.97 92.7 96 92.2 95.1 80 89.1 93.3 95.4 93.4 91.7 82.5 89.2 91.1 93.1 96.3 93.1 80 89.8 93.3 95.5 96.3 94.2 88.3 91.9 93.8 94.3	6	6.1	94.9	98	92.43	93.6	6.96	84.4	91.63	93.6	94.7	87.8	92.03
96.6 95.3 88.3 93.4 93.8 97.1 93.4 95.1 80 89.5 94.1 95.4 96.4 93.3 86 91.9 93.6 94.5 96.4 93.3 86 91.9 93.6 94.5 93.9 91.9 82.5 89.43 91.7 95.6 95.9 91 86 90.97 92.7 96 92.2 95.1 80 89.1 93.3 95.4 93.4 91.7 82.5 89.2 91.1 93.1 96.3 93.1 80 89.8 93.3 95.5 93.2 94.2 88.3 91.9 93.8 94.3	_	1.9	96.3	82.5	91.63	96.5	95.4	85.4	92.43	93	94.8	88.6	92.13
93.4 95.1 80 89.5 94.1 95.4 96.4 93.3 86 91.9 93.6 94.5 93.9 91.9 82.5 89.43 91.7 95.6 92.9 92.7 76.7 87.43 93.6 94 95.9 91 86 90.97 92.7 96 92.2 95.1 80 89.1 93.3 95.4 93.4 91.7 82.5 89.2 91.1 93.1 96.3 93.1 80 89.8 93.3 95.5 93.2 94.2 88.3 91.9 93.8 94.3		9.9	95.3	88.3	93.4	93.8	97.1	87	92.63	95	93.8	8.68	93.17
96.4 93.3 86 91.9 93.6 94.5 93.9 91.9 82.5 89.43 91.7 95.6 92.9 92.7 76.7 87.43 93.6 94 95.9 91 86 90.97 92.7 96 92.2 95.1 80 89.1 93.3 95.4 93.4 91.7 82.5 89.2 91.1 93.1 96.3 93.1 80 89.8 93.3 95.5 93.2 94.2 88.3 91.9 93.8 94.3	6	13.4	95.1	80	89.5	94.1	95.4	83,3	90.93	92.1	94.8	82.6	89.83
93.9 91.9 82.5 89.43 91.7 95.6 92.9 92.7 76.7 87.43 93.6 94 95.9 91 86 90.97 92.7 96 92.2 95.1 80 89.1 93.3 95.4 93.4 91.7 82.5 89.2 91.1 93.1 96.3 93.1 80 89.8 93.3 95.5 93.2 94.2 88.3 91.9 93.8 94.3	_	16.4	93.3	98	91.9	93.6	94.5	84.4	90.83	93.6	93	87.8	91.47
92.9 92.7 76.7 87.43 93.6 94 95.9 91 86 90.97 92.7 96 92.2 95.1 80 89.1 93.3 95.4 93.4 91.7 82.5 89.2 91.1 93.1 96.3 93.1 80 89.8 93.3 95.5 93.2 94.2 88.3 91.9 93.8 94.3	<u> </u>	33.9	919	82.5	89.43	91.7	95.6	85.4	90.9	92.6	95.1	9.88	92.1
95.9 91 86 90.97 92.7 96 92.2 95.1 80 89.1 93.3 95.4 93.4 91.7 82.5 89.2 91.1 93.1 96.3 93.1 80 89.8 93.3 95.5 93.2 94.2 88.3 91.9 93.8 94.3	6	2.9	92.7	76.7	87.43	93.6	94	9.08	89.4	91.4	93.6	84.8	89.93
92.2 95.1 80 89.1 93.3 95.4 93.4 91.7 82.5 89.2 91.1 93.1 96.3 93.1 80 89.8 93.3 95.5 93.2 94.2 88.3 91.9 93.8 94.3	<u> </u>	15.9	16	98	90.97	92.7	96	84.4	91.03	92.7	94.1	86.3	91.03
93.4 91.7 82.5 89.2 91.1 93.1 96.3 93.1 80 89.8 93.3 95.5 93.2 94.2 88.3 91.9 93.8 94.3	<u>l </u>	32.2	95.1	80	89.1	93.3	95.4	83.3	90.67	91.1	94.8	78.3	88.07
96.3 93.1 80 89.8 93.3 95.5 93.2 94.2 88.3 91.9 93.8 94.3	5	93.4	91.7	82.5	89.2	91.1	93.1	85.4	89.87	90.1	94.1	84.8	89.67
93.2 94.2 88.3 91.9 93.8 94.3	<u></u>	96.3	93.1	80	8.68	93.3	95.5	83.3	90.7	92.7	94.9	82.6	90.07
ł	<u> </u>	93.2	94.2	88.3	91.9	93.8	94.3	87	51.7	89.7	93.9	84.8	89.47
General mean 04 8 03 95 83.89 90.88 93.85 95.44 85.11	-	8 70	93.05	83.89	90.88	93.85	95.44	85.11	91.47	92.52	94.61	85.95	91.03

three and six months after winter spraying.

Reduction percentage of P. pentagona (Targioni) all stages were subjected to a simple analysis of variance by the aid of computer to compare between the efficiency of the five tested mineral oils on the different stages affect. Results are tabulated in Table (12) and graphically illustrated in Fig (7).

Statistical analysis of data proved that, differences due to the affects of *P. pentagona* (Targioni) each stage by various types, concentrations and rate of use of the tested mineral oils which recorded, one, three and six months after winter spray.

To facilitate the interpretation of data, each post treatment count will be considered separately in the following manner.

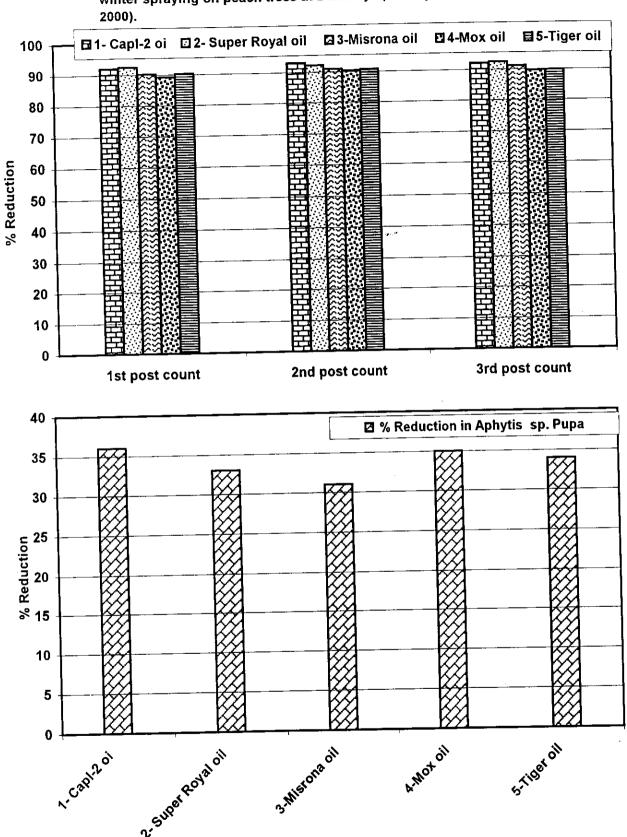
a) The first post treatment count (one month after oils spraying) Data concerning the reduction percentage in different stages of the white peach scale insect one month after application which presented in Table (12) and illustrated histogrammatically in Fig (7) proved that, significant difference were obtained between *P. pentagona* different stages response to the tested mineral oils. However "F" value being highly significance = 19.638 and L.S.D = 2.216 at 5% level.

However, the pre-adult (nymphs) and adult females recorded the highly affect, followed by the ovipositing females (gravid females), where, the reduction showing 94.80, 93.94 and 83.89% with the mentioned stages, respectively, with highly significant difference between the first two stages and the last one.

Table (12): The reduction percentage of total population , different stages P. pentagona (Targioni)and its associated parasitoid, Aphytis sp. after winter spraying on peach trees at Dakahliya (1st Experiment on 6 December 2000).

	Re	duction	Reduction percentage of P.	1	ntagona (Targion sp. afte	ni) total er winter	pentagona (Targioni) total population, different stages and its associated toid Aphytis sp. after winter spraying on peach trees	different n peach tr	stages and	l its assoc	rated	% Reducti
Treatment and		st post t	1st post treat. Count		2	2 ^{ud} post t	post treat. Count	unt		3" post tr (six m	post treat. Count (six months)		on in Aphytis
Dosage/100L water	Nym.	Ad. F.	d. F. Ovip.	General	Nym.	Ad. F.	Ovip.	General	Nym.	Ad. F.	Ovip.	General	sp. pupa
1- Capl-2 oil (95%) 1.5L.	95.07	94.87	86.23	92.06 а	95.57	96.13	87.57	93.09 а	93.1	95.83	87.47	92.13 а	32
2- Super Royal oil (95%) 1.5L.	96.37	95.5	85.6	92.49 а	94.63	96.47	85.6	92.23 а	94.17	94.43	88.73	92.44 a	30
3-Misrona oil (80%) 2.5L.	94.57	93.43	82.83	90.28 ab	93.13	95.17	84.37	90.89 b	92.74	94.3	86.33	91.13 ab	33
4-Mox oil (82%) 2.0L.	93.67	92.93	80.9	89.17 b	93.2	95.13	82.77	90.37 b	91.73	94.17	83.13	89.68 b	36
5-Tiger oil (80%) 2.5L.	94.3	93	83.9	90.3 ab	92.73	94.3	85.23	9.75 b	90.83	94.3	84.07	89.73 b	34
General mean	94.8	93.94 n	83.89 b	90.88	93.85 a	95.44 n	85.11 b	91.47	92.52 b	94.61 a	85.95 c	91.03	
F between treatments (Sign.)	ents (Sign	n.)		53,310**				29.196**				64.89**	
L.S.D. at 0.05 between treatments	ween trea	atments	11	2.013				2.065				2.574	
F. between stages (sign.)	(sign.)		l II	19.638**				16.335**				15.09**	
L.S.D. at 0.05 between stages (Sign.) =	ween sta	ges (Sig	n.) =	2.216				2.569				1.994	

Fig. (7) :Average reduction percentage of *P. pentagona* (Targioni) total population, different stages and its associated parasitoid, *Aphytis* sp. after winter spraying on peach trees at Dakahliya (1st Experiment on 6 December 2000).



Treatments

- b) The second post treatment count (three months after oils spraying) Statistically analysis of data presented in Table (12) and illustrated in Fig (7) clearly indicate that, there are highly significant difference between the efficacy of the oil treatments on *P. pentagona* different stages whereas, "F" value being 16.335 and L.S.D value was 2.569 at 5% level. The average reduction in nymphs, adult females and ovipositing females were 93.85, 95.44 and 85.11 respecting, with highly significant difference between the response of the first two stages and the ovipositing females.
- c) The 3rd post treatment count (six months after oils spraying) Analysis of variance for the obtained data which presented in the same table and Fig. clearly demonstrated that, there were highly significant difference between the efficiency of mineral oils used on the different stages of this studied pest; "F" value being 15.090 and L.S.D. equal 1.994 at 5% level. However, Adult females recorded the highest reduction (94.61%), followed by the nymphal stage (92.52%) then the gravid females (85.95%) with a significant differences between each stage and other. These present results are in agreement with those given by El-Sebae *et al.*, (1976), Meyet and Nalepa (1991), Hassan *et al.*, (1994) Mani *et al.*, (1997), El-Imery *et al.*, (1999) and Helmy *et al.*, (2001-2002).

2) Bio-residual effect of the tested oils on *P. pentagona* (Targioni) total population :

Average number of *P. pentagona* different stages as well as its total population in the pre treatment count and three post treatment counts, one, three and six months after winter spraying are tabulated in Table (10). Data presented in this table proved that, all tested mineral oils gave very good results against *P. pentagona* total population. Tested oils caused highly decrease in the population density throughout and till the

end of this investigation i.e; six months from the starting, especially in case of the miscible mineral oils; Capl 2 and Super Royal oils. Also, data in the same table showed that, infestation with *P. pentagona* total population, as to the untreated trees increased through the month period following adopted treatment to 154.08%.

Reduction percentage of each stage as well as P. pentagona population density as affected by various treatments in three replicates, which estimated according to Henderson & Tilton formula (1955) are presented in Table (11).

Percentage of reduction in insect population as an indication of the efficiency of tested oils proved that, the highly effect of the first two oils (miscible type); Capl 2 and Super Royal oils (95%) at 1.5% rate of use. The reduction ranged between (91.63-93.40%), followed by the mayonnaise type oils Misrona (80%) Mox (82%) and Tiger oil (80%) at the use rate of 2.5, 2 and 2.5 L per /100 L water, respectively. Their reduction ranged between (87.43-91.90%).

Analysis of variance of the average reduction percentage of P. pentagona population infested peach trees in Meet-Ghamr center, Dakahliya governorate, clearly show the superior effect of the tested oil but, in variance differences in the post treatment counts through one, three and six months after the winter spraying early December 2000 as showing in Table (11).

To facilitate the interpretation of data, each post treatment count will be considered in the following manner.

a) The first post treatment count (one month after oils spraying).

Analysis of variance of data presented in Table (12) and histogrammatically illustrated in Fig (7) revealed that, highly significant differences between the bio-residual efficacy of the tested mineral oils on *P. pentagona* (Targioni) population response.

Whereas, "F" value being 53.310 and L.S.D. was 2.013 at 5 level. Percentage of reduction in general mean of insect population as an indication of the efficiency of tested oils proved that, [Super Royal (92.49) and Capl 2 (92.05%)] had the superior effect in this respect, followed by [Tiger oil (90.30%) and Misrona oil (90.28%)] then Mox oil with (89.17%) reduction one month after treatment, with a significant differences between each group and other.

b) The second post treatment count (three months after oils spraying).

Statistically analysis of data presented in Table (12) and illustrated in Fig (7) clearly show that, there are highly significant difference between the tested mineral oils against *P. pentagona* (Targioni) population. Where, "F" value being 29.196 and L.S.D. value was 2.065 at 5% level.

The average reduction were highly superior in case of Capl 2 oil (93.09%) and Super Royal oil (92.23%). Also, data Show the very good response in case of Misrona oil (90.89%), Tiger oil (90.75%) and Mox oil (90.37%) three months after spraying, with a significant difference between the first two oils efficacy and last other oils.

c) The third post treatment count (six months after oils spraying).

Analysis of data presented in Table (12) and graphically illustrated in Fig (7) clearly demonstrated that, there were highly significant

differences between the efficacy of the tested mineral oils on P. pentagona (Targioni) total population.

Whereas, "F" value being 64.890 and L.S.D. value was 2.574 at 5% level. The average reduction recorded excellent result in case of Super Royal oil, Capl 2 oil and Misrona oil with 92.44, 92.13 and 91.13%, respectively, followed by Tiger oil and Mox oil with 89.73 and 89.68% reduction, six months after winter spraying with a significant different between the first three oils and the last two.

The results of the first experiment clearly show the highly efficacy of the local mineral oils in this respect. There fore, these safe and very effective treatments can be used in any successful IPM programme to control the white peach scale insect, *P. pentagona* (Targioni) infesting deciduous trees to produce high quality and quantity of fruit yield. Also, to minimize both pollution and control costs.

These results are in agreement with those obtained by El-Sebae et al., (1976) Gardona and Viggiani (1988), Hassan et al., (1994), Erkilic and Uygun (1997), Mani et al., (1997), El-Imery et al., (1999) and Helmy et al., (1999 & 2001).

2- Deleterious efficacy of the tested oils on *P. pentagona* (Targioni) associated parasitoid, *Aphytis* sp. on peach trees at Dakahliya Governorate.

The efficacy of the main associated hymenopterous parasitoid; *Aphytis* sp. as a biotic mortality factor of the white peach scale insect, *P. pentagona* (Targioni)was counted as pupal stage before and after winter experiment on 6 December 2000. Reduction percentage was estimated according to Henderson & Tilton formula (1955) and presented in Table (12) and histogramically illustrated in Fig (7). Suggested data clearly

show that, the low deleterious effect of the five tested mineral oils on this parasitoid. However, the reduction percentage of *Aphytis* sp. pupal stage being (30 & 32%)in case of Super Royal and Capl 2 oils and (33, 34 and 36%) in case of the mayonnaise type oils; Misrona, Tiger and Mox oils one month after oils spraying, respectively.

These facts are in agree with those obtained by El-Sebae et al., (1976) Montermini (1985), Gardona and Viggiani (1988), El-Imery et al., (1999) and Helmy et al., (2002).

2- The second experiment on peach trees:

The toxic efficacy of pesticides namely; Admiral 10% EC, Neem Azal 50% T/S, Ashok 0.15% and Malation 57% EC at the rate 50 ml, 1000 ml, 15 ml and 250 ml/100L water were evaluated against the white peach scale insect infesting peach trees at Meet-Ghamer center, Dakahliya Governorate.

This experiment was carried out in winter season on 30 of December 2000 in the same orchard of the 1st experiment.

1) Bio-residual effect of the tested treatments on different stages of P. pentagona:

Average number of P. pentagona (Targioni) different stages in the pre-treatment count and three post treatment counts, one, three and six months after winter spraying are tabulated in Table (13).

Date presented in this table clearly show that all tested materials gave satisfactory results against *P. pentagona* (Targioni) different stages one month after winter spraying.

Table (13): Average no of P. pentagona different stages in the pre. treat. Counts and three time after winter spraying on peach trees at Meet-Ghamr, Dakahliya. (2^{nd} Experiment on 30 December 2000).

Treatment		Dra tro	Desertions Count			1st post tr	1st post treat. Count			2nd post to	post treat. Count	nt	1st post treat. Count 2nd post treat. Count 3	7	post treat. Count (six months)	int
Dosage/100L		נוכחמ		Total	2	One r	(one month)	Total	Nym.	Ad. F.	Ovip.	Total	N'm.	Ad. F.	Ovip.	Total
water	Nym.	Ad. F.	<u>نا</u>	80		22		36	4	13	7	24	10	17	13	40
1-Admiral	27	70	0 4	66	. 6	21		37	2	12	2	22	13	16	13	42
10% EC 30 ml.	25	69	6	103	7	20	10	37	4	15	6	28	11	19	19	49
	2, 36	02	∞	104	9	18	9	30	3	1	9	20	7	13	14	34
2- Neem Azal		63		93	r.	15	5	25	6	6	2	17	9	10	10	26
50% T/S 1 L.	_	67	6	101	9	16	8	30	4	11	7	22	5	11	15	31
	27	67	α	103	∞	21	7	36	80	18	12	38	17	22	20	59
3-Ashok	2 2	3 8	σ	101	8	23	8	39	မ	19	15	40	15	23	23	61
0.15%	22	8 8	, α	96		20	7	34	3	17	13	35	13	21	21	55
	2 2	3 4) r	66	4	6	4	17	3	80	3	16	ဖ	7	10	27
4-Malathion	23 62	3 8	- σ	107	6	1-	r.	19	4	9	7	21	4	13	11	28
ml.	25	67	, ω	100	<u>س</u>	ω	4	15	က	6	9	18	2	10	6	24
Control	29	67	9	102	35	77	18	130	30	09	23	142	38	53	35	126
			-					127.45			<u> </u>	110.78				123.5

- In the second post treatment count (three months after spraying)
Malathion Neem and Admiral treatments gave the superior results
against the nymphal stage then, Ashok.

Concerning the efficacy on the adult females of this pest, data presented in the same table recorded that Malathion and Neem showed very good result against this stage, followed by Admiral then Ashok. Ovipositing females recorded same affect of the adult females.

- In the third post treatment count (six months after spraying) results presented in Table (13) proved that, good effect on *P. pentagona* (Targioni) different stages in case of Malathion and Neem and moderate effect with Admiral. However, Ashok recorded poor efficacy in this trend.

Also, data in the same table proved that infestation with P. pentagona (Targioni) population, as to (control) untreated trees increased throughout the monthly period following adopted treatments to 127.45, 110.78 and 123.5 in case of 1^{st} , 2^{nd} , 3^{rd} post treatment count, respectively.

Reduction percentage of each stage; nymphs, adult females and oviposting or gravid females of the studied scale insect as affected by various treatments in three replicates, which estimated according to Hendrson & Tilton formula (1955) are presented in Table (14).

Results suggest that, highly efficacy of Malathion on all stages during the first and second post treatment counts, one and three months after winter spraying and good response were recorded in the third post treatment count (six months after spraying).

Table (14): Reduction percentage in P. pentagona different stages in the three post treat. Counts after winter spraying on peach trees at Meet-Ghamr, Dakahliya (2nd Experiment on 30 December 2000).

Treatment and Dosage/100L water Nym.				•								
1	1 st	post treat. Co	1st post treat. Count	1t	2 nd (post treat. Count Three months)	nt	3. 12.		post treat. Count (six months)	
F	\vdash	Ad. F.	Ovip.	Mean	Nym.	Ad. F.	Ovip.	Mean	Nym.	Ad. F.	Ovip.	Mean
C/ 	75.8	71.4	66.7	71.3	83.9	78.3	73.9	7.87	68.2	67.9	68.2	68.1
%	72.4	72.3	61.1	68.6	82.1	79.7	78.3	80	63.3	69.4	62.9	65.2
EC 30 mi.	76.8	74.8	63	71.5	84.5	75.7	73.9	78	66.4	65.2	65.7	65.8
08	80.9	77.6	75	77.8	88.8	82.2	80.4	83.8	79.5	6.92	70	75.5
<u> </u>	82	79.3	76.2	79.2	87.4	84	81.4	84.3	80.1	79.9	75.5	78.5
08	80.1	79.2	70.4	76.6	84.5	81.7	79.7	82	81.7	79.2	71.4	77.4
75	75.4	72.7	70.8	72.9	71.4	70	6.09	67.4	52.9	58.5	57.1	56.2
3-Ashok 0.15% 72	72.4	70.6	70.4	71.1	75.8	68.8	56.5	29	54.2	57.2	56.2	55.9
	74.8	73.2	70.8	72.9	78.9	70.8	57.6	69.1	56.9	59.2	55	57
87	87.2	82.1	81	83.4	88.8	86.5	81.4	85.6	82.3	78.9	75.5	78.9
%/	89.2	86.1	81.5	85.6	83.2	83.8	79.7	82.2	86.7	76.2	79	80.6
6 230 mm.	06	89.6	83.3	87.6	88.4	85	80.4	84.6	84.7	81.1	80.7	82.2

Neem recorded superior efficacy at three months after spraying with all stages and reduced slowly in the third post treat count (six months).

Admiral and Ashok revealed satisfactory result on *P. pentagona* (Targioni) (different stages till three months from winter spraying

Poor efficacy were recorded in all stages at the end of experiment (six months after spraying) as showing in Table (14).

Reduction percentage of P. pentagona (Targioni) all stages were subject to simple analysis of variance by the aid of computer to compare between the efficiency of the four tested pesticides on the different stages affect. Results are tabulated in Table (15) and graphically illustrated in Fig (8).

Statistical analysis of data proved that, differences due to the affects of *P. pentagona* (Targioni) each stages by various types, concentrations and rate of use of the tested treatments which recorded, one, three and six months after winter spray.

To facilitate the interpretation of data, each post treatment count will be considered in the following manner.

a) The first post treatment count (one month after winter spraying). Data concerning the reduction percentage in different stages of the white peach scale insect one month after application which presented Table (15) and illustrated histogrammatically in Fig (8) proved that, significant difference were obtained between P. pentagona (Targioni) different stages response to the tested pesticides. However "F" value being highly significance = 38.837 and L.S.D. = 1.737 at 5% level.

Table (15): Average reduction percentage of P. pentagona (Targioni) total population, different stages and its associated parasitoid, Aphytis sp. after winter spraying on peach trees at Dakahliya (2nd Experiment on 30 December 2000).

<u></u>		Averag	e reducti	ion perce	Average reduction percentage of P.	pentago Anhytis	na (Targ	gioni) to	P. pentagona (Targioni) total population, different stages and its associated	n, differ peach tr	ent stage ees	s and its	associated	%
	Treatment and		lst post ti	1st post treat. Count	parasiton	2	post ti	reat. Co	nt 2 nd post treat. Count 3 rd	(-)	rd post ti (six n	post treat. Count (six months)	ınt	Keducun in Aphytis
	Dosage/100L		(one	(one month)			(Inree	Turee months	J `				General	sp. pupa
	water	Nym.	Ad. F.	Ovip.	General	Nym.	Ad. F.	Ovip.	mean	Nym.	Ad. F.	Ovip.	mean	
	1-Admiral 10%	75	72.8	63.6	70.48 (c)	83.5	6.77	75.4	78.92 (b)	62.9	67.5	65.6	66.35 (c)	57
<u> </u>	2- Neem Azal		t	;	(4) 35 72	6 98	82.6	80.5	83.34 (a)	80.4	78.7	72.3	77.13 (b)	45
. <u> </u>	50% T/S 1 L.	×	/.0/	7.67	(a) 00.77		1 !							
!	3-Ashok 0.15%	74.2	72.2	7.07	72.34 (c)	75.4	6.69	58.3	67.85 (c)	54.7	58.3	56.1	56.36 (d)	ક
	4-Malathion 57%	80	85.9	81.9	85.55 (a)	8.98	86.1	80.5	84.13 (a)	84.6	78.7	78.9	80.57 (a)	79
	EC 250 ml.					;	100	13,52		71.41	70.80	68.1		_
L	Consent mean	79.75	77.41	72.52		83.14	/8.8/ E	/3.0/		(R)	(e)	(p)		
		E	(a)	(c)		(g)	(a)			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			******	
i	F between treatments (Sign.)	ints (Sig	n.)	II	**906.76				109.049**		ļ		233.494	
l	I S D at 0.05 between treatments	veen tre	atments		2.006				2.106				2.108	
	Lister at the second				1 0 0				58.128**				8.001*	
	F. between stages (sign.)	(sign.)		li ·	38.83/									
<u></u>	1. S. D. at 0.05 between stages (Sign.) =	ween sta	ges (Sig	'n'.) =	1.737				1.824		:		1.826	

Fig. (8): Average reduction percentage of P. pentagona (Targioni) total population, different stages and its associated parasitoid, Aphytis sp. after winter spraying on peach trees at Dakahliya (2nd Experiment on 30 December 2000).

