

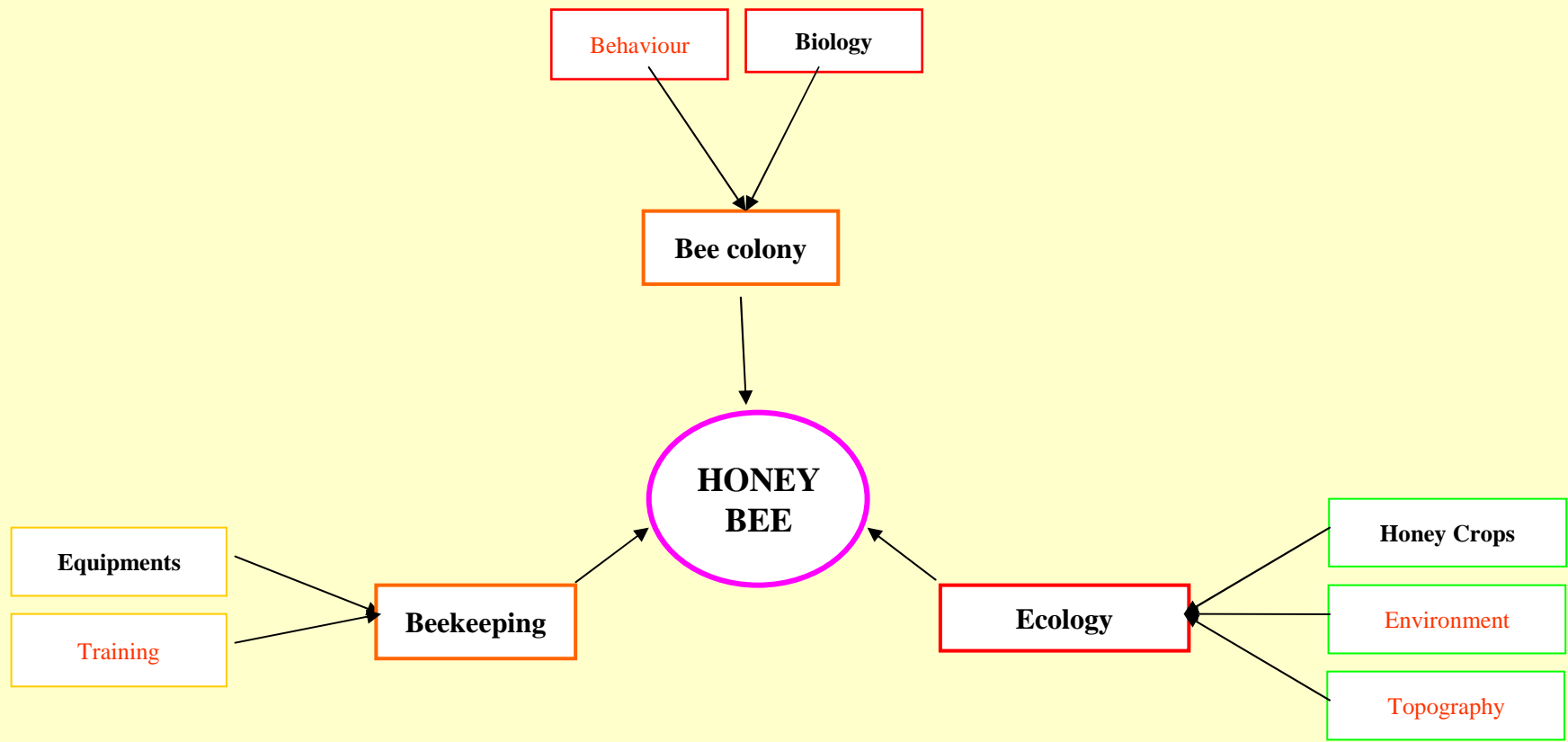


## *NEW APPROACH OF BEEKEEPING IN EGYPT*

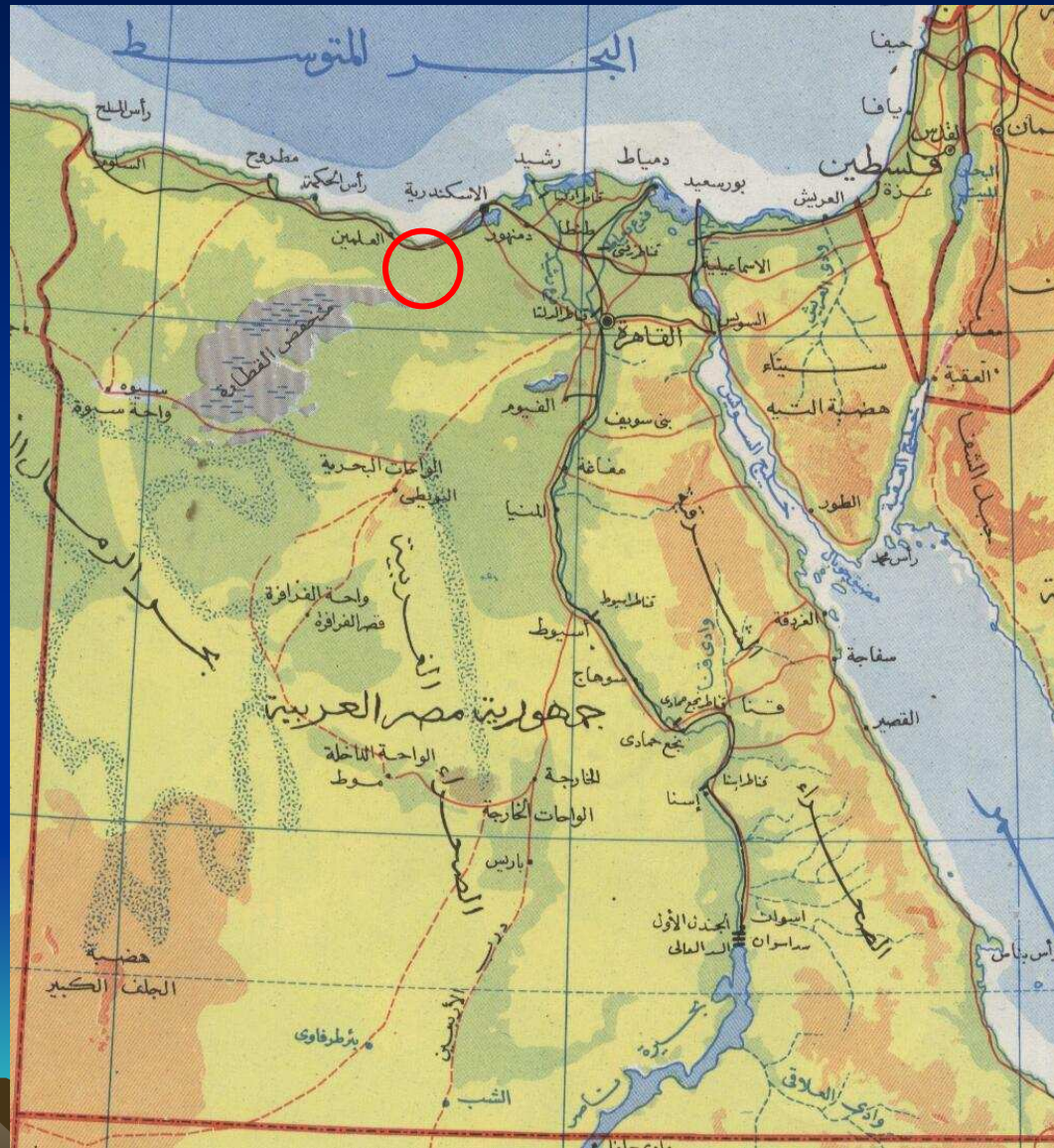
*Dr. Elbassiouny, A.M. – Mady, I.A*

اتجاه جديد للنحل في مصر

د. عادل بسيوني - إبراهيم ماضي



# TOPOGRAPHY





13. *Capparis orientalis*



17. *Zilla spinosa*



12. *Cleome droserifolia*



19. *Sebania seban*



9. *Suaeda pruinosa*



3. *Calligonum comosum*



7. *Polygonum serrulatum*



4. *Rumex vesicarius*



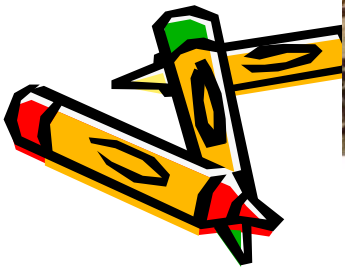
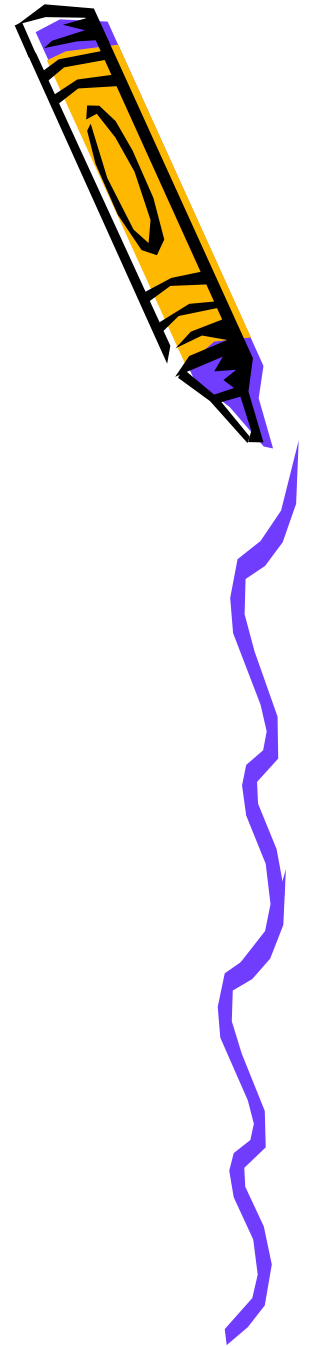
5. *Mesembryanthemum forskalei*



8. *Salsola kali*



6. *Mesembryanthemum crystallinum*





23. *Pegalum harmala*



20. *Phloxis flavescens*



14. *Capparis decidua*



17. *Zilla spinosa*



15. *Diplotaxis harra*



21. *Tribulus longipetalus*



24. *Euphorbia hindsii*



28. *Euphorbia hirtum*



27. *Citrullus colocynthis*



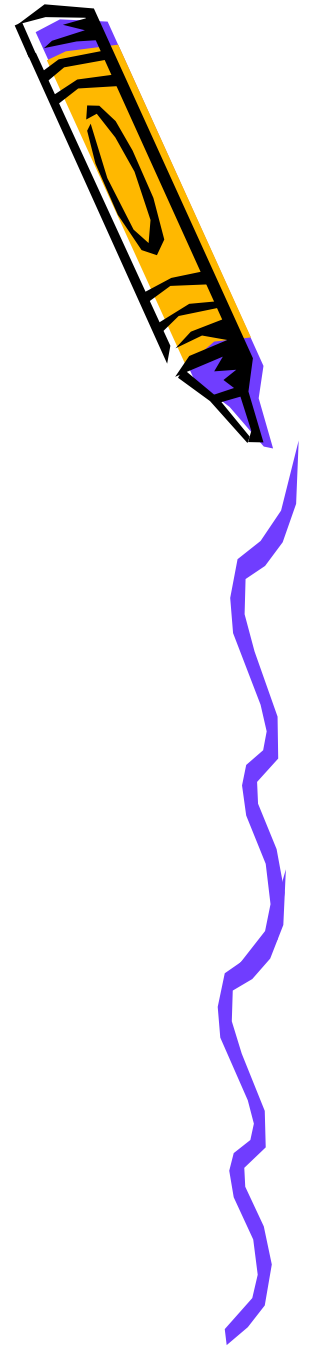
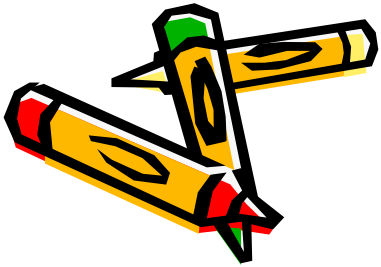
25. *Thymelaea hirsuta*



22. *Ficus religiosa*



26. *Reaumuria mucronata*





40. *Cistanche phelypaea*



30. *Limonium angustifolium*



33. *Cuscuta campestris*



37. *Hyoscyamus muticus*



38. *Verbascum letourneuxii*



35. *Mentha microphylla*



43. *Sphaeranthus suaveolens*



42. *Asteriscus graveolens*



45. *Centaurea calcitrapa*



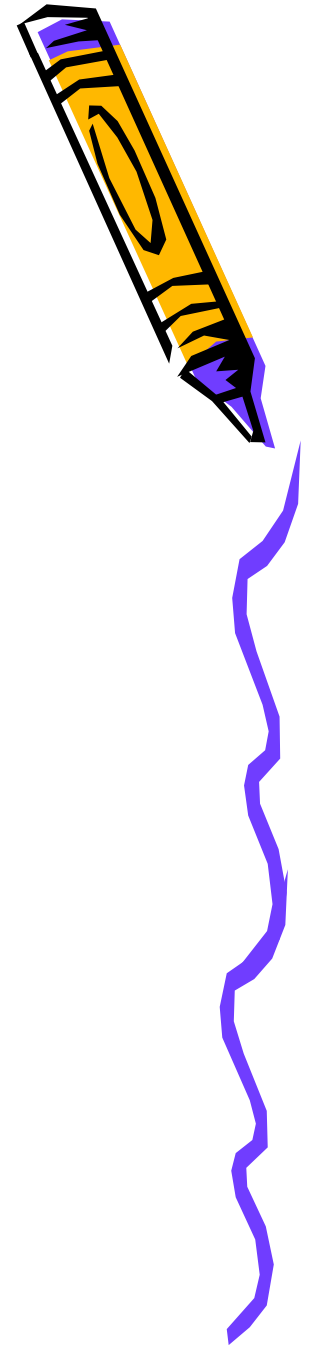
44. *Echinops spinosissimus*



41. *Anthemis microsperma*



46. *Centaurea glomerata*





47. *Conyza dioscoridis*



49. *Potamogeton nodosus*



51. *Eichhornia crassipes*



50. *Leopoldia comosa*



53. *Gladiolus segetum*



54. *Imperata cylindrica*



64. *Cyperus alopecuroides*



6. *Echinochloa rhor*



62. *Lemna gibba*



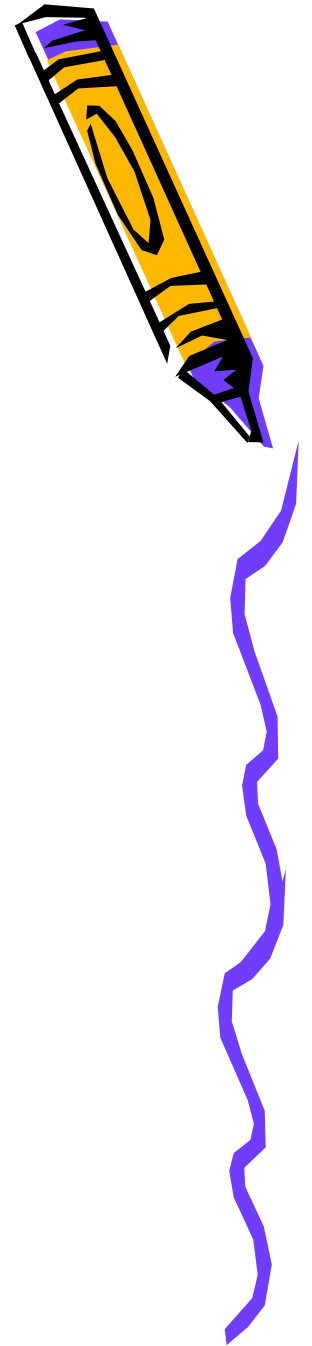
61. *Pistia stratiotes*

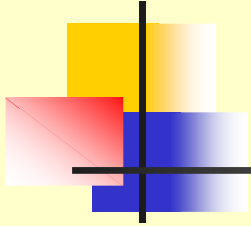


58. *Paspalum distichum*



56. *Echinochloa colomun*



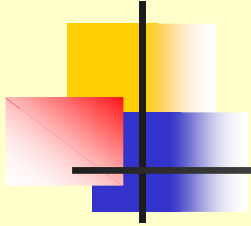


# *Brood*

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# *Honey*

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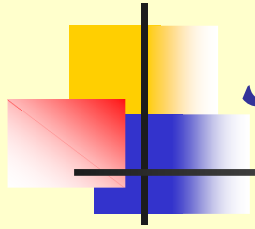




# *Brood & Honey*

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# *Selection*

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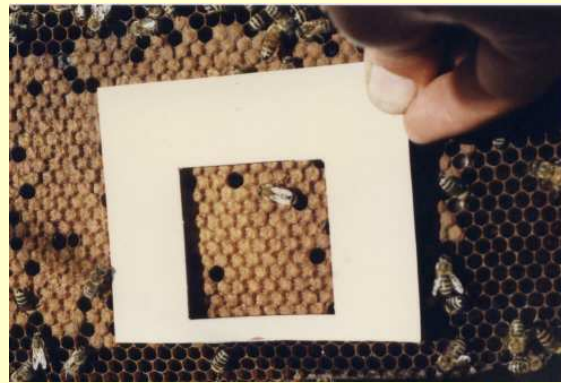
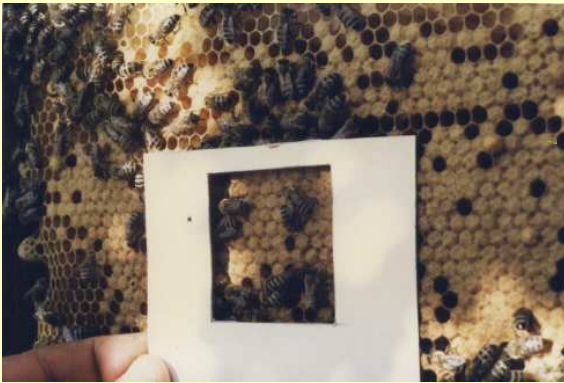


Table (1): Average numbers of combs covered with adult worker bees in the experimental honey bee colonies (mean  $\pm$  S.D.)

Inspection date	Average combs / colony ( $\pm$ S.D.)			
	1 <sup>st</sup> Group (5 Comps)	2 <sup>nd</sup> Group (3 Comps)	3 <sup>rd</sup> Group (4 Comps)	New divisions
Oct. 16 / 2004	5.0 $\pm$ 0.0	3.0 $\pm$ 0.0	4.0 $\pm$ 0.0	-
29	5.0 $\pm$ 0.0	3.0 $\pm$ 0.5	3.8 $\pm$ 0.4	-
mean $\pm$ s.e.	5.0 $\pm$ 0.1	3.1 $\pm$ 0.3	3.9 $\pm$ 0.1	-
Nov. 12	5.1 $\pm$ 0.3	3.0 $\pm$ 0.5	3.2 $\pm$ 0.7	-
25	4.7 $\pm$ 0.2	3.1 $\pm$ 0.6	2.5 $\pm$ 0.5	-
mean $\pm$ s.e.	4.9 $\pm$ 0.2	3.05 $\pm$ 0.4	2.85 $\pm$ 0.2	-
Dec. 8	4.6 $\pm$ 0.4	3.4 $\pm$ 0.4	2.5 $\pm$ 0.6	-
21	4.5 $\pm$ 0.3	3.2 $\pm$ 0.6	2.3 $\pm$ 0.4	-
mean $\pm$ s.e.	4.55 $\pm$ 0.1	3.3 $\pm$ 0.3	2.4 $\pm$ 0.1	-
Jan. 3 / 2005	4.5 $\pm$ 0.5	3.9 $\pm$ 0.6	2.4 $\pm$ 0.3	-
16	4.9 $\pm$ 0.4	4.4 $\pm$ 0.5	2.3 $\pm$ 0.4	-
29	5.5 $\pm$ 0.4	4.9 $\pm$ 0.4	2.2 $\pm$ 0.5	-
mean $\pm$ s.e.	4.97 $\pm$ 0.3	4.4 $\pm$ 0.2	2.3 $\pm$ 0.1	-
Feb. 12	7.5 $\pm$ 0.3	5.9 $\pm$ 0.7	2.2 $\pm$ 0.3	-
12	5.1 $\pm$ 0.5	4.7 $\pm$ 0.5	2.5 $\pm$ 0.2	3.3 $\pm$ 0.5
25	5.9 $\pm$ 0.3	5.2 $\pm$ 0.4	3.9 $\pm$ 0.3	4.1 $\pm$ 0.6
mean $\pm$ s.e.	5.5 $\pm$ 0.6	5.0 $\pm$ 0.3	3.35 $\pm$ 0.5	3.7 $\pm$ 0.4
Mar. 10	6.7 $\pm$ 0.6	6.3 $\pm$ 0.4	4.8 $\pm$ 0.5	4.5 $\pm$ 0.5
23	7.8 $\pm$ 0.4	7.1 $\pm$ 0.6	5.7 $\pm$ 0.6	5.1 $\pm$ 0.6
mean $\pm$ s.e.	7.25 $\pm$ 0.5	6.7 $\pm$ 0.3	5.25 $\pm$ 0.4	4.8 $\pm$ 0.3
F values	7.253			
LSD	1.087			

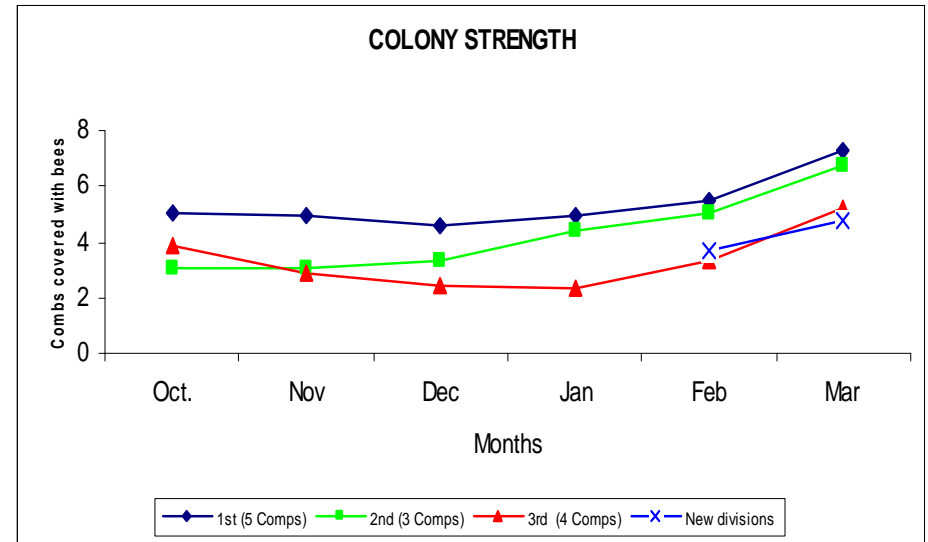


Table (2): Average numbers of worker brood combs in the experimental honey bee colonies (mean  $\pm$  S.D.).

Inspection date	Average brood combs / colony ( $\pm$ S.D.)			
	1 <sup>st</sup> Group (5 Comps)	2 <sup>nd</sup> Group (3 Comps)	3 <sup>rd</sup> Group (4 Comps)	New divisions
Oct. 16 / 2004	3.0 $\pm$ 0.3	2.0 $\pm$ 0.3	2.0 $\pm$ 0.5	-
29	3.1 $\pm$ 0.3	2.0 $\pm$ 0.4	1.9 $\pm$ 0.4	-
mean $\pm$ s.e.	3.05 $\pm$ 0.5	2.0 $\pm$ 0.1	1.95 $\pm$ 0.1	-
Nov. 12	3.2 $\pm$ 0.2	2.1 $\pm$ 0.4	1.9 $\pm$ 0.3	-
25	3.5 $\pm$ 0.6	2.2 $\pm$ 0.3	1.7 $\pm$ 0.4	-
mean $\pm$ s.e.	3.35 $\pm$ 0.2	2.15 $\pm$ 0.1	1.8 $\pm$ 0.1	-
Dec. 8	3.4 $\pm$ 0.3	2.7 $\pm$ 0.4	1.4 $\pm$ 0.6	-
21	3.1 $\pm$ 0.5	2.5 $\pm$ 0.6	1.2 $\pm$ 0.4	-
mean $\pm$ s.e.	3.25 $\pm$ 0.2	2.6 $\pm$ 0.1	1.3 $\pm$ 0.1	-
Jan. 3 / 2005	3.0 $\pm$ 0.5	2.7 $\pm$ 0.3	1.1 $\pm$ 0.5	-
16	3.9 $\pm$ 0.4	3.1 $\pm$ 0.2	1.2 $\pm$ 0.3	-
29	4.6 $\pm$ 0.6	3.8 $\pm$ 0.4	1.2 $\pm$ 0.3	-
mean $\pm$ s.e.	3.83 $\pm$ 0.5	3.2 $\pm$ 0.3	1.17 $\pm$ 0.1	-
Feb. 12	5.2 $\pm$ 0.8	4.6 $\pm$ 0.7	1.7 $\pm$ 0.4	-
12	3.9 $\pm$ 0.4	3.6 $\pm$ 0.5	1.7 $\pm$ 0.6	2.3 $\pm$ 0.4
25	3.9 $\pm$ 0.3	4.3 $\pm$ 0.5	2.6 $\pm$ 0.5	2.4 $\pm$ 0.5
mean $\pm$ s.e.	3.9 $\pm$ 0.1	3.95 $\pm$ 0.4	2.15 $\pm$ 0.4	2.35 $\pm$ 0.1
Mar. 10	5.0 $\pm$ 0.6	4.8 $\pm$ 0.7	2.9 $\pm$ 0.5	2.6 $\pm$ 0.4
23	5.7 $\pm$ 0.5	5.1 $\pm$ 0.4	3.4 $\pm$ 0.8	2.8 $\pm$ 0.6
mean $\pm$ s.e.	5.35 $\pm$ 0.3	4.95 $\pm$ 0.2	3.15 $\pm$ 0.5	2.7 $\pm$ 0.4
F values	8.762			
LSD	1.12			

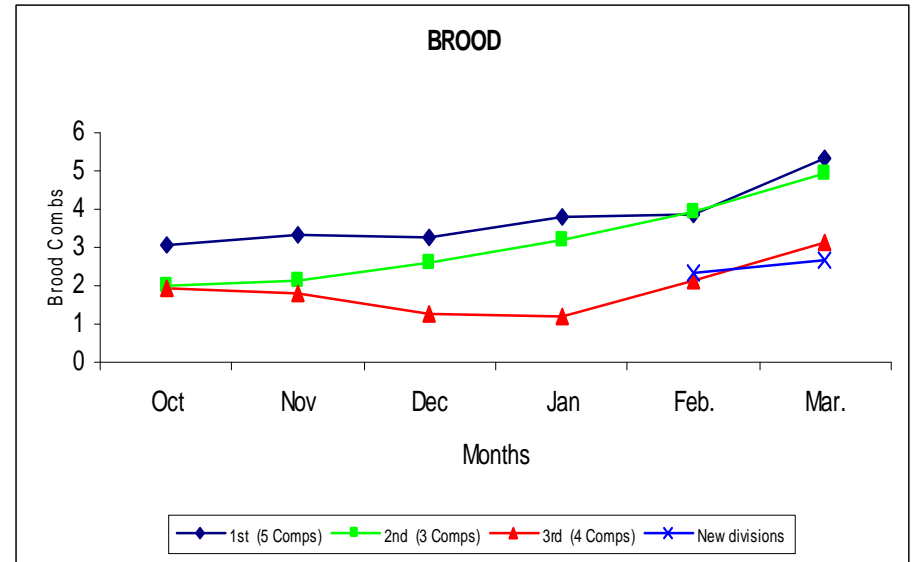


Table (3): Percentages of honey bee adult infestation with *Varroa destructor* in the experimental honey bee colonies (mean  $\pm$  S.D)

Inspection date	Average % of varroa / colony ( $\pm$ S.D.)			
	1 <sup>st</sup> Group (5 Comps)	2 <sup>nd</sup> Group (3 Comps)	3 <sup>rd</sup> Group (4 Comps)	New divisions
Oct. 16 / 2004	6.7 $\pm$ 0.0	8.1 $\pm$ 0.0	5.1 $\pm$ 0.0	-
29	6.3 $\pm$ 0.2	8.0 $\pm$ 0.3	5.3 $\pm$ 0.6	-
mean $\pm$ s.e.	6.5 $\pm$ 0.1	8.05 $\pm$ 0.1	5.2 $\pm$ 0.2	-
Nov. 12	7.1 $\pm$ 0.2	7.4 $\pm$ 0.7	4.9 $\pm$ 0.8	-
25	7.0 $\pm$ 0.3	7.0 $\pm$ 0.5	4.8 $\pm$ 0.3	-
mean $\pm$ s.e.	7.05 $\pm$ 0.3	7.2 $\pm$ 0.3	4.85 $\pm$ 0.4	-
Dec. 8	7.3 $\pm$ 0.5	6.9 $\pm$ 0.3	4.5 $\pm$ 0.8	-
21	6.4 $\pm$ 0.2	7.3 $\pm$ 0.5	4.1 $\pm$ 0.7	-
mean $\pm$ s.e.	6.85 $\pm$ 0.6	7.1 $\pm$ 0.3	4.3 $\pm$ 0.6	-
Jan. 3 / 2005	5.9 $\pm$ 0.6	7.4 $\pm$ 0.9	4.6 $\pm$ 0.3	-
16	5.7 $\pm$ 0.4	7.2 $\pm$ 0.6	5.1 $\pm$ 0.5	-
29	5.2 $\pm$ 0.3	6.8 $\pm$ 0.3	4.7 $\pm$ 0.5	-
mean $\pm$ s.e.	5.6 $\pm$ 0.4	7.13 $\pm$ 0.2	4.8 $\pm$ 0.6	-
Feb. 12	4.4 $\pm$ 0.4	5.4 $\pm$ 0.6	4.2 $\pm$ 0.2	-
12	4.4 $\pm$ 0.4	5.4 $\pm$ 0.6	4.2 $\pm$ 0.2	3.4 $\pm$ 0.4
25	2.7 $\pm$ 0.7	3.2 $\pm$ 0.5	3.1 $\pm$ 0.4	3.0 $\pm$ 0.9
mean $\pm$ s.e.	3.5 $\pm$ 0.5	4.3 $\pm$ 0.4	3.6 $\pm$ 0.4	3.2 $\pm$ 0.6
Mar. 10	1.8 $\pm$ 0.8	2.1 $\pm$ 0.4	2.5 $\pm$ 0.6	2.4 $\pm$ 0.4
23	1.6 $\pm$ 0.2	1.2 $\pm$ 0.7	2.0 $\pm$ 0.4	2.1 $\pm$ 0.5
mean $\pm$ s.e.	1.7 $\pm$ 0.1	1.65 $\pm$ 0.2	2.25 $\pm$ 0.3	2.25 $\pm$ 0.4
F values	5.622			
LSD	0.55			

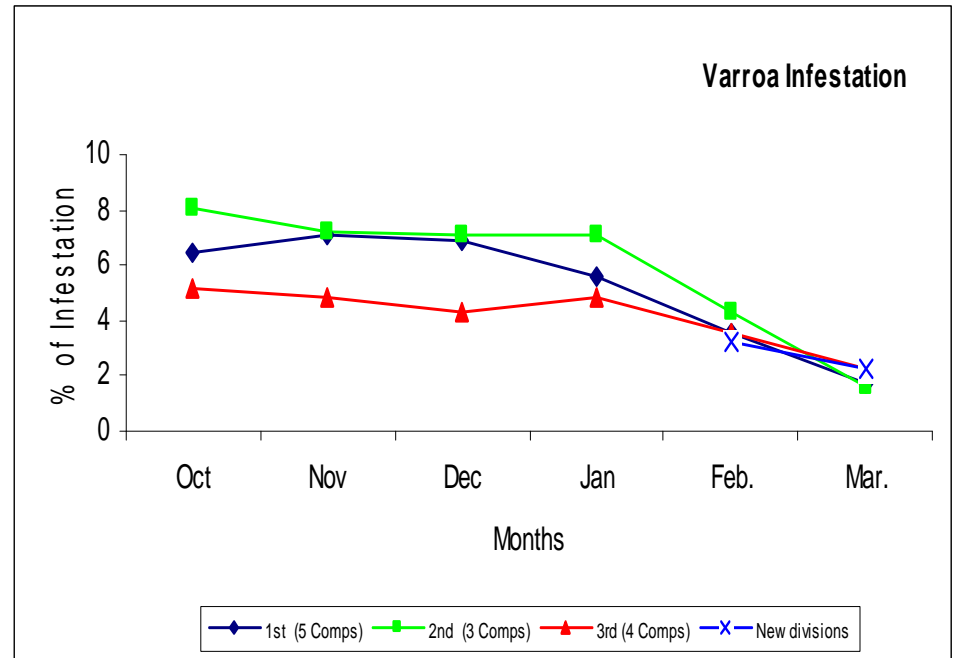
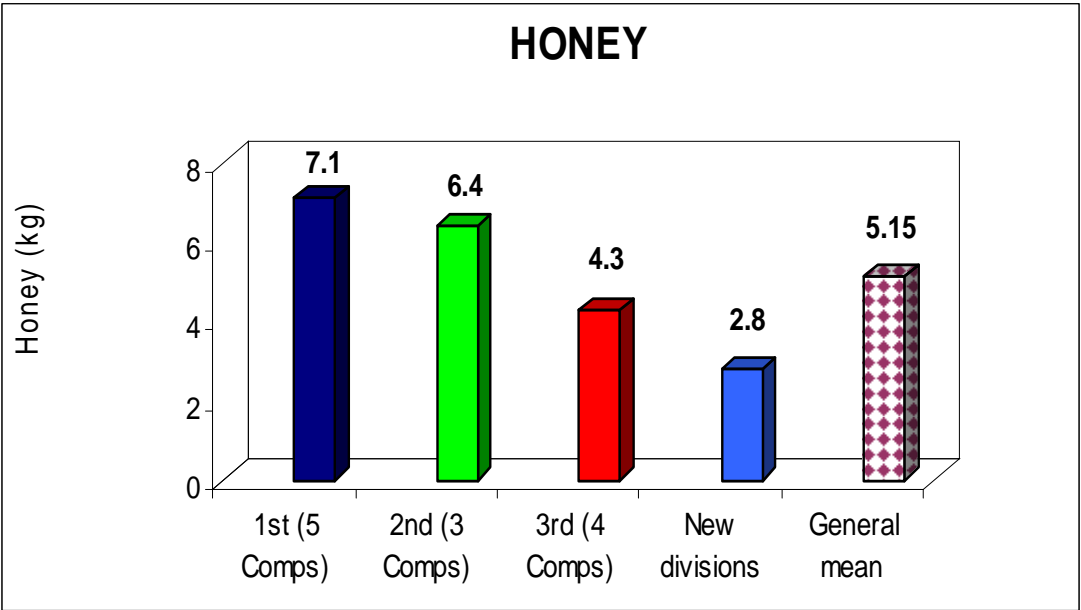


Table (4): Average harvested honey (kg / colony) in the experimental honey bee colonies (mean ± S.D.).

Harvesting date	Average honey (kg) / colony (± S.D.)			
	1 <sup>st</sup> Group (5 Comps)	2 <sup>nd</sup> Group (3 Comps)	3 <sup>rd</sup> Group (4 Comps)	New divisions
24 /3 / 2005	7.1 ± 0.	6.4 ±0.77	4.3 ±0.56	2.8 ± 0.63
General mean ± s.e.	5.15 0.502			



*THANKS*