Table(1): Ovarian development index and inhibitory effect of some essential oils in honey bee workers, at a period of 21 days.

| period of 21 days.             |  |                    |                    |                    |                     |                    |                    |                   |                   |
|--------------------------------|--|--------------------|--------------------|--------------------|---------------------|--------------------|--------------------|-------------------|-------------------|
|                                | Ovarian development index (Mean±SD) and inhibition (%) |                    |                    |                    |                     |                    |                    |                   |                   |
| Days<br>following<br>queenless | Spearmint  | Fennel             | Eucalyptus         | Citronella         | Geranium            | Coriander          | Thyme              | Anise             | Control           |
| 3                              | 1.11   | 1.13               | 1.11               | 1.15               | 1.11                | 1.18               | 1.15               | 1.29              | 1.11              |
|                                | ±0.04  | ±0.0               | ±0.04              | ±0.04              | ±0.04               | ±0.04              | ±0.04              | ±0.03             | ±0.04             |
| 6                              | 1.13   | 1.15               | 1.15               | 1.18               | 1.20                | 1.20               | 1.18               | 1.38              | 1.22              |
|                                | ±0.07  | ±0.04              | ±0.04              | ±0.04              | ±0.07               | ±0.07              | ±0.04              | ±0.04             | ±0.04             |
| 9                              | 1.11   | 1.15               | 1.18               | 1.25               | 1.20                | 1.27               | 1.31               | 1.49              | 1.33              |
|                                | ±0.04  | ±0.04              | ±0.04              | ±0.04              | ±0.07               | ±0.07              | ±0.03              | ±0.03             | ±0.07             |
| 12                             | 1.13   | 1.18               | 1.15               | 1.18               | 1.27                | 1.31               | 1.31               | 1.49              | 1.53              |
|                                | ±0.07  | ±0.04              | ±0.04              | ±0.04              | ±0.07               | ±0.03              | ±0.03              | ±0.03             | ±0.07             |
| 15                             | 1.08   | 1.18               | 1.27               | 1.15               | 1.22                | 1.31               | 1.33               | 1.67              | 1.67              |
|                                | ±0.04  | ±0.04              | ±0.07              | ±0.04              | ±0.04               | ±0.03              | ±0.07              | ±0.14             | ±0.67             |
| 18                             | 1.08   | 1.20               | 1.31               | 1.27               | 1.33                | 1.31               | 1.49               | 1.73              | 1.82              |
|                                | ±0.04  | ±0.07              | ±0.03              | ±0.07              | ±0.07               | ±0.03              | ±0.08              | ±0.06             | ±0.08             |
| 21                             | 1.08   | 1.27               | 1.29               | 1.31               | 1.40                | 1.33               | 1.91               | 1.62              | 1.80              |
|                                | ±0.04  | ±0.07              | ±0.03              | ±0.03              | ±0.07               | ±0.07              | ±0.10              | ±0.04             | ±0.13             |
| Grand                          | 1.10 <sup>D</sup>                                      | 1.18 <sup>CD</sup> | 1.21 <sup>CD</sup> | 1.21 <sup>CD</sup> | 1.24 <sup>BCD</sup> | 1.27 <sup>BC</sup> | 1.38 <sup>AB</sup> | 1.52 <sup>A</sup> | 1.50 <sup>A</sup> |
| mean±SD                        | ±0.02  | ±0.05              | ±0.08              | ±0.06              | ±0.09               | ±0.06              | ±0.26              | ±0.15             | ±0.28             |
| Ovarian inhibition (%)         | 80.0   | 64.0               | 58.0               | 58.0               | 52.0                | 46.0               | 24.0               | -4.0              | -                 |

Means have the same letter(s) are not significantly different at 0.05 level of probability.