Situation Analysis of Beekeeping Industry in Libya
As a Model of African Beekeeping

By

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Introduction
Introduction
Libya

Early nuc production September

Excellent honey production spring

Early build up
Early honey production
Dec-Jun

Excellent honey production summer
Type of Hives

- All Beekeepers use modern Hives
- At east: modern Langstroth hive is used
- At west modern Dadant hive is used with some modification
- Both these types of hives are produced locally
Analysis of production equation

Good beekeeper
(Good management)
(Diseases under control)

Good bee race

Good pasture and climate

Good production
Good quality

Selection
Queen rearing
## Beekeepers Quality and Quantity

### Quantity: Beekeepers numbers

<table>
<thead>
<tr>
<th>Sets of beekeepers</th>
<th>Number of bee colonies/set</th>
<th>Set average</th>
<th>% of each set</th>
<th>Total of beekeepers</th>
<th>Number of beekeepers for each set</th>
<th>Number of bee colonies for each set</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>9 — 1</td>
<td>5</td>
<td>54.10</td>
<td>9078</td>
<td>4911</td>
<td>24556</td>
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<td>2808</td>
<td>40713</td>
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<td>29 — 20</td>
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<td>7.17</td>
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<td>651</td>
<td>15947</td>
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<td>49 — 30</td>
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<td>99 — 50</td>
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<td>3.00</td>
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<td>20289</td>
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<td>0.70</td>
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<td>7911</td>
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<td>175</td>
<td>0.10</td>
<td>9078</td>
<td>9</td>
<td>1589</td>
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<td>More than 200</td>
<td></td>
<td></td>
<td></td>
<td>5-3</td>
<td></td>
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<tr>
<td>Total</td>
<td></td>
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<td>100.0</td>
<td>9078</td>
<td>9078.0</td>
<td>125,349</td>
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Quality: Technical levels of beekeepers

<table>
<thead>
<tr>
<th>Level</th>
<th>Percent of beekeepers</th>
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<tbody>
<tr>
<td>excellent</td>
<td>%2</td>
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<tr>
<td>Very good</td>
<td>%11</td>
</tr>
<tr>
<td>good</td>
<td>%16</td>
</tr>
<tr>
<td>pass</td>
<td>%38</td>
</tr>
<tr>
<td>fall</td>
<td>%33</td>
</tr>
</tbody>
</table>
Analysis of production equation

- Good beekeeper
  - Good management
  - Diseases under control
- Good bee race
- Good pasture and climate
- Good production
  - Good quality

Selection → Queen rearing

Queen rearing → Good bee race

Good bee race → Good beekeeper

Diseases under control → Good beekeeper

Good management → Good beekeeper
Queen rearing and breeding

Raer queen form good race mean Honey

• Disappear some diseases like chock brood, and European full brood
• Increase in honey production at least 25%
• Increase the ability of colony to face bad conditions
• Decrease tendency to swarm
• Shorten the time of building up of nucleus
• Make the management of apiary more easy
Bee races

Before 2009
• Italian race

After 2009
• new race
Analysis of production equation

- Good beekeeper
  - (Good management)
  - (Diseases under control)
- Good bee race
- Good pasture and climate
- Good production
  - Good quality
- Queen rearing
  - selection
This climate has helped and helps in avoiding infection by
1- Nosima disease  2- Tracheal mite Acrapsi woodii 3- Small hive battle
levels of The diseases and pests

In the last decade, it has observed that the levels of some disease and pests has decreased without and type of treatment

• American full brood
• European full brood
• Varroa
• Virus disease (deformed wings)
• Bee Louse
• Chock brood
• We have some explanation
• Natural selection in national bee stock
• Importation of queens from good lines
• Horizontal expand of beekeeping
• Wax foundation used is sterilized
• Decrease of moisture due to decrease of rain
• Decrease of Brood cycle due to shortness of The season of nectar flow.
• Increase of beekeeping migratory improve bee nutrition
contamination

• Contamination of honey with varroacide especially quick release varroacide
• Contamination of natural beeswax with paraffin wax
Analysis of production equation

Good beekeeper
(Good management)
(Diseases under control)

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Queen rearing

Selection

Good production
Good quality
Honey Production Capacity

• In a good year which means early rain and moderate winter (not very cold and not warm) this will lead to early build up to colonies, we have capacity to produce 2500 MT (metric ton) of

• Mutiflore honey (spring honey)
• Monoflore Honey
  – Orange honey
  – Eucalyptus Honey
  – Thyme honey
  – Cidar honey
Nucleus production

• 30,000 nucleus/year
The value of bees as pollinators

1. Honey
2. nucs
3. wax
4. Pollen grain
5. Queens
6. propolis
7. Royle jelly
8. Bee venom
9. Manufacture of bee equipment
10. Hive transportation for bee immigration

None of the regions is involved in pollination services
والحمد لله رب العالمين
والسلام عليكم ورحمة الله وبركاته

Thank you