Honey Production


May 2019
**CURRENT MARKET SITUATION**

The Samoan National Market is estimated at 4 metric tonnes per annum. Honey in Samoa can only be sourced nationally. Even though no centralised data on honey production is currently available, there is a clear shortage of honey for the national market. This shortage is characterised by sporadic availability of honey throughout the year and high retail prices (about SAT$25 - $30 for 250ml).

**POTENTIAL CUSTOMERS**

Bottled honey can be sold either directly to supermarkets, restaurants or online (via Facebook).

Honey in buckets can be sold to Sale’imoa Apiary or CCK for bottling.

**01 NON-TIMBER USE**
I live in an area where timber use is restricted or forbidden. *i.e. area near river path, mangroves or woodlands.*

**02 ALREADY ESTABLISHED**
I want to upscale my existing honey production.

**03 PREVIOUS EXPERIENCE**
I used to successfully produce honey in previously vulnerable sites.

**04 ENHANCE CROP PRODUCTION**
*FAO estimates that pollinators can increase crop production by about 25% if farmers do not overuse chemicals such as fungicides, insecticides and herbicide.*

**05 EXTRA SOURCE OF INCOME**

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### 5 Hives

- **Minimum Exploitation Size**
- **Ideal Exploitation Size**
- **First Harvest**
- **Setup Cost**
- **Net Annual Revenue**

### 10 Hives per site

### 12 - 18 Months

### $14,000

### $1,300 min

### $6,400 max
There is a 6-week time gap between nectar foraging by the bees and the production of mature (sealed) honey.

**Production & Revenue**

10 Hives in the lower catchment will produce about 80 litres (112kg) of honey per year in three harvests.

Based on a gate price at the farm of SAT$16 per kg or $22.40 per litre, minimum turnover has been estimated at SAT$1,730 per year.

Based on retail prices of SAT$100-120 per litre, maximum turnover has been estimated at SAT$6,400 per year (if 70% of honey produced is being sold).

Honey production is dependent on site locations. Sites located in lower elevation and therefore receiving lower rainfalls.

**Minimum Exploitation Size**

It is recommended to start with a minimum of 5 hives even though the set-up cost is similar between 5 and 10 hives (due to the cost of the shelter). Experience is required to harvest honey in a timely manner to prevent honey bees from other hives to steal/rob from and eventually kill the colony being harvested.

**In-Kind Contribution & Maintenance**

A 3.5x3x2m shelter & fencing need to be built to protect beehives from the weather.

Weekly visual checks on the hive exterior condition and entrance by owner: Less activity is a sign of a problem. Dead bees on the ground is a sign that the hive had been robbed out. Disturbed hive box configuration is a sign of animal intrusion/vandalism.

Monthly monitoring visits by third party (CBO or NGO). Field visits include first harvest, hands-on training and beehive interior checks.

An agreement ranging between 30 and 50% of the honey produced can be signed between beehives owner and third party for the monitoring and harvesting activities.

**Where can I find Expertise**

Beekeepers’ Association of Samoa

Women in Business Development Inc.

NGO

**5 to 10 Beehives**

Shade cloth or corrugated iron to hide bees from night lights.

Beehives need to be kept away from households and light sources at night. Bees are naturally attracted by lights. They might sting people and die.

7m x 7m square Fence to protect beehives from intruding feral animals or vandalism in remote areas.
### SETUP COST

**Estimated**

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
<th>Unit Price</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Shelter (3x3x2m)</td>
<td></td>
<td></td>
<td>≈ $4,000</td>
</tr>
<tr>
<td>Pipe HD Gal (80x3.25mmx5.8m)</td>
<td></td>
<td>$189.00</td>
<td></td>
</tr>
<tr>
<td>Timber (2 x 6 x 20)</td>
<td></td>
<td>$65.60</td>
<td></td>
</tr>
<tr>
<td>Timber-Purlin (2 x 3 x 16)</td>
<td></td>
<td>$28.50</td>
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</tr>
<tr>
<td>Roofing Iron (8x20ft)</td>
<td></td>
<td>$12.90/m</td>
<td></td>
</tr>
<tr>
<td>Roofing Nails (25nails/kg)</td>
<td></td>
<td>$36.00/kg</td>
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</tr>
<tr>
<td>Cement Bags 40kg</td>
<td></td>
<td>$44.00</td>
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</tr>
<tr>
<td>Nuts/Bolts Cup head M12x150</td>
<td></td>
<td>$3.70</td>
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</tr>
<tr>
<td>Nuts/Bolts Cup head M12x100</td>
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<td>$2.80</td>
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(2) Fencing

For isolated locations only

<table>
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<tr>
<td>Pipe HD Gal (80x3.25mmx5.8)</td>
<td></td>
<td>$189.00</td>
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</tr>
<tr>
<td>Chainlink Fence (3.2mmx6ftx15m)</td>
<td></td>
<td>$350.00</td>
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<tr>
<td>Padlock</td>
<td></td>
<td>$20.00</td>
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(3) Honey production

<table>
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<tr>
<th>Description</th>
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<tr>
<td>Double beehive</td>
<td>10</td>
<td>$668</td>
<td>$6,680</td>
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<tr>
<td>Bee colony</td>
<td>10</td>
<td>$200</td>
<td>$2,000</td>
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(4) Tools and Equipment

<table>
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<tr>
<td>Pollination suite</td>
<td>1</td>
<td>$690</td>
<td>$690</td>
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<tr>
<td>Gloves</td>
<td>1</td>
<td>$30</td>
<td>$30</td>
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<tr>
<td>Hive tools</td>
<td>1</td>
<td>$51</td>
<td>$51</td>
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<td>Smoker</td>
<td>1</td>
<td>$200</td>
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**SAT$: $13,651**

### RUNNING COST

**Estimated**

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<th>Description</th>
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<tr>
<td>(1) Membership</td>
<td></td>
<td></td>
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<tr>
<td>Association One Off Fee</td>
<td>1</td>
<td>$50</td>
<td>$50</td>
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<tr>
<td>Association Annual membership</td>
<td>1</td>
<td>$20</td>
<td>$20</td>
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(2) Harvest and Marketing

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<tr>
<td>Transportation</td>
<td>80</td>
<td>$0.50</td>
<td>$40</td>
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<tr>
<td>Extraction cost</td>
<td>80</td>
<td>$1.40</td>
<td>$112</td>
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<tr>
<td>Bottle plastic C/W top</td>
<td>80</td>
<td>$0.95</td>
<td>$76</td>
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<tr>
<td>Filling bottle</td>
<td>80</td>
<td>$0.70</td>
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<td>Label</td>
<td>80</td>
<td>$0.47</td>
<td>$38</td>
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<tr>
<td>Delivery</td>
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**SAT$: $392**
Indicative Map of Existing and Potential Sites for Honey Production

**Bee foraging range:**
3 kilometres

**Faatoialemanu**
- 50 Hives
- Destroyed in 2012 Flood

**Malifa**
- 10 Hives
- Destroyed in 2012 Flood

**Vinifou**
- 14 Hives
- 1 Site
- Since 1998

**Leleata**
- 8 Hives
- Destroyed in 2012 Flood

**Avele**
- 2 Hives
- 1 Site
- Since 2019

**Letava**
- 6 Hives
- 1 Site
- Since 1997

**Woodlands**
- Other Potential Sites

**Afiamalu East**
- 6 Hives
- 2 Sites
- Since 2017

**Vaoala**
- 7 Hives
- 2 Sites
- Since 2018
- 8 Hives
- Vandalized in 2019

**Mangroves**
- Good Potential Sites

Good Potential Sites

*Indicative Map of Existing and Potential Sites for Honey Production*
Site Evaluation

Even though honey bees visit most crop flowers, they do not necessarily pollinate them efficiently. Examples of these crops include passion fruits, solanaceous crops (e.g. capsicum, tomatoes and eggplant), legumes (e.g. beans, cowpeas, alfalfa and grams), nut trees (e.g. macadamia and cashew nuts) and some fruit trees such as Banana, Cocoa or Breadfruit.

The GCF team would like to sincerely thanks M Leicester Dean and M Raymond Voigt from the Beekeeper’s Association of Samoa for their valuable inputs for the production of this brochure.