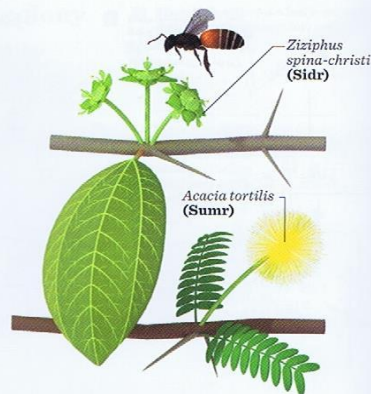


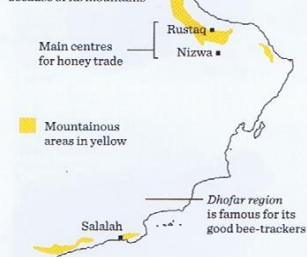
# Beekeeping in Oman

In many cultures, the use of honey is more than a source of nourishment. It is considered as a talisman or a symbol of sweetness. In Islam, there is a passage in the Holy Quran which talks about the honey bee. According to Hadith, Prophet Muhammad (Peace Be Upon Him) strongly recommended honey for healing purposes. Here in Oman, the traditional beekeeping has been part of the Omani culture. During the 17th century, the illustrious Imam Saif bin Sultan was known as a keen apiarist — raising bees in the bountiful gardens of his fortress in Rustaq. For at least a millennium, generations of Omani beekeepers have perfected two techniques of honey farming.



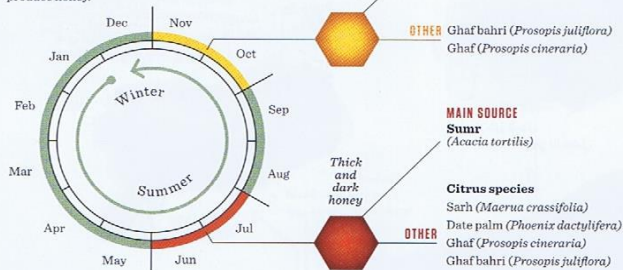
## Region

The common bee is used in the whole country and the dwarf bee is used in the northern region because of its mountains.



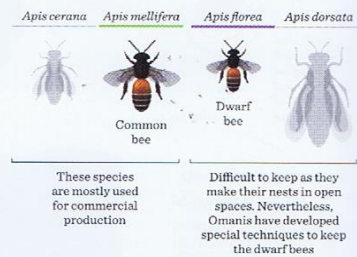
## Seasons

There are two seasons: in summer and in winter. These are when the flowers are available, and then, the bees are very busy getting nectar to produce honey.

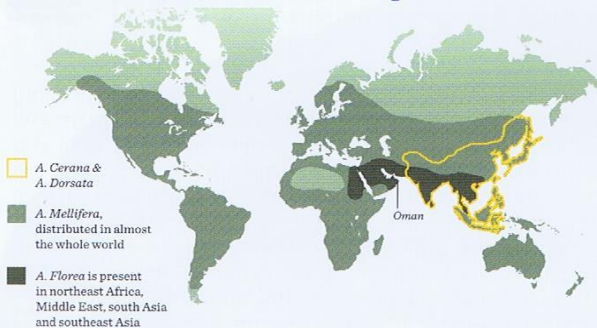


## Bee species

There are four commonly recognised species of honey-producing bees around the world, two of which (below in colours) are present in Oman.



## Global distribution of the bee species



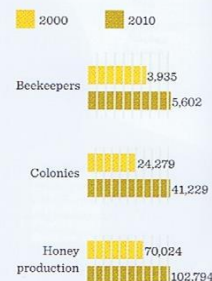
## Tradition vs economy

In 1851, the Reverend Lorenzo Langstroth invented the universally known square beehive that uses mobile frames. To date, this method is widely used because of its efficiency, but still there are Omani apiarists who are very much attached to the tradition even if the modern method spells more profit.



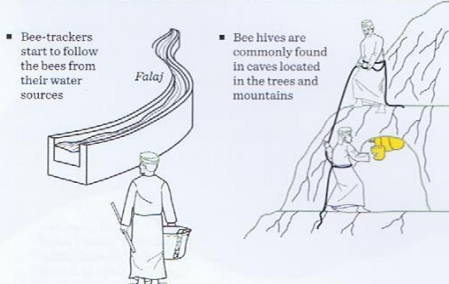
Hive type	Log hive (Tub)	Langstroth hive
Cost	RO3 - RO5 (per log)	RO10 - RO12 (frames)
Honey	4 - 6 kg	8 - 12 kg
Honey's price	RO30 - RO50	RO15 - RO25

## Local honey production



## Tracking the bees

Omani bee-hunters are known because of their skills to track the bee colony.



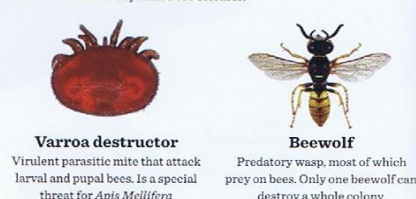
Bee-hunters need to be very attentive to locate bee queens. They take the necessary steps to start a new colony:

- The queen
- Some workers
- A piece of comb



## Beekeeper's insect foes

These two can destroy entire bee colonies:



Also pesticides sprayed near apiaries drive off the bees

**Sources** Dr Hassan Al Lawati, Head of Honey Bee Lab, Directorate General of Agriculture and Livestock Research, Ministry of Agriculture. Mahmood Al Rahbi, local beekeeper. Beekeeping in Asia, Pongthep Akkratanakul, FAO. 'Honey' in Frequin, Adarsh Madhavan/Priya Arunkumar, Black & White Magazine. Honeybees in Oman, Roderic Dutton. Beekeeper's honey fit for a Sultan, Birmingham Post & Mail. Biometrics, bee forage plants, pollen spectrum of honey and beekeeping in Arab, African and Asian countries, Dr Moustafa H. Hussein. Love story with bees in Oman, Abu Omar. The high cost of a sweet tooth, IC Publications. Sidr Honey, Nicole Weston. Arabian Studies, Robert Bertram Serjeant, & Robin Leonard Bidwell.





# The common bee method

Omani beekeepers keep common bees in hollow date palm logs called *tubl*.

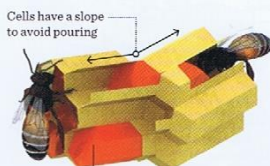
## The apiary

All the *tubls* are laid in three layers over a stone bed.



## The hive

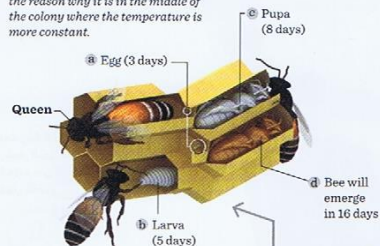
The hollow log work as a vessel that give protection and keep the correct temperature to the colony. Each *tubl* has one queen bee and a few thousand of workers maintaining the colony.



With the contents of 25 cells it can fill one teaspoon

The beekeeper don't take the rear honey because it is reserve for the bee

The brood need 32 to 37 degrees, that's the reason why it is in the middle of the colony where the temperature is more constant.



## Setting up the colony

1 The hive's vessel is taken from the date palm's trunk. *Fard* and *nagal* are commonly used to make the *tubl*, as well as *khesab*



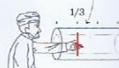
2 Dug a pith. The older the log, the better. A 40-year-old tree is woody and easy to bore



3 The midrib of the palm leaf is cut to a desired length and split into two to shape a cross



4 The cross is then placed at the first third section of the log



5 Then a piece of comb is placed (which include the queen and few bee workers) at the cross section. Bees will start to build the comb. This procedure is usually done after sunset so the bees won't escape



## The comb

A structure based on hexagonal coils made by wax that the worker bee produced from their glands at the bottom of their abdomen

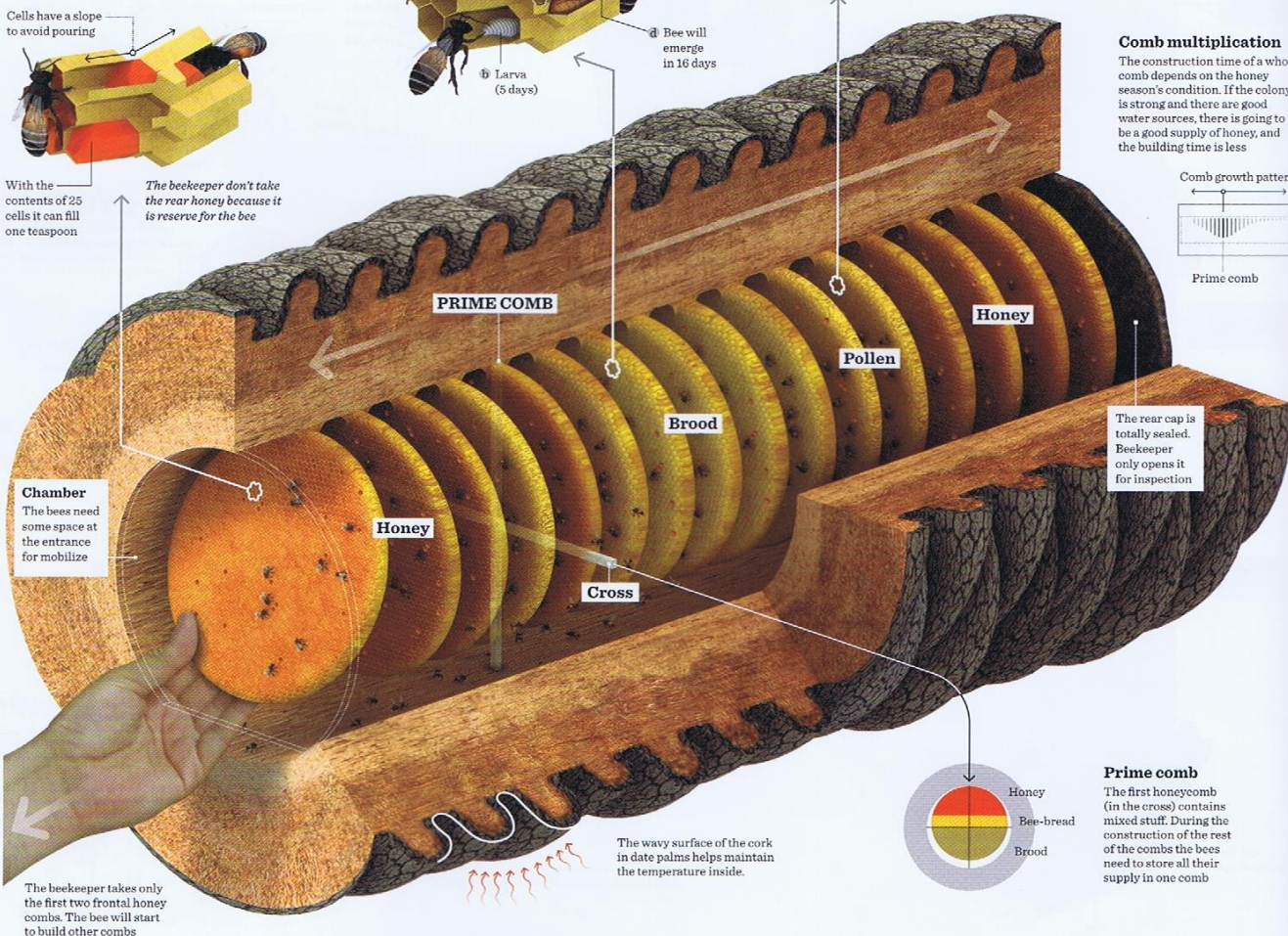
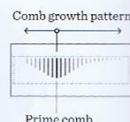


One worker bee needs to consume 1 kilogram of honey to produce 1 kilogram of wax.



## Comb multiplication

The construction time of a whole comb depends on the honey season's condition. If the colony is strong and there are good water sources, there is going to be a good supply of honey, and the building time is less



**Sources** Dr Hassan Al Lawati, Head of Honey Bee Lab, Directorate General of Agriculture and Livestock Research, Ministry of Agriculture. Mahmood Al Rahbi, local beekeeper. *Beekeeping in Asia*, Pongthep Akranakul, FAO. *Honeybees in Fezquin*, Adarsh Madhavan/Priya Arunkumar, Black&White Magazine. *Honeybees in Oman*, Roderic Dutton. *Beekeeper's honey fit for a Sultan*, Birmingham Post & Mail. *Biometrics, bee forage plants, pollen spectrum of honey and beekeeping in Arab, African and Asian countries*, Dr Moustafa H. Hussein. *Love story with bees in Oman*, Abu Omar. The high cost of a sweet tooth, IC Publications. *Sidr Honey*, Nicole Weston. *Arabian Studies*, Robert Bertram Serjeant, & Robin Leonard Bidwell.



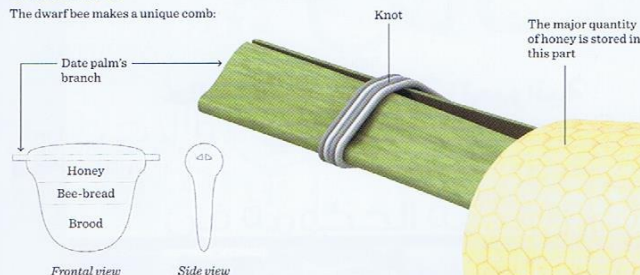


# The dwarf bee method

Only Omani apiarists practise beekeeping using the dwarf bees.

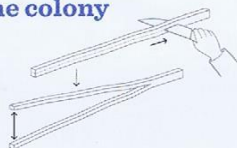
## The nest

The dwarf bee makes a unique comb:

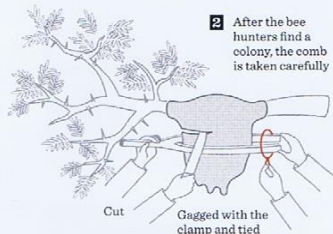


## Setting up the colony

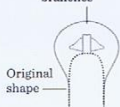
1 Prepare a clamp from the midrib of the date palm's frond by cutting the mid section, but not thoroughly



2 After the bee hunters find a colony, the comb is taken carefully

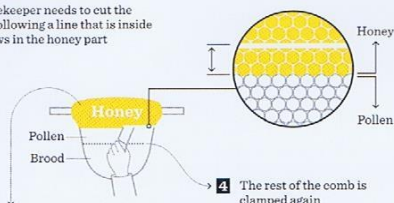


After the comb is clamped the bees build more cells around the branches



## Harvesting

1 The beekeeper needs to cut the comb following a line that is inside two rows in the honey part



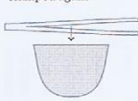
2 The top part containing the honey is extracted



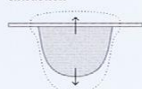
3 The honey comb is squeezed to juice out the honey



4 The rest of the comb is clamped again

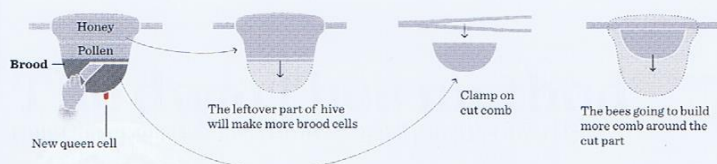


5 The bee colony will again build another comb and produce honey for the next extraction



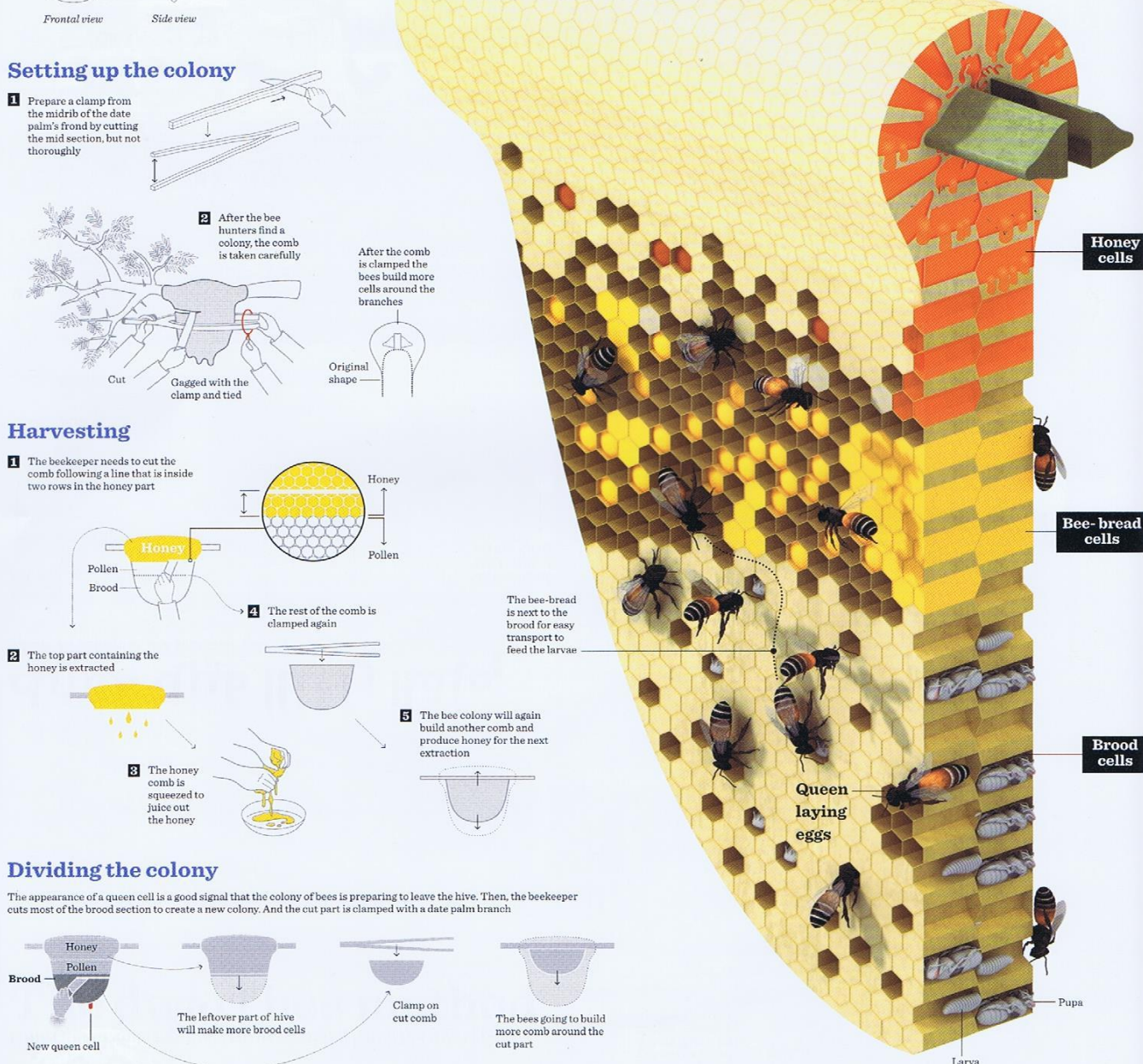
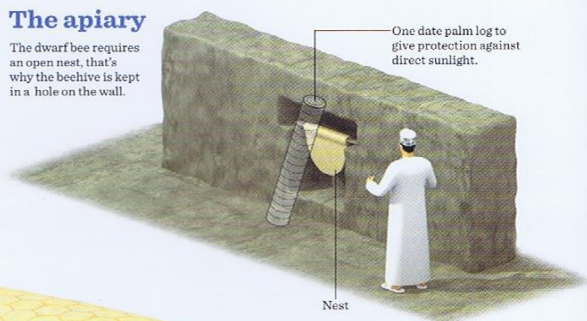
## Dividing the colony

The appearance of a queen cell is a good signal that the colony of bees is preparing to leave the hive. Then, the beekeeper cuts most of the brood section to create a new colony. And the cut part is clamped with a date palm branch



## The apiary

The dwarf bee requires an open nest, that's why the beehive is kept in a hole on the wall.



**Sources** Dr Hassan Al Lawati, Head of Honey Bee Lab, Directorate General of Agriculture and Livestock Research, Ministry of Agriculture. Mahmood Al Rahbi, local beekeeper. *Beekeeping in Asia*, Pongthep Akranakul, FAO. *Honeybees in Fiqin*, Adarsh Madhavan/Priya Arunkumar, Black&White Magazine. *Honeybees in Oman*, Roderic Dutton. *Beekeeper's honey fit for a Sultan*, Birmingham Post & Mail. *Biometrics, bee forage plants, pollen spectrum of honey and beekeeping in Arab, African and Asian countries*, Dr Moustafa H. Hussein. *Love story with bees in Oman*, Abu Omar. The high cost of a sweet tooth, IC Publications. *Sidr Honey*, Nicole Weston. *Arabian Studies*, Robert Bertram Serjeant, & Robin Leonard Bidwell.

