

# The Gold Coast Regional Beekeepers Inc.



### Working the Hive













#### What to do

Everyone who own or manages a hive must be able to:

- ✓ Open and close the hive.
- ✓ Remove and/or replace frames in the hive.
- ✓ Inspect the frames for eggs, larvae or Pupa.
  - ✓ Find the Queen.
- ✓ Detect a range of diseases such as Small Hive Beetle (SHB), American Foul Brood (AFB), European Foul Brood (EFB), Chalkbrood and other diseases.
  - ✓ Carry out general maintenance to the hive



#### **Opening & Closing the hive**

Approach the hive from the rear or side



Stand at the side and give a few gentle puff of smoke





Using your hive tool, gently ease the flat surface between the bottom of the lid and the top of the super box to prise them apart

Once the seal has been broken remove the lid and place to the side upside down, while gently smoking the hive if necessary







#### **Checking for Small Hive Beetle**



Small Hive Beetle

The Velcro like backing on vinyl floor sheeting catches their legs then the bees attack and kill them.



#### Removing a Small Hive Beetle trap



SHB in the oil filled trap



#### **Carefully Remove the frame**





Using the hive tool carefully break the propolis seal between frames then gently lift the frame





#### **Propolis**



Propolis, a bee glue made from gummy, resinous substances gathered by the bees from various plants, mixed with wax and saliva and used to seal cracks and as an anti-bacterial agent in the hive.

Sought by people for its health benefits



#### A fully capped frame of honey



**Small Hive Beetle** 



#### Removing the super and queen excluder



Queen excluder

**Brood box** 

**Bottom board** 

Removing the super to check the brood and queen beneath the queen excluder.



#### **Finding the Queen**





#### See who else is at home

My, what lovely big eyes you have !!





Sealed brood

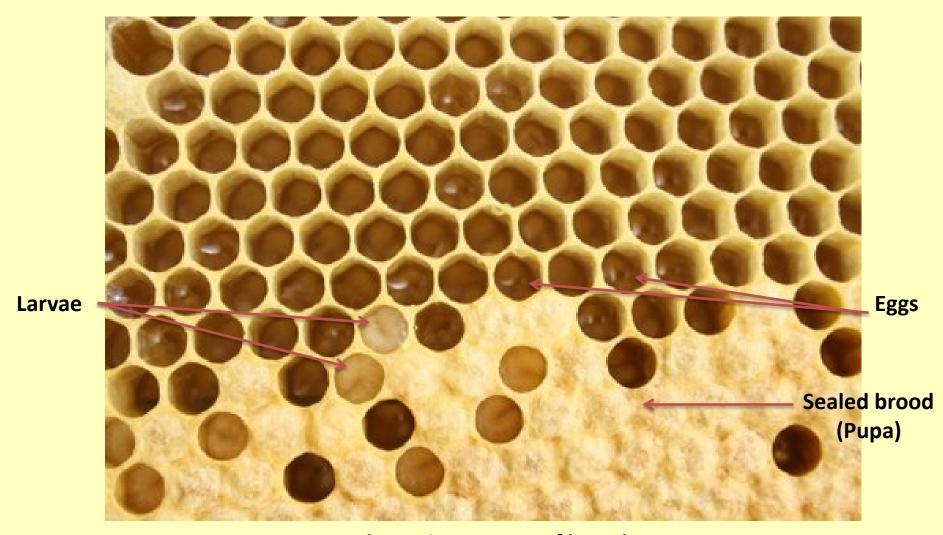
#### **Brood Frame**



**Stored honey** 



#### **Brood Frame**



The various stages of brood

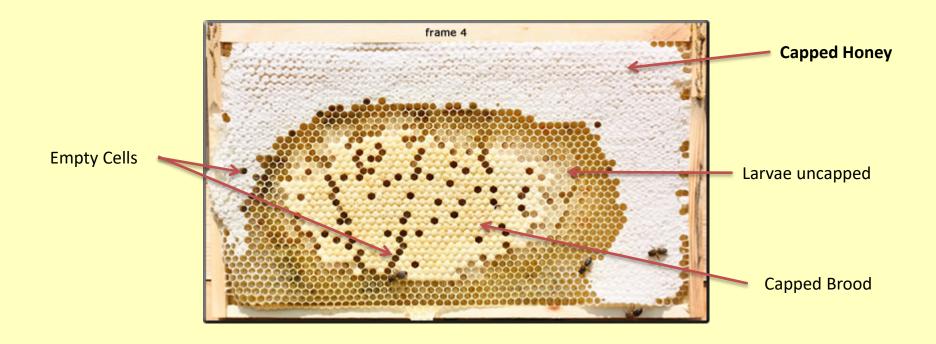


#### Worker bees



Typical of the female species
They do all the work while all the
Drones do is mate with the queen

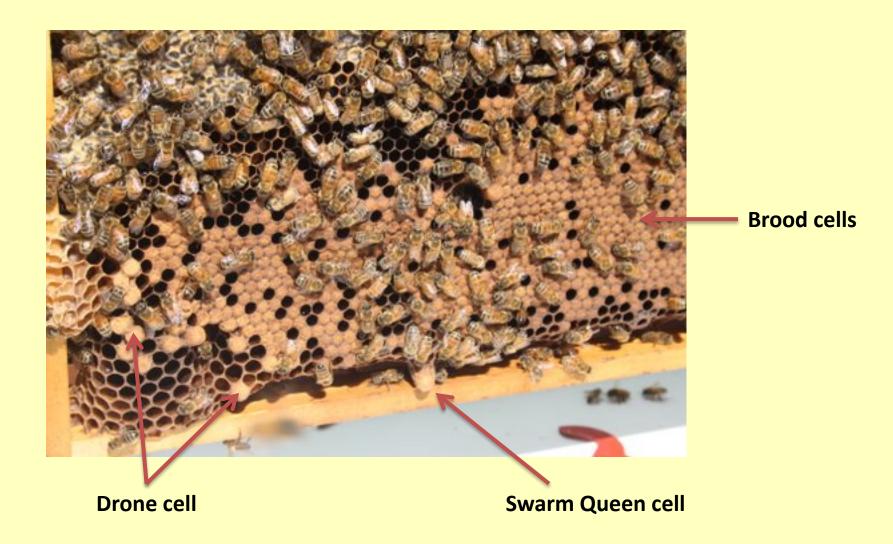
### Brood Pattern on a new frame with a newly mated queen



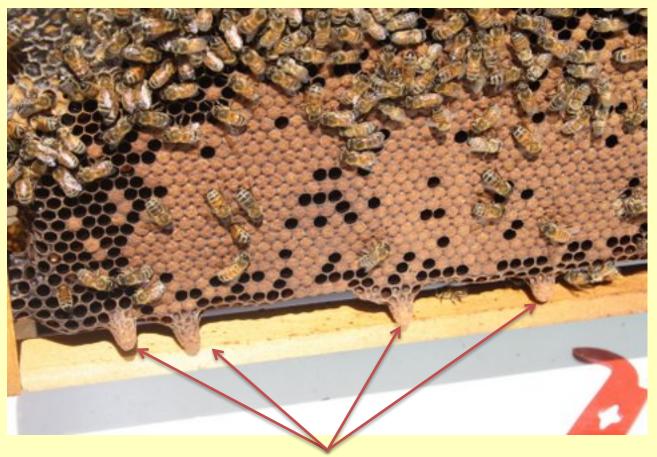
The frames above show the pattern of brood produced by a new colony with a newly mated queen. The small colony was given a new brood box with all new frames containing foundation. The first 10 days were spent by the bees drawing out the first frames and storing some honey. The first eggs were seen after 10 days.



#### Old brood frame with capped cells, drone cells and queen cell



### Signs that the queen is not strong, has swarmed or is about to



**Swarm Queen cells** 



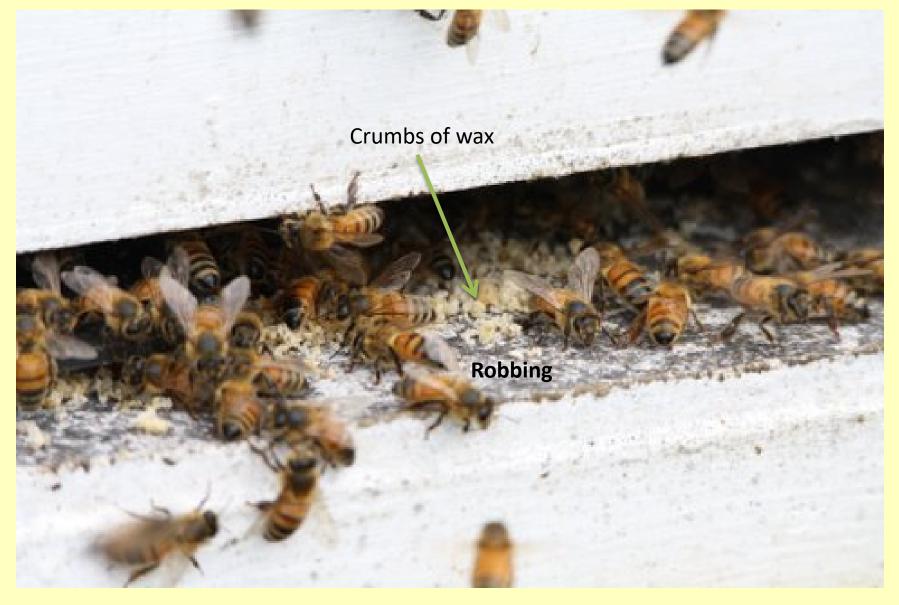
#### New Frame with cells being built



New cells being built out



#### **ROBBER BEES** Signs to be wary of



#### The fight goes on





### Casualties are heavy, and the hive is lost





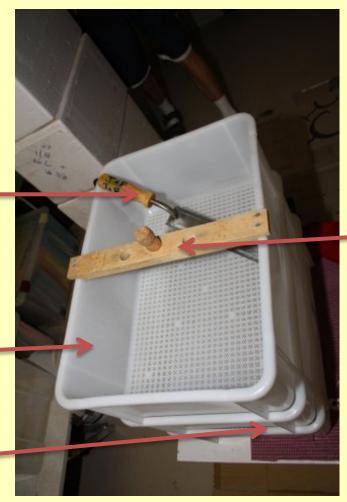
#### Manual honey extractor - 4 frame



4 Frame cages



### Uncapping box & electric uncapping knife



Frame rest board with safety cork covering spike

2 layers of wax

electric uncapping knife

draining tubs.

Solid bottom tub

with honey gate for draining honey



#### Full capped frame of honey



A fully capped frame of honey can weigh between 3kg to 5kg



#### Uncapping a frame using a electric uncapping knife







Using uncapping comb

Wax capping's





#### 4 uncapped frames in extractor





#### Honey being spun from the frame using the centrifugal force

Honey being spun out

Pool of extracted honey forming in the base of the extractor





### Honey gate open, draining honey from the extractor





#### Using a frame support bracket

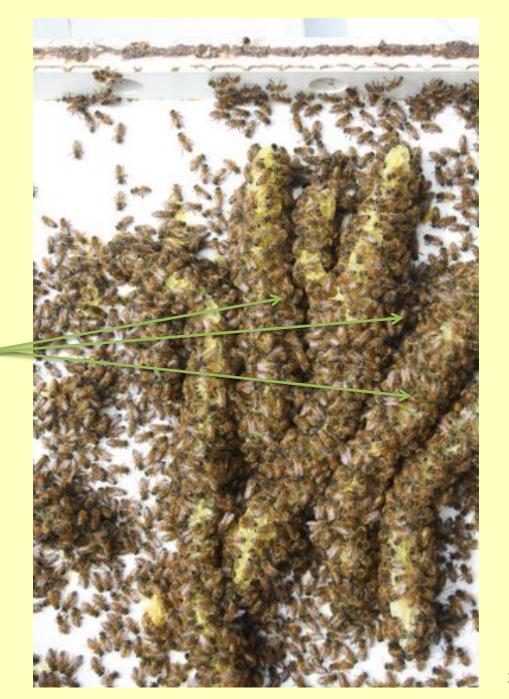


This bracket hold frames during hive inspection



#### Burr combe in the hive lid

Burr comb built under a lid



#### **Burcomb**



Burr comb cells full of honey



**New wax cells** 



#### Types of SHB traps



**Beetle Jail** 



**Beetle Blaster** 



AJ's Beetle Eater



**Hive Doctor Base** 



Bluebees Brood Box Bottom Board (frame needs to be made to fit)



**DE beetle trap filled with Diatomaceous Earth** 



**Underside of Vinyl Sheeting** 



The good old Chux cloth



#### **Hive Records**

Hive record 2009		Hive no.	4						History: Nuc from hive 2, Oct 2013,			t 2013,		Queen marked: White		
Home apiary P772		P772									35kg honey 2013.					
<u>Date</u>	<u>Weather</u>	<u>Queen</u>	Q' cells	<u>Eggs</u>	<u>Larvae</u>	<u>Stores</u>	<u>Decks</u>	<u>Temper</u>	<u>SHB</u>	<u>AFB</u>	<u>EFB</u>	EFB C/Brood Varroa		Wmoth	<u>Notes</u>	
3-Sep	Fine	Υ	No	Υ	Υ	Υ	2	Good	Υ	N	N	N	N	N	May need new super next week.	
12-Sep	Fine	N	N	Υ	Υ	Υ	2	Good	Few	N	N	N	N	N	Took 6 Frames Honey (16kg) no insp Brood	
1-Oct	Fine	Υ	1 (X)	Υ	Υ	Υ	2	Good	N	N	N	N	N	N	Hive very busy - ready to split	
21-Oct	Fine	Υ	N	Υ	Υ	Υ	2	Good	N	N	N	N	N	N	Split Hive 4- 3 frames brood- left split	
"															box above H4 for 4 days seperated	
"															introduced new queen New Hive No.9	
29-Oct	Fine	N	N	Υ	Υ	Υ	2	Good	N	N	N	N	N	N	Checked SHB traps Hive very busy	
15-Nov	Fine/Hot	Υ	N	Υ	Υ	Υ	2	Good	Few	N	N	N	N	N	Took 7 Frames Honey (17kg) Q+Brood good	

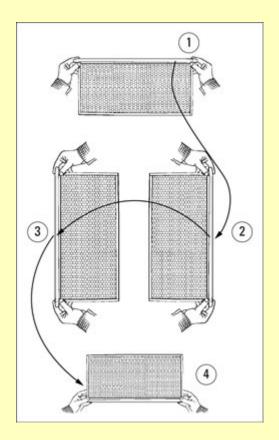
An important aspect of successful <u>beekeeping</u> is that of keeping accurate records.



				Hive In	spection S	<u>heet</u>					
Hive No				Date	/	/					
<b>Brood Box Configuration</b>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	
Frame with Foundation	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	N	
Drawn Comb	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	N	
Eggs	N	Υ	Υ	Υ	Υ	Υ	Υ	Υ	N	N	
Larvae	N	Υ	Υ	Υ	Υ	Υ	Υ	Υ	N	N	
Sealed Brood	N	Υ	Υ	Υ	Υ	Υ	Υ	Υ	N	N	
Drone Brood	N	N	N	Υ	Υ	N	N	N	N	N	
Honey Stores	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	N	
Pollen Stores	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	N	
Queen Cells	N	N	N	N	N	N	N	N	N	N	
Queen	N	N	N	N	Υ	N	N	N	N	N	

**Brood Box Inspection** 







Here's an easy way to inspect both sides of the frame: Hold the frame firmly by the tabs at either end of the top bar. Turn the frame vertically.

Then turn the frame like a page of a book.

Now smoothly return it to the horizontal position, and you'll be viewing the opposite side of the frame.



#### Summary



- ✓ Knowing when it's time for more smoke
- ✓ Understanding what to always look for in your hive
  - ✓ Checking for your queen bee
  - ✓ Storing food and raising the bee brood
    - ✓ Inspecting the brood pattern
  - ✓ Recognizing foodstuffs in your beehive

## This presentation has been prepared by the Gold Coast Regional Beekeepers Inc. with information from:

- Australian Honey Bee Industry Council (AHBIC)
  - Wheen Bee Foundation
- Department of Agriculture, Fisheries and Forestry (DAFF Apiary Unit)
  - Queensland Beekeepers Association (QBA)
    - Be Aware
  - Department of Primary Industries NSW (DPI)
    - Plant Health Australia (PHA)