

# APICULTURE





# DEFINATION:-

APICULTURE IS  
REARING THE BEES IN CAPTIVITY FOR  
OBTAINING HONEY AND FOR  
ARTIFICIAL POLLINATION...



# CLASSIFICATION :-

PHYLUM :- ARTHROPODA


CLASS :- INSECTA


ORDER :- HYMENOPTERA


FAMILY :- APIDAE


GENUS :- APIS

# HONEY BEE SPECIES

 **APIS DORSATA:-** Commonly called as **ROCK BEE.** This is the largest bee ,about 20mm in length. This bees have yield maximum amount of honey as compare to other species.

 **APIS MELLIFERA:-** Commonly called an **EUROPEAN BEE.** This is the smaller bee . This bees produce less honey but uses in commercial point of views.

 **APIS INDICA :-** Commonly called an **INDIAN BEE.** This is the smaller then A.dorsata. They prefer live in dark place. This bees produce honey much less .

 **APIS FLOREA:-** Commonly called **LITTLE BEE.** Due to docile nature easily remove the combs.

## HONEY BEE SPECIES



ROCKBEE



LITTLE BEE



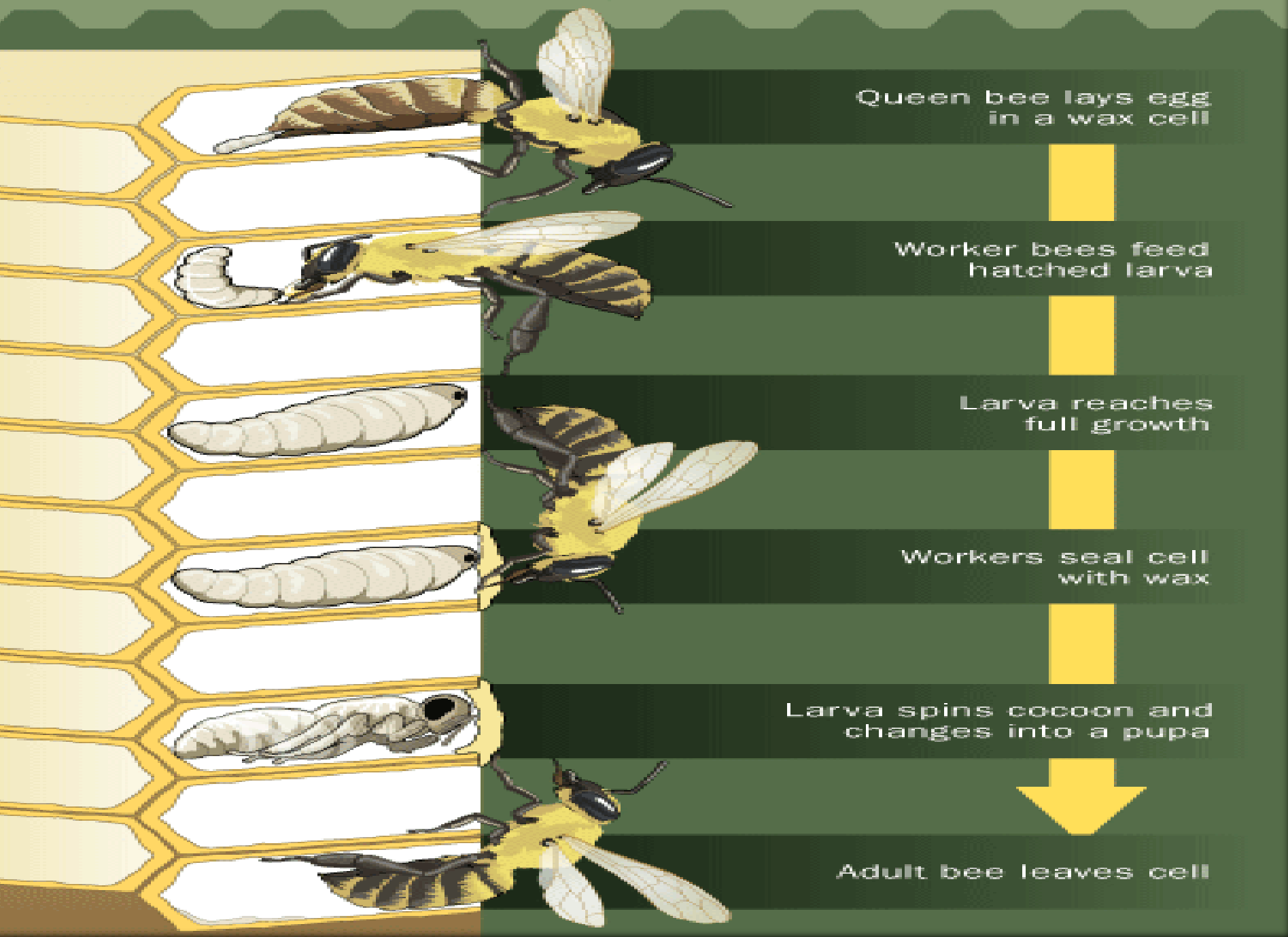
INDIAN BEE



STINGLESS BEE

# How Bees Work Life Cycle

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# **LIFE HISTORY OF HONEY BEES:-**

**AFTER MATING QUEEN GENERALLY LAYS ONE EGG IN ONE BROOD CELL**

- ❑ EGGS:- THE EGGS ARE PINKISH COLOURED ,ELONGATED WITH CYLINDRICAL BODY GENERALLY ATTACHED TO THE BOTTOM OF THE CELL.**
- ❑ LARVA:- LARVA EMERGE OUT FROM FERTILISATION AS WELL AS UNFERTILISATION THE LARVA FROM UNFERTILISED EGG FORM DRONE WHILE WORKERS ARE DEVELOP FROM FERTILISED EGG AMONG THE LARVA OF WORKER ONE IS FED ON THE ROYAL JELLY A SPECIAL DIET SECRETED BY YOUNG WORKER IN THE COLONY.**
- ❑ PUPA:-AFTER FIVE DAYS OF FEEDING THE CELL IS SEALED AND THE LARVA UNDERGOES PUPATION .**
- ❑ ADULT:-ABOUT 2 TO 3 WEEKS THE YOUNG ONE TAKES PLACE.**

**ALL THE BEES PASS THROUGH A COMPLETE METAMORPHOSIS WITH THE VARIOUS IN THE LIFE CYCLE .**

# Castes of honey bees

## ❖ WORKER:-

- 1) Long proboscis for sucking the nectar.
- 2) Strong wing for fanning .
- 3) Pollen baskets for the collection of pollen.
- 4) Powerful sting to defend the colony against any attack.
- 5) Wax gland for wax secretion.



## ❖ QUEEN:-

- 1) Mother of colony .
- 2) Feeds on royal jelly .
- 3) About 15 to 20 mm in length.
- 4) One queen lays about 1,500 to 2,000 egg in a days depending upon the seasonal variation.



## ❖ DRONE:-

- 1) Drone are the male members.
- 2) Called king of the colony .
- 3) They reared from the an unfertilised eggs.
- 4) Reproductive organs are well develop.
- 5) After copulation drone dies.



# PRODUCT OF BEE KEEPING

HONEY

BEE WAX



❖ **HONEY:-** HONEY IS A DIRECT PLANT PRODUCT BECAUSE THE NECTAR , POLLEN AND CANE SUGAR BEARING SECRETION OF FLOWERS ARE INGESTED BY HONEY BEES, GET MIXED WITH THE SALIVA AND UNDERGOES CERTAIN CHEMICAL CHANGE DUE TO ENZYME ACTION . AT THIS STAGES CANE SUGAR CONVERTED INTO INVERT SUGAR I.E. DEXTROSE AND LEVULOSE.

❖ **COMPOSITION OF HONEY:-**

<input type="checkbox"/> LEVULOSE	→	38.9%
<input type="checkbox"/> DEXTROSE	→	21.28%
<input type="checkbox"/> MALTOSE & OTHER SUGARS	→	8.81%
<input type="checkbox"/> ENZYMES & PIGMENT	→	221%
<input type="checkbox"/> ASH	→	1.0%
<input type="checkbox"/> WATER	→	17.20%


❖ **ECONOMIC IMPORTANCE OF HONEY:-**

- ☐ HONEY MAY BE TAKEN BY HEALTHY MEN AS WELL AS THOSE WHO ARE ILL.
- ☐ GENERALLY USED IN AYURVEDIC MEDICINE.
- ☐ HELPFUL IN BUILDING UP OF THE HAEMOGLOBIN OF THE BLOOD AND ALSO PREVENT AGAINST COUGH, COLD & FEVER, AS BLOOD PURIFIER & AS A CURATIVE FOR ULCER ON TONGUE AND ALIMENTARY CANAL.



## Honey uses





**Bee Wax**:- It Is Yellowing To Greyish In Colour And Insoluble In Water But Completely Soluble In Ether. Honey Bees Convert The Pollen Into Bee Wax.

**Economic Importance Of Bee Wax**:- Used In The Manufacture Of Cosmetics Like Face Creams Candles Paints Polish Etc.

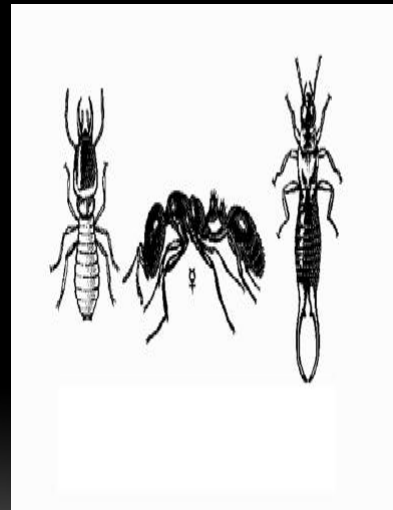
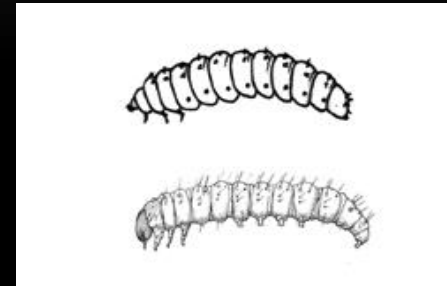
# Emilys Favorites



Love

# BEE ENEMIES

- BLACK ANT
- WASP
- WAX MOTH
- BEE EATERS
- KINGCROW
- MEN



Quotation :-

Bees teach us lesson about work –work & work  
with co- operation

