ZENHACHI- MODERN AND SAFE STINGLESS BEE NEST FOR HOUSING AREA

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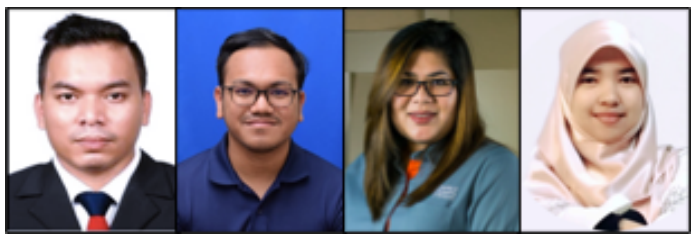
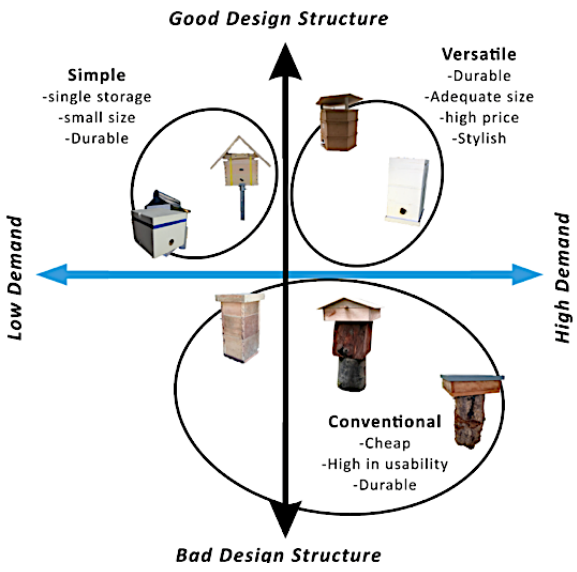


PROJECT BACKGROUND

ZENHACHI is the new trend for stingless bee nest product in Malaysia. The name of the product itself represent the safety of the structure in Japanese which means (safety bee). The design produced modern and simple concept which inspired by the basic structure of Japanese lunch box (Bento). Hexagon shape of the storage represent the beehive itself while full structure indicate the shape of modern flowerpot which is very suitable to be place at housing area. Instead of giving weight at the top shield for safety, it also can be replaced and flowerpot itself as the farmer can put any suitable plant on top of it. The storage will not easily open by the human or other animals to make the bee worker feels safe during foraging process. The farmer also can be less concern on colony surrounding area because of food source provided for the colony to making pollen and honey.

PRODUCT MAPING



MATERIAL SELECTION

ACACIA WOOD

-Top Shield and the stand that attached at the top.

NYATOH WOOD

-3 parts of the storage
-External cover with white paint

COLOUR VARIATION

HIVE STORAGE OPTION

COST

PARTS	COST (RM)
TOP SHIELD	RM180
-INCLUDE PLANT	RM210
STORAGE	
-2 Pcs	RM120
-3 Pcs	RM180
STAND	RM100
TOTAL (PER PCS)	RM 460+-

DESIGN ANALYSIS

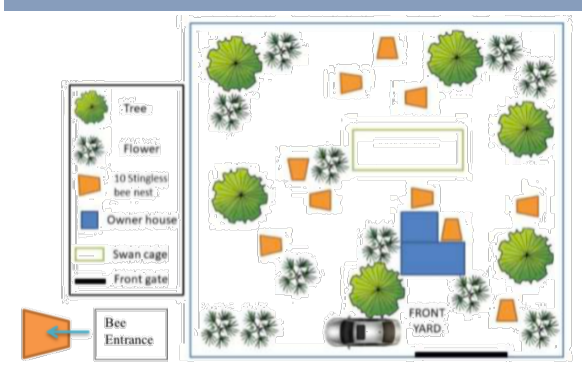


Figure 4.1.3. a Layout plan of nest arrangement at En. Aziz's house yard.

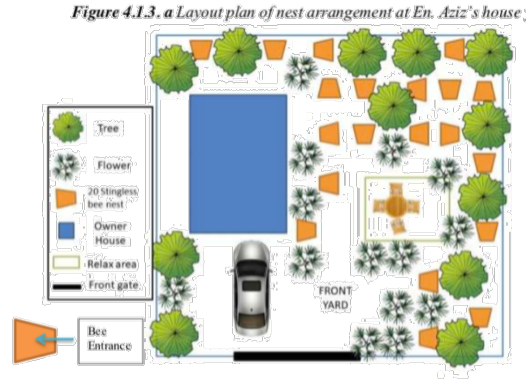


Figure 4.1.3. b Layout Plan of nest arrangement at En. Haziman's house yard

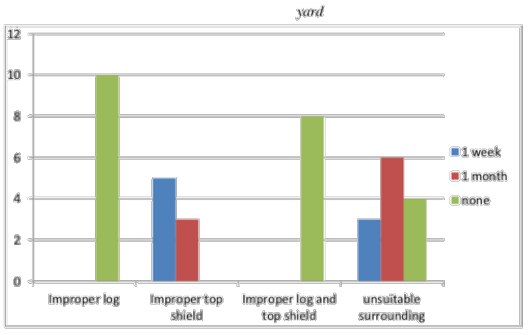


Figure 4.3a. Condition of honey extraction without proper nest features

ENVIRONMENTAL IMPACT

- Preserve the stingless bee colonies to be more resilience for any hazard like predator and weather change.
- Strengthen the pollination process for the flora ecosystem survival with assistant of bee colonies.

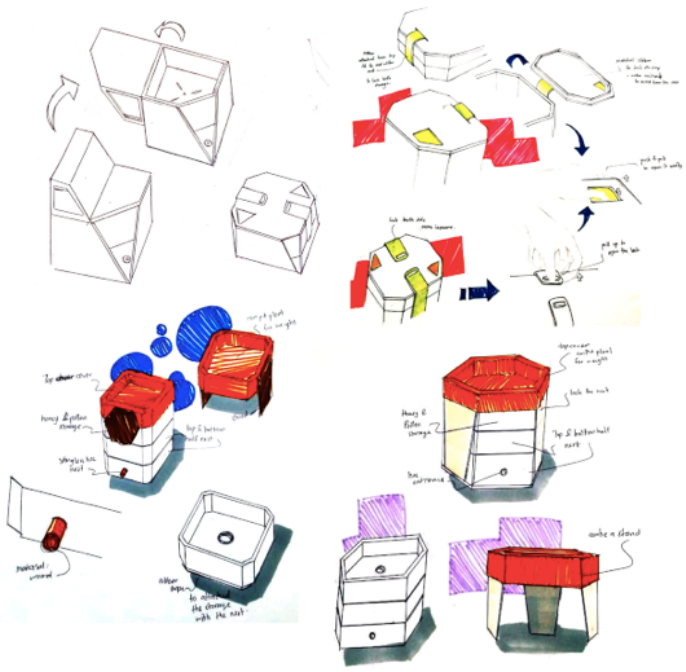
RESEARCH BACKGROUND

- The meliponiculture industry is new in Malaysia
- Meliponiculture allow bee farmers to generate income by selling stingless bee colonies, honey, bee bread, propolis, pollination services, educational services and agro-tourism.

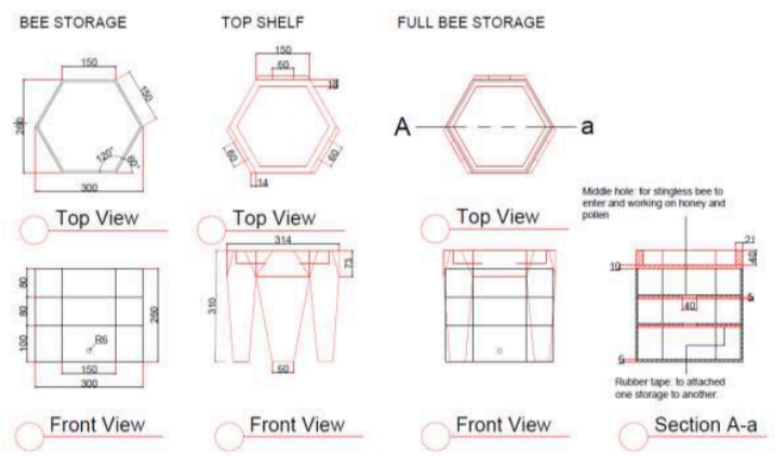
PROBLEM STATEMENT

- The current way of harvesting is not sustainable and destroys the natural habitat.
- People are cutting down trees in the forest, chopping up sections of logs, putting a topping over them and extracting the honey.
- The problem will arise when the stingless bee colonies are being transferred into inappropriate artificial hive.
- For example, using unsuited material of wood and inappropriate shelter will make the colony feels insecure and become slower in foraging process.

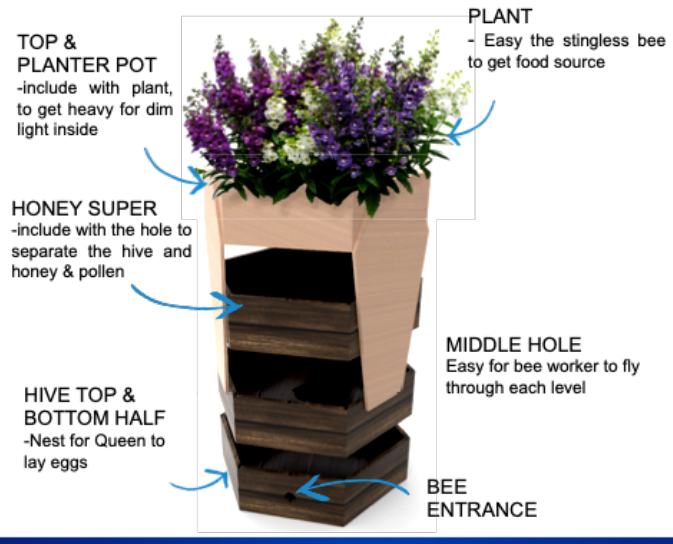
SKETCHES PROCESS



TECHNICAL DRAWING



PRODUCT FEATURES



COLLABORATION & TARGET MARKET