

CATCHING WILD BEE FOR RICING



MOUTAIN BEE DEVELOPMENT CENTER

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I. Forms of honey production with *Apis cerana* in Vietnam

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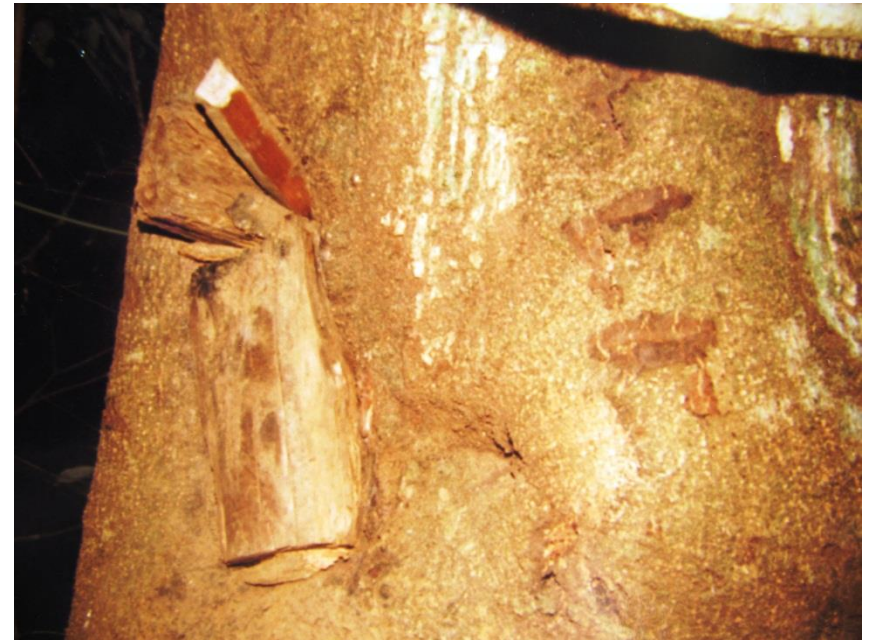
1. Hunting wild colonies

- Domestic bees often nest in tree cavities and rock cavities in the forest
- Finding colonies by observing and listening to bees fly in and out of the hive, bees excrete feces, bees get water...
- Use a knife or an axe to open the nest entrance, smoke the nest, take out all the combs with honey and brood.
- Because the nest site is destroyed, the bees will no longer return back.
- Some experiences honey hunters leave two to three comb bee will turn back and can harvest two to three time.

2. Keeping bee in natural cavities of rock or tree

- In spring and summer, when colonies are found in tree holes or rock holes, bee hunters carefully open the nest entrance, take out all the honeycomb and throw them away.
- At the beginning of the next crop year, 1-2 months before the honey seasons, they repair the tree holes, sweep away cobwebs, wax scraps, trash, etc., then use a piece of wood or stone to insert it, leaving only 1-2 small holes for the bees to enter and exit.
- Choose a tree hole or natural rock hole with a volume of 10-30 liters to cover the nest entrance.

- In Quang Nam and Kon Tum provinces Vietnam, Dak Cheung, Sekong in Laos people carve trees to create holes for bees.
- The beekeeper uses a tool to punch a hole into a large, soft tree trunk, 25 to 30 cm deep, 0.5-1m above the ground.



Keeping bee in hole tree in Quang Nam



Keeping bee in the ground and rock in Lao Cai



The colonies in the hollows of trees and rocks are full of honey



Harvest honey

- Only harvest honey when the honey is ripe and the honey comb is sealed.
- The bees often abscond after cutting the all combs.
- Cut only 1/2 -2/3 of the combs, leaving 2-3 combs to harvest a second or third time





3. Fixed comb hives

- Bees build combs attached to the top or lid of the hive, the beekeeper cannot lift the comb to check, so it is called a fixed comb hives.
- + The horizontal log hive,
- + Vertical log hive,
- + Square box,
- + Rectangular box

Log hives



Vertical log hive



horizontal log hives

Square and rectangular box

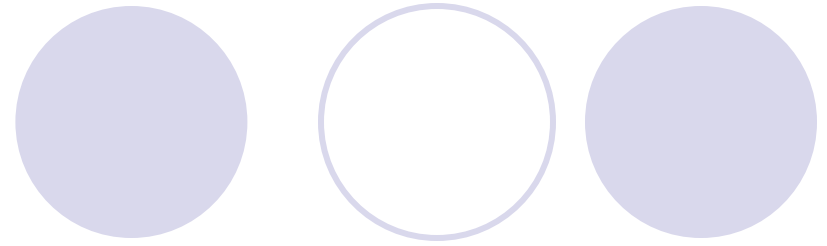




3. Fixed comb hives

- When harvesting honey from fixed comb hives, all the combs are destroyed and the pupae and larvae die, reducing the number of worker bees.
- The number of honey harvests is reduced, honey yield is low.
- Colonies often abscond after harvest.
- The advantage is low investment, just making log or box.
- Farmers just need to catch bees and put them in the hive. When there is honey, they can collect it.

4. Top bar hives



- This is a hive with movable combs, and bees build combs along the bars. Easily lift the combs to check or collect honey...
- When collecting honey, the beekeeper only cuts the honey part and uses string to tie the brood part to the bar so the bee population does not decrease.
- Higher honey yield compare with fixed comb hive.
- Bees are less likely to absconding away.
- Beekeepers can proactively rear queens to divide new colony.

Top bar hive



Hive with difference length bar

**The log hive has bars
of equal length**

The top bar log hives with space above to store honey



Top bar with comb



Top bar too large



II. CATCHING WILD COLONIES FOR RICING

- There are four methods of obtaining bees from nature:
 - 1. Trapping
 - 2. Catching scout bees
 - 3. Catching swarms in flight
 - 4. Catching colonies in cavities



1. Trapping

- Using hives or logs put in appropriated place to trap bees.
- **Season:** in Vietnam October to November
- **Preparing a log hive:**
- + Log and bee hives must be tired
- + Logs have to be clean and dry.
- + Using melting wax pour in to log to make the better smell to attract bees.
- + Using attractant to trap bees!



1. Trapping



- Place to put logs:
 - + Hang near by the house
 - + Put under shadow of lonely big trees in the forest or near the cliffs where there're many scout bees.
- When bees are in logs, take them back home.

1. Trapping

- + Hang near by the house



Put under shadow of lonely big trees



Trapping: Use a paint container to trap bees



3. Catching scout bees

Symbols to observe the scout bees

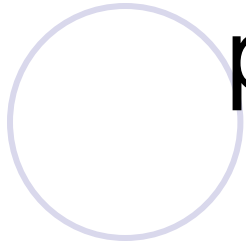
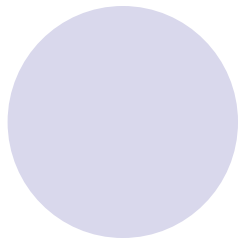
1. The worker bees fly slowly, across the house wall, cliffs, trees from upper to lower
 - i. While the scout bees flying, they release the third couple legs
 - ii. They make bigger noise than other
 - iii. foraging bees



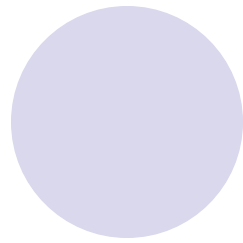
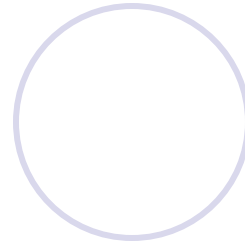
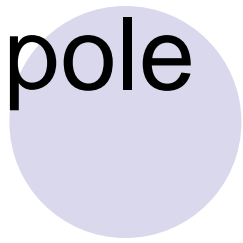
2. Catching scout bees (cont.)

Method of catching scout bees

- Use the insect net with the handle to catch
- The caught bee will be gently released in the clean hive from entrance (hive is dry, good wax-smell)
- Confine scout bee in hive about 5-10 minutes then releases it out
- After 2-3 hours, colony will come back log
- To catch colony easily, beekeeper often use trapping logs. Trapping logs are small ones made by jackfruit wood



power pole



Catching scout bee in power pole





Trapping loghive and insect nest

Catching scout bee in Ha Tinh



3. Catching swarms in flight

- This method can be used to catch migrating, absconding or swarming colonies.
- If a swarm in flight is low, throw sand, water, or cloths up into the bees to force them lower and cluster in to brand of tree.
- Once they have clustered, shake the bees into a veil (with a hat/cone) and place them in a shaded place.



Catching swarms in flight



3. Catching swarms in flight

- Later in the afternoon or evening, bring a clean hive containing a separator board, one good comb with brood and stored food taken from another colony
- Place hive in the desired location, then shake the bees from the veil into the hive. Feed sugar syrup and close the hive.
- If no comb with brood is available, confine the queen in a queen cage. With syrup feeding, the new swarm will build new combs. The queen can be released after 2-3 days when the swarm has settled in the new hive

At about 7 pm, shaking bees into hive that already have good comb



4. Catching colonies in cavities

- Find out colonies in cavities or tree's hollow
- Use axe to enlarge the entrance,
- Blow smoke into the colony to let bee by the side
- Use smooth knife to cut combs and take out of the cavity.
- Tie combs on a bar or fix on a frame with steel-wire, then put in a small hive.
- Do like that with other combs in turn
- Chase bees from the cavity to hive.
- Check the colony in the next 3 days. If bees fix combs to frame or bar, release the tie-rope.

4. Catching colonies in cavities



Tie combs on a bar or fix on a frame with steel-wire



Thank you for attention!

