

## SUMMARY AND PROGRESS OF FIRST CALL PROJECTS

### Project Title: Development and dissemination of honey production technology (028/059/060)

**Project Co-ordinator:** Mr. Khem Raj Neupane  
**Address:** Institute of Agriculture and Animal Science, Rampur, Chitwan  
**Duration:** 2 years and 8 months [Nov 2003 to June, 2006]  
**Budget:** NRs. 17, 21,550.00  
**Location:** IAAS, Rampur, Chitwan [Main]; Beekeeping Training and Research Center, Yagyapuri, Chitwan. Dang, Parasi and Chitwan

**Purpose:** Increased marketable honey from *Apis mellifera* bee species by developing appropriate production technology

**Output:**

1. Identify farmers' honey production constraints.
2. Developed appropriate cost effective supering technology with optimum level of *A. mellifera* bee population for higher honey production and off-season feeding for more healthy brood production.
3. Investigate healthy colony management practice for more healthy brood production and control of bee mite *Tropilaelaps clareae* in *A. mellifera* colony.
4. Suitable technology developed from the research disseminated and published.

S. N.	Activities	Progress
1.1	Baseline survey to identify the farmer's production practices	Baseline survey completed. Major problems identified are: <ul style="list-style-type: none"> <li>• Use of poor and weak colony for honey production</li> <li>• Mite infestation during honey producing season</li> <li>• Low knowledge of honey production technology</li> <li>• Competition for forage</li> <li>• Lack of market and quality control</li> </ul>

2.1	Purchase of bee colonies, required tool and equipments and preparation of bee colonies for supering method	Purchase of bee colonies were completed at the beginning of the project.
2.2	Study on A. melifera colony management with different supering methods and bee population level for higher honey production during autumn, winter and spring season	<p>The study is completed. The research result showed that</p> <ul style="list-style-type: none"> <li>• Supering with deep supers on strong single brood box has been found more economical and productive. For this follow the following methods:</li> <li>• Healthy bee colonies should become strong enough (10 frames of bees with good coverage and more brood) for supering before honey flow</li> <li>• Manage two deep honey supers with full built frames for one bee colony</li> <li>• Put these two deep supers at once or one after another over one bee colony when honey flow starts</li> <li>• Provide queen excludes between brood box and honey supers for about few days</li> </ul>
2.3	Off season management of A. melifera bee colonies at different feeding materials for healthy brood production	<p>Study on off season feeding completed. The result showed that the dearth period of bees in terai, Nepal started from the month of May and continues up to October. Although there were some incoming of nectar and pollen during the month of may, June and October. Substantial feeding was essential to keep colony in good condition. August and September months were found critical dearth periods for bees as incoming pollen and nectar was scare and hence must feed the bees with sugar syrup and pollen as recommended.</p>
2.4	Feeding supering experimental bee colonies during off season (June to August) to keep them viable	
3.1	Purchase of bee colonies, required tool and equipments and preparation of bee colonies for supering method	In order to continue the project activities for the subsequent year new bee colonies were purchased.
3.2	Study the impact of healthy colony development on the control of Tropilaelaps clareae mite on A. melifera colonies	Preparation of bee colonies for honey production with continuous brood in old comb has found frequent infestation with mite and disease especially during honey production time there by reducing honey yield considerable. Impact of healthy colony development on the control of Tropilaelaps clareae mite on A. melifera colonies completed The preparation of final report is in progress.
3.3	Feeding of hygienic experiment bee colonies during off season to keep them viable	This activity was completed as the procedure described in the activity 2.3 and 2.4. Preparation of final report is in progress.
4.1	Carry out farm demonstration at Dang, Parasi and Chitwan	Superior findings were disseminated at Dang, Parasi and Chitwan through demonstrations visits etc. Organized farmers' visited to the honey production demonstration sites at Dang, Parasi and Chitwan.
4.2	Training conduction for 75 bee keepers and farmers and delivery bee colonies	Produced 50 qualified bee keepers at Dang and Parasi by giving one honey colony free of cost to each participant after one week training.
4.3	Hold workshop of extension workers, beekeepers, farmers, student, teachers, entrepreneurs, NGOs etc	Conduct workshop for beekeepers, farmers, teachers, students, and consumers etc to disseminate the findings at Dang and Parasi

