

## Bee Keeping: Need an Additional Source of Income

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### SUMMARY

Bee keeping is an interesting hobby and an ideal agro-based subsidiary enterprise, providing supplementary and sometimes major income to the rural youths and farmers in the rural areas. Honey is the nature's miraculous food. The nutritional composition of honey, is closer to fruit than it is to table sugar or any other sweetener. Honey bees are not only important for the honey and other products, but they are also provides vital as pollinators of agriculture and horticulture crops .Bee keeping have enormous scope in future as a entrepreneurial source at very low expense with high revenue besides other agricultural activities.

### INTRODUCTION

Bee Keeping is the art of rearing honey bees for the production of honey, bee-wax, propolis, pollen, royal jelly, and venom (Ponigrathi, 2010; Rao *et al.*, 2016). But honey bees are most useful for human beings because of its ecological role as the most dependable and efficient pollinators of cultivated flowering plants leading to enhanced crop productivity (both the quantitatively as well as qualitatively) which is about 10-20 times the value of honey and other bee products (Fratellone *et al.*, 2016). It is an ideal enterprises which does not require any land and suitable for the majority of the marginal farmers, landless people, rural unemployed youth, women and even disabled. The activities of bee keeping does not involve full time occupation and can be managed along with all the activities of agriculture and horticulture. It can be easily practiced either individually or in small group of 2-3 unemployed youth or women. On an average any person can easily earn Rs. 2500-3000 per month from honey only additionally from a unit consisting of 10 bee boxes along with his regular farm income. Indian sub-continent being one among the twelve huge- diversity centres of the world is fortunate to have more than 750 floral spices and all four important honey bees in her backyard. About one third of the total 144 million hectare cropped area is under bee dependent crops in India. A part from this our forests, pastures, wastelands and non-cultivated lands are also inhabited by diverse vegetation suited for honey bees. Adding to this we have about 63 million hectares of waste land out of which 33 million hectares have been earmarked for tree plantation. Considering the above floral resources, if we use 5 bee colonies / hectare for effective pollinations, our country will require 250-300 million colonies. We have to add 180-200 million bee colonies in addition to the existing bee colonies for satisfactory pollination. There will be an additional increase income of approximately Rs. 51,840 to 57,600 crore and Rs. 48,000 crore from increased honey production and crop yield, respectively under effective crop pollination. Also there will be an additional income of Rs. 16,000 crore from other bee products and selling of bee boxes and equipment's. It would also give additional employment to 20-25 million people.

We should keep in our mind that the European bee, *Apis mellifera* remains complementary to our native bees and other insect pollinators for its successful establishment in the vast regions of Indian subcontinent. More than 50 percent of honey production and almost all bee wax and venom production in the country comes from wild native rock bee and it is an important source of income for our Scheduled Caste and Tribal people. Hence, the colonies of native bee species should be managed properly and tribals should be trained on priority basis.

Off-season vegetables, flowers, high value crops, hybrid seeds are produced in poly houses, green houses, glass houses and other such controlled condition houses opened frontier dimensions for bee keeping in the recent years. The colonies should be migrated to maximize honey yield, enhancing colony strength, overcoming the dearth period, perpetuation of colonies under harsh weather conditions and increasing crop productivity and hence gaining popularity among bee keepers. The scientists or experts should prepare floral calendars and map, time, place and routes of migration, resource categorization based on utility and need based evaluation should be planned for various regions for sustainable migratory bee keeping also.

**CONCLUSION**

Bee keeping provides an excellent source of employment for the rural unemployed people, enhance the income of farmers and the landless beekeepers. It enhance the productivity levels of agricultural, Horticulture and fodder crops through pollination services. A number of small scale industries depend upon bees and bee products. It provides them valuable nutrition in the form of honey, a protein-rich pollen and brood. Production of honey has been the major aim of the industry. Modern beekeeping also includes the production of bee wax, bee collected pollen, bee venom, royal jelly, and propolis. It is vital to make the bee keeping.

**REFERENCES**

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