

Pollen Analysis of Natural Honey Sample from the Chikhli taluka of Gujarat state India

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ABSTRACT

Diverse kinds of pollen and nectar forage by honey bees generate numerous types of honey which can be explored for the establishment of beekeeping venture in an area . The taluka of chikhli is rich floristically but neither pollen analytical study. Considering this, the present work has been undertaken to develop melissopalynological database from the chikhli taluka and to evaluate the potential of the study area for apiculture. Pollen analysis of 6 natural honey samples collected from the six different village of chikhli taluka reveals that 2 are uniflorae, 4 multiflorae . plant species used for study are : Acacia nilotica , Sesamum indicum , Trachyspermum ammi , Anethum sowa, Brassica nigra, and mix type of honey sample. There were many bee plant , which provides pollen and nectar throughout the year. it was found that on a average Ajwain honey contained the highest moisture (19.9%) followed by Mustard (18.7%) and mix honey (18.4%). The lowest moisture (17.4%) was found in Babool honey. Highest carbohydrates obtained in Babool (78.99) and Sowa honey (78.85%) respectively . the lowest carbohydrates was found in mustard (74.27) honey. Highest natural sugar was found in mustard (74.89%)honey followed by Dill (72.70%). The lowest natural sugar found in babool (70.63%)honey. The findings recommend that the competent authority, on the basis of this pollen analytical data, may initiate bee-keeping ventures in this economically backward area and the beekeepers may have the opportunity to share the profitable medicinal honey market. This would benefit the rural health care improving the socio-economy of the local inhabitants of this region.

Keywords : Honey Bees, Honey, Pollen Grains

I. INTRODUCTION

1.1 Historical context

Honey bees have been known to generate honey in nature since the late tertiary period (Culliney,2001).

since prehistoric times,honey has been an important aspect of human life (Beck and Smedly ,1944). prehistoric man may have painted several painting of hunting rock bee colonies as early as 15,000 to 11,000

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