RESEARCH ARTICLE

EVALUATION OF PHYSIOCHEMICAL AND ANTIBACTERIAL PROPERTIES OF HONEY SAMPLES FROM BANI (J&K): POLLEN MORPHOLOGY OF SELECTED BEE FORAGE PLANTS

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Received-07.12.2017, Revised-26.12.2017

Abstract: Present study was aimed to investigate the physio-chemical and antibacterial properties of honey samples and pollen morphology of selected bee forages obtained from Bani region of Jammu and Kashmir. Honey samples collected were not identical because of having different physio-chemical properties such as glucose content, moisture content, colour, refractive index and pH. Antibacterial activity of honey determined using different strains of bacteria viz. *Staphylococcus aureus, Streptococcus pyogenes, Klebsiella pneumoniae and Pseudomonas aeruginosa* in comparison to antibiotic (Ofloxacin) showed no significant results. During the present investigation, pollen reference slides of flowering plants (Bee forages) explored by honeybees of different ecological origin were prepared and studied for pollen taxonomy and a total of fifteen flowering plants of 11 families visited by honey bees were collected and studied for pollen morphology and production along with their carbohydrate content. Pollen grains of these plants were variable in shape, class, aperture, exine thickness and ornamentation. Besides, they also differ in their pollen production rate as well as their carbohydrate content.

Keywords: Honey, Physio-chemical properties, Antibacterial activity, Bani, Bee forages

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