

## **Response of summer management treatments on different bee attributes of *A. mellifera* L. colonies**

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**ABSTRACT :** A study on the effect of summer management treatments on different bee attributes of *A. mellifera* L. colonies was studied by conducting field trials in the year 2001 and 2002. The colonies were established in the departmental garden of R.B.S. College, Bichpuri, Agra, U.P. The major summer problems towards the development of *A. mellifera* L. colonies were high temperature (above 42°C for several days) with hot winds (locally called as Loo and 'Andhi' - hot wind with dust particles) and low availability of fresh drinking water for the bees. The management practices were undertaken with seven treatments. The treatments were as T1 – Keeping the boxes in the open sunshine, T2 - Keeping the boxes in the open sunshine covered by wet gunny bags, T3 - Keeping the boxes in the open sunshine with fresh water into the boxes, T4 - Keeping the boxes in the open sunshine covered by wet gunny bags and supply of fresh water into the boxes, T5 - Keeping the boxes in tree shade covering by wet gunny bags, T6 - Keeping the boxes in tree shade with supply of fresh water into the boxes, T7 – Keeping the boxes in the in tree shade covered by wet gunny bags and supply of fresh water into boxes. It was observed that the treatment 1<sup>st</sup> was totally failed to maintain all these attributes from the initial stage and all bees died within few weeks when other treatments were able to maintain all these. It was observed that the treatment 7<sup>th</sup> showed better result in respect to presence of egg, larval, pupal areas and weight of the colonies than the other six treatments. It was concluded that, in the summer season the rearing of the colonies of *A. mellifera* L. is not possible by keeping the boxes in open sunshine without arranging any proper summer management treatment. As a summer management treatment, the colonies should be kept on tree shade covering by wet gunny bags with supplying of drinking water into the boxes for the said *sps.* of bees.

**Key Words:** *A. mellifera* L, summer management, egg, larva, pupa, colony weight.