

## **Efficacy of Modified Bottom Boards to Control Varroa Mite (Varroa Destructor) in Honeybee Colonies**

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**Abstract :** This study was designed to test whether hive bottom boards modified with polyvinyl chloride pipe or screen-mesh reduces number of Varroa mites in naturally infested honeybee colonies comparing to chemical control. Fifty six colonies distributed equally between two location each received one of four experimental treatment 1) conventional solid board "control", 2) Apistan in conventional solid board, 3) Mesh bottom board and 4) tube bottom board. Varroa infestation level on both adult bees and on capped brood was estimated. Stored pollen, capped brood area and honey production were also measured. Results of varroa infestation were inconsistent between apiaries. In apiary 1, colonies with Apistan had fewer Varroa destructor than other treatments, but this benefit was not apparent in Apiary 2. There were no effects of modified bottom boards on bee flight activity, brood production, honey yield and stored pollen. We conclude that the efficacy of modified bottom boards in reducing varroa mites population in bee colonies remains uncertain due to observed differences of hygienic behavior.

**Keywords :** Apis mellifera, modified bottom boards, Varroa destructor, Honeybee colonies

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