

## **Advocating for and Implementing the Use of Advance Top Bar (ATB) for a More Than 100% Increase in Honey Yield in Top Bar Hives Owing to Honey Harvesting Without Comb Destruction**

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**Abstract :** Introduction: Africa, which should lead the world in honey production, is importing three times the honey it produces even though it has a healthy, industrious and large population of bees. This is due to the mechanism of honey harvesting that destroys the combs and thereby reducing honey production and rate of harvesting. For Africa to take its place in the world of honey production, Africa should adopt a method that enables a higher rate of honey harvesting. The Advance Top Bar is, therefore, a simplified framework that provides that answer. It can be made of wood, plastic and metal that can be fabricated by tin/metal smiths, welders and carpenters at the village level without any very sophisticated machines. Material and Methods: ATB is a top bar-like hollow framework of dimension 3.2\*48 cm that can be made of wood, plastic and metal. It is made up of three parts of a constant hollow top bar, a variable grooved bottom bar with both bars being joined through synchronized holes (that align both the top and bottom bars ) by either metal or plastic rods of length 22cm and diameter of 5 mm with rounded balls at both ends It could be used with foundation combs or without and also other accessories to have about ten (10) function which includes commercial propolis harvesting queen rearing etc. The variable bottom bar length depends on the width of the hive, as most African beehives are somehow not standardized. Results: Foundation combs are placed within the Advance Top Bar for the bees to form their combs over its mesh to prevent comb breakage during honey harvesting. Similarly, honeycombs on top bars will produce natural foundation combs when also placed in the Advance top bar system just as they are re-used in the Langstroth Frames. Discussions and Conclusions: Any modification that will promote non-comb destruction during honey harvesting in Top bars shall cause Africa to increase honey production by over 100% as beekeepers adopt the mechanism. Honey-laden combs from the current normal top bars could be placed in the Advance Top Bar to harvest without comb destruction; hence the same system could be used as a transition to the adoption of the Advance Top Bar with less cost.

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