

The Flex Hive Adapter

Bridging Langstroth and Horizontal Top-Bar Hives for Accessibility, Ergonomy and Sustainability

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BEE MINDFUL
Horizontal, Natural Beekeeping

A scalable, accessible design empowering beekeepers to adopt ergonomic, budget-friendly practices while enabling dual style NUC and comb honey production.



LANGSTROTH



BEE MINDFUL
HORIZONTAL TOP-BAR



FLEX HIVE

PROBLEM: Langstroth beekeeping is costly, heavy, and complex.

Langstroth hives dominate the industry, but frequent heavy lifting, high equipment costs, and complex and invasive management are daunting to many small-scale and hobbyist beekeepers.

OPPORTUNITY: Horizontal Top-Bar hives are simpler, but adoption has been slow and challenging.

Horizontal Top-Bar Hives (HTBHs) are budget friendly, ergonomic and accessible, yet Top-Bar NUCs are hard to find, often incompatible, and colony transfers from Langs are often invasive or disruptive, creating a barrier to adoption for users.

SOLUTION: The Flex Hive seamlessly bridges the gap between systems.

This quick and easy adapter enables seamless, non-invasive integration of Langstroth frames into Standardized Bee Mindful Horizontal Top-Bar Hives, letting beekeepers reuse Lang equipment, manage both styles in one hive, simplify management, increase revenue, and offer both Langstroth and HTBH NUCs while making comb honey production easier.

IMPACT: Empowering beekeepers, creating niche markets, and promoting sustainability

The Flex Hive Adapter reduces labor and expenses, increases accessibility, and makes sustainable, bee-centered practices easier to adopt worldwide. It also opens up niche market opportunities for NUC and honey producers, educators, and small-scale beekeepers.

HOW TO SET UP:



- Notch to Bar depth and Lang wall thickness
- Cut to Top-Bar Hive Opening shape
- Add a solid Bottom Board



- Attach Langstroth adapter to Top-Bar Hive or NUC
- Drill the only entrance at bottom of Top-Bar Hive or NUC



- Tuck Lang frames against the opening, always keeping brood facing the Top-Bar Hive, food and honey set away from the adapter
- Tuck blank Top-Bars against the frame shoulders (no guides needed)



- Watch bees build perfect Top-Bar brood and honey combs during a nectar flow.
- Keep both Lang and TBH, split and harvest from either, or phase Lang frames out.
- Use Lang feeders or honey to encourage bees into the HTBH.



- Use with 5F, 8F, 10F deeps
- Use with full size HTBHs or Top-Bar NUC boxes
- We prefer 5F Lang NUC with 10 Bar Top-Bar NUC with no supers for simpler, lighter waist level management



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- Accessible to all
- No heavy lifting
- Top-Bar NUC production
- Comb honey production
- Easy & fast bridging
- Niche market

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Background/Purpose:

Traditional beekeeping, particularly Langstroth hive systems, presents physical and financial challenges due to high frame costs, heavy lifting, and colony management complexity. The Flex Hive Design offers an innovative solution, seamlessly transitioning between Langstroth and Horizontal Top-Bar Hive (HTBH) management. This system enhances honey and comb honey production flexibility while making beekeeping more accessible to individuals of all skill levels, physical abilities, and budgets.

Problem Description:

Langstroth hives require significant financial investment and physical effort, limiting accessibility. Beekeepers transitioning to top-bar management often struggle with colony transfer, as it typically requires comb cutting or complex modifications. A simple, adaptable hive system that enables a seamless transition while maintaining colony stability is needed.

Methodology: The Flex Hive Design integrates Langstroth frames into a horizontal hive setup using a custom adapter, eliminating the need for comb cutting or disruptive colony transfers. The waist-height design removes heavy lifting, while horizontal expansion follows the bees' natural instincts. This hive supports both liquid and comb honey production, giving beekeepers more flexibility in managing their colonies.

Results and Conclusion:

Field tests show that Langstroth colonies expand smoothly and naturally into the HTBH section, reducing conversion complexity and colony stress. Beekeepers report reduced physical strain, increased hive accessibility, and improved colony health. Additionally, the system enables dual production capabilities, allowing NUC producers to offer both Langstroth and top-bar NUCs to meet growing market demand.

Practical Implications for Beekeepers:

The Flex Hive Design bridges the gap between traditional and ergonomic beekeeping, making hive management easier, more adaptable, and more sustainable. Its five-minute Langstroth-to-HTBH transition offers beekeepers a scalable and accessible solution that reduces labor and expands market opportunities. By improving accessibility, flexibility, and sustainability, this hive system supports a more inclusive and practical future for beekeeping.