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Beekeepers growing bumble bees: a key step towards a new model of pollination service provision

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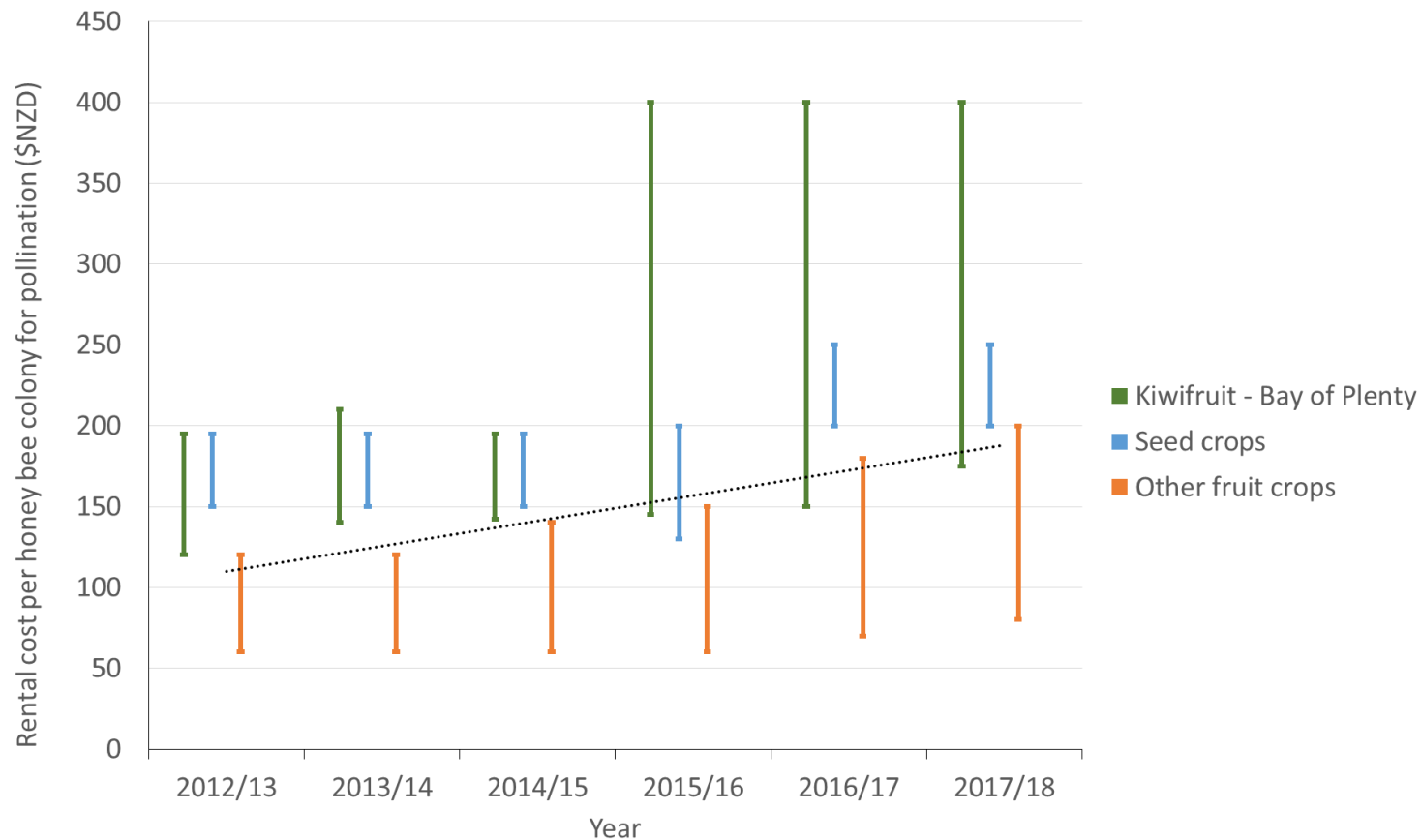
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Honey bees



Increasing hive rental costs



Data Source: MPI, 2018 Apiculture Monitoring Report

Crop Industries' Growth Ambitions



50% growth in yields by 2027

150% growth in revenue by 2025



\$280M revenue by 2023

180% increase

Assume:

50% of growth is from new planting
8 colonies/ha

25,000 more colonies in 8 years

27,500 more colonies in 4 years

“Bee minus to bee plus and beyond”

- » Future-proofing pollination systems by developing diverse options for growers:
 1. Utilising unmanaged pollinators
 2. Bumble bees for open farms/orchards
 3. Controlling honey bee behaviour



Bumble bees



Bumble bees in kiwifruit



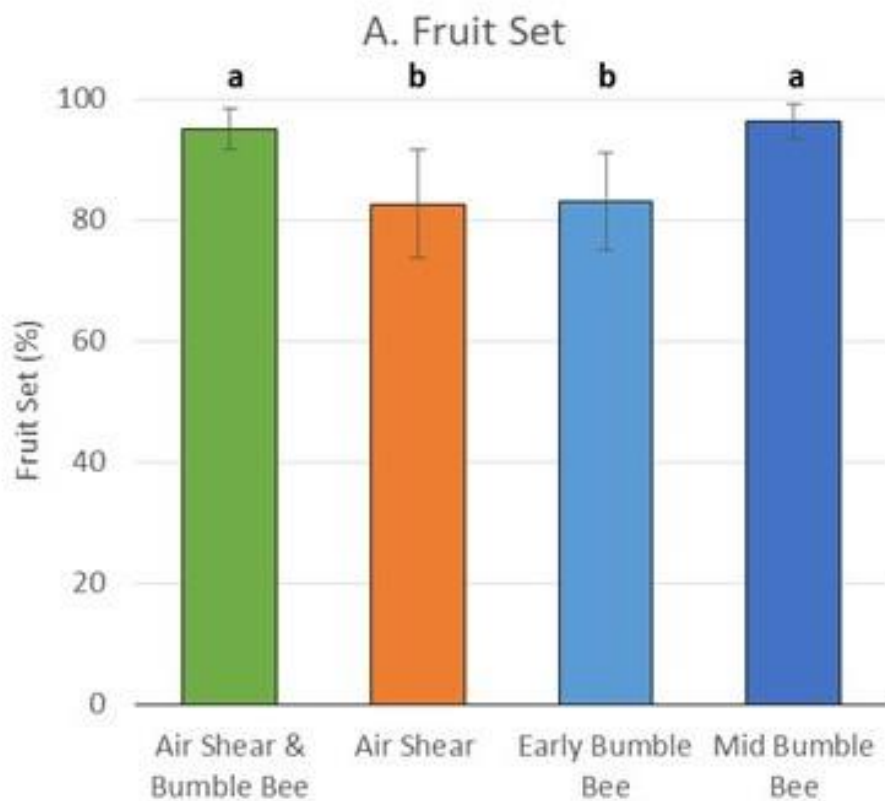
Full orchard trial of bumble bee pollination



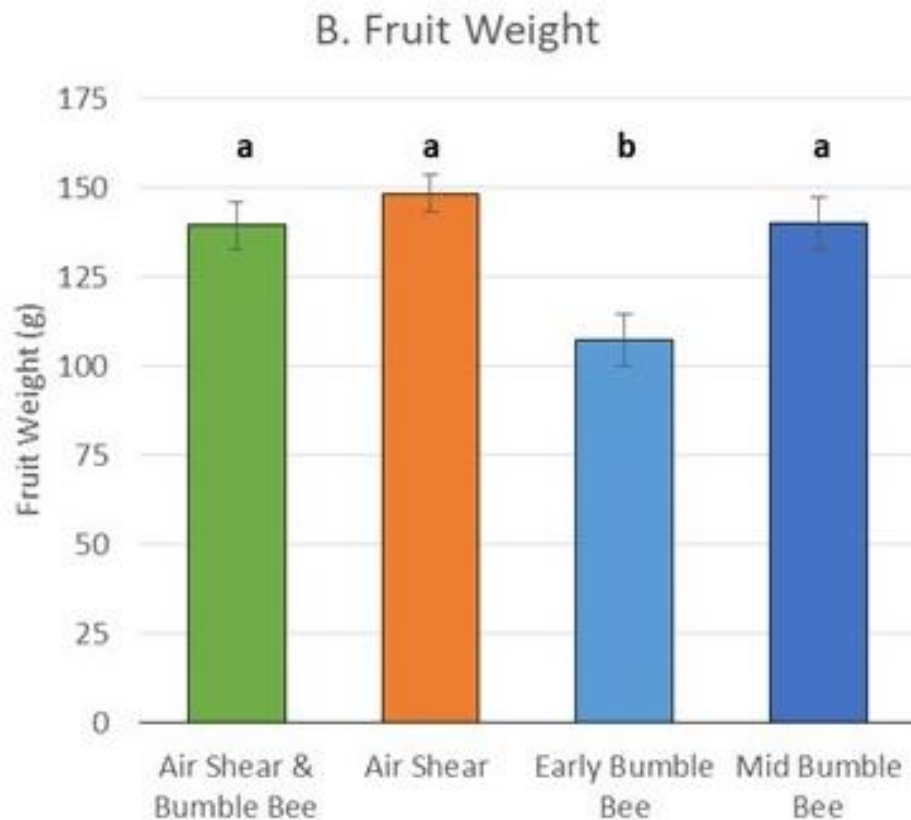
Wet spray artificial pollination – “Air Shear”



Fruit Set



Fruit Weight



Fruit weight & pack out



100-120g
e.g. Bumble only 1



140-180g
e.g. Open, Wet spray &
Bumble only 2

Next Step:



BUMBLEBOX™



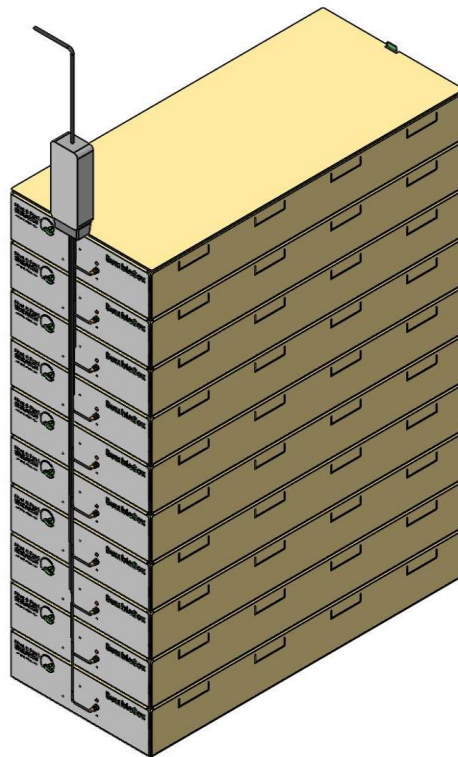
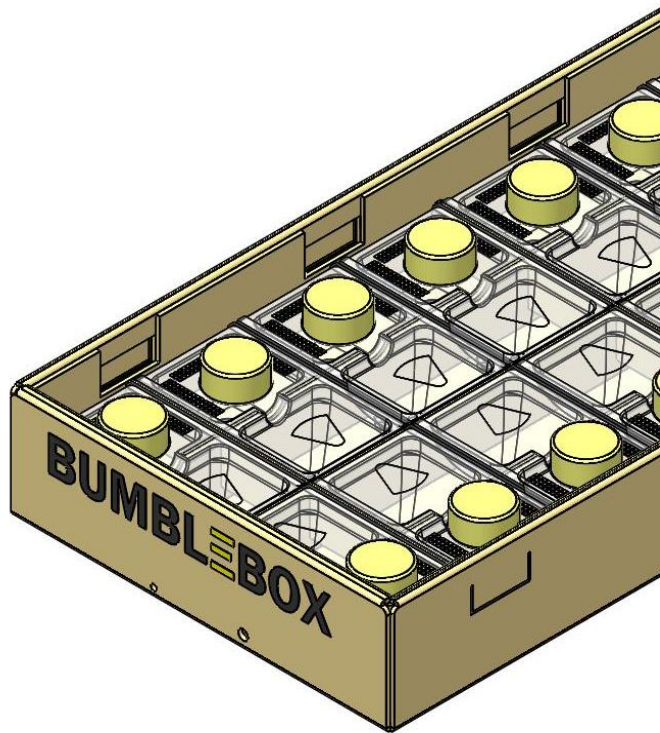
Rearing Racks



Colonies head out for pollination

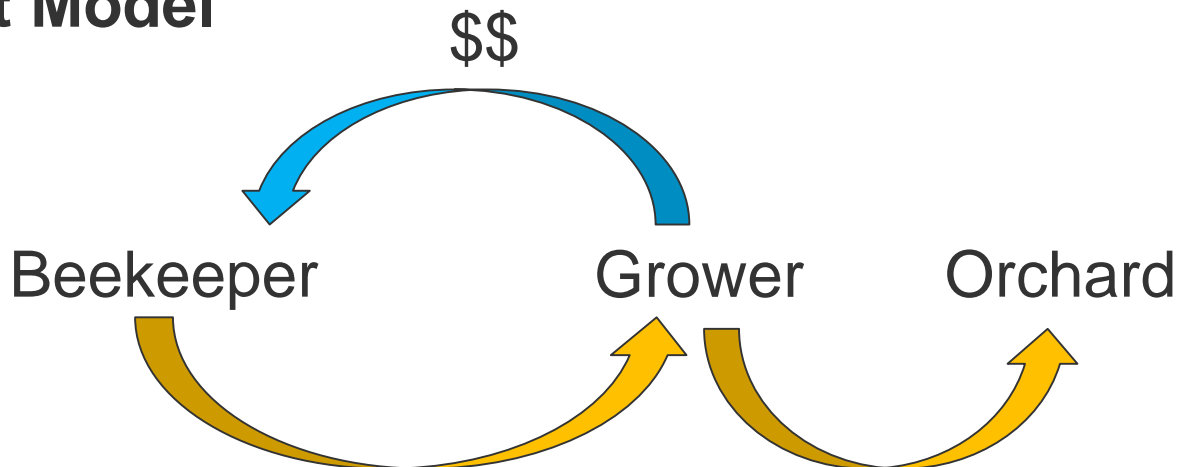


New Stackable Trays

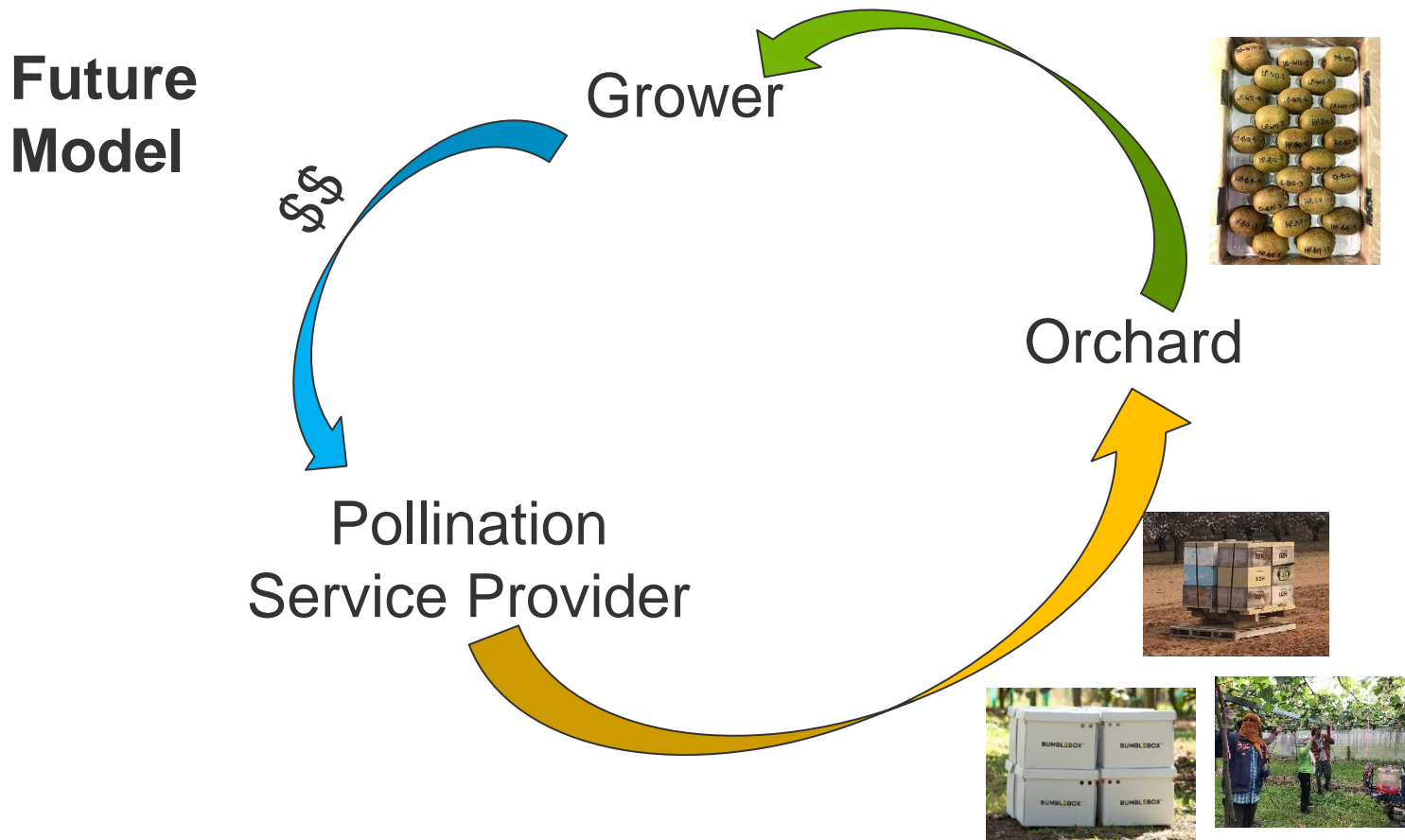


Putting it all together: Pollination Service Provision

Current Model



Putting it all together: Pollination Service Provision





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Thank you

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