Improving Pollination Quality in Vegetable Seed

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Beeinformed.org

This presentation explores the potential of supplemental feeding to improve seed purity and value.

Seed purity and bee behavior

Supplemental feeding as the solution

Pollen transfer between fields lowers seed value.

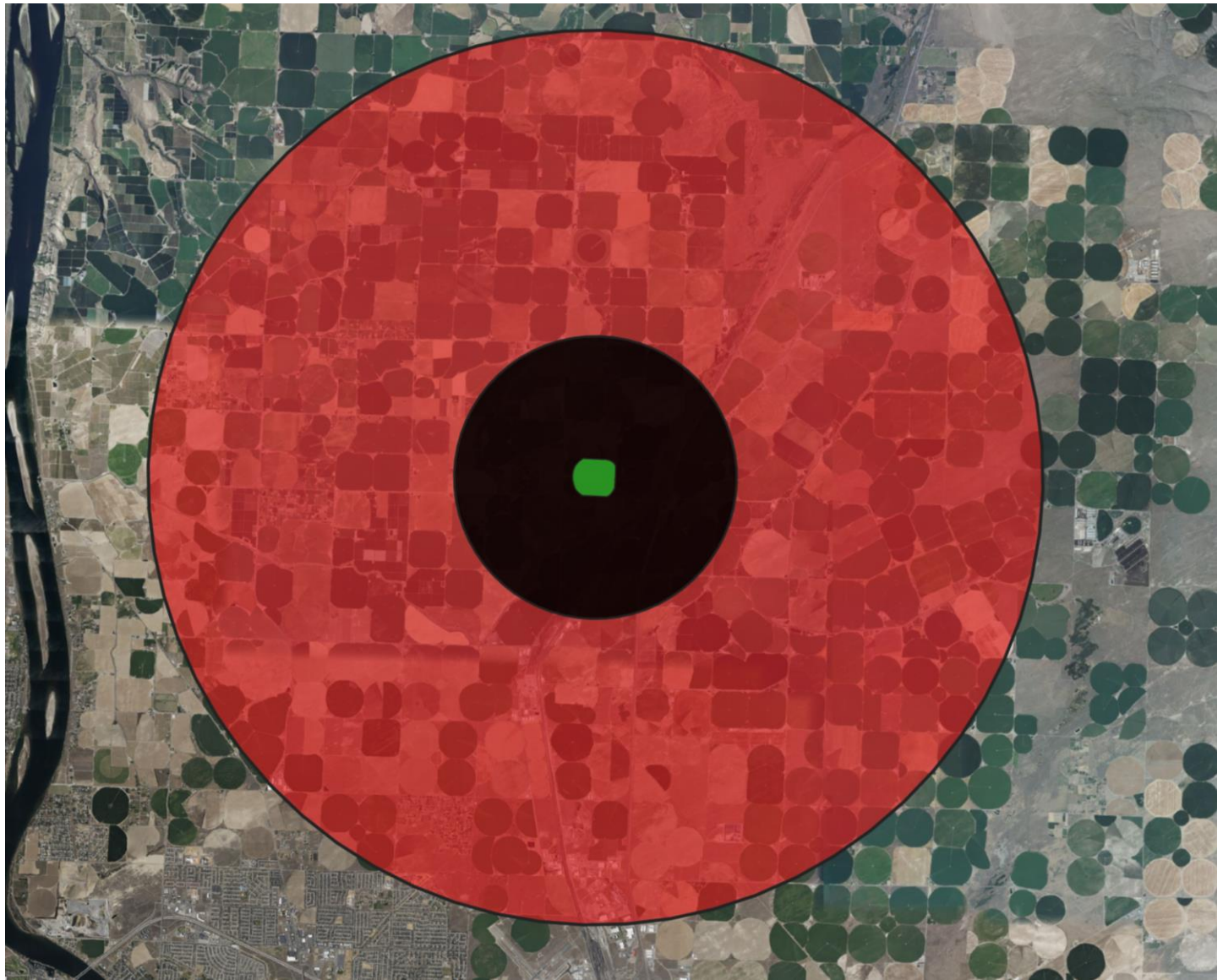
Benedict Vanheems
growveg.com

almanac.com/plant
/carrots

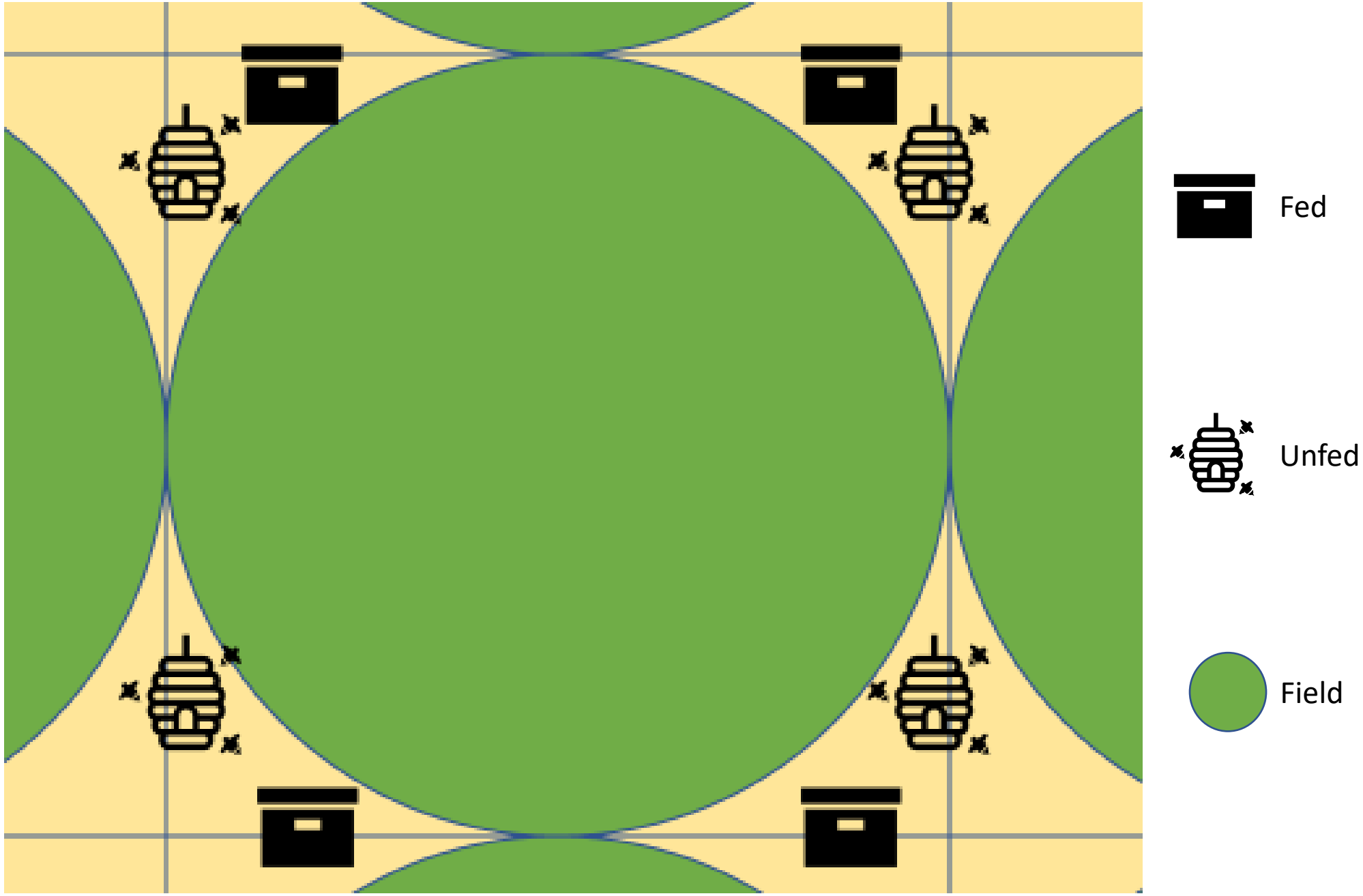
Honey bees can travel extreme distances but only when nutritionally necessary.

Optimal Foraging Theory
2-3km

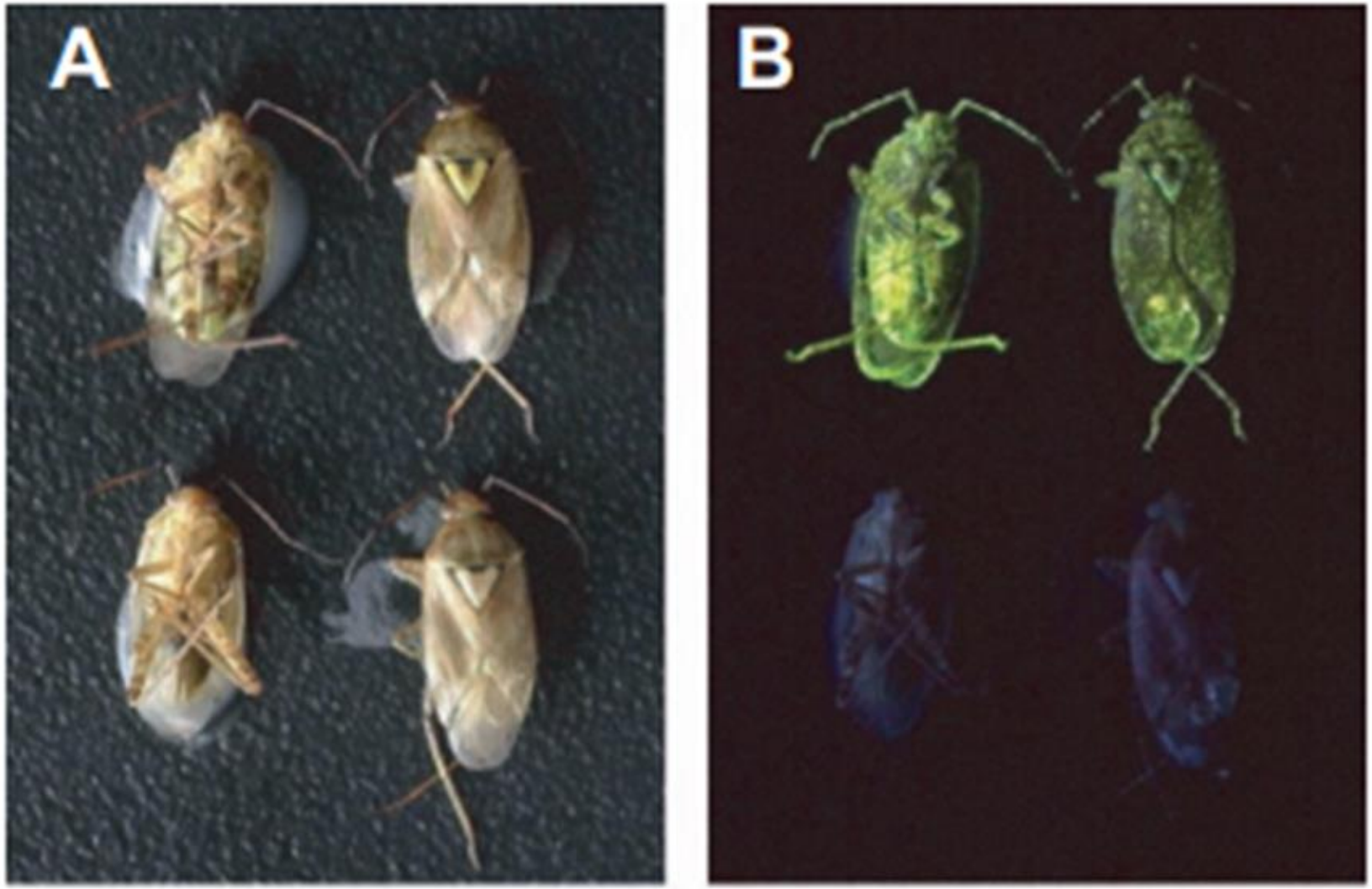
Geometric Framework
Up to 9.5km



Hypothesis 1 : Providing supplemental in-hive feeding will increase the number of foragers working in the field without impacting overall foraging activity.

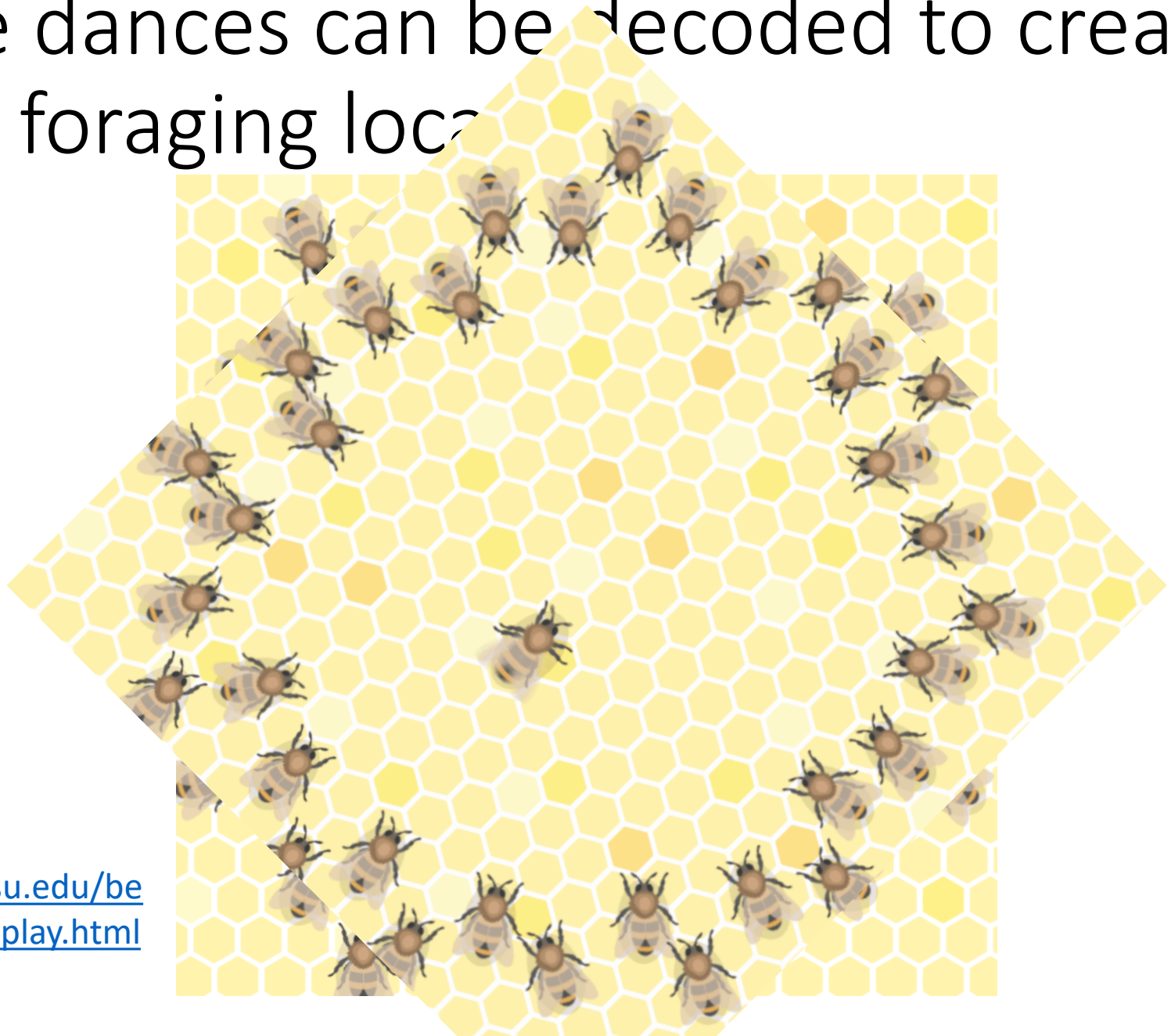

Fed
Unfed
Field

Fluorophores have not been tested in honey bees but work very well in other insects.



Hagler et al., 2021

Waggle dances can be decoded to create a map of foraging loca



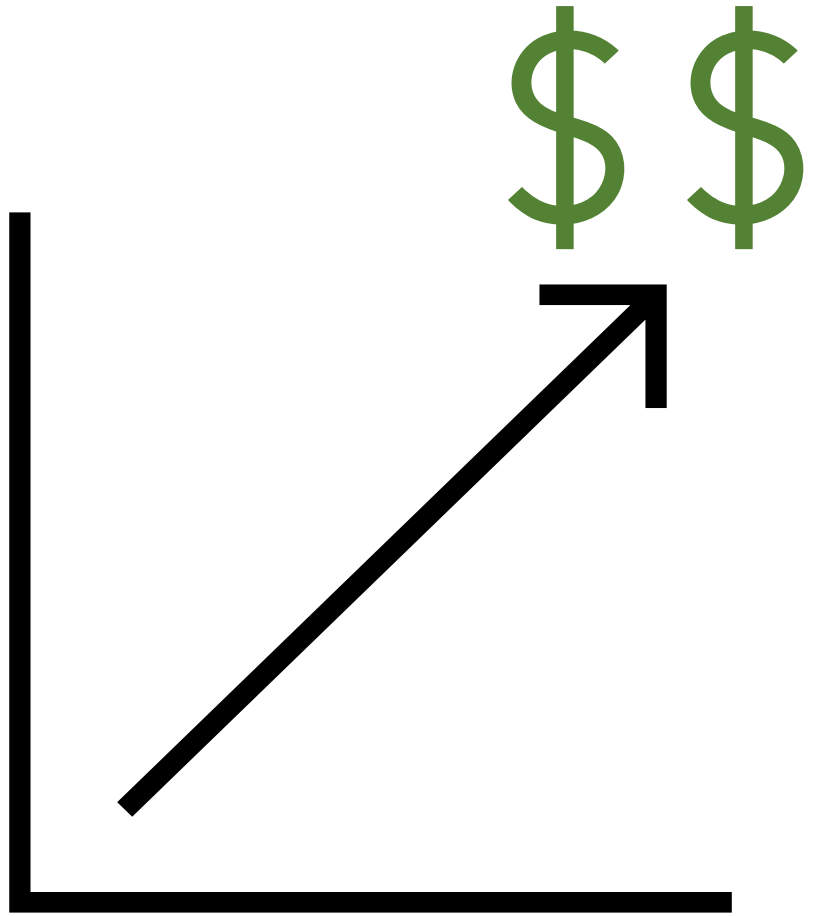
Waggle Dance Game:
https://askabiologist.asu.edu/bee-dance-game/how-to-play.html

DNA barcoding can be used to identify source plants.

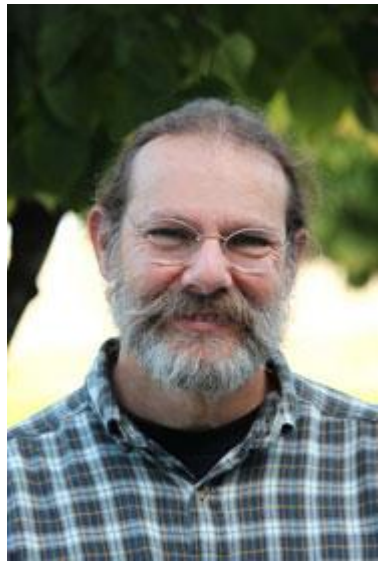
Buzzingacrossamerica.com

beeequipmentaustralia.com

In summary, this study will show if supplemental feeding reduces foraging distance, improving seed value.



Thanks



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Questions?

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