



# Bees and buzz pollination in crops:

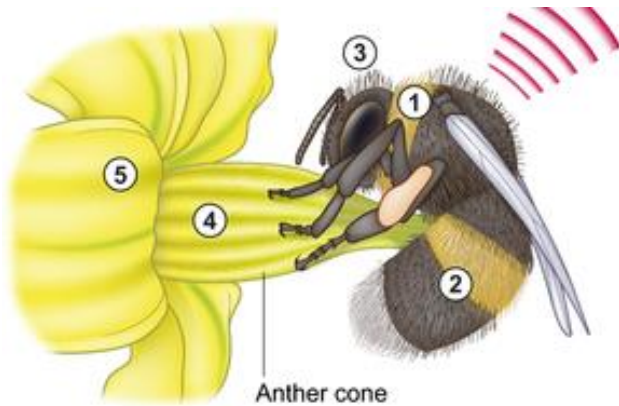
The potential for matching bee vibrations and buzz pollinated crops to improve fruit yield.

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# History of pollination and research.



## Buzz pollination

- Buzz pollination =>50% bee species
- Vibrations produced by thoracic muscles
- Stimulating the release of pollen
  
- Current artificial pollination methods aren't effective.
- Matching bee vibrations and crops to improve fruit yield.



# Methodology

Bee species: **Buff tailed bumblebee**



Plant species:  
**Blueberry, strawberry,  
and raspberry**



Acoustic monitoring  
device: **AudioMoth**



# Relationship between vibration, pollen release, and fruit quality in fruit species



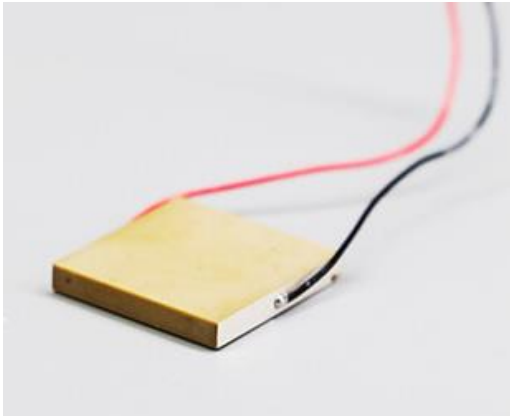
Measuring acoustics, pollen volume and size and weight of fruit.

Aim = How change in vibration properties affect fruit quality.

Determine what the “best vibration practice” is for each plant species.



# Replicating best vibration practices to simulate pollination methods.



- Measuring acoustics, pollen volume and size and weight of fruit.
- Using piezo chip to simulate vibrations instead of bees
- Aim = Identify if matching vibration is an effective method to increase fruit quality.



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