

WHY DO SOME BEES USE BUZZ POLLINATION?

Some bees, especially **bumble bees**, use a special technique called buzz pollination to release pollen from flowers that don't easily give it up.



Two-spotted bumble bee, *Bombus bimaculatus*

HOW BUZZ POLLINATION WORKS ♦

1



BOMBUS IMPATIENS

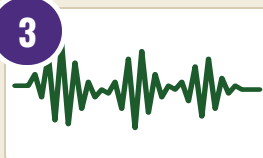
The bee **grabs the anther** (pollen part) with its legs or jaws.

2



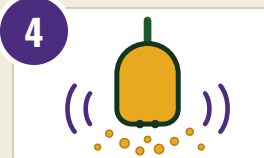
It rapidly **contracts its powerful flight muscles** without flapping its wings.

3



This creates **strong vibrations**, typically around **190 to 400 Hz**.

4



The vibrations **shake pollen out of tiny pores** in the anthers, covering the bee's body with pollen.

WHY IS IT IMPORTANT?

- ✓ Releases pollen more efficiently
- ✓ Improves pollination success
- ✓ Increases fruit and seed production
- ✓ Boosts crop yields and agricultural productivity
- ✓ Supports biodiversity and healthy ecosystems

WHICH PLANTS NEED BUZZ POLLINATION?

Many important crops rely on buzz pollination, including:



Tomatoes



Eggplants



Peppers



Blueberries



Cranberries



Some wild
potato relatives

These flowers have **special anthers**, which release pollen only through small pores when vibrated.



APIS MELLIFERA

CAN HONEY BEES DO BUZZ POLLINATION?

No, honey bees cannot perform true buzz pollination because they do not produce the same type of muscle vibrations as bumble bees.

FUN FACT

A bumble bee can generate **hundreds of vibrations per second**, allowing it to collect pollen from flowers that many other pollinators cannot access. This makes them one of nature's most efficient pollination strategies!



Healthy bees. Better pollination. Better future.
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