

Bees are some of the hardest working creatures on the planet, and because of their laborious work ethic, we owe many thanks to this often underappreciated insect. Our lives – and the planet as a whole – would be a much different place if bees didn't exist.

Imagine a world without strawberries, kiwifruit, apples, nuts, coffee, or chocolate! One mouthful in three and nearly three quarters of the diversity of our daily food is directly attributed to bee pollination. Billions of dollars in NZ export earnings depend on bee pollination. And so do many plants in your garden.

What is pollination? Simply put, it's the transfer of pollen from the male part of the flower, the anther, to the stigma, which is the female part of the flower. Once pollination happens, a plant's seed, nut, or fruit is formed.

Some plants rely on animals to assist with their pollination process (while others can pollinate themselves or rely on the wind to do it for them). Without bees to spread seeds, these plants - including many food crops - would die off.

The more you learn about bees, the more astounded you will be:

- Bees pollinate 70 of the top 100 human food crops
- One single bee colony can pollinate 300 million flowers each day
- Almonds are totally dependent on bee pollination. No bees, no almonds
- Most worker bees only live for around six weeks
- Bees only forage for nectar on days when the air temperature is above ten degrees Celsius
- A group of about 12 bees will, in their lifetime, produce a teaspoon of honey between them
- NZ honeybees produced 19,885 tonnes of honey in 2016
- A honeybee flies at approximately 24km/h
- Honeybees communicate with “dancing” and pheromones.

The waggle dance of the nectar-gathering bee is incredible. To alert other bees in the hive that there is a nectar source nearby, she will dance for them, running up and down the honeycomb. The angle she runs corresponds to the angle from the sun of the path that will lead directly to the nectar source. The duration of the waggle dance tells other bees how far to go – about 1.2km per second of wagging.

But here's the clincher. Honey bees all around the world, including here in New Zealand, are in decline because of Varroa mite infestations and other threats such as pesticide misuse. The good news is that there are easy ways to be bee-friendly at home, such as:

- Avoiding pesticides. If you must use them, avoid spraying when plants are in flower or bees are present - spray during the early morning or at sunset
- Providing fresh drinking water for bees
- Planting good nectar and pollen sources in your garden (see www.goodfooddunedin.com for more information)
- Telling others how to be bee-friendly too.

Bees are easily amongst the most important insects to humans. These humble, buzzing creatures deserve huge thanks – for helping provide us with our favourite fruits and vegetables, their delicious honey, and beautiful, flowery gardens. And they need our help.

Good Food Dunedin is a Dunedin City Council-led initiative, supported by individuals, communities, organisations and businesses who share a vision to transform Dunedin into a thriving, food-resilient city.