



Tree Council  
of Ireland

# Trees for Bees Crainn do Bheacha

## Team work



Producing honey is one of the finest examples of teamwork. The centre of activity is the hive which has over 50,000 bees in summer. Between them they produce up to 23 kg of honey or one teaspoon of honey for every two bees.

## Team line-up

The team or colony comprises:

- One queen who is the largest bee in the hive and mother of up to 50,000 bees.
- 1,000 drones whose sole purpose is to mate with the queen. Drones lead charmed lives except in years of honey shortage when they are kicked out of the hive.
- 50,000 worker bees who feed the queen and guard the hive entrance. As well as collecting nectar, they produce wax comb. The comb has hexagonal cells, designed to support 25 times their own weight.



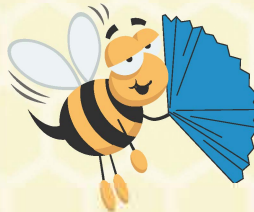
Bees collect nectar to make honey and water to dilute the honey.

## Hive of industry

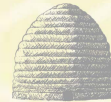


Bees collect propolis, to maintain and seal their hives.

To attract insects, plants secrete nectar which is a watery substance containing sugars. Honeybees cover a very large area – up to 6 km – to collect nectar to produce honey. As well as nectar and pollen, bees also collect propolis, which is the sticky gum found on the buds of trees, shrubs and flowers. This is used to maintain and seal their hives from the elements and to strengthen the combs. The bees also collect water and fan their wings to keep the hive cool.



Worker bees keep the hive cool during the summer



In the 17th century hives were made from straw (left). Today they are made from wood.



## Busy as a bee

Bees don't hang about. They visit up to 10,000 flowers a day to collect nectar, beating their wings 200 times a second. No wonder a worker bee dies of exhaustion after only five weeks.

Most of the honey is collected between mid-June and the end of July when many flowering plants such as white clover and blackberry are in bloom. Trees and ivy (1) are also rich sources of nectar. The top trees for nectar production are willow (2 and 14), apple (3), hawthorn (4), maple (5), pear (6), cherry (7), lime (8), horse chestnut (9), alder (10), hazel (11), sycamore (12) and holly (13).

**B**raitheann crainn, bláthanna agus beacha ar a chéile chun teacht slán: tá beacha de dhíth ar bhláthanna chun iad a phailniú agus ní foláir pailin agus neachtar a bheith ag beacha chun teacht slán. Gan bheacha, bheadh go leor plandaí bláthanna agus torthaí mar úlla, piorraí, silíní, sútha talún, inniúin, pónaí, toradh citris agus lus na gréine i gcontúirt dul in éag. Ní bheadh aon chéir bheach ann le haghaidh coinnle nó d'ungadh maisitheach, lóis, unghaí, béaldáthanna agus deargphúdair.

**T**rees, flowers and bees need each other to survive: trees and flowers need the bees to pollinate them and the bees require pollen for protein and nectar for energy. Without bees, many flowering plants, fruits and vegetables such as sunflowers, apples, pears, cherries, strawberries, citrus fruits, onions and beans would face extinction due to lack of pollinators. Many of our trees and woodlands would also disappear. There would be no more honey and beeswax based products such as candles, cosmetic creams, lotions, ointments, lipsticks and rouges.