



# Printable results

## Honey sample characteristics

Results for sample ID 14728195

<b>Date of honey sample</b>	20/09/2021
<b>Map reference</b>	SP74875659
<b>Sugar content measured in Brix (%)</b>	81.2
<b>Density BE @ 20°C</b>	
<b>Moisture content (% H<sub>2</sub>O)</b>	17
<b>Comments</b>	

Honey has an effect on light and this property can be adapted to help characterise the quality and even type of honey. Variations in honey water content can be seen through changes in the refractive index, or RI. Refractive index measures the difference in how light passes through honey and through a vacuum.

RI is measured through the use of a refractometer, the measurement taken can also give rough estimates water and sugar content of the honey. The amount of sugar is measured using a Brix scale, where roughly 1 brix = 1% sugar, so a Brix value of 80 = 80% sugar. Honey is typically measured as between 70-88 %. Ideal water content of honey should be less 17.8% as it's likely that anything above 20% will allow yeasts to ferment and spoil the honey. However, if the moisture content is too low then honey will likely crystalize.

Additionally this device will also give a rough estimation of specific gravity (liquid density), measured by the Baume scale (BE).

### IMPORTANT:

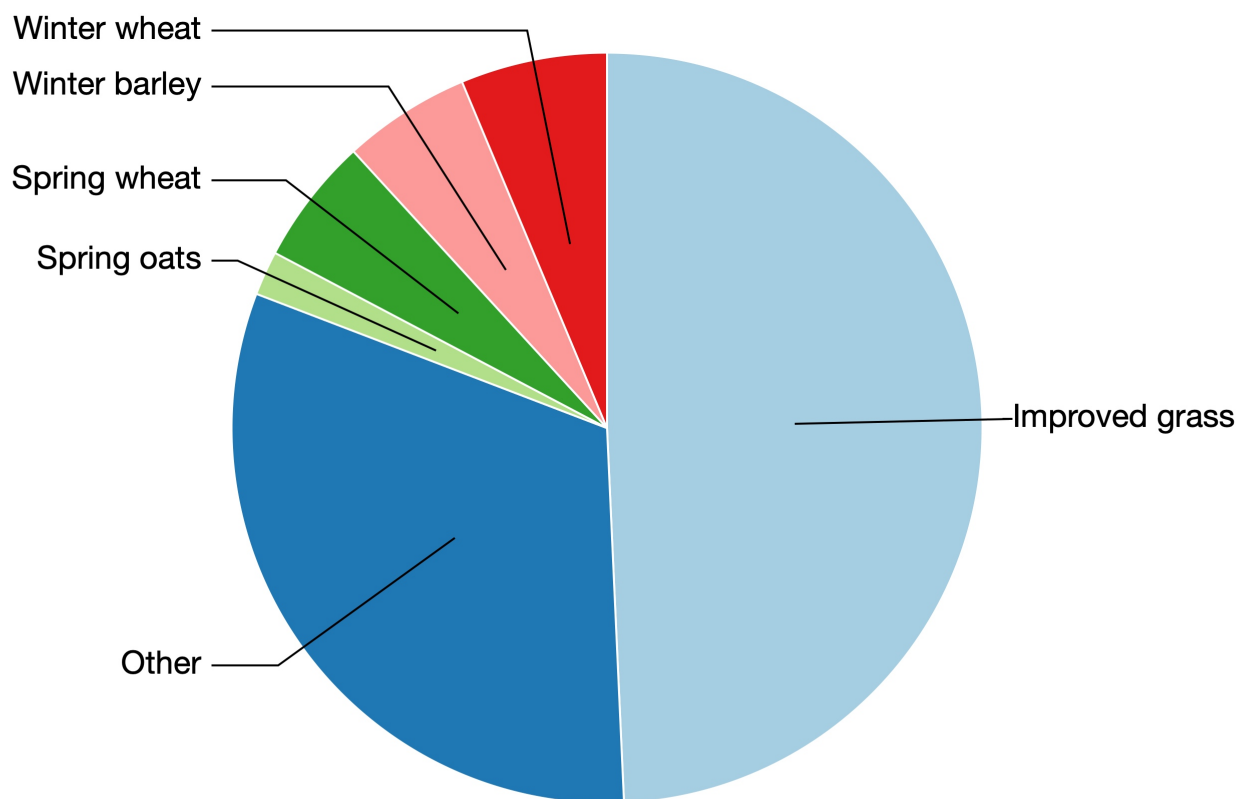
Our measurements are taken on a handheld refractometer and therefore values given are for your interest only.

It should also be remembered that since honey is hygroscopic, if a container isn't properly sealed water will get into the honey and affect readings. Values given may not be a true representation of the sample provided.

## Habitats and crops surrounding beehive (a 2km radius)

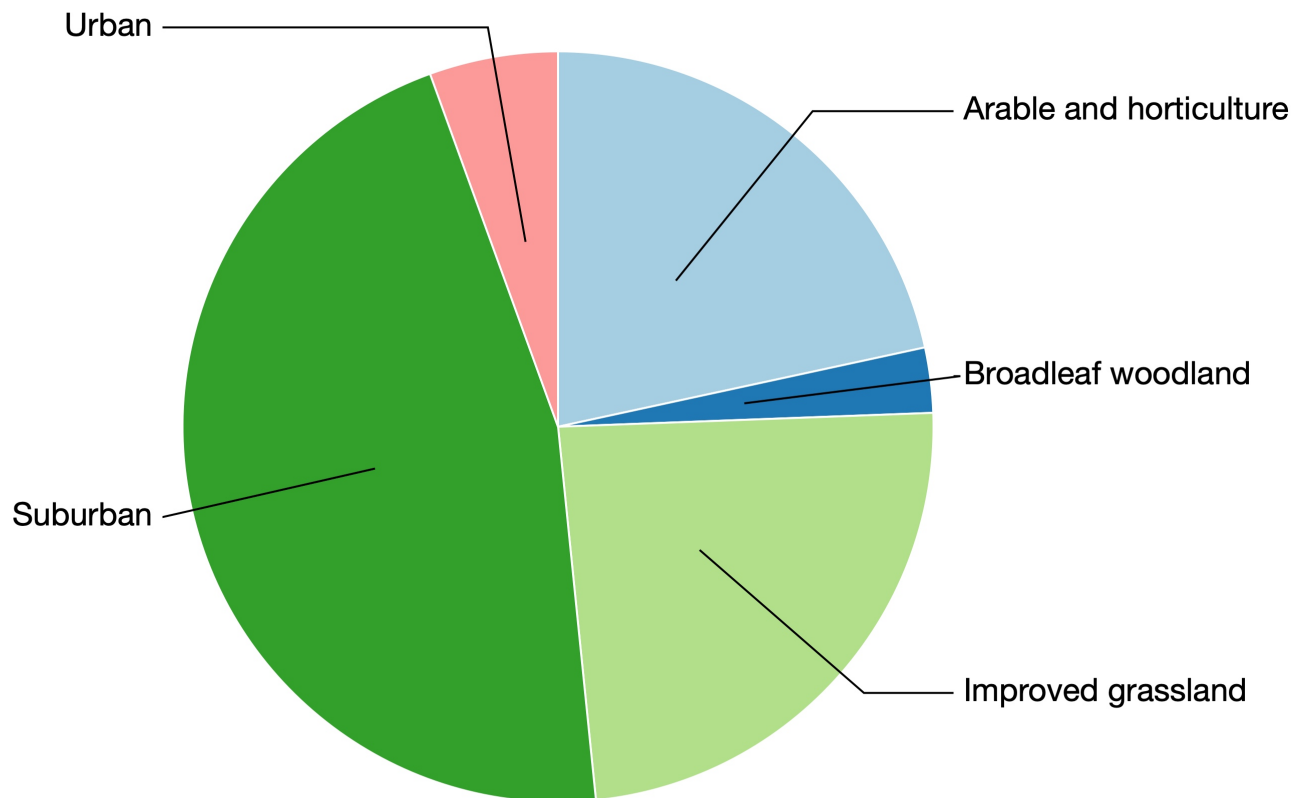
### Crops surrounding beehive

The total area of crop or improved grassland habitat in a 2km radius surrounding the hive is 4.6 km<sup>2</sup> (36%). The pie chart below shows the percentage breakdown by crop type/improved grassland.



## Habitats surrounding beehive

The pie chart below shows the percentage cover of all broad habitats within a 2km radius around the hive.



The sample analysis also shows areas of land cover of the following types which were too small to show on the pie chart:

- Freshwater

## Sample species results

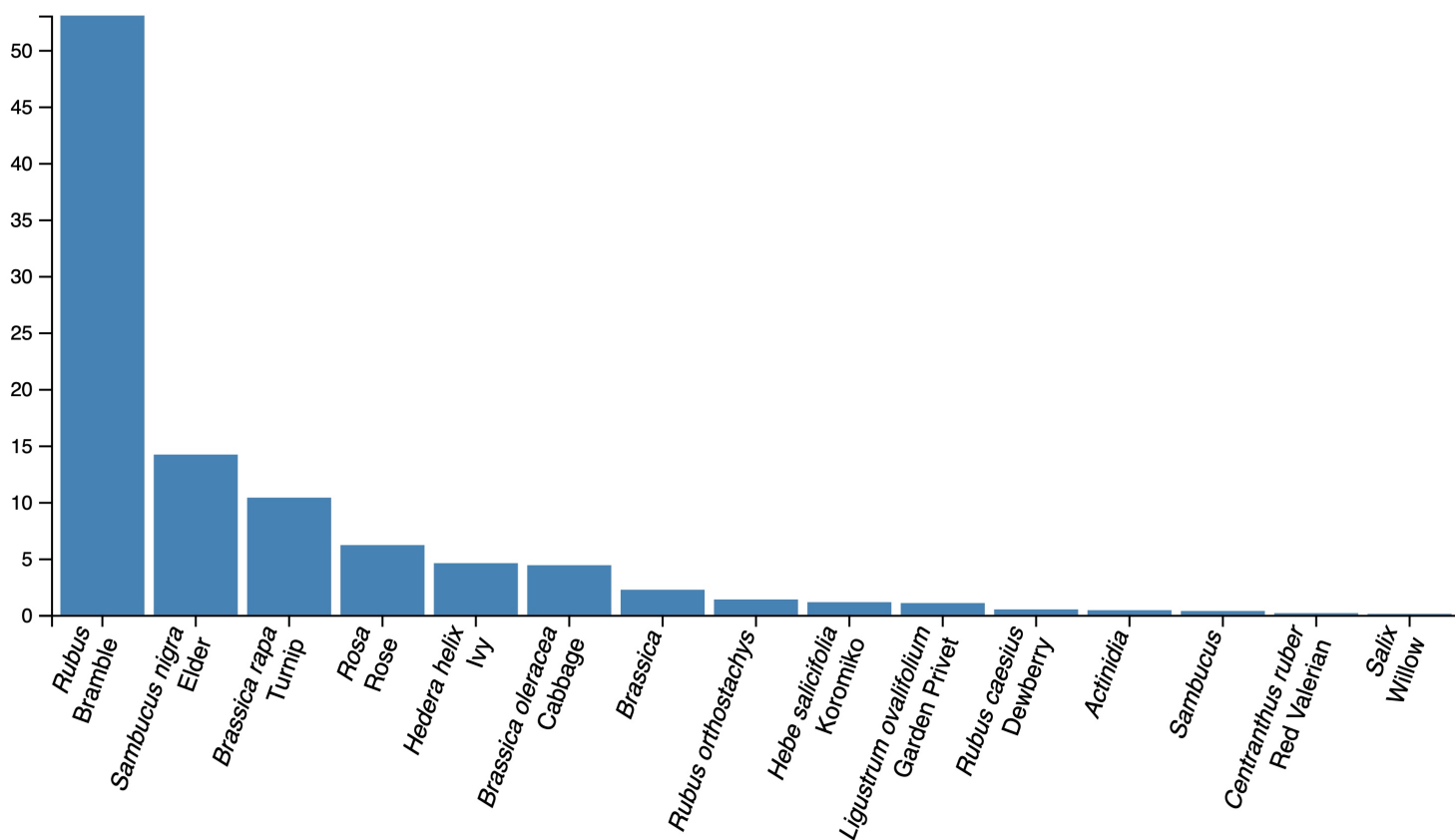
Plant identification using DNA barcoding of honey samples is reliant upon sequencing a small, specific area of DNA. These are then compared to a large database of reference sequences to identify the likely plant species present. Accurate identification to a very fine taxonomic level is not always possible, particularly for some groups (E.g. Brassicas).

We also provide an estimate of relative abundance of each species (or higher taxonomic levels) present in a honey sample, based on the quantity of DNA fragments present. Although the ordering of plant species by this measure is likely to be representative of honey composition, molecular techniques are not directly equivalent to traditional microscopy based upon melissopalynology. Estimates of relative abundance from molecular techniques are not directly equivalent to traditional pollen counts. No pollen coefficient values have been applied and therefore these data cannot be used for honey verification purposes.

## Sample summary

<b>Total taxa in the sample</b>	17
<b>Proportion of total sample for the top 15 most abundant taxa</b>	1

## Top 15 most abundant taxa in the sample



## Complete list of taxa in the sample

<b>Species scientific name</b>	<b>Common name</b>
<i>Rubus</i>	Bramble
<i>Sambucus nigra</i>	Elder
<i>Brassica rapa</i>	Turnip
<i>Rosa</i>	Rose
<i>Hedera helix</i>	Ivy
<i>Brassica oleracea</i>	Cabbage
<i>Brassica</i>	
<i>Rubus orthostachys</i>	
<i>Hebe salicifolia</i>	Koromiko
<i>Ligustrum ovalifolium</i>	Garden Privet
<i>Rubus caesius</i>	Dewberry
<i>Actinidia</i>	
<i>Sambucus</i>	
<i>Centranthus ruber</i>	Red Valerian
<i>Salix</i>	Willow
<i>Sambucus peruviana</i>	
<i>Scorzoneroideis autumnalis</i>	Autumn Hawkbit

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