



## WHAT IS HONEY?

### % COMPOSITION

#### **Sugars**

Glucose 31

Fructose 38

Water 17

Sucrose 1.3

Other Sugars 8.7

(Maltose, Isomaltose, Maltulose, Turalose, Nigerose, Kojibiose)

**Acids** 0.57

Gluconic (greatest amount). Glucose (plus hydrogen peroxide) are produced by the action of the bee enzyme glucode-oxidase on sucrose)

Plus: Succinic, Malic, Acetic, Citric, Buytiric, Amino Acids (18 free amino acids are present, prolin ebeing the most abundant).

Ash 0.17

Nitrogen 0.14

Undetermined 2.43

#### **Enzymes**

Invertase

Diastase or Amylase

Glucose oxidase

Catalase

Acid Phosphatase

Average pH 3.91

Calorific value 1380 cal/lp = 304 cal/100 g

HMF max. permitted under EU regs 40 mg/kg

Minerals: Traces

Plant Substances: tiny amounts or aromatic compounds which give honey much of its fine aroma and varying taste.

Antibiotic qualities: Acidity, Hyperosmostical, Hydrogen Peroxide, Inhibine.

Refractive Index: Honey, 21% water content 1.484



## TEMPERATURE and its effect on HONEY

Deg C	Deg F	Effect
-1	30	Negligible crystal growth
10	50	Reduced crystal growth
11	52	No yeast growth – best upper temperature for storage
14	57	Granulation most rapid
24	75	Preparation temperature for seeding creamed honey
27	80	Prepare blossom honey combs for extraction. Honey unlikely to ferment above this temperature.
32	90	Prepare heather honey for extraction
35-43	95-110	Normal filtering/bottling temperature. Do not keep at this temperature longer than necessary. Use lowest temperature consistent with required viscosity/filtering.
41	107	Wax combs collapse around this temperature.
49	120	Re-liquify solid rape honey. Cool down asap
71	160	Flash heating for 4-5 mins maximum. Cool rapidly to 24/75. Only for use if you have large-scale industrial heat exchangers etc.
75	167	Honey flavour, colour, chemistry irreversibly damaged

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