

# Icing Sugar And Other Myths

~ Nick

*White sugar, the present day substitute for honey, never quite made it. It has no enzymes or vitamins, is only half as sweet as honey (and therefore more expensive per unit of sweetness) and confuses the pancreas into not knowing what to expect next. It either over-reacts and you get hypoglycemia (low blood sugar) or under-reacts and you get diabetes. The best answer to sweetening is honey, and because some people think creamed honey has been adulterated in some way and won't buy it for this reason, Nick wrote this little piece to clear the lineage of that excellent stuff . . .*



Beekeeper checking that no-one has sneaked icing sugar into his hive.

The granulation of honey is a naturally-occurring process. Though this is often referred to as "Going to sugar", the fact is that honey is generally about 80% sugar anyway, and granulation does not really alter this. Honey is composed of about equal parts of dextrose (grape sugar or D-Glucose) and levulose (fruit sugar or D-fructose), about 17% water, and a number of minor components. When the ratio of dextrose to water is high, the honey granulates. If a honey has a naturally high dextrose to water ratio, it will granulate very quickly with very small crystals. Rape honey is a good example, often granulating in the comb before the beekeeper can even extract it. Other honeys, with a higher percentage of levulose, such as peppermint and ling heather, take much longer to granulate.

Any honey can be prevented from granulating by heating it. A recommended heating condition of 30 minutes at 65 - 70° C gives you an idea of the severity of the heat required to make the honey remain definitely in the liquid state. With this time and temperature many of the delicate flavour and aroma substances and enzymes are destroyed. Only two countries, Australia and the United States, consume honey predominantly in this state.

Others such as New Zealand prefer creamed honey. While this doesn't guarantee that the honey hasn't been overheated at some point, usually just after extraction to aid in straining, temperatures and times are usually much lower and shorter. Creamed honey is honey that has had a starter or "seed" of a fine-grained honey added (about 5%), thoroughly mixed to spread these crystals throughout the liquid honey, packed into containers, and then held at a cool temperature (about 14° C though usually a bit higher) for several days or a week to speed the crystal formation.

No beekeeper that I know has ever added icing sugar, lard, white sugar or flour (among other things I've heard) to honey in the creaming process. These old myths die very hard! Creamed honey is simply honey whose natural crystallization is controlled by introducing some previously granulated honey and temperature controlled to aid in rapid crystal formation.

Any honey that is granulated naturally or that has been creamed intentionally can be made liquid by the addition of heat. Since liquid honey is easier to measure and mix with other ingredients, I keep a small amount of honey in a liquid state. As mentioned above however, overheating is not a good thing to do to honey. Only a very low heat is needed to liquify it, and the fact that it *will* regranulate later is proof that it wasn't grossly overheated! The heat in a hot-water cylinder cupboard is sometimes enough. If not, place the jar of honey in a pan of water and heat *very* slowly; the temperature of the water shouldn't exceed 52° C for the best results.

If you're interested in bees, the definitive book for New Zealand conditions is "Beekeeping in New Zealand" (bulletin 267, Ministry of Agriculture & Fisheries, available from the Government Printer, for about \$5.)

Most other literature available is American in origin and hence somewhat commercialised in application.

"The New Zealand Beekeeper" is a small quarterly magazine, covering beekeeping under New Zealand conditions - \$4 per year (1975), published by the National Beekeepers Assn., P. O. Box 4106, Auckland. Also the "Australasian Beekeeper", published monthly from P. O. Box 20, Maitland NSW, 2320 (\$6 sub in NZ).

"O green and glorious!  
O herbaceous treat!  
'Twould tempt the dying  
hermit to eat.  
Back to the world he'd  
turn his fleeing soul.  
And plunge his fingers in  
the salad bowl!"



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