

From nectar to honey: Studies on changes of quality parameters during the ripening process

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Enzymes, moisture, proline and concentration of sucrose are important parameters during conversion of nectar to honey. Limits are given by the legislation. Especially concerning the enzyme activities obvious differences depending on the botanical origin can be observed, even though the enzymes are added by the bees.

Honey from *robinia pseudoacacia* is one example for having a natural low enzyme activity. Since we have observed a high variation of invertase activity of these honeys the floral source might not be the only explanation.

Therefore nectar and honey samples were collected during the ripening process directly from the bee hive. From the bees the enzyme activities of the honey sac and hypopharyngeal gland were determined. All samples have been investigated in respect to their floral source.

In spite of similar plants flowering during the time of investigation, confirmed by pollen analysis, the invertase activity of honey and nectar from honey sac was different depending on the location of the bee hives. This implies that not only the floral source causes a honey with natural low enzyme content but additional factors.