Nitrophenol

An alternative diastase method!

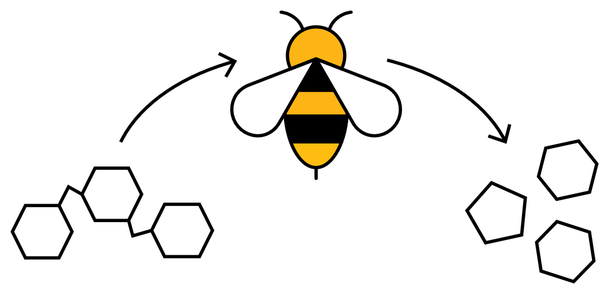
right solutions.
right partner.

Test your honey using Analytica's new Nitrophenol Method.

What is Diastase?

Diastase is the group name for a class of enzymes produced by bees and other organisms.

- Diastase converts complex carbohydrates, which may be found in some feed sources, into simple sugars like glucose and fructose.
- Diastase is also sensitive to heat, so it can be used to monitor honey freshness, like HMF is.



Diastase Activity in a honey sample can be measured in the laboratory.

- A diastase test does not measure the amount of diastase – it measures the productivity of the diastase. An analogy to think of is we are not measuring how many builders are building a house, we are measuring how fast they are able to build it.
- The amount of activity we measure depends on the conditions we perform the test under, which are arbitrary but standardised.

The DIN Definition

1 DN is the amount of enzyme capable of converting 0.01 grams of starch to an endpoint of 0.301 Au under certain conditions.

The IHC/AOAC Definition

1 DN is the amount of enzyme capable of converting 0.01 grams of starch to an endpoint of 0.235 Au under certain conditions.

DIN Definition

Goethe Method (1914) → DIN-10750-1 (2018) → DIN-10750-2 (2022)

IHC Definition

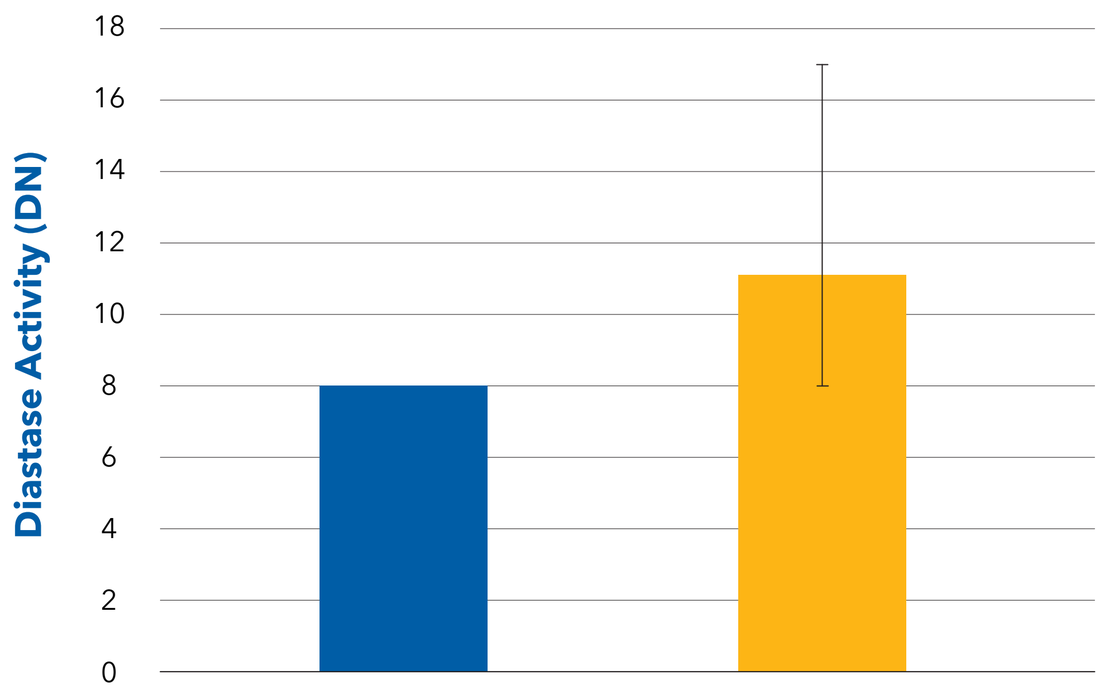
Schade (1958) → AOAC 958.09 (1977) → Phadebas (2009) → IHC (2009)

Test Methodologies have evolved throughout the last century across the world.

- Diastase testing started in Europe, and was picked up in USA in the 1950s. Numerous methods have evolved out of both regions.
- Food Law legislates that honey must be tested for diastase as a market access requirement, but doesn't always specify a method.

ALS Analytica now offers the Nitrophenol method which is based off of the DIN definition!

- This method uses different conditions than the Phadebas method, and usually gives higher results.
- This is especially beneficial for high grade manuka with low diastatic activity which struggles with EU market access.
- Analytica has cross-tested over 100 samples between labs, and results are as shown on the graph on the right.



† Using the IHC definition of the diastase number.
* Using the DIN definition of the diastase number.
Values arbitrarily scaled to have a DN of 8.0 for the corresponding Phadebas test. n=103.

Helpful Contacts

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