AI - POWERED NUTRITION ANALYZER FOR FITNESS ENTHUSIASTS

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SOLUTION FIT DEVELOPMENT

HONEY-PROFILING:

Bruker's FoodScreener Essential Honey, a reasonably priced system geared for beekeepers, honey packers, and honey associations, offers the Honey-Profiling approach (dedicated to honey analysis only). It is also compatible with Bruker's Wine-Profiling and Juice-Profiling techniques as well as the flexible NMR FoodScreenerTM platform.

SOLID FAT CONTENT:

The best place to get benchtop NMR analyzers for solid fat content is Bruker (SFC). The mq series offers a field-upgradable SFC Analyzer, but the mq-one SFC Analyzer delivers the greatest possible price and footprint-to-performance ratio. To provide reliable findings that may be compared with those from other factories throughout the world, Bruker minispec systems are calibrated using standardised procedures. The only method for determining SFC that has received formal approval is the NMR technique. It is more efficient than the laborious, time-consuming dilatometry approach, which is used to calculate the Solid Fat Index (SFI) values. Additionally, compared to NIR (near-infrared) applications, the SFC determination by NMR is by far more precise, making it the preferred method for the QC lab:

- The minispec NMR approach is very repeatable and accurate.

Easy to calibrate using the three Bruker SFC standards.

- SFI determinations take longer to accomplish than analyses.
- With the Direct Method, NMR provides an SFC value from a single measurement.
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- The SFC process does not rely much on operator skill and discretion.

· **JUICE-PROFILING:**

Automated 400 MHz push-button NMR solution with assessment and reporting dependable screening technique offering multi-marker analysis that is both targeted and non-targeted The statistical analysis is based on a large, often updated NMR spectroscopic database of more than 16,000 reference juices that were collected from manufacturing locations all over the world. Specific Analysis: With reference to the A.I.J.N. and NMR distribution, simultaneous absolute measurement of important chemical substances

Unfocused Analysis: The NMR-Profile is contrasted with the associated collection of reference spectra. Deviating concentrations, including those of unknown chemicals, are automatically found. Classification Analysis, such as identifying the fruit's country of origin, calculating the fruit content (detection of addition of water, amino acids or sugar).

TOTAL FAT AND MOISTURE:

SFI determinations take longer to accomplish than analyses. With the Direct Method, NMR provides an SFC value from a single measurement. The non-ground sample is simply placed into an empty tube, weighed, and then placed into the minispec machine for the examination of total fat and moisture by TD-NMR. Accurate and trustworthy findings for the percentage of total fat and moisture will be shown a little while later. A wide variety of samples, including food and feed, seeds, press cake and residues, individual seeds of corn, as well as pharmaceutical powders and tablets, compounds like sulphur, polymers, and others, respond well to this conventional TD-NMR standard technique.