

TECHNICAL PRODUCT INFORMATION

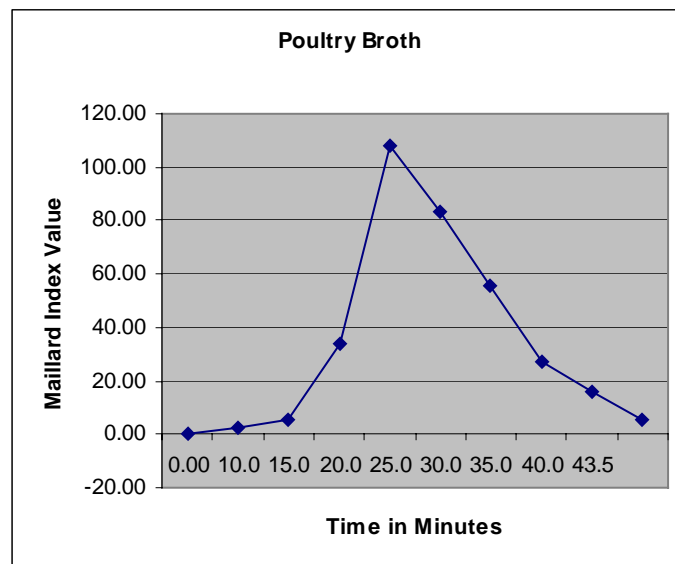
Maillard Index for Food Flavor

When foods are cooked they go through a chemical process called the Maillard reaction. This is a chemical reaction between the foods amino acids and a reducing sugar that produces flavor. In the cooking process, flavor compounds are created by the reaction and each food has a distinctive set of these flavor compounds. Most foods such as baked goods, cereals, coffee, sauces, soups, meats and vegetables develop flavor by the Maillard reaction. We are able to model and measure the reaction. By measuring the Maillard reaction we are able to identify the exact point where flavor peaks.

Some important features

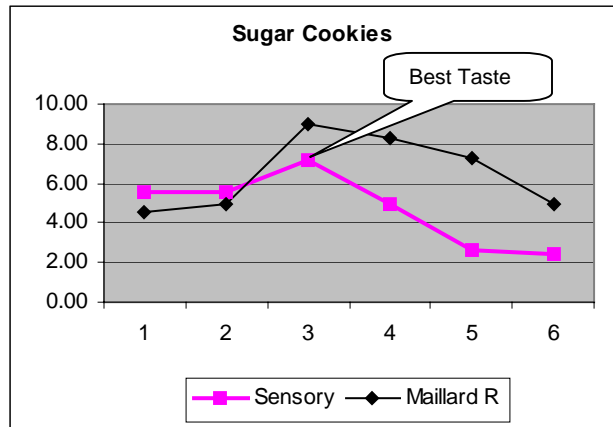
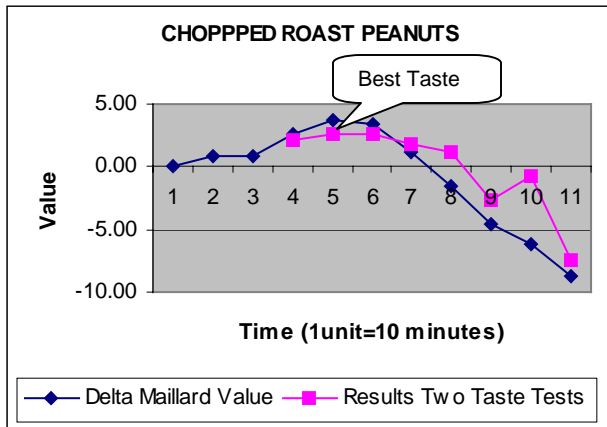
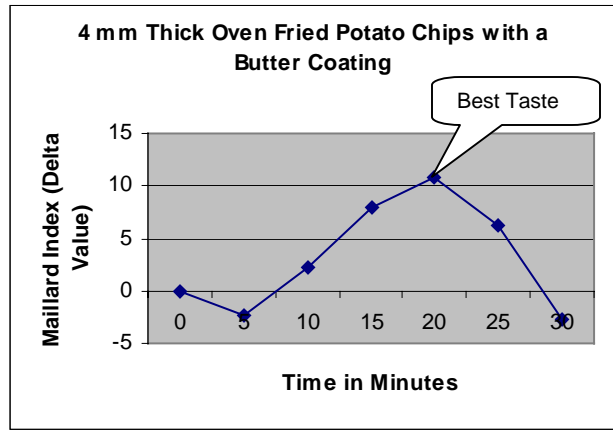
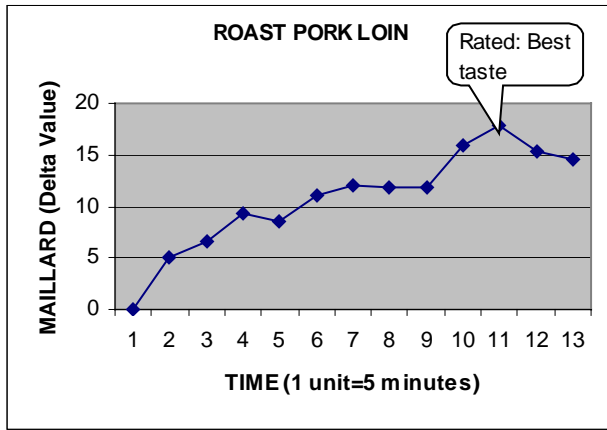
- Assigns an analytical number to flavor and taste.
- Shows the flavor development curve and identifies flavor peak.
- Index has been tested empirically.
- Can be used with any brand colorimeter/spectrophotometer.
- Eye unable to discriminate Maillard reaction wavelengths.
- Maillard reaction detectable only by instruments.
- All Maillard reacting foods tested to date follow the curve, except red meat where the signal is too low.

Foods validated for flavor by a taste test panel to follow the Maillard index are cashews, pork loin, sugar cookies, pie crust, peanuts and potato chips. In addition to these, other foods that followed the same shape curve are chicken breasts, poultry broth and whole coffee beans.



Typical Maillard Index curve Poultry Broth consisting of Glycerin, Glutamic Acid, L-Cysteine, and Fructose is a pure Maillard Reaction.

Maillard Index™



MAILLARD INDEX SOFTWARE

Maillard Index is offered as

- 1) **Template in Microsoft Excel** A template in Microsoft's Excel used to calculate the Maillard Index. Data must be entered manually from a color instrument. Requires Microsoft Windows operating system.
Excel Template..... Part Number #05056-1
- 2) **OnColor Quality Control Software.** General-purpose color quality control software with Maillard Index. Software is compatible with most brands of colorimeters and spectrophotometers..... Part Number #05056-2
- 3) **CR-400 Flavor Meter.** A complete portable Konica Minolta CR-400 colorimeter loaded with the Maillard Index that can be used in the quality control laboratory or at a QC station at the processing line. The CR-400 has a 10mm aperture suitable to measure rolls, chicken breasts, bread, and biscuits size products..... Part Number #05056-3
- 4) **CR-410 Flavor Meter** A complete portable Konica Minolta CR-410 colorimeter loaded with the Maillard Index that can be used in the quality control laboratory or at a QC station at the processing line. The CR-410 has a 50mm aperture suitable to measure peanuts, coffee, spices and pellet or granular size products.... Part Number #05056-4
- 5) **Online Flavor Meter** system. A online Janda Model 3410 colorimeter with the Maillard Index to read foods being processed where the food is in pellet, liquid or sheet form.

Includes one-year software upgrades no charge. One-year software and applications support by telephone no charge. Thirty-day money back guarantee on software. Does not apply to Konica Minolta instruments. Applications support available after first year.

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