Production: WHITE PAN BREAD

Objective: Firmness measurement of bread crumb by compression with a probe

Type of action:

Test setting:

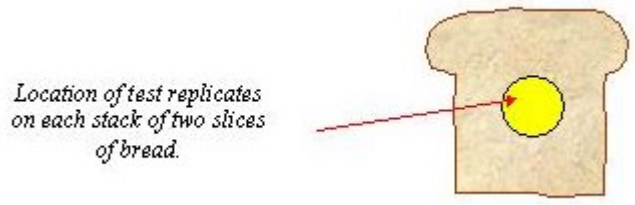
Speed	Test mode	Trigger	Target	Hold
1.7 mm/s	Distance (c)	10 gf	6.2 mm	0 sec

Accessory:

ϕ 25 mm cylinder probe. Acrylic, Platform

Sample Preparation:

After cooling for 1 hour, breads are double bagged and held at room temperature until further testing. Loaves are generally tested on days 1, 3 and 7 after baking. On each testing date, 2 loaves of each variable are sliced (using a standard bread slicer to ensure slices are 1/2" thick) and measured. The first three slices from either end are excluded from testing. Two slices of bread are stacked for each measurement. Try to get 6 measurements per each of the two 2 loaves, for a total of 12 readings per variable per day.



Data Analysis:

☒Max Force

Results

Each time a measurement is taken, the maximum peak force value is recorded and the average and standard deviation are calculated on the twelve measurements.

Notes:

- This method is from a collection of procedures for testing the texture of common bakery products with the Texture Analyzer. These procedures have been developed by and are used at the American Institute of Baking's Experimental Bakery Lab in Manhattan, Kansas.
- It is the philosophy of the researchers at the AIB to have extremely flexible protocols for texture testing. Bakery products come in every imaginable type and shape, so meaningful textural comparisons must account for the different product geometry's. These test procedures typically manage differences in geometry by reducing the products' size to a common denominator.
- Generally, the objective of most of these tests is to measure the firmness and shelf life of a baked product. Since the bulk of these protocols address sample handling, they can and should be modified slightly if the test objective is different (eg springiness, cohesiveness, resilience, etc).
- These protocols are simply starting places for developing test methods which are suitable for your own products. A researcher should be comfortable modifying the sample handling protocols, test speeds and distances to accommodate any specific purposes.