

QUALITY DETERMINATION OF CAVIAR

A compression test was used to provide valuable data regarding the quality of caviar.

REQUIREMENT

A supplier of fresh fish products wanted an objective method that could reliably determine quality levels of the caviar throughout the harvesting season.

Textural properties of the product have been found to be a key characteristic in the determination of quality. The customer had no real way to measure these differences and therefore, no real data to back up whether the product maintained a certain level of quality.

SOLUTION

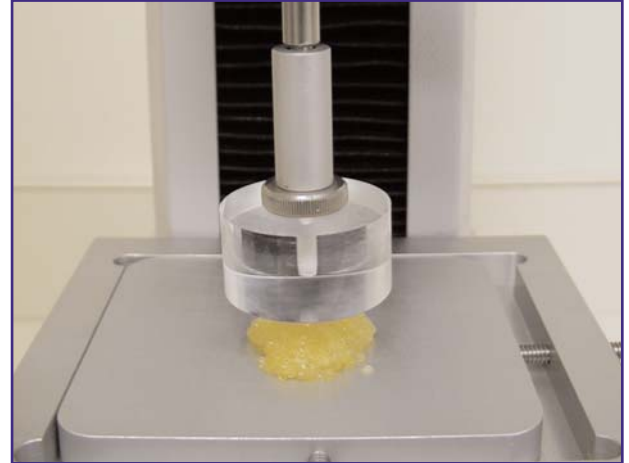
FTC offered a compression test solution that could be performed using small amounts of caviar placed upon FTC's standard fixture table.

With a speed setting of 75 millimeters per minute, the sample was compressed using a 38.1mm (1.5 inch) Perspex cylinder. The degree of compression was determined prior to testing, enabling the product to rupture, but stop before contact of the perspex cylinder and the tables surface.

Calculations were then performed to measure the peak force encountered for each test replication.

BENEFITS

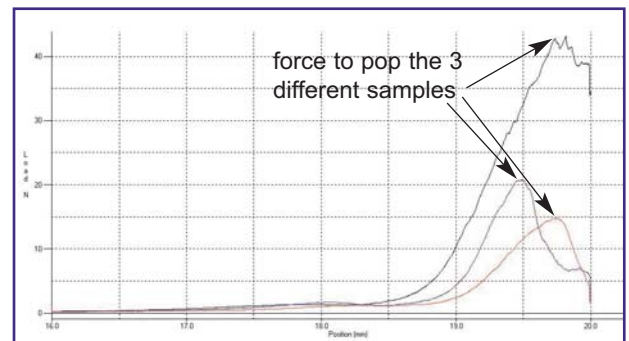
- Simple test to objectively measure the 'pop' of the caviar
- Software facilitates automatic statistical analysis
- Enables customer to put 'real' numbers to their sensory information



FTC perspex cylinder and standard fixture table used for the compression test

Product	Peak Force (force to pop)	
	Average	St. Dev.
Species A	19.42	1.03
Species B	14.32	1.25
Species C	45.15	3.92

Table shows force required to 'pop' the caviar



Graph displays full test data, clearly indicating the force need to pop the caviar samples