HAND TACTILE TEST FOR FABRIC SOFTENER

by: YUSRABBIL AMIYATI YUSOF and ZAINAB IDRIS

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Most products are produced to satisfy consumer needs. For quality control, they are tested for their performance. Sometimes, their properties, *e.g.* viscosity and pH, are measured using various instruments. But, unfortunately, the perceived characteristics cannot be measured by any instrument, and sensory analysis has to be resorted to, instead. Products such as food, household chemicals, cosmetic and personal care products, and fabric care products have often to be evaluated by the five senses of sight, smell, taste, touch and sound.

SENSORY ANALYSES

Sensory analysis is a scientific discipline involved in measuring, analysing and interpreting the sensory and emotive impact of products as perceived by the five senses. It is currently the only method known to subjectively rate a product statistically.

Some of the sensory analyses, or test methods available are given in *Table 1*. However, a standard procedure has to be designed for each test, and the uniqueness or required properties of the product are important factors in designing the test. Every test method requires appropriately trained or qualified panellists.

MPOB has developed a discriminative test for fabric softener using hand tactile evaluation. Discriminative tests measure the differences between samples without focusing on the magnitude of the differences. Several tests can be used (*Figure 1*):

- paired comparison;
- duo-trio;
- triangle; and
- ranking.

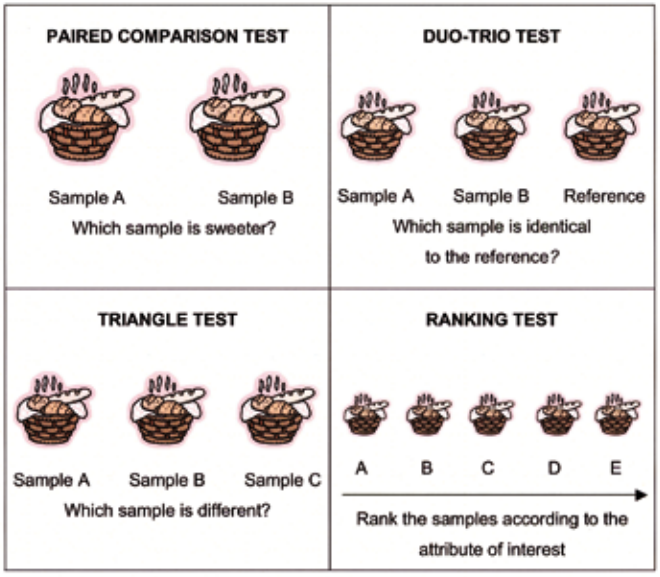

Figure 1. Types of tests (Meilgaard et al., *1991).*

TABLE 1. CLASSIFICATION OF SENSORY ANALYSES

Analysis	Purpose
Discriminative	Determine the difference between samples
Descriptive	Describe the differences between samples and the relative intensities of their attributes
Hedonic	Measure the liking or preference

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Malaysian Palm Oil Board, Ministry of Plantation Industries and Commodities, Malaysia
P. O. Box 10620, 50720 Kuala Lumpur, Malaysia. *Tel*: 03-87694400 *Website*: www.mpob.gov.my *Telefax*: 03-89259446

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Discriminative tests require trained panellists - qualified discriminators with the ability to discern the difference between samples. The tests are very useful for determination of product performance in new product development, quality control or consumerism issues such as claim substantiation.

HAND TACTILE EVALUATION

One of the important criteria for fabric softener is its softening property, for which there is no instrument or standard device to measure, and sensory evaluation is the only recourse. The hand tactile test is used for the sensorial attributes of towels. The towels are first treated with the fabric softener according to a standard procedure, then dried before the hand tactile evaluation is done in an air-conditioned room (dark, temperature 21°C -23°C and humidity 71%-75%) (*Figure 2*). A computer software (designed by Akzo Nobel, Singapore) is used for statistical data interpretation.

SERVICE

The hand tactile test for fabric softener is now offered by AOTD to complement its performance evaluation of fabric care products. The cost of analysis is RM 3000 per sample. The companies have to deliver their samples (about 250 g) with a written instruction stating the test required.

Figure 2. Hand tactile evaluation being done.

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For more information kindly contact:

Director-General
MPOB
P. O. Box 10620
50720 Kuala Lumpur, Malaysia.
Tel: 03-87694400
Website: www.mpob.gov.my
Telefax: 03-89259446