
EXPERIMENT 36 SELECTION OF SENSORY PANELISTS

Structure

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36.0 OBJECTIVES

After completing this exercise, you will be able to:

- state the procedure of selection of sensory panel members;
- assess the training requirements of sensory panel members; and
- plan the consumer evaluation of your product.

36.1 INTRODUCTION

You have been told the criteria for selection of panelists or panel members in theory part of this course. Here you will learn as to how you will practically go ahead with their selection for specialized and consumer panels. How will you pin point and exclude the taste blind persons? How will you improve the performance of selected panelists? This can be done by providing them exposure to discriminatory tests for several days and improving their ability to concentrate on sensory attributes.

36.2 PRINCIPLE

The main purpose of selection is to short list panel members who can recognize the four basic tastes fairly and efficiently. For specialized panel, the members are selected on the basis of recognition test. Ten threshold tests are conducted to assess their efficacy which forms the basis for further training. People with strong likes and dislikes are eliminated because specialized panel members are supposed to use their senses as biological detectors.

Consumer panel members are selected or drawn randomly from a large population. They are experienced meat product consumers and hence represent the group in which the product is going to be sold. They are not given any training but are made aware as to how they should record their preference.

36.3 PROCEDURE OF SELECTION

Specialized Sensory Panel members are selected from eligible persons with the help of recognition test. This is a qualitative test for the recognition of four basic tastes. Then threshold test is conducted to measure their level of sensitivity, which can be further improved by training.

(i) Recognition Test

Prepare 1% solution each of sucrose, sodium chloride, citric acid and caffeine in water separately. 10 ml of each solution is given to perspective panel members to identify the taste. Those persons who identify the basic tastes correctly are retained as panel members.

(ii) Threshold Test

Prepare 16 solutions in the water as follows:

Sucrose

0.5g/100 ml

0.7 g/100 ml

0.9g/100 ml

1.0g/100 ml

Citric Acid

0.02 g/100 ml

0.04 g/100 ml

0.06 g/100 ml

0.08 g/100 ml

Sodium Chloride

0.15 g/100ml

0.20 g/100 ml

0.35 g/100 ml

0.50 g/100 ml

Caffeine

0.01 g/100 ml

0.02 g/100ml

0.03 g/100 ml

0.04 g/100 ml

10 ml of each solution is given to the prospective panel members in ascending order. The level of sensitivity (minimum concentration at which he/she can identify a particular taste) of each panelists is recorded. They are trained to concentrate through paired difference test or triangle test once in the forenoon and once in the afternoon for a few days.

36.4 OBSERVATIONS

Many people will approach you for enlisting them as taste or sensory panel members. You should see if they fulfill the general eligibility criteria or not. Then subject them to the taste recognition tests to eliminate the taste blind persons. Observations should be recorded as follows:

Name of the Panel Member _____ Date _____

Sample No.	Taste (Mouth feel)
1	
2	
3	
4	

Do not give more than 6 samples at a time. Four samples are ideal for each session.

In the threshold test, the minimum concentration at which they are able to recognize each taste is recorded. In the subsequent sessions, efforts should be made to improve their sensitivity with the help of triangle test. In this test, three samples – two similar and one different are presented at the same time. The panelists are required to trace the odd sample as follows:

Name _____ Date _____

Sample No.

A	[B]	A
B	B	[A]
A	A	[B]

The odd sample is encircled.

This way you can increase the sensitivity and concentration of the selected panel members.

36.5 INFERENCE

Selection of sensory panel members by recognition test and threshold test are basic exercises. We do not consume only aqueous solutions in our daily life. As soon as the selection process is completed, some triangle tests should be conducted with food products to train their senses to concentrate on the appearance, flavour, juiciness, texture and overall acceptability. If some panelists find it difficult to concentrate on so many attributes or qualities of a meat product at a time, they could be initially asked to concentrate on flavour and texture. After gaining some experience, they can help us a lot by participation in the sensory evaluation of meat products.