

JUDGING OF DAIRY PRODUCTS



Jump to...



B. Tech. (Dairy Technology) ► DT-8 ► Resources ► Lesson 10. FUNDAMENTAL RULES FOR SENSORY EVALUATION

Module 3. Fundamental rules, score card and sensory testes

Lesson 10

FUNDAMENTAL RULES FOR SENSORY EVALUATION

10.1 Introduction

To become good judge, following are the most important requirements are:

- Mastery of certain techniques for good understanding of the procedures in examining dairy products.
- Follow the fundamental rules of sensory evaluation of dairy products and
- Efficient use of time in scoring a number of samples actually results in the judge having more time at his disposal for scoring and rechecking each sample.

To obtain confidence in judging and grading dairy products, the understanding of different fundamental rules is very important.

10.2 Fundamental Rules

10.2.1 Be in physical and mental condition for scoring

The person /object should have good health, physical comfort and mental poise. The important suggestions which are helpful in judging are as under.

- The eating of heavy meal just prior to judging leads to dull the appetite, and to destroy the enthusiasm for tasting and the sensitivity of taste.
- Avoid judging of dairy products after having eaten foods of strong flavor such as cabbage, turnips, or onions.
- The use of tobacco is generally detrimental to the development of the senses of taste and smell, it must be admitted that some dairy products' judges noted for their abilities to judge are inveterate smokers. In some cases it is believed that the use of tobacco is not harmful to one's judging ability.

- The use of mild - flavored pepsin chewing gum prior to judging is considered beneficial to the flow of saliva thus preparing the tongue and palate for the sapid substances.
- Chewing appears to stimulating the flow of saliva and have a nerve quieting effect.
- The sensory evaluation room should be clean, well ventilated, well lighted and tempered to contribute to the physical comfort of the judge.
- Wash room facilities should be available. The mouth should be rinsed with plain water prior to judging. Likewise, the hands should be scrubbed, using a non-fragrant soap.

10.2.2 The person should have the knowledge of the score card or the ideals established for each product

The score card is an important tool for the dairy products' judge.. Be able to recall instantly the numerical value of each item.

10.2.3 Have the ability to grade each dairy product and to judge the defect intensities allowed in each grade

The judge must have ability to identify the defects and their intensities for flavor, body and texture, colour and appearance etc of the product. He should has the knowledge of the relative desirability or undesirability of each in terms of numerical values. Thus, to judge a product one must know what to expect in the way of quality of each product.

10.2.4 The samples should be properly tempered

The flavor and the body and texture can be determined best when the products are neither too cold nor too warm. Therefore, each product should be tempered specifically for particular dairy product. The ice cream and butter, cheese and milk are required to be tempered around 5°C to 10°F. (- 15 to - 12.2°C.) 60°F. (15.5°C) respectively to the study of the various qualities. If the products are too cold, the taste buds may be temporarily anesthetized during which time some of the delicate, elusive flavour may pass off undetected. On the other hand, if the products are too warm, an accurate evaluation of some of the qualities is very difficult.

10.2.5 The sample to be judged should be a representative portion of a lot

The sample should be taken accurately and be representative of whole lot. Regardless of the type of sampling tool, always cut out the portion to be examined, if possible, rather than scraping compressing, or twisting it out. Avoid taking the sample from near edge. Never take a surface portion, or a trier plug which touches an opening from where a

previous, or a trier plug which touches an opening from where a previous sample had been removed. In case of liquid products, as milk, buttermilk, or cream, be certain the product is well mixed before sampling.

10.2.6 Observe the aroma immediately after removal of the sample

This is a good judging habit to form early in one's judging experience. The best time to smell a sample is when the freshly cut surface is first exposed to the air. If the aroma is not observed then, its true intensity may never be recorded. Other qualities of the product may be examined after noting the smell, since they remain fairly constant. The importance of examining the aroma of the sample immediately upon removal of such sample cannot be overemphasized. Bear in mind always that the nose is far more sensitive than the tongue :

"As little as one billionth of a milligram of an aromatic vapor is detectable by the human nose. In order to taste the same substance, the tongue requires a million times as much. the significance of this ratio is not generally appreciated by food processors."

10.2.7 Introduce sufficiently large volume of the product into the mouth for tasting

The sample should be large enough that delicate flavors may be detected, and yet sufficiently small to permit easy manipulation of the warmed sample in the mouth. Be in no hurry to expectorate the sample. It should be rendered completely liquid and warmed to body temperature before being rejected. Hold each sample approximately the same length of time in the mouth regardless of the quality of the product. The sample tasted is rarely swallowed and then only on specific occasions.

10.2.8 Fix the proper ideal quality of products in mind

This can best be done by working closely with a sample recognized as having superior quality. Learn to recognize when and in what respect a sample fails to compare favorably with the ideal. Without the attainment of this mental guide or standard, the amateur judge has no "yardstick" by which to measure the products. The earlier the ideal quality of a product is grasped the sooner will the beginner become proficient in judging and grading dairy products.

10.2.9 Observe the sequence of flavors

The sensory reactions for specific flavors remain the same. They may be depended upon to give the same sensations the next time they are brought into contact with the sense organs. Remember these sensations and correlate them as early as possible with the specific flavor. After expectorating, note how long before the taste sensation disappears.

10.2.10 Recondition the mouth occasionally

The mouth should be cleansed or reconditioned at intervals of tasting, especially after having examined a poor sample. This may be done satisfactorily by

- a). rinsing the mouth with clean warm water or warm water to which a small amount of salt has been added.
- b). rinsing the mouth with water or with one of the solutions reconditions the mouth satisfactorily after having tasted milk and ice cream.
- c). the use of salt water or fruit seems best suited for conditioning the mouth after having tasted butter and cheese.
- d). use clean warm water to aid in keeping the mouth in condition after having tested products such as buttermilk, cultures, or cultured cream.
- e). eating portions of sound firm fruit, such as an apple or a pear.

10.2.11 Practice introspection

That is, close the eyes and mind to the world about you and practice self examination so far as tasting is concerned. Look back into your own mind and make mental records of the taste and smell reactions. In other words, concentrate upon the sample being examined to the exclusion of everything else. Practice concentration during scoring of a sample until it becomes a fixed habit of judging. Relax after having finished scoring the sample. Sustained concentration is tiring. Unless accompanied by alternate period of relaxation, concentration may finally undermine the mental poise so necessary to good judging.

10.2.12 Do not be too critical

The taste and aroma of the sample requires careful observation. The questionable habit of trying to find objectionable flavors which may not be present contributes much toward the improvement of the imagination, but does little to increase one's judging ability. However, be certain that the sample has been well examined and whether defects are present. Give the sample the benefit of the doubt. In addition, keep an open mind in judging. Once the mind is made up do not change it.

10.2.13 Check your own scoring occasionally

This can best be done by comparing the flavors of two or more identically scored samples and observing whether the flavors are scored consistently. Frequently, a good check on consistency of scoring should be made by re-scoring unknown samples without knowing their identity. Re-scoring unknown samples identically with the first scoring contributes much to the establishment of confidence and mental poise in the developing amateur judge..

