American Cheese Society
Cheese and Dairy Product Lexicon
and Glossary
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THE ACS LEXICON & GLOSSARY

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Version 1 was published February 1, 2018. This document was compiled and edited by Dr. Stephanie Clark, Craig Gile, Vince Razionale, Bill Rufenacht, and Sarah Spira. Terms and definitions were modified from the Technical and Aesthetic score sheets and glossaries created by the ACS Judging & Competition Committee over the course of the history of the competition, as well as references cited in the Bibliography.
INTRODUCTION

The ACS Cheese and Dairy Product Lexicon and Glossary aims to facilitate conversations across the supply chain of cheese by creating a credible, modern resource that provides a greater understanding of the myriad ways in which cheese is discussed and described.

A “working group” of ACS staff and experts in dairy food science, cheesemaking, and cheesemongering were involved in compiling what will hereafter be referred to as the ACS Lexicon & Glossary. The objective was to codify the terminology used when talking about sensory characteristics and evaluating and selling cheese and fermented dairy products.

The ACS Lexicon & Glossary is a living document. The working group started with a focused selection of vetted technical terminology and will expand this work in the coming years to include a unique flavor and aroma wheel in addition to the terms included in the ACS Lexicon & Glossary. Terms will be added if/when they meet the following criteria:

- The taste, flavor, aroma, texture, or appearance can be expressed in scientific terms, or a consensus has been reached for the use of the term and its descriptor.
- The cause of the defect or attribute can be scientifically explained.

Assessing, grading, judging, evaluating, marketing, and socializing with cheese, and the varying contexts in which these activities happen, require different types of terminology. It is ACS’s hope that, through the development of the ACSLexicon & Glossary, cheese industry members can communicate more readily and clearly about cheese and dairy products, in order to encourage the production, sale, and consumption of increasingly high-quality artisan and specialty cheeses. It is important to note that words such as “good” or “bad” do not appear in the ACS Lexicon & Glossary, as such terms are subjective. While a cheese may receive a low score in a contest, it may sell very well in the market, because it meets consumer desires or otherwise fits a niche in the marketplace. The reverse can also occur – winning awards does not guarantee market success.

How to Use this Glossary:
Terms in the ACS Lexicon & Glossary are listed in alphabetical order for ease of use. ACS has adopted the following structure to provide additional information about the terms. Please note that the elements within this structure will be applied to the terms as they are relevant.

- **Definition**: Definition of the term.
- **Reference point**: Most frequent/common associations with the term.
- **Styles where it occurs**: Styles of cheese or dairy products where this attribute is most common.
- **Attribute/Defect**: Whether the characteristic is generally considered an attribute or a defect, and why. If a characteristic is only considered a defect, only the word Defect will appear.
- **Possible causes**: Identification of possible technical cause(s) for the defect.
- **Synonyms**: Words that can be used interchangeably with the term.
- **Related terms**: Words related to the term; these help to provide a deeper understanding of the term. Synonyms and related terms that are defined in this glossary are formatted in ALL CAPS.

Talking About the Sensory Characteristics of a Cheese or Dairy Product:
During an evaluation of a cheese or dairy product, the following areas are assessed:

- **Rind/Surface**: The exterior layer of a cheese. When a cheese is evaluated, the condition, appearance, flavor, and aroma of the rind are assessed. Evaluators and judges might comment
on the thickness/thinness, roughness/smoothness, evenness of the rind, and aroma/flavor, including how the flavor of the rind works with the flavor of the paste and the rest of the cheese.

- **Body/Paste/Interior of the cheese:** The internal character of the cheese. Some styles may not have an obvious change from surface to interior, while others can be dramatically different from surface to core. Evaluators and judges will either remove a plug (using a metal trier) or cut into the cheese, depending on the cheese format. Evaluators and judges will often break the cheese plug to observe several characteristics, then “work,” or manipulate, a smaller portion of the plug of cheese between the thumb and two forefingers to partially evaluate the product prior to tasting.

Sensory characteristics evaluated in cheese and dairy products are grouped into the following categories:

- Body/Texture
- Flavor/Aroma
- Appearance/Color/Rind Development

In the ACS Lexicon & Glossary, the following definitions are used when talking about the sensory characteristics of a cheese or dairy product:

- **Attribute:** A characteristic of the product’s sensory profile, determined by organoleptic evaluation. An attribute is typically considered a positive term, or an asset, depending on context and intensity.
- **Defect:** A characteristic that detracts from the product’s sensory profile. A characteristic that is an attribute in one product may be a defect in another, if it does not belong in that cheese’s sensory profile at all (e.g., rancidity in colby cheese). Additionally, a characteristic that is typically considered an attribute can be a defect if it:
  - does not belong in that cheese’s sensory profile at that age (e.g., sulfur in mild cheddar);
  - is lower than expected in that cheese’s sensory profile (e.g., low salt in feta); or
  - is excessive in that cheese’s sensory profile (e.g., extreme tyrosine crystals in cheddar).

**Baseline Definitions:**

Basic Tastes: BITTER, SALTY, SOUR (ACID), SWEET, UMAMI

Basic tastes are experienced on the tongue and palate and, in and of themselves, do not produce aromatic compounds. When assessing and evaluating basic tastes, one observes and identifies how they are experienced, in the context of a given dairy product. The impression can take on either positive or negative connotations, depending on the context and style of cheese. Differences in perception (e.g., variances in sensitivity for bitter and heat perception) and preference (e.g., variances in preferences for sweetness and astringency) play a role in overall acceptability of a product. Even where in the mouth or how a characteristic is perceived may vary greatly. The ACS Lexicon & Glossary aims to use language that has been generally applicable across decades of describing and judging dairy products. The language will continue to evolve, and this document will be modified accordingly.

**The ACS Judging & Competition:**

Standards of identity exist for a number of dairy products and ingredients. The United States Standards of Identity can be accessed online through the FDA Code of Federal Regulations ([Cheeses](https://www.gpo.gov/fdsys/search?q=Cheeses), [Milk and Cream Products](https://www.gpo.gov/fdsys/search?q=Milk%20and%20Cream%20Products)). The American Cheese Society’s definitions of cheeses can be found on the ACS website, along with information about the ways in which cheeses and dairy products can be categorized. Cheesemakers submit cheese to the ACS Judging & Competition based on the categories defined by the ACS Judging & Competition Committee. The terms, or characteristics, that are listed on ACS Judging & Competition score sheets reflect attributes that are typical or characteristic of that particular category. Definitions for those terms appear in this ACS Lexicon & Glossary.
A product’s score sheet in the ACS Judging & Competition is meant to communicate the culmination of each judge’s overall experience with the product. Boxes are checked to indicate the presence or absence of attributes in a product, and judge comments are included on score sheets. In the case of technical judges, the score is based upon half- to full-point deductions from “ideal” for the given style. In the case of aesthetic judges, full points are added for quality traits and characteristics that make the product unique.

When evaluating products entered into the ACS Judging & Competition, Aesthetic and Technical judges likely use one of the following scales when considering each characteristic:

- None; much too little; a little too little; just about right; a little too much; much too much; excessive
- Very low; average; very high
- None; slight; definite; pronounced

These words, however, do not explicitly appear on the ACS score sheets, nor do they appear in this glossary. The ACS Lexicon & Glossary includes the preferred terminology and offers suggestions regarding how to measure and communicate the experiential variables: presence, absence, intensity, and experience of the characteristics herein defined.

**Origin of Flavor in Cheese**
What animals eat and variability in ingredients, temperature, and humidity play a role in dairy product quality. The way one experiences flavor in cheese is related to the development of volatile and non-volatile compounds. Lipolysis, glycolysis, and proteolysis are the main chemical processes that cause the components of cheese to break down into peptides, esters, acids, ketones, fatty acids, etc. This biochemical cascade is different for every style of cheese, but it is what comprises the unique sensory characteristics of the cheese being evaluated. For more information on the chemistry of cheese, and how it relates to flavor, see the [Cheese Science Toolkit](#).

**Origin of Cheese Defects:**
Defects in cheese and other dairy products can result from many variables that relate to the loss of control (temperature, pH, humidity, bacteria, etc.) between the field and processing plant, within the processing facility, along the distribution chain, at the retail store/restaurant, and with the consumer. Excess lipolytic activity, late gas blowing, microbial contamination, and other chemical reactions lead to appearance, taste, flavor, aroma, body, and texture defects. The aim of the ACS Lexicon & Glossary is not to give exhaustive explanations, but rather to provide context with generally understood possible causes for the defects identified and described. Readers are encouraged to review the books and articles listed in the bibliography to gain a deeper understanding of dairy chemistry and microbiology, which drive many quality characteristics of dairy foods. Links to the books and articles can be found in the [ACS Library](#).

**Sales, Marketing, and Monger Talk: Adjectives and Synonyms**
Technical terms often do not have the same poetic, romantic, descriptive, and associative weight as some of the synonyms commonly used in the marketing and promotion of cheese and dairy products. Without passing judgment on the use of those terms, ACS recognizes that sometimes industry members all need to speak the same language in order to continue to work with producers to develop, market, and sell great cheese. The language of description, of selling cheese, is an equally important tool to communicate with consumers, in order to expand the audience for artisan and specialty cheese and dairy products. The ACS Lexicon & Glossary will hopefully help to connect the dots through all points of the supply chain and elevate the cheese experience for all involved.
THE ACS LEXICON & GLOSSARY

ACETALDEHYDE
Definition: “Green apple” flavor
Reference Point: Plain yogurt, Granny Smith apple, Apple flavored Jolly Rancher®
Styles where it occurs: Yogurt
Attribute/Defect: Although some acetaldehyde is expected in yogurt, none (flat) would be atypical, and a high level (out of balance) would be considered a defect.
Possible causes: If the starter culture, *L. bulgaricus* (stimulated at higher incubation temperatures (112°F, 44.4°C)), dominated the fermentation, acetaldehyde could become excessive. Using too much green apple flavoring could lead to the defect.
Synonym: Green apple
Related terms: ATYPICAL, Harsh, SHARP

ACID
Definition: A basic taste associated with lactic acid production. Cheeses are evaluated and assessed based on the intensity of the experience of this taste.
Reference Point: Lemon/lime, citric acid
Styles where it occurs: Possible in all fermented dairy products.
Attribute/Defect: Some level of acid is expected in most fermented dairy foods, but it can be considered a defect in certain contexts (e.g., if too low in yogurt; if too high in mild Cheddar).
Possible causes: Use of high acid milk, too much lactic acid production by cultures, high moisture. In fresh unripened cheeses, acid that is too high indicates possible temperature abuse – fermented too high or too long. Improper use of salt or temperature control can also cause improper acid levels in dairy products.
Synonym: SOUR
Related terms: ATYPICAL, Bright, CHEESY, Citrus, LACTIC, SHARP, Tangy, Tart

AFTERTASTE see FINISH

AMMONIA/AMMONIATED
Definition: Aroma associated with cat urine, often associated with soft-ripened cheeses that have been aged too long.
Reference Point: Cat litter box, diluted household ammonia
Styles where it occurs: Brie, Camembert, etc.
Attribute/Defect: While some consumers like a hint of ammonia in soft-ripened cheeses, excessive ammonia is almost always considered a defect.
Possible causes: Breakdown of protein and production of ammonia with extensive proteolysis and extended storage.
Synonym: Catty
Related terms: Over Ripe, RIPE
ANIMAL
Definition: Distinct aroma and/or flavor associated with cow, goat, sheep.
Styles where it occurs: Possible in all fermented dairy products.
Attribute/Defect: In many cases, it is important to be able to recognize that a cheese was made with milk from a given species. However, when the aroma and/or flavor is extreme, it can become objectionable.
Possible causes: Over-agitation of milk (lipolysis), unsanitary conditions
Synonyms: Cowy, Goaty, Sheepy
Related terms: BARNY, UNCLEAN

APPEARANCE
Definition: An attribute that encompasses the variety of terms used to describe the visual appearance of cheese body and rind development characteristics. It is one of the main families of attributes that is evaluated when a cheese is assessed, and is often accompanied by a qualifying adjective. If the cheese is wrapped with a cloth or other wrapper, a variety of descriptions may be used by judges for describing the wrapping of cheese (e.g., wrinkled, torn, dirty, too long or short at one end, loose from cheese).
Reference point: Color of the paste, the condition of the rind, and cloth covering, if present. Appearance can be described in a positive or negative manner.

AROMA
Definition: Aroma is the overall impact of a cheese or dairy products’ odor. It is one of the main families that is evaluated during an assessment. The term is usually qualified by a modifying adjective.
Attribute/Defect: Aroma can be either a positive attribute or a defect, and these factors are determined by the style of cheese being evaluated and the intensity of the aromas.
Related terms: FLAVOR, MOUTHFEEL, VOLATILES

ASTRINGENT
Definition: Mouthfeel trait caused by the contraction of mucus membranes in response to taste and/or flavor experience. It is described by a puckering, or a rough, sandpapery feel on the oral mucosa.
Attribute/Defect: Tolerance for astringency is very personal, however if astringency is out of balance in a product, it will be considered a defect.
Reference Point: Tannic foods (red wine, tea), unripe bananas
Synonym: Mouth-drying

ATYPICAL
Definition: Certain characteristics are expected in products, especially those with a defined standard of identity. When a product does not meet expectations, the term atypical may appear in a judge’s comments.
Styles where it occurs: Possible in all fermented dairy products.
Attribute/Defect: Atypical may be used to describe appearance/color, aroma, flavor, and/or body/texture of a product. Sometimes something atypical can set a product aesthetically apart, making atypical an asset.
Possible causes: Improper make conditions, aging conditions, and/or ingredient selection.
Related terms: ACETALDEHYDE, ACID (High or Low), COLOR, FLAT, FOREIGN, Lacks FLAVOR, SALT, UNDERSET, Unnatural
BALANCED
Definition: The term is commonly used by judges to indicate that the product meets expectations for levels of attributes expected, with nothing in excess.
Attribute/Defect: Balanced is a desired attribute in all dairy products.
Synonym: UNIFORM
Related terms: EYES, Delicate, Mellow, Smooth, Even

BARNY
Definition: A flavor trait characteristic of the milking barn, stable, or animal yard.
Reference Point: Fecal aroma or aftertaste. Some evaluators are able to pinpoint flavors to specific animal types – Cowy, Goaty, Sheepy
Styles where it occurs: Cheddar, blue cheese, goat cheeses, and sheep cheeses
Attribute/Defect: This can be considered a defect depending on what is expected of a particular style.
Possible causes: Unclean milk, undesirable microbial growth. In goat milk cheese, “goaty” is associated with volatilized short-chain free fatty acids (butyric, caproic, caprylic and capric acids).
Synonyms: Barnyard, Cowshed, Fecal
Related terms: ANIMAL, Cowy, Funky, UNCLEAN

BITTER
Definition: Basic taste sensation; often experienced at the back of the tongue; for many people it is slower to perceive and longer-lasting than other taste sensations.
Reference Point: Caffeine, quinine, radicchio
Styles where it occurs: Possible in all dairy products
Attribute/Defect: Bitterness perception is highly variable in humans. Some bitterness may be acceptable in certain cheeses when it is in balance (e.g. aged Cheddar). Bitterness is considered a defect in all fresh dairy products.
Possible causes: Extended storage of milk, microbial contamination, high level of psychrotrophic microorganisms, overly active starter cultures, low salt levels, excessive rennet, excessive moisture, poor milk quality, excess acidity, excessive use of certain sanitizers, poor quality ingredients.
Related terms: ASTRINGENT, RANCID, UNCLEAN

BLIND
Definition: Absence of eyes in a cheese expected to have eyes. It may be either the entire cheese or large areas lacking eyes.
Reference Point:
Styles where it occurs: Swiss styles, Alpine styles
Defect: Eyes are expected in specific products, so when they are absent, blind will be indicated on the score sheet.
Possible causes: Lack of propionic acid fermentation, cheese too acidic, cheese body too firm
Related terms: CLOSED, EYES, UNDERSET
BLEACHED/BLEACHING
Definition: A defect found in flavored yogurt, visualized by streaking of white yogurt throughout the colored yogurt body.
Reference point:

Styles where it occurs: Yogurt
Defect: Streaking color is unappealing to consumers.
Possible cause: Decolorization may result from localized oxidation/reduction reactions in yogurt.
Related terms: COLOR, COLOR LEACHING, FADED, Streaking

BLOWN
Definition: The integrity of the cheese is destroyed by excessive gas production. Blown cheese often exhibits large void areas and collapsed structure.
Reference point:

Styles where it occurs: Swiss styles, possible in other hard cheeses as well.
Defect: Blown cheeses are typically unsalable except as a low-value ingredient for pasteurized process cheese.
Possible causes: Uncontrolled gas formation, high moisture, soft cheese body, late-blowing by Clostridia species
Related terms: CABBAGE, COLLAPSED, GASSY, OVERSET, Lopsided

BROTHY
Definition: Savory taste (umami) and flavor associated with proteins and/or the aromatics and flavor of broth.
Reference point: Boiled meats and broths, mushroom stock
Synonyms: Savory, MEATY, UMAMI
Related term: WHEY

BUTTERY
Definition: Sweet cream and fresh lactic flavors and aromas that are typically associated with butter. Can also refer to texture and mouthfeel of a cheese. The term is associated with the chemical diacetyl, produced by some species of lactic acid bacteria.
Reference point: Butter – both unsalted and salted; butter-flavored popcorn
Synonym: Diacetyl
Related terms: CREAMY, LACTIC
CABBAGE
Definition: Eyes are so numerous within the major part of the cheese that they crowd each other, leaving only a paper-thin layer of cheese between the eyes, causing the cheese to have a cabbage appearance and irregular eyes.
Reference point: The left image presented shows a slight extent of cabbage defect, the right image shows a more pronounced example.

Styles where it occurs: Swiss styles
Defect: When Swiss-type cheeses lack the attractive eye appearance that is expected, they may be downgraded.
Possible causes: Late gas blowing because of Clostridia contamination; poor pressing of curds, which allows for the formation of large weak areas.
Related terms: BLOWN, COLLAPSED, EYES, OVERSET, STREUBLE

CALCIUM LACTATE
Definition: Calcium lactate crystals (CLC) can appear as pinpoints or as a diffuse white haze on Cheddar-type cheeses. They can also be found on the interior in some cases (less common). Calcium lactate crystals are often confused with TYROSINE crystals. Tyrosine crystals are not the same thing and will not be found in young cheese.
Reference Point:

Styles where it occurs: Cheddars and Cheddar-types
Defect: Consumers sometimes mistake calcium lactate crystals for mold, which results in lost sales.
Possible causes: Calcium level is beyond saturation point, and precipitates out due to rapid, or excess acid production, free whey in package, or elevated storage temps. CLC may be found on young cheeses that have loose packaging and/or have undergone temperature fluctuations.
Related term: CRYSTALS

Caramel
Definition: An aroma that is reminiscent of cooked sugar and milk.
Reference point: cooked sugar, brown sugar, toasted butter flavor.
Styles where it occurs: Goudas, Cheddars, Alpine, aged Parmesan styles
Related terms: COOKED, HEATED, SCORCHED, SWEET

CHECKS/CHECKED  See CRACKED, SLITS
CHEESY
Definition: In butter, the term cheesy is considered a defect because butter should taste like butter, not cheese.
Reference Point: Blend softened butter with any shredded or ground cheese to mimic the cheesy defect.
Styles where it occurs: Butters
Attribute/Defect: Interesting cheesy flavors in butter may not be considered objectionable in cultured cream butter, but are a defect in sweet cream butter.
Possible causes: Contamination with lactic acid bacteria; fermentation of whey not removed during working.
Related terms: ACID, OLD CREAM/OLD MILK, SOUR, UNCLEAN

CHEMICAL See MEDICINAL

CLOSED
Definition: Closed, as opposed to BLIND, is the term used to describe the ideal body of cheeses that are expected to have no gas formation or openings. Cheese is well knit, with no mechanical or gas openings.
Styles where it occurs: Typically used in evaluating hard cheeses.
Related terms: BLIND, EYES, OPEN

COARSE
Definition: This term is used to describe the experience of flavor in butter. Sweet cream butter is expected to be delicate. Coarse means that the flavor is somewhat harsh or out of balance, but generally high quality.
Styles where it occurs: The term is most commonly used for high quality butter that is not perfect.
Attribute/Defect: Coarse is not a serious defect in butter.
Possible causes: Starting cream had flavor compounds from animal feed; slightly high salt in final product.
Related terms: FLAT, High Salt

COLLAPSED
Definition: This term is used in relation to the appearance of a cheese. It refers to 1) Cheese structure appears to have collapsed or flattened, or 2) Eyes have not formed properly and do not appear round or slightly oval, but rather flattened.
Reference point:

Styles where this occurs: 1) Possible in all cheeses, 2) Swiss styles.
Defect: When Swiss-type cheeses lack the attractive eye appearance that is expected, they may be downgraded.
Possible causes: Abnormal moisture/pH, presence of Clostridia bacteria, spontaneous fermentation, uneven moisture
Related terms: BLOWN, CABBAGE, EYES, FROG MOUTH
COLOR
Definition: Color is used by judges to describe a visual aspect of a cheese’s exterior/rind and interior appearance. It is desirable to have a cheese that exhibits bright, clear coloration that is uniform, and not mottled, seamy, or uneven.
Styles where it occurs: All fermented dairy products
Attribute/Defect: Many products are judged by their color, and color expectations are associated with specific products. Defective colors can result from spoilage bacteria, exposure of the annatto to oxygen, and/or exposure of the cheese to oxygen and/or light.
Possible causes: Color in cheese comes from the type of dairy animal, their diet, or added ingredients like the colorant annatto.
Related terms: ATYPICAL, BLEACHED, Bright, DULL, FADED, PINKING, MOTTLED, OXIDIZED, SEAMY

COLOR LEACHING
Definition: Pigment trails or leaching of color from fruit into yogurt, herbs or peppers into cheese, etc.
Reference Point:

Styles where it occurs: Flavored dairy products
Defect: Color leaching is relatively common, particularly in light yogurts. It is not as objectionable to consumers as some other defects.
Possible cause: Low pH; poor stabilization or incomplete blending of yogurt base with fruit material.
Related terms: BLEACHED, MOTTLED

COOKED
Definition: A somewhat nutty, custard-like aroma and sweet taste may be notable; Sulfide compounds may arise with excessive heating.
Reference Point: Ultrapasteurized milk; Ultra-high temperature processing (UHT) milk
Styles where it occurs: Cottage cheese
Attribute/Defect: Considered an attribute in some applications and to some cultures; considered a defect if extreme.
Possible cause: Overheating of dressing during pasteurization
Synonym: HEATED
Related terms: CARAMEL, NUTTY, SCORCHED, SULFIDE, SWEET

CORKY
Definition: The description of a hard, tough, and overly rubbery cheese texture/body characterized by failure of the cheese to break down when worked between the thumb and fingers. Corky is a more extreme, drier characteristic than curdy.
Reference Point: Wine cork, rubber stopper
Styles where it occurs: Cheddars and other aged cheeses
Defect: If the body is very tough and dry, corky can be quite objectionable.
Possible cause: Dehydration, lack of acid development, salt too high, too much CaCl₂, not enough coagulant, overcooking
Synonyms: Tough, Woody
Related terms: CURDY, Dry, GRAINY, Hard, MEALY, TEXTURE

CRACKED/CACKS
Definition: This term is used when evaluating the appearance of a cheese. It refers to openings in the exterior wax, or rind and/or interior cheese structure. The terms CHECKED, CHECKS, or picks might be used to indicate smaller-sized cracks. The term splits refers to severe cases, when portions of cheese appear to split apart from the piece.
Reference Point: Externally (left) and internally (right) cracked cheese.

Styles where it occurs: All fermented dairy products
Defect: The appearance of the cheese and internal integrity is compromised to varying degrees, progressing from picks, to checks to cracks to splits.
Possible causes: Poor workmanship, affinage issues, cheese too dry, gas production
Related terms: CHECKED, CHECKS, Disturbed, Open rind, Picks, SLITS, Splits

CREAMY See BUTTERY, LACTIC, TEXTURE, WEAK

CROOKED See UNEVEN

CRUMBLY
Definition: Describes the texture of a cheese body that breaks during plugging and/or falls apart upon working between thumb and fingers.
Reference point: Queso fresco or feta cheese
The image below exhibits crumbly body that is not expected in an aged cheese.

Styles where it occurs: Many styles of cheese, potentially butter
Attribute/Defect: Considered an attribute in some applications and to some cultures (Queso fresco, feta); considered a defect if extreme and in most cheese applications.
Possible Cause: Body of cheese is not knit together well because of low moisture, excessive salt, low or high acid production, low proteolysis.
Synonym: Friable
Related terms: GRAINY, MEALY, SHORT, TEXTURE
CRYSRTALS See CALCIUM LACTATE, TYROSINE CRYSTALS

CURDY
Definition: Describes the texture/body of a cheese that is firm and slightly resistant to compression if worked between the fingers. It is rubbery, not waxy, and is somewhat resistant to working into a smooth ball. Small curd particles are evident in worked ball.
Reference point: Very young Cheddar or Monterey Jack
Styles where it occurs: Cheddars, Jacks
Attribute/Defect: While expected to some extent in young Cheddar, it is considered a defect if extreme
Possible causes: Either the cheese is very young, or there have been issues in aging/ripening (lack of proteolysis).
Related terms: CORKY, MEALY, TEXTURE

DULL
Definition: 1) Interior of eyes lack shiny quality, and are dull, not glossy. 2) The color of a cheese is not vibrant.
Styles where it occurs: 1) Swiss 2) All dairy products.
Defect: Dull makes the cheese look lifeless, limiting its aesthetic appeal.
Possible causes: 1) Too much fat in milk and curd, poor whey drainage; 2) issues with pH, low milk quality.
Related terms: COLOR, EYES, FADED, Pale

EARTHY
Definition: A flavor or aroma reminiscent of moist soil or slight mustiness.
Reference point: Potting soil, mushrooms, potatoes
Styles where it occurs: All fermented dairy products
Attribute/Defect: Defect in many styles but can be a positive attribute in cave-aged/mold-ripened styles.
Possible cause: Flavors or aromas could also come from affinage environment and techniques.
Related terms: FEED, MOLDY, MUSHROOM

ELASTICITY
Definition: Elasticity is a term used to describe the friability of a cheese’s texture. This is measured by the way the cheese reacts under pressure. During an evaluation, the manner in which a cheese bends and breaks is assessed, and the texture is described and given descriptive language that places it on the spectrum from short, dry and crumbly, to supple and elastic in texture (desirable) or even weak/pasty (to the other extreme).
Styles where it occurs: Hard cheeses
Attribute/Defect: It is expected that Swiss styles, Alpine styles, Cheddars, and hard cheeses have some level of elasticity.
Synonyms: Flexible, Supple
Related terms: PASTY, SHORT, TEXTURE, WEAK
EYES
Definition: Round open areas, of varying size, within the paste of a cheese, related to gas formation. This is different from OPEN, which refers to mechanical openings in a cheese. Swiss cheese has a well-defined lexicon, with many descriptions of the various types of eyes that present as attributes of the style or as defects.
Reference Point: Almost everyone is familiar with the iconic image of Swiss cheese, with perfectly round, regularly spaced eyes ranging from ⅛ to ¾ inch in size. In reality, there is much variability, as shown in the image below.

Irregularity of eye shape and size, along with some collapsed eyes, are exhibited in the image below.

Large eyes are shown in the image below, along with some collapsed, irregular, and misshapen eyes and slits.

Styles where it occurs: Swiss styles, hard Alpine styles, other hard cheeses
Attribute/Defect: Depending on the style of cheese, eyes can be considered a defect. In cheeses where eyes are expected, the size, shape, and concentration are evaluated based on what is typical of the style. The ideal Swiss eye size is ¼ inch (0.6 cm) to ½ inch (1.27 cm) in diameter. Large is used to refer to cheeses where most eyes are more than 13/16 (2 cm) but less than 1 inch (2.5 cm) in diameter. Small is used when a majority of the eyes are less than 3/8-inch (1 cm) but more than 1/8 (0.38 cm) inch in diameter.
Possible causes: Ideal eye formation results from carbon dioxide gas production in cheese. In Swiss style cheeses, eye formation is a desirable result of CO₂ production that comes from the fermentation of propionic acid. Eyes can also be formed by spoilage bacteria. These eyes tend to be misshapen, and the cheeses tend to have unclean or atypical flavor profiles.
Related terms: BALANCED, BLIND, CABBAGE, CLOSED, COLLAPSED, DULL, FROG MOUTH, GASSY, IRREGULAR EYES, NESTY, ONE SIDED, OVERSET, STREUBLE, SWEET HOLES, UNDERSET, UNIFORM
FADED
Definition: Describes the color of the surface or interior of a cheese that has a bleached appearance or lacks a vibrant quality and luster.
Reference point:

Styles where it occurs: All fermented dairy products
Defect: Fading makes the cheese look lifeless, limiting its aesthetic appeal, particularly when next to cheeses of the same type that look normal.
Possible causes: Excess fat in milk or curd, exposure to light or oxygen.
Related terms: BLEACHED, COLOR, DULL, PINKING, OXIDIZED

FEED
Definition: Presence of one or more feed flavors carried through the milk into the aromatics of the finished product. In extreme cases, garlic and/or onion flavors may be noted.
Reference point: Hay, dried grass, silage, spent grains, alfalfa, green grass, parsley, green pepper
Styles where it occurs: All fermented dairy products
Attribute/Defect: It can be desirable or undesirable depending on the intensity and style of dairy product.
Possible causes: Results from feeding a particularly pungent feed or silage, or not withdrawing the feed within a suitable time frame prior to milking.
Related terms: Alfalfa, EARTHY, Garlic, Grassy, Green, Onion

FERMENTED
Definition: An aroma and flavor that is reminiscent of vinegar (acetic acid), fermented whey, or fermented fruit.
Reference Point: Acetic acid, pineapple juice with vinegar, wines
Styles where it occurs: Cheddar styles, other fermented dairy products
Attribute/Defect: Generally considered a defect in Cheddar styles, though some might find a fermented flavor interesting.
Possible causes: Low milk quality, non-starter lactic acid bacteria, excess moisture (free whey)
Related terms: FRUITY, GASSY, SOUR, WHEY/WHEY TAINT, YEASTY

FINISH
Definition: Flavor that remains after chewing and swallowing cheese samples. In judging, it is typically used in conjunction with a description of the intensity/length of the aftertaste and may be associated with adjectives like “short” or “long.”
Styles where it occurs: All fermented dairy products
Related terms: Aftertaste, FLAVOR
FIRM/TOO FIRM
Definition: *In cottage cheese:* Effort is needed to compress and break down the cottage cheese curds when pressed to the roof of the mouth; curds may resist compression (rubbery) or shatter. *In yogurt:* It takes effort to penetrate the yogurt with the spoon, and the product gives a pudding or custard-like sensation in the mouth.
Reference Point: Greek yogurt or flan (in comparison to standard yogurt).
Styles where it occurs: Cottage cheese, Yogurt
Attribute/Defect: Some level of firmness is expected in hard cheeses. *In cottage cheese:* curds should yield smoothly when pressed to the roof of the mouth. *In yogurt:* Although Greek yogurt is expected to be more firm than standard yogurt, if such body is experienced in a standard yogurt, it is considered a defect.
Possible cause: Cottage cheese: Overcooked, dehydrated; Yogurt: Overstabilized
Synonym: Rubbery (in cottage cheese)
Related terms: GRAINY, LUMPY, MEALY, OVERSTABILIZED, TEXTURE, Tough, Woody

FLAT/LACKS FLAVOR
Definition: Dairy products that contain no undesirable flavor, but very little, if any, characteristic flavor are typically described as FLAT.
Reference Point: Unsalted butter, mild Cheddar cheese
Styles where it occurs: All fermented dairy products
Defect: Although not a serious defect, a dairy product faulted as flat does not meet expectations.
Possible causes: Low salt, early stages of ripening, improper culture selection
Related terms: ATYPICAL, COURSE

FLAVOR:
Definition: Flavor is experienced as a combination of the basic tastes (sweet, sour (acid), salty, bitter, umami), volatile aromatics, mouthfeel, and aftertastes. Flavor can come from the natural cheesemaking and aging process as well as added flavorings like non-milk ingredients such as herbs, spices, condiments, rubs, or washes and wash solutions. The experience of flavor can be measured by intensity and qualified with adjectives such as low or atypical.
Styles where it occurs: All fermented dairy products
Attribute/Defect: This can be a defect depending on what is expected for that style and age. Flavor defects are often described with the following terms: Low, high, lacking (flat), or atypical (not associated with that style)
Possible causes: Flavor comes from the milk, cultures, production, and ripening (lipolysis, proteolysis as gateways to volatile aromas).
Related terms: AROMA, ATYPICAL, Excess, FINISH, Unbalanced, VOLATILES

FOREIGN
Definition: The term foreign may refer to a flavor that is not expected in a dairy product, or foreign matter (an unexpected ingredient or object).
Reference Point: Hair, insect, herbs, metal fragment, etc.
Styles where it occurs: All fermented dairy products
Attribute/Defect: Foreign flavors may not always be considered objectionable, if interesting. However, foreign matter is considered an adulterant (undeclared ingredients), so it is always a defect.
Possible causes: Foreign flavors can result from non-starter bacteria. Foreign matter results from contamination and lack of quality control.
Related terms: ATYPICAL, Chemical, MEDICINAL, METALLIC
FREE CREAM
Definition: The cream dressing does not cling to curds of cottage cheese when spooned onto a plate. It pulls away and separates from the curd.
Reference Point:

Styles where it occurs: Cottage cheese
Defect: Free cream is typically not noticeable immediately, so it is often overlooked by consumers. Technical judges will consider the product improperly stabilized and will consider it a defect.
Possible causes: Improper use of stabilizers or lack of stabilization
Related term: FREE WHEY

FREE MOISTURE/FREE WHEY
Definition: In yogurt: Whey release from yogurt curd. The defect is visualized when a container of yogurt is first opened. Whey may appear as a layer above the surface of the yogurt body. In cottage cheese: Clear/yellow whey pulls from curds of cottage cheese when spooned onto a plate. In cheese: Beads of moisture on the surface of cheese or released from the body when the cheese is tempered and/or cut. Free moisture within the eyes of a cheese can be accompanied by flavor defects, such as whey taint or unclean.
Reference point:

Styles where it occurs: Yogurt, aged cheese varieties
Attribute/Defect: Free whey or moisture is typically considered objectionable because it detracts from the appearance and texture of a product. However, in the case of yogurt it is not always objectionable, unless, which is often the case, it is associated with shrunken.
Possible causes: In yogurt: low milk solids, excess acid development, agitation during incubation, insufficient milk pasteurization temperature or holding time, poor product formulation, inadequate stabilizer(s), temperature fluctuations. In cheese: Curds are not washed adequately prior to creaming; pH continues to drop after creaming. In cheese: Can be a sign of temperature abuse or improper aging.
Synonym: Syneresis
Related terms: FREE CREAM, SHRUNKEN, Weeping, Weepy
FROG MOUTH
**Definition:** There are two definitions for Frog Mouth. 1) When interior of a wheel of cheese is split and looks like a frog's open mouth, 2) When the eyes have developed into lenticular or spindle-shaped openings in cheese.

**Reference point:**

**Styles where it occurs:** 1) Whole wheels of cheese like Gouda or Jack. 2) Interior of Swiss

**Defect:** Frog mouth is almost always considered a defect; when Swiss-type cheeses lack the attractive eye appearance that is expected, they may be downgraded.

**Possible causes:** Poorly developed/weak rind, mishandling of cheese, improper cooling, or cheese becomes too cold

**Related terms:** COLLAPSED, EYES, IRREGULAR EYES, OPEN

FRUITY
**Definition:** Flavor or volatile aroma reminiscent of fruit.

**Reference points:** Fresh apples, grapes, pears, pineapple, and other tropical fruits.

**Styles where it occurs:** Cheddar, Swiss, aged Italian styles, goudas, Alpine styles

**Attribute/Defect:** Certain cheeses have a sweet fruit-like flavor that generally grows more intense with age. While some consider it undesirable, others consider it an interesting complexity in aged cheeses.

**Possible causes:** Certain starters and non-starter bacteria, enzymatic activity, microbial activity. Low acid, high moisture, low salt, poor milk quality.

**Related terms:** FERMENTED, Green, VOLATILES, WHEY/WHEY TAINT, YEASTY

GASSY
**Definition:** Cheese contains gas holes of various sizes, which may be scattered or unevenly distributed throughout the cheese. Gas may appear as round holes or slits, depending on the source of gas, and/or body of the cheese. The term gassy is typically used when eyes are not expected, so it is considered a defect. OPEN is often confused for gassy, but their causes differ.

**Reference point:**

**Styles where it occurs:** May be a defect in any semi-solid or solid dairy product.

**Defect:** Gassy is considered a defect in any dairy product where it is not expected.

**Possible causes:** Indicative of uncontrolled gas formation, poor sanitation, late gas blowing. Can result from numerous species of gas-producing bacteria and yeast.

**Synonym:** OVERSET, Pin holes, SLITS, SWEET HOLES

**Related terms:** BLOWN, Bloated, EYES, FERMENTED, Huffed, YEASTY
GRAINY See MEALY

GREASY
Definition: This term is used in the evaluation of texture or body of butter or cheese. *In butter:* This is extreme smoothness and immediate melting and a slippery, oil-like texture and mouthfeel. *In cheese:* This is evident from an oily sheen to the appearance on the surface of the cheese, as well as a having a slick, fatty, and coating mouthfeel. Cheeses with this defect are often also seamy.
Reference Point: Indicated by free butterfat between particles of curd.
Styles where it occurs: Butters, Cheddars, Swiss styles
Defect: Greasy is almost always considered a defect.
Possible cause: Curd not fused properly. In butter, this indicates that the granules were over-worked, and is more prevalent in butter produced during the summer.
Related terms: SEAMY

HEAT
Definition: Term may be used to describe a burning sensation in the back of the throat
Reference point: Hot peppers, horseradish or wasabi, capsaicin
Styles where it occurs: Blues, Cheddars, Swiss styles
Synonyms: Burn, Itchy, Prickly, Spicy, Tingly

HEATED
Definition: Cheese may have a flavor and volatile aromatics reminiscent of pasteurized process cheese.
Reference point: Melted plastic, old milk, heated whey, pasteurized process cheese
Styles where it occurs: Cheddar, cheese spreads, pasteurized process cheese
Possible cause(s): Processing temperatures exceeded those of standard pasteurization
Synonyms: COOKED
Related terms: CARAMEL, SCORCHED, VOLATILES

IMMATURE MOLD
Definition: Terminology used to describe underdeveloped mold on the surface or within a cheese.
Reference Point:

Styles where it occurs: Surface-ripened and mold-ripened cheeses
Defect: Immature mold is typically considered a defect.
Possible cause(s): Improper relative humidity or insufficient time
Related terms: Unripe
IRREGULAR EYES
Irregular is used when eyes have not formed properly and do not appear round or slightly oval, and the eyes are not accurately described by other terms.

Reference Point:

Styles where it occurs: Swiss-style cheeses
Attribute/Defect: Although a variety of eye sizes is not objectionable, misshapen eyes will typically be considered a defect in Swiss-style cheeses.
Possible cause: Lack of control in fermentation; body of cheese and numerous nucleation sites allows many small eyes to form, without fusing
Related terms: EYES, FROG MOUTH, Misshapen eyes, NESTY, SWEET HOLES

ITCHY
Definition: A mouthfeel and sensation of itchiness and tingling that occurs during or after consuming certain styles of cheese. This phenomenon is not well understood.
Styles where it occurs: Aged raw milk cheeses, cheeses with high levels of Lipase
Defect: Itchiness resulting from the consumption of food is unsettling for consumers, and, therefore, an undesirable characteristic.
Possible cause: Lipolysis (formation of free fatty acids), possible histamine reaction
Related terms: Burn, Prickly, HEAT

LACTIC
Definition: A family of aromatics that include milk, cultured cream, and buttermilk. Products exhibit bright, clean aromas and flavor associated with fresh milk.
Reference point: Fresh, uncultured milk, heavy cream, δ-Dodecalactone
Styles where it occurs: All fermented dairy products, especially fresh cheese
Related terms: ACID, Buttermilk, BUTTERY, CREAMY, Milk Fat, Milky, SOUR

LIPASE See RANCID

LUMPY
Definition: Yogurt does not appear smooth, even after blending with a spoon.
Reference Point:
Styles where it occurs: Yogurt
Attribute/Defect: Lumpy is not always objectionable, unless very firm (gel-like).
Possible cause: Overstabilization, high pasteurization temperature
Synonyms: MATTED, TOO FIRM
Related terms: Gel-like TEXTURE

MALTY
Definition: Presence of a distinctive flavor suggestive of malt; derived from a germinating cereal grain in water, typically barley, and then cutting the process short by drying the grain with hot air.
Reference point: Malted milk shakes, or the flavor of milk left in the bowl after eating Grape-Nuts® or Cheerios®.
Styles where it occurs: Cottage cheese, other hard cheeses
Defect: Because bacterial contamination is the cause, malty is considered a defect.
Possible cause: Volatile aromatics produced by spoilage microorganisms (specifically Lactococcus lactis ssp. maltigenes); poor sanitation; thermal abuse
Related terms: SWEET

MATTED
Definition: Curds appear to be clumped or stuck together.
Reference Point:

Styles where it occurs: Cottage cheese
Defect: Matted is almost always considered a defect.
Possible cause: Fast acid production, improper stirring of curd at any point in the make procedure
Synonyms: Clumped, LUMPY

MEALY
Definition: A textural defect whereby the texture/body of a cheese is crumbly and granular and does not mold well between fingers. In cottage cheese or yogurt, the product lacks smoothness and uniformity and may feel sandy on the roof of the mouth. The term is used when cottage cheese does not clean up after chewing and catches in teeth. On a continuum, mealy would be the largest grains, followed by grainy, followed by sandy.
Reference point: Cornmeal or a cheese like juustoleipä or queso fresco, after crumbling
Styles where it occurs: Cheddar, Alpine styles, Hard/Firm Cheeses
Attribute/Defect: Mealy is somewhat expected in queso fresco. However, it is almost always considered a defect in other cheeses, depending upon degree.
Possible cause(s): Cheese: Lack of proper curd knitting and improper acid development or proteolysis. Yogurt and cottage cheese: Undissolved solids, resulting from 1) unstable casein, 2) too-high homogenization temperature, 3) too-rapid acid development, 4) too-high incubation temperature, 5) excessive amount of culture, 6) incorrect stabilization system.
Synonym: GRAINY
Related terms: CORKY, CRUMBLY, CURDY, FIRMY, Gritty, Sandy
MEATY
Definition: Associated with the aromatics and flavor of broth and/or umami.
Reference point: Beef/Chicken broth
Styles where it occurs: Cheddar, Alpine styles, Hard/Firm Cheeses
Synonyms: BROTHY, Savory, UMAMI

MEDICINAL
Definition: Aroma and/or flavor is of chemicals not expected in cheese.
Reference Point: Chlorine, iodine, ammonia
Styles where it occurs: More typical in aged cheeses but could occur in any product if contaminated with chemicals.
Attribute/Defect: While slight ammonia aromas may be acceptable, most medicinal aromas are considered objectionable.
Possible cause(s): Chemical contamination; some strong herbs or feeds may induce chemical aromas in products; protein breakdown.
Related terms: CHEMICAL, FOREIGN, METALLIC

METALLIC
Definition: Flavor trait suggestive of metal that imparts to the mouth a puckery sensation.
Reference point: Copper (penny), iron, blood (if you cut inside your mouth), 0.01% copper sulfate solution, canned pineapple juice
Styles where it occurs: Cheddar, Hard/Firm Cheeses
Defect: Metallic is almost always considered a defect.
Possible cause: Can be related to salt issues. Sea salt (contains minerals) and salt replacers (e.g. potassium chloride) often impart a metallic taste to products.
Synonym: Copper, FOREIGN, Iron, MEDICINAL, “Tin Can” Flavor

MITES
Definition: Members of the arachnid family which are attracted to natural rinds of hard cheeses. Typically, but not always, from *Tyrophagus casei*.
Reference point: Often presents as a powdery surface on natural-rinded cheeses (left image), or trails or tunnels into cheese surface (right image).
Styles where it occurs: Hard/Firm cheeses with natural rind
Defect: Mites compromise the integrity of the cheese and are therefore always considered a defect.
Possible causes: Infrequent or improper care during aging, improper cloth application (for bandaged cheeses), OPEN texture
Synonyms: Mite-damaged, Mitey

MOLD, IMMATURE see IMMATURE MOLD
MOLDY
Definition: Dark color and off flavor in cheese plug or cut surface, musty aroma or flavor.
Reference point:

Styles where it occurs: Can occur in almost any style of cheese, and the particular style will determine whether it should be considered a defect or an attribute. When discovered in a cheese where it is not expected (below), it is a serious defect.
Attribute/Defect: In styles where mold is typical (i.e. mold-ripened soft cheese, natural rinds, among others), mold is considered an attribute and would not be commented on unless the mold flavor/aroma is lacking or excessive. In styles where mold is not typical (i.e. fresh cheese, sealed or bandaged block cheddar, among others), the appearance/aroma/flavor of mold is undesirable and considered a clear defect.
Possible causes: If not intentional, likely causes include poor seal, cracked rind, or other contact with air.
Related terms: EARTH, MUSTY

MOTTLED
Definition: Uneven, marbled pattern of coloring in the cheese, most noticeable in colored cheese. Irregular spots or blotches that are lighter or darker.
Reference point: Colby-Jack cheese
Styles where it occurs: Colored cheeses such as cheddar with annatto
Attribute/Defect: It depends on the cheese, but mottled is more often considered a defect than an attribute.
Possible cause: Non-uniform acidity development in curd, combining curd from two different lots, unusual microbial growth (off flavors, body defects may be present)
Synonym: Splotchy
Related terms: COLOR, COLOR LEACHING, GREASY, Uneven coloring, Wavy

MOUTHFEEL
Definition: The way the cheese breaks down while chewing it, and the way we experience the chemical effects in the mouth and throat.
Reference point: Skim milk versus whole milk, black tea, wasabi
Styles where it occurs: All fermented dairy products
Related terms: AROMA, Astringency, GRAINY, MEALY, PASTY, Puckering, OVERSTABILIZED, Smooth, TEXTURE, Volatiles

MUSTY See MOLDY

MUSHROOM(Y)
Definition: Flavor or aroma reminiscent of mushrooms.
Reference point: Freshly cut mushrooms
Styles where it occurs: Soft-ripened styles, natural rinds
**Attribute/Defect:** Mushroom is considered an attribute in many soft-ripened cheeses. However, it can be a defect, depending on what is expected for that style and age. Low, high, lacking (flavor isn’t undesirable, but isn’t there), atypical (not associated with that style).

**Related terms:** EARTHY

**NESTY**

**Definition:** Overabundance of small eyes in a localized area, often just under the rind.

**Reference point:** A small nesty area can be seen along the bottom right of this image.

**Styles where it occurs:** Swiss styles

**Defect:** Nesty is almost always considered a defect, but it is not as serious as some other eye defects.

**Possible cause:** Abnormal gas fermentation, poor knitting of curd, reincorporation of chilled curd to initial pressing

**Related terms:** EYES, IRREGULAR EYES, ONE SIDED, STREUBLE

**NUTTY**

**Definition:** An aroma or flavor characterized by ground or roasted nuts, or nut butter.

**Reference point:** Peanut oil, peanut or almond butter, toasted hazelnuts or walnuts

**Styles where it occurs:** Cheddar, Swiss, Alpine styles, other

**Attribute/Defect:** Nutty aroma/flavor is expected in Cheddar, Swiss, and Alpine styles, and, if lacking, may be considered a defect (flat or atypical flavor).

**Related terms:** COOKED, SWEET

**OLD CREAM/OLD MILK**

**Definition:** Butter initially smells sour but does not clean up quickly; leaves an unpleasant aftertaste. Can be soapy, stale, fishy, or oily.

**Reference Point:** Smells like stale buttermilk powder or an improperly sanitized creamery.

**Styles where it occurs:** Butter

**Defect:** Old cream is always considered a defect

**Possible causes:** Poor sanitation, storage of milk or cream, elevated temperature during storage

**Related terms:** CHEESY, OLD INGREDIENT, Stale, STORAGE, UNCLEAN

**OLD INGREDIENT**

**Definition:** A term used to describe yogurt that contains an old ingredient (Nonfat dry milk (NFDM), fruits, etc.); a “stale” or bitter aftertaste persists after swallowing. Old ingredient specifically refers to an ingredient, rather than to storage of the product itself.

**Reference Point:** May smell or taste like stale nonfat dry milk (NFDM) powder, may be a spoiled piece of fruit.

**Styles where it occurs:** Yogurt, cottage cheese

**Defect:** Old ingredient is always considered a defect.

**Possible cause:** Stale ingredients

**Related terms:** OLD CREAM/OLD MILK, Stale, STORAGE, UNCLEAN
ONE SIDED
Definition: Cheese that is reasonably developed with eyes on one side and under-developed on the other side.
Reference point:

Styles where it occurs: Swiss styles
Defect: When a product appears visually imbalanced or one-sided, it is considered a defect. However, it is not as serious as some other eye defects
Possible cause: High acid curd, improper knitting, poor pressing
Synonym: UNEVEN
Related terms: EYES, NESTY, STREUBLE, UNDERSET, UNIFORM

OPEN
Definition: Describes the visual appearance of a cheese, and has two meanings. 1) Open structure in wax or rind, 2) Contains irregularly shaped mechanical openings.
Reference point:

Styles where it occurs: Uniform mechanical openings are expected in the body of feta but not in well-aged Cheddar.
Attribute/Defect: Openings can be visually appealing or may detract from the intended style of cheese.
Possible causes: Possibly due to poor workmanship, from making and/or pressing process. This defect is not related to issues with gas.
Related terms: CHECKED, CLOSED, CRACKED, FROG MOUTH, Loose knit

OVERSET
Definition: Excessive number of eyes present in the body of the cheese that leads to an overcrowding of eyes.
Reference point:
Styles where it occurs: Swiss styles
Defect: Overset is almost always considered a defect; when Swiss-type cheeses lack the attractive eye appearance that is expected, they may be downgraded.
Possible cause: Late gas blowing, poor pressing of curd
Synonym: GASSY
Related terms: BLOWN, EYES, CABBAGE, UNDERSET

OVERSTABILIZED
Definition: Cottage cheese: the curds feel slick or slimy when pressed with the tongue on the roof of the mouth. Yogurt: tends to be too FIRM.
Reference point: Petroleum jelly on lips
Styles where it occurs: Cottage cheese, yogurt
Defect: Overstabilized is almost always considered a defect.
Possible cause: Overuse of, or poor selection of, stabilizer.
Related terms: FIRM, MOUTHFEEL, Slick, Slimy

OXIDIZED
Definition: Visual and/or flavor defects related to the exposure of cut surface to oxygen and light. The oxidized defect also manifests in cottage cheese (cardboard flavor) and butter (cardboard, freezer burn).
Reference point: Cheese may have a pink hue (instead of orange) on the surface and taste a bit like cardboard or brown paper towel.
Styles where it occurs: All fermented dairy products
Defect: Although intended in traditional Swiss, oxidized is almost always considered a defect in other dairy products.
Possible cause: Exposure to oxygen or light for extended period of time causes off flavors to develop.
Synonym: PINKING
Related terms: COLOR, FADED

PASTY
Definition: The texture of a cheese body breaks down readily, seems wet, and sticks to thumb and fingers while working.
Reference point: Wet dough, cream cheese, chevre
Styles where it occurs: Can occur in nearly all styles, though commonly used in grading Cheddar/hard cheeses, or in softer unripened styles like cottage cheese.
Attribute/Defect: Some level of pasty body is to be expected in chevre and cream cheese. But generally, pasty is considered a defect.
Possible cause: High moisture in curd, high moisture in cheese, high acid, low salt
Synonym: Sticky
Related term: ELASTIC/ELASTICITY, MOUTHFEEL, Soft, TEXTURE, WEAK, Wet

PINKING
Definition: Discoloration of cheese that presents itself by turning from orange to pink. Pinking can also happen to Swiss cheeses and presents as a pinkish layer near the rind.
Reference point:
Styles where it occurs: Cheddar, other cheeses that are colored with Annatto, Swiss styles
Defect: Pinking is unappealing to consumers and is considered a serious defect.
Possible cause: Evidence of bleaching of annatto by exposure to light – most often a defect that occurs in pre-packed cheeses for retail. In Swiss-style cheeses, this is a result of spoilage microorganisms.
Synonym: OXIDIZED
Related terms: COLOR, FADED

PRESENTATION See APPEARANCE

RANCID
Definition: Enzymatic hydrolysis of fat yields aromatic free fatty acids like butyric, caproic, caprylic and capric acids.
Reference point: Rancidity lends characteristic flavor to the following cheese styles: Asiago, Cotija, feta, Romano, Provolone cheeses
Styles where it occurs: All fermented dairy products
Attribute/Defect: Although expected to a certain degree in some cheeses (listed above), it can be objectionable if out of balance/harsh; rancid is not appropriate in most cheeses (Cheddar, Jack, mozzarella, etc.). Although the word rancid is often used to describe oxidized nuts, when referring to dairy products, we use the term rancid to only apply to hydrolytic rancidity (lipase-induced rancidity).
Possible causes: Hydrolysis of fatty acids by lipase (lipolysis); over-agitation or homogenization of raw milk will cause rancidity; contamination of pasteurized milk with raw milk
Related terms: baby vomit, BITTER, goaty, LIPASE, piquant, soapy, UNCLEAN

RIPE
Definition: Refers to a cheese that is at its peak in terms of flavor, aroma, and gustatory experience. It is ideal to consume a cheese when it is ripe.
Styles where it occurs: All fermented dairy products
Related terms: À point, AMMONIA/AMMONIATED, Over ripe, Under ripe

ROPY
Definition: When stirred, and a spoon is lifted up out of yogurt, a viscous string of yogurt follows the spoon. The yogurt feels viscous in the mouth.
Reference Point:

Styles where it occurs: Yogurt
Attribute/Defect: Ropy is not necessarily a defect unless overly slick and slimy. Ropy cultures (certain strains of Lactococcus lactis, etc.) are often used in natural yogurt, instead of stabilizers, to provide body to the product.
Possible causes: Ropy cultures or overstabilization
Related terms: Stringy, slick, slimy

RUBBERY see FIRM

SALT(Y)
Definition: Salt is a basic taste, and it is an essential ingredient in the cheesemaking process.
Reference point: NaCl
Styles where it occurs: All fermented dairy products
Attribute/Defect: Too much or too little salt can cause technical errors in the cheesemaking process, and if it is too low or too high, it is considered a defect. High levels of salt can limit flavor development but also mask off-flavors, while low levels of salt can lead to more nuanced flavor development but also allow off-flavors to present themselves more readily.

SCORCHED
Definition: Butter has a caramel or butterscotch flavor
Reference point: Caramelized butter
Styles where it occurs: Butter
Attribute/Defect: Although relatively appealing and may earn points from an ACS Aesthetic Judge during an evaluation, scorched is considered a technical defect.
Possible cause: Overheating of cream used for buttermaking
Synonym: Heated
Related terms: CARAMEL, Caramelized, COOKED, SWEET

SEAMY
Definition: The presence of white thread-like lines that form between curds in a milled-curd cheese.
Styles where it occurs: Cheddar, other milled-curd cheeses
Defect: Seamy is typically considered a technical defect.
Possible cause: pH during salting is either too high or too low, higher temperatures during pressing, not enough time given after salting but before hooping
Related terms: COLOR, GREASY, MOTTLED

SHARP
Definition: Although there is no agreed-upon definition of the term, sharp is commonly used to refer to cheese that has some level of intensity, usually associated with acidity, though other flavors can also qualify as sharp to some – such as bitter or complex. It can also be used as a way to refer to aged Cheddar – as opposed to “mild” for young Cheddar, though there is no agreed-upon age difference across regions and producers.
Styles where it occurs: Used most often in Cheddar
Related terms: ACETALDEHYDE, ACID, Piquant, SOUR, SULFIDE
SHATTERED CURD

**Definition:** Curds in creamed cottage cheese appear to be broken, non-uniform in shape and size.

**Reference Point:**

**Styles where it occurs:** Cottage cheese

**Attribute/Defect:** Shattered curd has become so commonplace that it is not considered a serious defect unless extensive.

**Possible cause:** Curd breakage can occur any time after the initial cut. Shattering is almost inevitable unless extreme care is taken at every stage between cutting and cupping.

**Related terms:** Non-uniform

SHORT

**Definition:** The texture and body of a cheese lacks typical elasticity. Cheese sample takes a "short" time to break and may be tough to remove from cheese body without breaking.

**Reference point:** Dry, aged Cheddar

**Styles where it occurs:** Typically used to describe texture in aged cheese.

**Attribute/Defect:** Short is not generally objectionable, and may only be noted if pronounced, or if uncharacteristic for the given product.

**Possible cause:** Excess acid production; dehydration

**Related terms:** CRUMBLY, Dry, ELASTIC/ELASTICITY, TEXTURE, WEAK

SHRUNKEN

**Definition:** The defect is visualized when a container of yogurt is first opened. The yogurt pulls in from the edges of the container due to tightening of curd structure; free whey often fills the void.

**Reference Point:**

**Styles where it occurs:** Yogurt

**Defect:** Shrunken is unappealing to consumers and is typically considered a technical defect.

**Possible cause:** Low milk solids, excess acid development, agitation during incubation, insufficient milk pasteurization temperature or holding time, poor product formulation, inadequate stabilizer(s), temperature fluctuations.

**Related terms:** FREE WHEY
SLIP COAT
Definition: Excessive proteolysis under the rind leads to a liquid layer on top of an acidic, firm center. Often presents as a thick rind, sometimes curling back or pulling away from the paste, with a gap left by the pooling of overly liquid paste, or spilling out of liquid paste when the cheese is cut into.
Reference point:

Styles where it occurs: Mold-ripened soft cheeses
Attribute/Defect: Though this type of soft, soupy and gooey cheese can be a selling point and appealing to some, it is generally considered a technical defect.
Possible cause: Too wet going into aging room, high humidity in aging room, excessive aging.
Related terms: Peau de Grenouille, Slip skin, Slip rind

SLITS
Definition: Short linear gas formations. Sizeable cracks, usually in parallel layers and usually clean cut, found within the body of the cheese are called splits.
Reference point:

Styles where it occurs: Firm/semi-firm cheeses
Defect: When Swiss-type cheeses lack the attractive eye appearance that is expected, they may be downgraded. Cheddar cheese exhibiting slits are downgraded as being gassy.
Possible cause: Slits are signs of uncontrolled gas formation (cheese matrix splits instead of forming round eyes), likely because of contamination with Clostridia.
Synonym: GASSY
Related terms: CHECKS/CHECKED, CRACKS, Fish Eyes, Picks, Splits

SMOKEY/SMOKY
Definition: The presence of smoke-like aromas and flavors in cheese.
Reference point: Campfire, Barbecue, Bacon, Bologna
Styles where it occurs: Smoked cheese, but also in Alpine styles

SOFT See WEAK
SOUR
Definition: Non-volatile taste sensation. Pungent acidic aroma/flavor resembling sour cream.
Reference point: Citric Acid, citrus, sour cream
Styles where it occurs: All fermented dairy products
Attribute/Defect: In most cheeses, it is a fundamental component of the flavor profile. The lack of, or excess of, characteristic acidity/sour flavors can be a defect in all cheeses. Also used by some to describe a cheese that has an appropriate amount of acidity but is lacking in other flavor profile components.
Possible cause: pH and water activity can affect how the acidity develops, or doesn’t, during the ripening process leading up to evaluation.
Synonym: ACID
Related terms: CHEESY, FERMENTED, LACTIC, SHARP

STORAGE
Definition: Butter sometimes takes on the aroma of items stored in the refrigerator (i.e., a green pepper). The initial aroma may be stale and objectionable, but the aftertaste is typically not.
Styles where it occurs: Butter
Defect: Storage is typically considered a technical defect.
Possible cause: Butter is stored too long in the refrigerator.
Related terms: Lacks freshness, OLD CREAM/OLD MILK, OLD INGREDIENT, Stale

STREUBLE
Definition: Overabundance of small eyes just under the surface of the cheese.
Reference point: The attached image also displays uneven eye distribution, small eyes, irregular, misshapen eyes, and blind areas.
Styles where it occurs: Swiss styles
Defect: When Swiss-type cheeses lack the attractive eye appearance that is expected, they may be downgraded.
Possible cause: Curd is disturbed as it is being pressed under whey
Related terms: CABBAGE, EYES, NESTY, ONE SIDED

SULFIDE
Definition: A typical flavor of sharp/aged Cheddar, sulfides have a flavor reminiscent of hard-boiled eggs or matchsticks.
Reference point: Hard-boiled eggs, Ultra-high treatment processing (UHT) milk
Styles where it occurs: Aged Cheddars
Attribute/Defect: Can be either – certain regions (like the Northeast U.S.) will tend to see this flavor more, but if excessive, it can be considered a defect.
Possible causes: Milk microflora, certain adjunct cultures
Related terms: COOKED, SHARP, Skunky, Sulfur
SWEET
Definition: Basic taste sensation elicited by sugars; some stabilizers are associated with sweetness.
Reference point: 5% sucrose in water
Styles where it occurs: High sweetness is considered a defect in yogurt or cottage cheese; some sweetness is expected in many dairy products (sweetened yogurt, sweet cream butter, mascarpone, etc.).
Attribute/Defect: In most styles it would be considered a positive attribute, unless excessive or especially dominant.
Related terms: CARAMEL, COOKED, MALTY, NUTTY, SCORCHED

SWEET HOLES
Definition: Spherical gas holes, glossy in appearance, that are about the size of BB shot.
Reference point:

Styles where it occurs: Swiss styles
Attribute/Defect: When Swiss-type cheeses lack the attractive eye appearance that is expected, they may be downgraded.
Possible cause: Typically caused by coliforms.
Synonym: GASSY
Related terms: EYES, IRREGULAR EYES, OVERSET, Pinny, Small eyes

SYNERESIS see FREE MOISTURE/ FREE WHEY

TEXTURE
Definition: A general term used to describe tactile characteristics of cheese, as well as the structure and composition of the cheese’s body. This can be evaluated visually, or by the mouthfeel, or by how it slices, breaks, and cooks. Comments about texture usually include lots of adjectives and descriptive language to communicate its density, moisture level, and friability.
Styles where it occurs: All fermented dairy products
Attribute/Defect: Texture is an important attribute, and defects are related to the style of dairy product.
Possible cause: The texture of a cheese is related to its acidity and proteolysis.
Related terms: Appearance (smooth, rough, OPEN, etc.), CREAMY, CORKY, CURDY, Density (soft, WEAK, firm, hard, etc.), ELASTIC/ELASTICITY, FIRM/TOO FIRM, Friability (CRUMBLY, elastic, etc.), LUMPY, MEALY, Moisture (dry, wet, free, etc.), MOUTHFEEL, PASTY, SHORT, WAXY

TYROSINE CRYSTALS
Definition: Round and crunchy crystals on the surface of and within the body of aged cheese are evidence of proteolysis (i.e., the free amino acid tyrosine) crystallization.
Reference point: Cougar Gold cheese (Washington State University) aged 18 months or more.
Crystals may be seen on the surface but may be calcium lactate crystals; (left image. Crystals within the body of the cheese (right image) are almost always tyrosine crystals.

**Styles where it occurs:** Aged hard cheeses, including Italian, Gouda, Alpine, Cheddar styles

**Attribute/Defect:** May be considered a defect if extensive, though aesthetic judges may consider them a positive attribute.

**Possible cause:** Proteolysis of proteins into peptides, then into the amino acid tyrosine with extensive aging (typically > 1 year).

**Related terms:** CALCIUM LACTATE is often confused for tyrosine crystals, but tyrosine is only present in aged cheeses.

**UMAMI**

**Definition:** The term literally translates to “delicious” in Japanese. It is the meaty/brothy basic taste associated with proteins and amino acids.

**Reference point:** Monosodium glutamate (MSG) diluted in water, chicken broth without herbs

**Styles where it occurs:** All fermented dairy products

**Synonym:** BROTHY, MEATY

**Related terms:** Protein, Savory

**UNDERSET**

**Definition:** Fewer eyes than desired/expected in a cheese expected to have eyes.

**Reference point:** In addition to blind areas, the image exhibits uneven distribution of eyes and very small eyes.

**Styles where it occurs:** Swiss styles

**Defect:** Because some eyes are present, this is not as serious of a defect as other eye defects.

**Possible cause:** Lack of activity of *Propionibacterium* sp. (eye formers), or inadequate time or temperature in warm room.

**Related terms:** ATYPICAL, BLIND, EYES, OVERSET, UNEVEN, UNIFORM
UNCLEAN
Definition: Used to describe a general dirty flavor, aroma, or lingering aftertaste. Often used by technical judges to describe volatile aromatics. In Cheddar, it is a complex cheese flavor resulting from the fermentation of whey during the aging process. Can be similar to whey taint, though generally something described as “unclean” will have a longer residual impact on the taster.
Styles where it occurs: Commonly used in Cheddar grading but can be used to describe many styles of aged cheese.
Attribute/Defect: Generally seen as a defect. May be seen in concert with other defects, like high acidity, bitterness, or whey taint. However, because unclean is complex and interesting, it is not always considered a defect.
Possible cause: Whey fermentation, microflora from milk, poor milk quality, using older milk, interaction among pH/moisture/fat/enzymatic activity
Related terms: Aftertaste, ANIMAL, BARNY, BITTER, CHEESY, Complex, Dirty, Finish, OLD CREAM/OLD MILK, OLD INGREDIENT, Putrid, RANCID, WHEY/WHEY TAINT

UNEVEN
Definition: 1) Cheese wheel or block is asymmetrical: higher on one side than on the other side. 2) In Swiss-style cheeses it can be used to refer to cheese where eyes are reasonably developed in some areas and under-developed in other areas.
Reference point:
Styles where it occurs: All in the former; the latter definition refers more to Swiss-style cheese.
Defect: Because some eyes are present, this is not as serious a defect as other eye defects.
Possible causes: 1) Uneven shape would most often be due to improper attention during pressing/turning. 2) Uneven turning, possibly the cheese was dropped, improper molding
Synonym: ONE SIDED
Related terms: COOKED, CROOKED, EYES, Lopsided, Nonhomogeneous, UNDERSET, UNIFORM

UNIFORM
Definition: Cheese has an evenness to it. Can be used to describe the rind, shape, size, and ripening of a cheese, and shape, size and distribution of eyes.
Synonym: BALANCED
Related terms: CROOKED, EYES, Lopsided, ONE SIDED, UNEVEN, Uniform, UNDERSET

VOLATILES
Definition: The experience of flavor through aroma. Aroma is experienced through the volatility of the chemical compounds that are a result of flavor. Volatile chemical compounds – compounds that are able to evaporate – are noted when transported to the olfactory system through smelling or chewing a product. This is experienced through the back of the throat.
Related terms: AROMA, FLAVOR, Fragrance, FRUITY, Retronasal, Volatile Aromas
WAXY
Definition: This term refers to the texture and body of a cheese. When the cheese is worked between the fingers, it molds and forms easily, like wax or even cold butter.
Reference point: Candle wax
Styles where it occurs: Swiss styles, hard styles
Related terms: Body, Smooth, TEXTURE

WEAK
Definition: Refers to 1) yogurt that lacks body, or 2) cheese that does not require much pressure to cause the cheese to become misshapen. This describes the texture, body, and structure of the cheese. A weak cheese may cause the plug to collapse while removing.
Reference point: Cream cheese, marshmallows, light yogurt
Attribute/Defect: Weak is considered a defect when it pronounced or is not typical of the style. In yogurt: Product does not stand up in the spoon, and/or may appear watery. In cheese: The cheese curd does not hold up when worked between the thumb and fingers. Soft curd may possibly be wet.
Possible causes: In yogurt: under-stabilization, low casein or low total milk solids, under incubation, or low pasteurization temperature. In cheese: Too much whey in cheese, excess acid, excess fat, low salt, excess proteolysis.
Synonym: Soft
Related terms: Body, CREAMY, PASTY, Rind Rot, SHORT, TEXTURE

WHEY/WHEY TAINT
Definition: 1) Butter: Whey manifests both in flavor and body. The melting properties and flavors are more reminiscent of margarine than butter. 2) Cottage cheese: Excess whey produces a brothy flavor. 3) Cheese: Slight sweet-acidic flavor and odor of fermented whey caused by too slowly or incompletely drained curds. Often the flavor is short-lived, in contrast to a similar flavor you might see in cheese called “unclean”.
Reference point: Fermented whey
Styles where it occurs: Cheddar
Attribute/Defect: Generally seen as a defect, though in an aged cheese it can be a component of a complexity of flavor.
Possible causes: 1) Butter: Whey cream is used; 2) Cottage cheese: Curds are not washed adequately before creaming; excess whey is utilized in the cream dressing; 3) Cheese: Residual/retained cheese whey that ferments during the aging process.
Synonym: Whey stain
Related terms: BROTHY, FERMENTED, FRUITY, UNCLEAN

YEAST(Y)
Definition: A distinctive yeast-like aroma is present. Yeasts are an integral part of many rind microflora, but in overabundance could produce an overpowering yeast-like aroma.
Reference point: Rising bread dough, marmite
Styles where it occurs: Natural rind cheeses, bloomy rind cheeses
Attribute/Defect: Yeasty is not objectionable in washed rind cheeses. When observed yogurt, cottage cheese, and other fresh dairy products, yeasty is always a defect. It is often considered a defect in semi-soft and hard styles of cheese as well.
Possible Cause: Yeast contamination and outgrowth
Related terms: FERMENTED, FRUITY, GASSY
### LIST OF TERMS IN THE ACS LEXICON & GLOSSARY

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APPENDIX A: QUICK REFERENCE GUIDE

ACETALDEHYDE
Synonyms: Green apple
Related terms: ATYPICAL, Harsh, SHARP

ACID
Synonyms: SOUR
Related terms: ATYPICAL, Bright, CHEESY, Citrus, LACTIC, SHARP, Tangy, Tart

AFTERTASTE see FINISH

AMMONIA/AMMONIATED
Synonyms: Catty
Related terms: Over Ripe, RIPE

ANIMAL
Synonyms: Cowy, Goaty, Sheepy
Related terms: BARNY, UNCLEAN

APPEARANCE

AROMA
Related terms: FLAVOR, MOUTHFEEL, VOLATILES

ASTRINGENT
Synonyms: Mouth-drying

ATYPICAL
Related terms: ACETALDEHYDE, ACID (High or Low), COLOR, FLAT, FOREIGN, Lacks FLAVOR, SALT, UNDERSET, Unnatural

BALANCED
Synonyms: UNIFORM
Related terms: EYES, Delicate, Mellow, Smooth, Even

BARNY
Related terms: ANIMAL, Cowy, Funky, UNCLEAN

BITTER
Related terms: RANCID, UNCLEAN

BLIND
Related terms: CLOSED, EYES, UNDERSET

BLEACHED/BLEACHING
Related terms: COLOR, COLOR LEACHING, FADED, Streaking

BLOWN
Related terms: CABBAGE, COLLAPSED, GASSY, OVERSET, Lopsided

BROTHY
Synonyms: Savory, MEATY, UMAMI
Related terms: WHEY

BUTTERY
Synonyms: Diacetyl
Related terms: CREAMY, LACTIC

CABBAGE
Related terms: BLOWN, COLLAPSED, EYES, OVERSET, STREUBLE

CALCIUM LACTATE
Related term: CRYSTALS

CARAMEL
Related term: COOKED, HEATED, SCORCHED, SWEET

CHECKS/CHECKED See CRACKED, SLITS

CHEESY
Related terms: ACID, OLD CREAM/OLD MILK, SOUR, UNCLEAN

CHEMICAL See MEDICINAL

CLOSED
Related terms: BLIND, EYES, OPEN

COARSE
Related terms: FLAT, High Salt
COLLAPSED
Related terms: BLOWN, CABBAGE, EYES, FROG MOUTH

COLOR
Related terms: ATYPICAL, BLEACHED, Bright, DULL, FADED, PINKING, MOTTLED, OXIDIZED, SEAMY

COLOR LEACHING
Related terms: BLEACHED, MOTTLED

COOKED
Synonyms: HEATED
Related terms: CARAMEL, NUTTY, SCORCHED, SULFIDE, SWEET

CORKY
Synonyms: Tough, Woody
Related terms: CURDY, Dry, GRAINY, Hard, MEALY, TEXTURE

CRACKED/CRACKS
Related terms: CHECKED, CHECKS, Disturbed, Open rind, Picks, SLITS, Splits

CREAMY See BUTTERY, LACTIC, TEXTURE, WEAK

CROOKED See UNEVEN

CRUMBLY
Synonym: Friable
Related terms: GRAINY, MEALY, SHORT, TEXTURE

CRYSTALS See CALCIUM LACTATE, TYROSINE CRYSTALS

CURDY
Related terms: CORKY, MEALY, TEXTURE

DULL
Related terms: COLOR, EYES, FADED, Pale

EARTHY
Related terms: FEED, MOLDY, MUSHROOM

ELASTIC/ELASTICITY
Synonyms: Flexible, Supple
Related terms: PASTY, SHORT, TEXTURE, WEAK

EYES
Related terms: BALANCED, BLIND, CABBAGE, CLOSED, COLLAPSED, DULL, FROG MOUTH, GASSY, IRREGULAR EYES, NESTY, ONE SIDED, OVERSET, STREUBLE, SWEET HOLES, UNDERSET, UNIFORM

FADED
Related terms: BLEACHED, COLOR, DULL, PINKING, OXIDIZED

FEED
Related terms: Alfalfa, EARTHY, Garlic, Grassy, Green, Onion

FERMENTED
Related terms: FRUITY, GASSY, SOUR, WHEY/WHEY TAINT, YEASTY

FINISH
Related terms: AFTERTASTE, FLAVOR

FIRM/TOO FIRM
Synonym: Rubbery (in cottage cheese)
Related terms: GRAINY, LUMPY, MEALY, OVERSTABILIZED, TEXTURE, Tough, Woody

FLAT/LACKS FLAVOR
Related terms: ATYPICAL, COURSE

FLAVOR:
Related terms: AROMA, ATYPICAL, Excess, FINISH, Unbalanced, VOLATILES

FOREIGN
Related terms: ATYPICAL, Chemical, MEDICINAL, METALLIC

FREE CREAM
Related terms: FREE WHEY
FREE MOISTURE/FREE WHEY
Synonyms: Syneresis
Related terms: FREE CREAM, SHRUNKEN, Weeping, Weepy

FROG MOUTH
Related terms: COLLAPSED, EYES, IRREGULAR EYES, OPEN

FRUITY
Related terms: FERMENTED, Green, VOLATILES, WHEY/WHEY TAINT, YEASTY

GASSY
Synonym: OVERSET, Pin holes, SLITS, SWEET HOLES
Related terms: BLOWN, Bloated, EYES, FERMENTED, Huffed, YEASTY

GRAINY See MEALY

GREASY
Related terms: SEAMY

HEAT
Synonyms: Burn, Itchy, Prickly, Spicy, Tingly

HEATED
Synonyms: COOKED
Related terms: CARAMEL, SCORCHED, VOLATILES

IMMATURE MOLD
Related terms: Unripe

MOLDY
Related terms: EARTHY, MUSTY

MOTTLED
Synonym: Splotchy
Related terms: COLOR, COLOR LEACHING, GREASY, Uneven coloring, Wavy

MOUTHFEEL
Related terms: AROMA, Astringency, GRAINY, MEALY, PASTY, Puckering, OVERSTABILIZED, Smooth, TEXTURE, Volatiles

MUSHROOM(Y)
Related terms: EARTHY

LUMPY
Synonyms: MATTED, TOO FIRM
Related terms: Gel-like TEXTURE

MALLOWY
Related terms: SWEET

MATTED
Synonyms: Clumped, LUMPY

MEALY
Synonym: GRAINY
Related terms: CORKY, CRUMBLY, CURDY, FIRM, Gritty, Sandy

MEATY
Synonyms: BROTHY, Savory, UMAMI

MEDICINAL
Related terms: CHEMICAL, FOREIGN, METALLIC

METALLIC
Synonym: Copper, FOREIGN, Iron, MEDICINAL, “Tin Can” Flavor

MITES
Synonym: Mite-damaged, Mitey

MUSHROOM See GRAINY
NESTY
Related terms: EYES, IRREGULAR EYES, ONE SIDED, STREUBLE

NUTTY
Related terms: COOKED, SWEET

OLD CREAM/OLD MILK
Related terms: CHEESY, OLD INGREDIENT, Stale, STORAGE, UNCLEAN

OLD INGREDIENT
Related terms: OLD CREAM/OLD MILK, Stale, STORAGE, UNCLEAN

ONE SIDED
Synonym: UNEVEN
Related terms: EYES, NESTY, STREUBLE, UNDERSET, UNIFORM

OPEN
Related terms: CHECKED, CLOSED, CRACKED, FROG MOUTH, Loose knit

OVERSET
Synonym: GASSY
Related terms: BLOWN, EYES, CABBAGE, UNDERSET

OVERSTABILIZED
Related terms: FIRM, MOUTHFEEL, Slick, Slimy

OXIDIZED
Synonym: PINKING
Related terms: COLOR, FADED

PASTY
Synonym: Sticky
Related term: ELASTIC/ELASTICITY, MOUTHFEEL, Soft, TEXTURE, WEAK, Wet

PINKING
Synonym: OXIDIZED
Related terms: COLOR, FADED

PRESENTATION See APPEARANCE

RANCID
Related terms: baby vomit, BITTER, goat, LIPASE, piquant, soapy, UNCLEAN

RIPE
Related terms: À point, AMMONIA/AMMONIATED, Over ripe, Under ripe

ROPY
Related terms: Stringy, slick, slimy

RUBBERY see FIRM

SALT(Y)

SCORCHED
Related terms: CARAMEL, Caramelized, COOKED, SWEET

SEAMY
Related terms: COLOR, GREASY, MOTTLED

SHARP
Related terms: ACETALDEHYDE, ACID, Piquant, SOUR, SULFIDE

SHATTERED CURD
Related terms: Non-uniform

SHORT
Related terms: CRUMBLY, Dry, ELASTIC/ELASTICITY, TEXTURE, WEAK

SHRUNKEN
Related terms: FREE WHEY

SLIP COAT
Related terms: Peau de Grenouille, Slip skin, Slip rind

SLITS
Synonym: GASSY
Related terms: CHECKS/CHECKED, CRACKS, Fish Eyes, Picks, Splits

SMOKEY/SMOKY

SOFT See WEAK
**SOUR**
Synonym: ACID
Related terms: CHEESY, FERMENTED, LACTIC, SHARP

**STORAGE**
Related terms: Lacks freshness, OLD CREAM/Old MILK, OLD INGREDIENT, Stale

**STREUBLE**
Related terms: CABBAGE, EYES, NESTY, ONE SIDED

**SULFIDE**
Related terms: COOKED, SHARP, Skunky, Sulfur

**SWEET**
Related terms: CARAMEL, COOKED, MALTY, NUTTY, SCORCHED

**SWEET HOLES**
Related terms: EYES, IRREGULAR EYES, OVERSET, Pinny, Small eyes

**SYNERESIS** see FREE MOISTURE/ FREE WHEY

**TEXTURE**
Related terms: Appearance (smooth, rough, OPEN, etc.), CREAMY, CORKY, CURDY, Density (soft, WEAK, firm, hard, etc.), ELASTIC/ELASTICITY, FIRM/TOO FIRM, Friability (CRUMBLY, elastic, etc.), LUMPY, MEALY, Moisture (dry, wet, free, etc.), MOUTHFEEL, PASTY, SHORT, WAXY

**TYROSINE CRYSTALS**
Related terms: CALCIUM LACTATE is often confused for tyrosine crystals, but tyrosine is only present in aged cheeses.

**UMAMI**
Synonym: BROTHY, MEATY
Related terms: Protein, Savory

**UNDERSET**
Related terms: ATYPICAL, BLIND, EYES, OVERSET, UNEVEN, UNIFORM

**UNCLEAN**
Related terms: Aftertaste, ANIMAL, BARNY, BITTER, CHEESY, Complex, Dirty, Finish, OLD CREAM/Old MILK, OLD INGREDIENT, Putrid, RANCID, WHEY/WHEY TAINT

**UNEVEN**
Synonym: ONE SIDED
Related terms: COOKED, CROOKED, EYES, Lopsided, Nonhomogeneous, UNDERSET, UNIFORM

**UNIFORM**
Synonym: BALANCED
Related terms: CROOKED, EYES, Lopsided, ONE SIDED, UNEVEN, Uniform, UNDERSET

**VOLATILES**
Related terms: AROMA, FLAVOR, Fragrance, FRUITY, Retronasal, Volatile Aromas

**WAXY**
Related terms: Body, Smooth, TEXTURE

**WEAK**
Synonym: Soft
Related terms: Body, CREAMY, PASTY, Rind Rot, SHORT, TEXTURE

**WHEY/WHEY TAINT**
Synonym: Whey stain
Related terms: BROTHY, FERMENTED, FRUITY, UNCLEAN

**YEAST(Y)**
Related terms: FERMENTED, FRUITY, GASSY
APPENDIX B: ADJECTIVES COMMONLY USED IN EVALUATION

<table>
<thead>
<tr>
<th>Appealing</th>
<th>Enjoyable</th>
<th>Pleasing</th>
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</thead>
<tbody>
<tr>
<td>Approachable</td>
<td>Even</td>
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<td>Satisfying</td>
</tr>
<tr>
<td>Attractive</td>
<td>Intriguing</td>
<td>Smooth</td>
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<tr>
<td>Balanced</td>
<td>Long</td>
<td>Spicy</td>
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<tr>
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<td>Nice</td>
<td>Traditional</td>
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<tr>
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<tr>
<td>Delicate</td>
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BIBLIOGRAPHY


