

CATA Curricular Code Change Proposal

Contest:	
Proposed By: (Name, School, Email)	
Issue: (Describe the reason/rationale for the proposed change.)	
Please answer yes or no to ALL the questions below.	
This proposal will require a contest to open out of rotation.	
The change will affect General Rules.	
The change will affect the awards needed.	
The proposed change will affect tabulations/scorecards.	
The proposed change will affect contest forms.	
The proposed change will affect contest hosting site. (e.g. additional facilities, new sections, additional scoring, etc.)	
If you answered yes to any of the above questions, you need to include the following signatures:	
CATA Approved Contest Advisor's Signature	
CDE Host Site Contest Coordinator's Signature	
If you answered yes to any of the above questions, please explain.	
<p>*It is recommended that you, or a representative, attend the pre-conference governing board meeting to answer any questions regarding proposed curricular code changes to contests that are requested to be opened out of rotation.</p>	

Description: (Describe what is changing.)

Proposed CATA Code Change: (Only include the section that the proposed change pertains to – do not include the entire contest. Reference numbered section. If editing text show new text with old text in parenthesis. For large changes set track changes in the Word document and attach the file, with edits, to this document when submitting.)

I. Purpose

The purpose of the California FFA Milk Quality and Products Career Development Event is to promote practical learning activities in milk quality and dairy products while assisting students in developing team decision-making skills.

The focus of the California FFA Milk Quality and Products CDE is raw milk quality, dairy products, federal milk marketing orders and attributes of selected milk products. The five general areas that contribute to milk quality and consumer demand are

- Milk production
- Milk and dairy product quality and safety
- Milk processing or manufacturing
- Raw milk marketing
- Facility operations:
 - Safety/sanitation
 - Labor

Fresh raw milk should possess a sweet bland flavor, be free of feed flavors and contain a low number of somatic cells and bacteria. Mixed milk from several cows (herd milk) is expected to contain approximately 3.5 percent milk fat, 3.1 percent protein and 4.8 percent lactose, the main characterizing constituents. Milk is the most important source of calcium in the diet of the average American, supplying approximately 70 percent of the dietary calcium. The production of high-quality raw milk requires the following:

- Clean and healthy cows.
- Equipment that is constructed appropriately from approved materials.
- Proper installation, cleaning, sanitizing and operation of the equipment.
- Rapid cooling of milk in compliance with regulatory requirements.
- Delivery of milk to the processor within 48 hours.
- Prevention of milk adulterants such as water, antibiotics, pesticides, cleaning and sanitizing chemicals, medicinal agents and any other extraneous materials.
- Application of tests for acceptability of milk.

Students considering a career related to the subject matter in this CDE may wish to consider that persons of the following groups contribute to the successful production of high-quality milk and milk products:

- Dairy farmers and herd managers manage and milk cows and prepare milk for dealers.
- Field representatives of the buying and/or selling organizations provide advice to producers and promote milk quality for buyers.
- Milk sanitarians enforce public health regulations.
- Food technologists apply chemical, physical, microbiological and sensory tests to determine the quality and safety of milk and milk products.
- Manufacturers and dealers of dairy equipment supply and service equipment.
- Suppliers of chemicals used in cleaning and sanitizing provide chemicals and advice on proper use.
- Veterinarians treat diseased animals and advise producers on disease prevention.
- Milk plant operators process milk into the finished product for consumers.
- U. S. Food and Drug Administration manages the regulation of grade A milk.
- U. S. Department of Agriculture manages the regulation of manufacturing grade milk and provides grading services to manufacturers of butter, cheese and nonfat dry milk.
- Officials and technicians of the USDA Federal Milk Marketing Orders sample, test and account for milk marketed under federal orders. They also apply regulations to marketing raw milk.
- State departments of agriculture and/or public health manage the public health regulations applied to milk at the state level.

- State dairy extension agents provide advice to dairymen regarding production and sale of milk.
- Accountants and financial advisors with knowledge of the milk industry.
- Dairy food scientists.
- Agricultural economists with a knowledge of milk pricing, exporting and milking procedures of dairy cattle.
- Dairy food nutritionist international marketing specialist with bilingual abilities
- Feed nutritionists.
- Information technologists.
- Milk haulers

California Career Technical Education Model Curriculum Standards

Academics 1.0

Communications 2.0, 2.1, 2.2, 2.3, 2.5

Career Planning and Management 3.0, 3.1, 3.2

Technology 4.0

Problem Solving and Critical Thinking 5.0, 5.2, 5.3, 5.4

Health and Safety 6.0, 6.2, 6.3

Responsibility and Flexibility 7.0, 7.4

Leadership and Teamwork 9.0, 9.2, 9.6, 9.7, 9.8, 9.9, 9.10, 9.12, 9.13

Technical Knowledge and Skills 10.0, 10.1, 10.2, 10.4

Demonstration and Application 11.0

Ag Business Pathway A8.1, A8.3

Agriscience Pathway C1.1, C1.3, C1.4, C1.6, C1.7, C3.1, C3.2, C3.5, C4.1, C4.3, C4.4, C5.1, C5.4, C6.1, C8.1, C8.2C8.3, C9.1, C9.2, C9.3, C9.4, C9.5,

Animal Science Pathway D1.0, D2.0, D3.0, D6.0, D9.0, D12.0

II. Objectives

This Event Will Provide The Participant With The Ability To Do The Following:

Utilize knowledge of milk quality related to

- Producing quality milk:
 - Regulations
 - Grades and classes of milk
 - Factors necessary to produce quality milk
- Cleaning and sanitizing:
 - General types of cleaners and sanitizers
 - Water hardness
 - Milkstone
 - Approved milking equipment and design
 - Proper milking procedures
- Cooling milk.
- Identifying diseases transmitted to consumers via milk.
- Recognizing causes of off flavors in milk.

Utilize knowledge of milk pricing related to

- Marketing and marketing concepts:
 - Pricing trends
 - Economics
 - Supply and demand

- Federal milk marketing orders, economics and distribution:
 - Transportation costs
 - Cooperatives
 - Pricing

Utilize knowledge of the composition and quality characteristics of raw and pasteurized milk and milk products including

- Nonfat solids portion:
 - Milkfat
 - Adulterants, including water
 - Bacterial standards and testing
 - Quality testing
- Understanding the causes and control of mastitis, its influences on milk quality and cheese yield and the use of mastitis detection methods in controlling the disease, specifically including the following:
 - Causes
 - Prevention
 - Detection (California Mastitis Test and Direct Microscopic Somatic Cell Count)
 - Treatment
 - Regulatory programs
- Identification of cheese varieties and characterize properties
- Identification flavor defects and evaluate milk quality
- Understanding the importance of dairy food safety programs
- Identification and comparison of dairy vs. non-dairy products

III. Event Rules

- Teams will consist of four members.
- Team ranking is determined by combining the scores of all team participants.
- All participants must be in FFA Official Dress for this event.
- Any participant in possession of an electronic device in the event area is subject to disqualification.
- Prior to the start of the state qualifying finals, the top five coaches representing the previous year's state qualifying finals will assess/confirm the scoring of the four state qualifying milk classes. Final official scores will be determined by a majority consensus of the top five coaches represented, the CATA approved contest consultant, and the host facility contest chair.

IV. Event Format

Equipment

- Approved materials to be provided by the student:
 - Two no. 2 pencils
 - Clipboards
 - Cover sheet (May not have any contest related information on it)
 - Blank scoresheet to document answers
 - Bottled water (if desired)

- Materials provided by the CDE committee:
 - Scorecard
- Participants are not to bring these items:
 - Glass of any kind to the event.
 - Cell phones, calculators or other electronic devices.

Flow Of Event

- Milk Flavor Identification and Evaluation: 20 minutes
- Dairy vs Non-Dairy Product Identification: 20 minutes
- Cheese Identification: 20 minutes
- Written Exam: 20 minutes
- Team Activity: Varies based on activities

Team Activity (390 Points)

Teams will have to analyze test results representing 5 consecutive months. Team members will work together to determine producer milk acceptability based on data from the following tests.

Examples of acceptability tests include the following:

- | | |
|---|-----------------------------|
| • Percent TA (acidity) | • Antibiotic screening test |
| • DMSCC (Direct Microscopic Somatic Cell Count) | • Sample temperature |
| • SPC (Standard Plate Count) | • Sample freezing point |
| • PIC (Preliminary Incubation Count) | • Sanitation |

Teams will present their test findings, acceptability solution and improvement recommendations to a panel of judges. Order of participation and presentations will be based upon a random lottery draw. Lottery will take place at the start of the critique following the end of the contest (prior to team activity).

Teams must confirm their participation or non-participation in the team presentation prior to the lottery to assist in creating/confirming the number of time slots. Teams that do not confirm prior to the lottery will be forfeited from the team presentation ("0" score). Teams must be present at their lottery determined start time for the team activity, otherwise they will be forfeited from the team activity ("0" score).

Teams will make a 5 minute or less oral presentation (no visual aids) to a panel of two or three judges. Each of the individual judge's scores will be totaled, added together, and divided by the number of judges to determine each team's team activity score.

Scoring will be based on a scoring rubric (Located in the Resources section).

Judges will be required to have knowledge and understanding of the data, acceptable parameters, and consequences associated with the test data.

Team Activity Scoring

- | | |
|---|---|
| • Test Indicator(s) Information : 300 points | • Time and All Members Participation: 30 points |
| • Organization / Speaking : 30 points | |
| • Postures, Gestures, and Eye Contact : 30 points | |

Individual Activities – Milk Flavor Identification and Evaluation (150 Points)

- Ten milk samples will be scored on flavor defect (taste and odor) using the computerized scorecard.
- Check only the most serious defect in a sample even if more than one flavor is detected
- All samples of milk are prepared from pasteurized whole vitamin D milk intended for table use.
- Milk samples will be 60 degrees F.
- Only the (tasting) cups provided at the event may be used by contestants.
- Five points awarded for each defect correctly identified. (50 points).
- Participants are to use whole numbers when scoring “Defect Intensity.” If no defect is noted, participants should check “No defect” and score as a ten (See Scoring Guide below).
- 10 points will be awarded for each correctly scored sample (100 points total), one point will be deducted for each space the sample is placed away from the official flavor score.

Milk Scoring Guide

Refer to the current scorecard being used.

Scores may range from 1 to 10 on a quality basis:

10	Excellent (no defect)
8 to 9	Good
5 to 7	Fair
2 to 4	Poor
1	Unacceptable

Example – Milk Flavor

Defects	Slight	Definite	Pronounced
Acid	3	2	1
Bitter	5	3	1
Feed	9	8	5
Flat / Watery	9	8	7
Foreign	5	3	1
Garlic / Onion	5	3	1
Malty	5	3	1
No Defect	10	10	10
Oxidized	6	4	1
Rancid	4	2	1
Salty	8	6	4

**Suggested scores are given for three intensities of flavor. All numbers within the range may be used. Intermediate numbers may also be used; for example, a bitter sample of milk may score four.*

Individual Activities – Cheese Identification (100 Points)

- Ten cheese samples for identification will be selected from the reference list.
- Cubes of the cheeses will be available for tasting. Note: More than one sample of a given cheese may be used.
- A score of ten points is given for each variety correctly identified. Uncolored cheeses may be used. (100 points possible)

Cheese Reference List

Blue / Bleu
Brie
Cheddar Mild
Cheddar Sharp
Cream

Gouda / Edam
Monterey Jack
Mozzarella
Muenster
Parmesan

Processed America
Provolone
Queso Fresco
Swiss

Individual Activities – Product Identification – Dairy vs Non-Dairy (100 Points)

- A total of 10 samples consisting of dairy and non-dairy products will be identified and assigned a milk-fat content score.
- A score of six points is given for each correct product identified.
- A score of four points is given for each correct fat content identified.
- The following products may be included among the samples:
- Dairy Products: nonfat (skim) milk (.05%), lowfat milk (1.0%), reduced fat milk (2%), milk (3.25%), half and half (10.5%), butter (80%), sour cream (18%), flavored milk (0.05%–3.25%) light whipped cream (30%), heavy cream (36%).
- Non-Dairy Products: margarine, non-dairy creamer, non-dairy sour cream, non-dairy milk, nondairy flavored beverage and non-dairy whipped topping. All of these are to be categorized as non-dairy fat.

Individual Activities – Written Exam (100 Points)

- Contestants shall complete a 25 question multiple choice exam based on a 200 question test bank.
- Test bank exam questions and answer key are available for download via the California FFA Association and/or CATA Curricular Code website.
- California FFA Milk Quality and Dairy Foods CDE Test Bank will be created and approved by the “Top 5” California Milk Quality and Dairy Foods team coaches every five years between June 1st and December 31st of the fifth calendar year cycle for use beginning January 1st of the new five-year cycle. Yearly cycles are 2020-2024, 2025-2029, and 2030-2035.
- Test bank generated questions will utilize resources that include past/recent National FFA Organization’s Milk Quality and Dairy Foods exam questions, other state current Milk Quality and Dairy Foods test banks.
- Four points awarded for each question answered correctly

V. Scoring

Activity	Points/Sample	Samples	Individual Points	Team Points
Milk Flavor Identification and Evaluation	5 pts for flavor defect / 10 points for intensity range	10 samples	150	600
Cheese Identification	10 pts/sample	10 samples	100	400
Dairy vs Non-Dairy Identification / Fat %	6 pts for product identification / 4 pts for fat %	10 samples	100	400
Written Exam	4 pts / question	25 questions	100	400
Total Possible Individual Points			450	1800
Team Activity				390
Total Points Per Team				2190

VI. Tiebreakers

If ties occur, the following events, in this order, will be used to determine award recipients:

Team

1. Team activity
2. Milk identification total score of all team members
3. Cheese identification score for all team members
4. Dairy vs Non-Dairy score for all team members
5. Written exam score for all team members

Individual

1. Milk identification score
2. Cheese identification score
3. Dairy vs Non-Dairy score
4. Written exam score

VI. Awards

The winning team of this contest with the highest score will be eligible to represent the state at the National FFA CDE. If the winning team is unable to participate in the national finals, the second place team may represent California.

VII. References

This list of references is not intended to be all-inclusive. Other sources may be utilized, and teachers are encouraged to make use of the very best instructional materials available. The following list contains references that may prove helpful during event preparation.

- National FFA National Career Development Event Questions and Answers, FFA.org, Event Resources, Past exams and practicums
- Dairy Foods: Producing the Best, Dr. Robert Marshall; Instructional Materials Laboratory, [https://ffa.box.com/Dairy Foods booklet](https://ffa.box.com/Dairy%20Foods%20booklet)
- The Dairy Practices Council: Guidelines, www.dairypc.org
 - #21 – Raw Milk Quality Tests
 - #24 – Troubleshooting High Bacteria Counts of Raw Milk
 - #38 – Preventing Off-Flavors in Milk
 - #71 - Prevention of and Testing for Added Water in Milk
 - #98 – Milking Procedures for Dairy Cattle
- Pasteurized Milk Ordinance, <https://www.fda.gov/media/114169/download>
 - Section 1. Definitions
 - Section 6. The Examination Of Milk and/or Milk Products
 - Section 7. Standards for Grade “A” Milk and/or Milk Products
 - Item 15p. Protection from Contamination
 - Appendix E. Examples of 3-Out-Of-5 Compliance Enforcement Procedures
 - Appendix G. Chemical and Bacteriological Tests
 - Appendix K. HACCP Program
 - Appendix N. Drug Residue Testing and Farm Surveillance

• NOTE: In the document, items followed by a “P” referred to the Pasteurized side while items followed by an “R” refer to the Raw side.

- Code of Federal Regulations Title 21, Part 133 – Cheeses and Related Cheese Products, <http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?CFRPart=133>
- Code of Federal Regulations Title 21, Part 131 – Milk and Cream, <http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?CFRPart=131>
- Swab Procurement: Hygiena PRO-Clean Rapid Protein Residue Test. 25 of the swabs come in a sealed aluminum foil envelope. <https://www.hygiene.com/food-and-beverage-sales/united-states.html>. Web site that a teacher can resource to obtain the sanitation swabs (Hygiena PRO-Clean Rapid Protein Residue Test), obtain a product brochure, and watch a video demonstration on use of the swabs. Updated for 2019. <https://www.hygiene.com/proclean-food-and-beverage.html>. Another possibility is to contact a local dairy processing plant laboratory and ask the lab tech if they would either have some available or be able to order them for the school
- California FFA Milk Quality and Dairy Foods CDE Test Bank

VII. Resources

- General (Acceptable) Milk Parameters

Bacteria Counts	<100,000/mL
Somatic Cell Count	<750,000/mL
PIC Count	<50,000-100,000/mL (industry goal is less than 3 – 4 times the SPC)
Temperature	0°C - 7.0°C 32°F - 45°F.
Antibiotics	Negative (-)
Freezing Point	-0.530°C and -0.566°C
Titrateable Acidity	0.13% to 0.17% (up to 0.20% acceptable)
Sanitation Swab	Clean / Pass

California Milk Quality and Products Team Activity Rubric

Team : _____

Indicators	Very Strong Evidence 15 – 11 points	Moderate Evidence Present 10 – 6 points	Strong Evidence Not Present 5 – 0 points	Points Earned	Scoring Weight	Total Score
Bacteria Count	Team clearly identified the test and the results outside of the standards and explained the consequences of the violations.	Team was marginal in identifying the test and results outside of the standards and/or explaining the consequences of the violations.	Team did not identify the test and/or results outside of the standards and/or explain the consequences of the violations.		X 3	
Preliminary Incubation Count (PIC)	Team clearly identified the test results outside of the standards and explained correlation with bacteria count.	Team was marginal in identifying the test results outside of the standards and explained correlation with bacteria count.	Team did not identify the test results outside of the standards and explained correlation with bacteria count.		X 1	
Somatic Cell Count	Team clearly identified the test and the results outside of the standards and explained the consequences of the violations.	Team was marginal in identifying the test and results outside of the standards and/or explaining the consequences of the violations.	Team did not identify the test and/or results outside of the standards and/or explain the consequences of the violations.		X 3	
Temperature (°F)	Team clearly identified the test and the results outside of the standards and explained the consequences of the violations.	Team was marginal in identifying the test and results outside of the standards and/or explaining the consequences of the violations.	Team did not identify the test and/or results outside of the standards and/or explain the consequences of the violations.		X 3	
Antibiotic Test	Team clearly identified the test and the results outside of the standards and explained the consequences of the violations.	Team was marginal in identifying the test and results outside of the standards and/or explaining the consequences of the violations.	Team did not identify the test and/or results outside of the standards and/or explain the consequences of the violations.		X 3	
Freezing Point (°C)	Team clearly identified the test and the results outside of the standards and explained the consequences of the violations.	Team was marginal in identifying the test and results outside of the standards and/or explaining the consequences of the violations.	Team did not identify the test and/or results outside of the standards and/or explain the consequences of the violations.		X 3	
Titrateable Acidity (%)	Team clearly identified the test and the results outside of the standards and explained the consequences of the violations.	Team was marginal in identifying the test and results outside of the standards and/or explaining the consequences of the violations..	Team did not identify the test and/or results outside of the standards and/or explain the consequences of the violations.		X3	
Sanitation Swab	Team clearly identified the test and results outside of the standards and explained purpose of test.	Team was marginal in ID of the test results outside of the standards and explained purpose of test.	Team did not identify the test results outside of the standards and explained purpose of test.		X 1	
Organization / Speaking	Presentation was well-thought, organized, easy to follow, and articulately spoken.	Presentation was marginally well-thought, organized, easy to follow, and articulately spoken.	Presentation was not well-thought, organized, easy to follow, and articulately spoken.		X2	
Posture, Gestures, and Eye Contact	Confident posture. Hand motions natural/expressive. Strong eye-contact.	Confident posture, mannerisms, eye, contact, and body language most of the time.	Lacked positive body language. Hand motions distracting. Occasionally looked elsewhere.		X2	
Time / All Members Participated	All members took an active role in the presentation. Presentation was 5 minutes or less.	Three team members took and active role in the presentation. Presentation was over 5 minutes.	Two or less team members took an active role in the presentation. Presentation was over 5 minutes.		X2	

Judge # (circle one)

#1

#2

#3

Total Points _____ / 390

- Sample Team Activity Data Sheet

Sample Milk Quality and Products Team Activity – Data

Test Results for Dairy Farm #442255

Test	Month 1	Month 2	Month 3	Month 4	Month 5
Bacteria Count x 10 ³	50	40	120	325	95
Preliminary Incubation Count x 10 ⁴	5	5	10	70	9
Somatic Cell Count x 10 ³	100	100	600	740	800
Temperature (°F)	38	40	40	50	38
Antibiotic Test (+/-)	+	-	-	-	-
Freezing Point (°C)	-0.530	-0.516	-0.5240	-0.530	-0.538
Titratible Acidity (%)	0.15	0.16	0.17	0.40	0.21
Sanitation Swab	Pass	Pass	Pass	Fail	Pass

BOLD are violations (exceeds parameters) – Violations will NOT be bolded for contest

Contestants will be given similar data chart without the violation numbers/data being in “bold”.

Teams will need to research/identify consequences for violations for presentation (see References).

- Sample Team Activity Start/Presentation Time Sheet

Team	Data Review Start Time	Presentation Time
Team 1	10:30 am	10:45 am
Team 2	10: 40 am	10:55am
Team 3	10:50 am	11:05 am
Team 4	11:00 am	11:15 am
Team 5	11:10 am	11:25 am
Team 6	11:20 am	11:35 am
Team 7	11:30 am	11:45 am
Team 8	11:40 am	11:55am
Team 9	11:50 am	12:05 pm
Team 10	12: 00 am	12:15pm
Team 11	12:10 am	12:25 pm
Team 12	12:20 am	12:35 pm
Team 13	12:30 am	12:45 pm
Team 14	12:40 am	12:55 pm
Team 15	12:50 am	1:05 pm

MILK QUALITY AND DAIRY FOODS

Revised 6/2018

Purpose and Standards

To enhance learning activities related to milk quality, federal milk marketing, attributes of milk products and substitutes for them.

The focus of this Career Development Event is on achievement of high quality raw milk, federal milk marketing orders and attributes of selected products of milk.

There are four general areas or functions in the network of persons who make possible the enjoyment of high quality dairy foods by consumers.

These are:

1. Milk production.
2. Milk quality and safety.
3. Milk processing or manufacturing.
4. Marketing of either raw milk or finished products.

The production of high quality raw milk requires the following:

- Clean and healthy cows.
- Equipment that is constructed appropriately from approved materials.
- Proper installation and operation of the equipment.
- Rapid cooling of the milk to not more than 41°F (3°C).
- Delivery of the milk to the processor within 48 hours.
- Prevention of contamination of the milk with added water, antibiotics, pesticides, cleaning and sanitizing chemicals, medicinal agents and any other foreign matter.

Fresh raw milk should possess a sweet bland flavor, be free of flavors from the feeds the cows eat and be low in numbers of somatic cells and bacteria. Mixed milk from several cows (herd milk) is expected to contain at least 3.5% milk fat, 3.1% protein and 4.8% lactose, the main characterizing constituents. It is the most important source of calcium in the diet of the average American, supplying approximately 75% of the dietary calcium.

Young persons considering a career related to the subject matter in this CDE may wish to consider that persons of the following groups contribute to the successful production of high quality milk and milk products:

- **Dairy farmers:** own, manage and milk the cows and prepare milk for dealers.
- **Field representatives** of the buying and/ or selling organizations: provide advice to producers and promote milk quality for buyers.
- **Milk sanitarians:** enforce public health regulations.
- **Food technologists:** apply chemical, physical, microbiological and sensory tests to determine the quality and safety of milk and milk products.
- **Manufacturers and dealers** of dairy equipment: supply equipment and service it.
- **Suppliers of chemicals** used in cleaning and sanitizing: provide chemicals and advice on their proper use.
- **Veterinarians:** treat diseased animals and advise producers on disease prevention.

- **Officials and technicians** of the USDA Federal Milk Marketing Orders: sample, test and account for milk marketed under Federal orders; apply regulations to marketing of raw milk.
- **U. S. Food and Drug Administration:** manages the regulation of grade A milk.
- **U. S. Department of Agriculture:** manages the regulation of manufacturing grade milk; provides grading services to manufacturers of butter, cheese and nonfat dry milk.
- **State departments of agriculture and/or public health:** manage the public health regulations applied to milk at the state level.
- **State Dairy Extension Agents:** provide advice to dairymen regarding production and sale of milk.

Foundation Standards: Technology – 4.1, 4.2, 4.5, 4.6. Problem Solving and Critical Thinking – 5.1, 5.3. Health and Safety – 6.1, 6.2, 6.4. Responsibility and Flexibility – 7.1, 7.2, 7.3, 7.4, 7.5, 7.6. Ethics and Legal Responsibilities – 8.3, 8.4. Leadership and teamwork – 9.1, 9.2, 9.3, 9.4, 9.5, 9.6. Technical Knowledge and Skills – 10.1.

Agricultural Standards: Agricultural Business Pathway A2.1, A5.2, A5.3, A6.1. Agriscience Pathway C1.0, C4.0, C6.0, C8.0. Animal Science Pathway D2.0, D3.0, D6.0, D10.0, D12.0

Contestants

Teams consist of four members, with all four individual scores counting as the team score. All team members are eligible for individual awards. Teams with less than four individuals are considered individual alternates.

Classes

Class	Individual Points*	Team Points*
Milk A	60	240
Milk B	60	240
Milk C	60	240
Milk D	60	240
Cheese ID	20	80
Dairy vs Non-Dairy	40	160
Written Test**	25	100
Total Points Possible	325	1,300

*High score is the winner. **Points are subtracted for incorrect answers.

Sub Contest Awards

Team and individual awards will be given for the following areas: Milk (4 classes), Cheese, Dairy vs Non-Dairy, and the written test.

Tie Breaker

In the event of a tie between individuals or teams, the ties shall be broken in favor of the contestant or team having the highest TOTAL combined milk scores from ALL classes (A, B, C, and D), and then, if necessary, on the other samples in the order in which they appear on the score cards. 325 points are possible per contestant.

Rules

- Contestants will be allowed 20 minutes per class (round). If all contestants have finished the round being judged, the Contest Chair may end the judging of the round early and commence the next 20-minute round.

- II. Contest will include:
- A. Four (4) classes consisting of ~~five (5)~~ milk samples each to be scored on flavor (taste and odor).
 - B. One (1) class of ten (10) cheese samples to be identified.
 - C. One (1) class of non-dairy product identification, ten (10) samples to be identified.
 - D. One (1) written test consisting of 25 multiple-choice questions.
- III. Milk samples will be scored using Form 1. All samples of milk are prepared from pasteurized or raw milk intended for table use and will score 1 to 10 (see Scoring Guide). Milk samples will be tempered to 60° F.
- IV. Each class will have a key. Each key will be one of the following defects only. Samples will not be scored higher than the key(s) utilized in the contest (key does not have to be in the class). The keys are as follows:
- A. Feed 9 or 8
 - B. No Defect 10
- V. Cheese samples for identification will be selected from those listed below and on the score sheet Form 2. Cubes of the cheese will be available for testing. Duplicates may be used. Must be the same brand.
- A. Blue
 - B. Brie/Camembert
 - C. Cheddar (mild)
 - D. Cheddar (sharp)
 - ~~E. Cotija (Mexican)~~
 - F. Cream/Neufchatel
 - G. Edam/Gouda
 - H. Monterey (Jack)
 - I. Mozzarella/Pizza
 - J. Munster
 - K. Processed American
 - L. Provolone
 - M. Swiss
- VI. A total of 10 samples consisting of dairy and non-dairy products will be identified and assigned a milkfat content score. The following products may be included among the samples:
- A. Dairy Products
 1. Nonfat (skim) milk (.05%)
 2. Lowfat milk (1.0%)
 3. Reduced fat milk (2.0%)
 4. Milk (3.25%)
 5. Half and half (10.5%)
 6. Butter (80%)
 7. Sour cream (18%)
 - ~~8. Flavored milk (.05% - 3.25%)~~
 9. Light whipped cream (30%)
 10. Heavy cream (36%)
 - B. Non-Dairy Products (All of these are to be categorized as non-dairy fat)
 1. Margarine
 2. Non-dairy creamer
 3. Non-dairy sour cream
 4. Non-dairy milk

5. Non-dairy flavored beverage
 6. Non-dairy whipped topping
- VII. Contestants are to use whole numbers when scoring "Flavor" of milk. Check only the most serious defect in a sample even if more than one flavor is detected. If no defect is noted check "No defect". See scoring guide.
- VIII. Utensils for sampling will be provided - cups, spoons, tooth picks, etc.
- IX. A contestant's score on a milk sample shall be the sum of the grades on "difference" and "defects" of the milk sample, minus a deduction of two points for every defect missed and an additional deduction will be made for the difference of the milk scores. The final milk score shall be the sum of the grades on all milk samples. The team score shall be the sum of the grades of its members. The contestant with the highest score shall be the winner and the team with the highest score shall be the winning team. Contestant standings in each product shall be obtained by arranging the score of all contestants in that product in order from the highest to the lowest. Team standings shall be obtained the same way.
- X. Contestants' scores on each milk sample on the score card will be given a grade expressed by the difference between his/her score and the official score. For example, if a contestant scores "flavor" 7 and the judges' score is 5, the contestant shall receive a grade difference of two points. Subtract two points for the wrong milk defect. If, however, a contestant recognized that the milk sample scores perfect but fails to indicate that score on the score card or write in any score outside the range of scores for the sample or indicates the score by a dash (-) he/she shall receive a grade difference equivalent to the maximum cut of 10 points. The contestant's grade difference, therefore, shall be 10 when he/she fails to write in the numerical score for that sample. This rule holds regardless of the official score. Each unscored milk sample will be assessed a score of twelve (12) points.
- XI. Milk Fat Content of Fresh Milk Products - The following products may be included among the samples: nonfat (skim) milk, reduced fat milk (2%), milk (3.3%), half and half (10.5%), coffee cream (18%) and whipping cream (30%).
- XII. Prior to the start of the state qualifying finals, the top five coaches representing the previous year's state qualifying finals will assess/confirm the scoring of the four state qualifying milk classes. Final official scores will be determined by a majority consensus of the top five coaches represented, the CATA approved contest consultant, and the host facility contest chair.

Scoring Guide

MILK

Scores may range from 1 to 10. On a quality basis 10 = excellent, 8 to 9 = good, 5 to 7 = fair, 2 to 4 = poor, and 1 = unacceptable.

OFF FLAVOR	SCORES
	S D P
Bitter	5 3 1
Feed	9 8 5
Flat/Watery	9 8 7
Foreign	5 3 1
Garlic/Onion	5 3 1
High Acid	3 2 1
Malty	5 3 1
Metallic/Oxidized	6 4 1
Rancid	4 1 -
Salty	8 6 4
Unclean	3 2 1
No defect	10c

1. Suggested scores are given for three intensities of flavor: S - slight, D - definite, and P - pronounced. Intermediate numbers may also be used, for example, a bitter sample of milk may score 4.
2. Where a dash is entered a product with that intensity of off flavor would be unsalable.
3. Where a sample is identified as No defect, a score of 10 is entered.

Written Test

The test will be multiple choice consisting of 25 questions to be worth 1 point each. (Subtract 1 point per question missed to each individual score). Questions will only come from the most current published IDFA Dairy Facts edition/publication.

200 Question Test Bank – Once the test bank is created it will be up to the committee to keep the test bank current with changing facts and updated by January 31, of each year. It will be the responsibility of the top five teams at the state contest, with the state winning team coach, as the chairperson to be in charge of the test bank. After the test bank is updated, it will be forwarded to the Asst. State FFA Advisor to be placed on the calaged.org website for the contest coordinator to then choose their 25 questions.

REFERENCE: IDFA, 1250 H Street, NW, Suite 900, Washington DC, 20005 – Main phone: (202) 737-4332, FAX (202) 331-7820, Website: www.idfa.org.

Identification of Cheeses

A score of plus two (2) points is given for each variety correctly identified.

Dairy vs Non-Dairy Products

A score of plus two (2) points is given for each sample correctly identified.

A score of plus two (2) points is given for each sample's fat content correctly identified.

Scorecards

See CDE General Rules for Milk Quality Scorecards.

Awards

The winning team of this contest with the highest score will be eligible to represent the state at the National FFA CDE. If the winning team is unable to participate in the national finals, the second place team may represent California.