



## Preparation for FFA Dairy Foods Competition

# How to grade milk.

**Students** – This part of the competition requires you to identify different categories of milk based on taste. Here are some helpful things to help you distinguish between these categories.

You will score ten different milk samples based on taste and odor. You will have 36 minutes to complete the scoring.

Use only whole numbers to score the milk, even if there is more than one flavor defect in the sample you are scoring.

The defects in flavor include acid, bitter, feed, flat/watery, foreign particles, garlic/onion, malty, oxidized, rancid, salty and unclean milk. See scoring milk for more details.

**Coaches** – Your students need to identify different categories of milk based on taste. Here are some instructions on how to prepare milk for each category.

Follow the directions below to set up each of the milk categories your students will have to score.

**Scoring Guide** – this is a breakdown on milk scoring.

Milk scores range from 1 to 10 based on the quality of the milk. A score of 10 would be excellent quality, while a score of 1 would be unacceptable quality. Scores between 8 and 9 would be good quality milk. Scores between 5 and 7 would be fair quality milk. Scores between 2 and 4 would be poor quality milk.

**Milk Score Card**

<b>Defect in Flavor</b>	<b>Slight Defect Score</b>	<b>Definite Defect Score</b>	<b>Pronounced Defect Score</b>
No defect	10	0	0
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
Oxidized	6	4	1
Rancid	4	2	1
Salty	8	6	4
Unclean	3	2	1





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### Milk Sample Preparation Guide\*

\* Each substance should be added to high-quality milk unless otherwise noted.

<b>No defect</b>	Flavor of freshly pasteurized milk
Acid	0mg sediment
Bitter	More than 0mg, but no more than 0.5mg sediment
Feed	More than 0.5mg, but no more than 1.5mg sediment
Flat/Watery	More than 1.5mg, but no more than 2.5mg sediment
Foreign	More than 2.5mg sediment
Garlic/Onion	Add garlic powder or onion juice; or soak macerated sections of onion in water. Add enough flavored water or juice until flavor is perceptible.
Malty	Add malt extract or soak 2 tsp of Grape-nuts cereal in 1 pint of milk for 2 hours, then filter and add enough filtrate to slightly flavor the milk.
Oxidized	Add 2 drops of 1% cupric sulfate to 1 pint of milk and store at 5 deg C for 48 hours.
Rancid	Add 5% raw milk and let sit overnight in the refrigerator. Expectorate after tasting. Do not swallow.
Salty	Add 0.5 g table salt/per pint.
Unclean	Select from several samples of milk stored at 5-7 deg C for several days. Typical samples will have somewhat putrid odor and slightly astringent to bitter flavor. Dilute as necessary.

