



# 86<sup>th</sup> ANNUAL COLLEGIATE DAIRY PRODUCTS EVALUATION CONTEST

## October 21-22, 2008

### 2008 Rules

The Collegiate Dairy Products Evaluation Contest is an annual contest among college students--teams and individuals--in judging the quality and market grade of butter; low, reduced and full fat Cheddar cheese; pasteurized, homogenized, 2% fat milk; vanilla ice cream; low, reduced and full fat cottage cheese; low, reduced and full fat strawberry flavored, Swiss style yogurt with natural and alternative sweeteners.

This contest is sponsored by the American Dairy Science Association, the Foundation of Food Processing Suppliers Association, and the International Dairy Food Association, and is under the direct supervision of the United States Department of Agriculture (USDA). A member of USDA is the Superintendent of the contest.

#### ELIGIBILITY OF CONTESTANTS

Any undergraduate student of a land-grant, State or provincial agricultural college or a college of corresponding rank who: (a) is regularly matriculated in a program leading to a Bachelor of Science degree or its equivalent; (b) has never competed in the Collegiate Dairy Products Evaluation Contest as a contestant or alternate; (c) has never acted as an official judge of dairy products; and (d) has not taught the manufacturing of or the judging of dairy and other food products is eligible to compete in the contest. Three students from any one college or university shall constitute a team.

In addition, students from credit-transferable two-year Agricultural Colleges are also eligible providing they meet the criteria in (b) (c) and (d) in the preceding paragraph.

One or two graduate students of a land-grant, State or provincial agricultural college or a college of corresponding rank who: (a) are regularly matriculated in a program leading to a graduate degree in science or its equivalent; (b) have never competed in the Collegiate Dairy Products Evaluation Contest as a contestant or alternate; and (c) have never acted as an official judge of dairy products. Graduate students from any one college or university will compete individually against graduate students from other colleges or universities. Graduate students will compete in the same contest as the undergraduate students; however, the graduate students will compete for individual awards in the graduate student competition.

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Committee on Dairy Product Evaluation, American Dairy Science Association

Dr. Kerry E. Kaylegian, 2007      Ms. Charlsia S. Fortner, USDA  
Dr. George Patocka, 2008      Ms. Robyn Roche, FPSA  
Dr. Valente Alvarez, 2009  
Dr. Johnny McGregor, 2010



## **RULES GOVERNING CONTEST**

1. All entries must be received by the Contest Superintendent not later than 3 weeks before the contest. The 2007 contest will be held Wednesday, October 22, 2008.

Regular entry forms will be mailed by the Superintendent at least one month prior to the contest, to the coach of the dairy products judging team and a notification will be sent to the head of the department in which the section of dairy manufacturing is located in each State or provincial agricultural college.

2. Each institution eligible to participate in this contest may enter a team consisting of three eligible undergraduate students of that institution. When an institution does not enter a team, it may enter one or two eligible undergraduate students who may compete for individual placing and prizes only.
3. Each institution eligible to participate in this contest may enter one or two eligible graduate student(s) of that institution. The graduate student(s) will participate as (an) individual(s) competing against graduate students from other institutions.
4. Each contestant shall report to the Superintendent of the contest at such time and place as may be announced. He/she will then be assigned a contestant number, group number, and be given such instruction as the Superintendent may deem necessary.
5. The contestants shall be divided into six approximately equal groups. No more than seven students per team will be allowed to participate (i.e., a maximum of three undergraduates, two graduates and two alternates). No two competing students officially representing a school may be in the same group.
6. No contestant shall wear any uniform, college colors, college badges, or college pin or any other distinctive dress which may in any way reveal his/her identity or the identity of the college which he/she represents. Nor shall any contestant wear any strong perfume, cologne, shaving lotion, etc., which might interfere with sensory evaluation of the products.
7. Each contestant may use a clipboard and shall use a black lead Number 2 pencil. Ink shall not be used in recording scores and criticisms. No food of any kind may be brought into the contest by participants. Contestants may bring only a trier and sheath, clipboards, #2 pencils, spatula and drinking cup into the contest area. No fanny packs, purses, etc., are allowed.
8. While the contest is in progress or during the 5-minute rest period there shall be no communication between the contestants or between contestants and any other person, except as directed by the Superintendent or his/her representatives. There shall be no intermingling of groups or communication between groups while the judging is in progress or during the rest periods. Students' use of cellular telephones, paging and/or Internet devices, including personal digital assistants (PDAs), under normal contest conditions is prohibited.
9. Reporters, photographers, and others except the contestants, the Superintendent, and his/her assistants, shall be excluded from the place of scoring while the contest is in progress. Exceptions to this rule shall be made by the Superintendent to promote the good of the contest. No smoking shall be permitted in the contest room.
10. Any contest official noticing an infraction during the contest will warn the contestant by describing the infraction verbally and in ink on the contestant's score card, signing, and dating the comment, and returning the card to the individual. The contestant will be allowed to continue to judge.



Scoring officials will eliminate the score cards of any contestant with two or more signed infractions. If a member of any team is debarred because of violation of rules, that team will be debarred from the team contest. The remaining members of the team may compete for individual prizes.

11. Each contestant, at the beginning of a judging period will be given a contest score card on which he/she shall record "contestant number" assigned. At the expiration of the allotted time, he/she shall return it to the Superintendent, official product judge, or assistant in charge. Contestants will also be given memorandum cards on which they may keep, for their own use, a record of their scores and criticisms.
12. Each contestant shall criticize, score, and follow the marking instructions on the computer scorecard in the proper places, 8 samples each of butter; low, reduced and full fat Cheddar cheese; pasteurized, homogenized, 2% fat milk; vanilla ice cream; low, reduced and full fat cottage cheese; low, reduced and full fat strawberry flavored, Swiss style yogurt with natural and alternative sweeteners.
13. Thirty-five minutes are allotted for scoring each product. A 10-minute notice prior to the close of a scoring period shall be given. A 2-minute period shall be allowed to check score card markings. A 5-minute rest period shall be allowed between the judging of each product.
14. The products shall be criticized and scored on the basis described on pages 9-10.

#### **SUPERINTENDENT OF CONTEST**

The Superintendent of the contest shall carry the major responsibility of the contest. He/she shall take care of all preliminary work incident to the contest such as (a) notifying and instructing the official judges; (b) distributing copies of the rules of the contest to the various schools; (c) checking on the adequacy and suitability (freedom from odors and temperatures about 69° to 70°F) of space provided for the contest; and (d) assisting the official judges the day immediately preceding the contest in any way will expedite the work.

He/she shall determine that all rules and regulations governing the contest are duly carried out and see that the contest is conducted with fairness to all.

He/she shall counsel with members of the Committee on Evaluation of Dairy Products, American Dairy Science Association, on all questions which may arise in connection with the interpretation of the rules governing the contest, and make temporary rulings to facilitate the working of the rules in force at the beginning of the contest.

He/she shall have a sufficient number of assistants and clerks to help in conducting the contest. The members of the Dairy Products Evaluation Committee of the American Dairy Science Association shall be present to: (a) assist the Superintendent in determining that the products are scored according to the rules; (b) aid in starting the contest; and/or (c) compute the contestant grades if such assistance is desired.

He/she shall direct the contestants as to the products to evaluate, time to commence work, and time to stop. He/she or an official timekeeper designated by the Superintendent shall notify the contestants 10 minutes prior to the close of the evaluation period.

After instructing the contestants in a body regarding the contest, the form in which to prepare the scores and criticisms, etc., he/she shall say nothing to any contestants as to the method for a contestant to follow in scoring.



The chairman and/or members of the Committee on Evaluation of Dairy Products of the American Dairy Science Association shall be available to address any problems arising during the contest.

The superintendent shall have charge of all records and shall have all ratings totaled and tabulated. He/she shall deliver the results of the contest for printing to the executive secretary of the Foundation of Food Processing Suppliers Association.

Assistant and Clerks. An assistant, who shall be selected by the Superintendent of the contest from the Food Processing Suppliers Association Contest and Fellowship Committee, shall have charge of each group of contestants. Each contestant in his/her group shall remain in the presence of the assistant through the entire time the contest is in progress. In case of emergency, absence shall be directed by the Superintendent. They shall see that there is no intermingling of groups during the rest period.

### **SELECTION, PREPARATION, AND MARKING OF PRODUCTS**

The products shall be provided by the Foundation of Food Processing Suppliers Association or donated by any commercial dairy enterprise.

The official judge of each product named by the superintendent of the contest shall select samples of butter; low, reduced and full fat Cheddar cheese; pasteurized, homogenized 2% milk; vanilla ice cream; low, reduced and full fat cottage cheese; low, reduced and full fat strawberry flavored, Swiss-style yogurt with natural and alternative sweeteners, respectively, which in his/her judgment will make a representative scoring contest for each product. Whenever possible, the products shall be obtained from different sections of the United States. A sufficient number of samples (not less than 13) shall be available so that in case of disagreement among the judges, other samples may be substituted. Identical samples may be used in the contest. Only "Cheddar", rindless block", "daisy", "twin", or "flat" styles of cheddar cheese may be used in the contest. Nothing artificial shall be added to any sample that will affect its flavor or in any other way change its score, except especially prepared 2% milkfat milk, cottage cheese, or ice cream samples may be used if necessary to secure more representative classes of samples. All samples shall be of such quality as to be salable, commercial products.

The cottage cheese samples will be small curd type. The samples shall be numbered consecutively from left to right and the numbers shall be marked plainly on the packages.

Any markings on the containers that might indicate quality or other information shall be blocked out from view.

The butter and Cheddar cheese shall be properly tempered to 45° to 55°F, immediately preceding the contest. The official ice cream lead judge shall see that the ice cream is tempered properly for dipping.

A representative plug shall be drawn from each Cheddar cheese sample in the contest and placed in a clean test tube, sealed, and securely placed beside each corresponding cheese sample. This plug shall be used for grading "appearance" by the official judges and contestants and shall not be handled by anyone during the contest.

Each bottle of 2% milkfat milk used for flavor examination shall be identified by means of a tag securely fastened to it by a string or wire or by numbers written with odorless markers on the sample container. Each lot of milk, regardless of source, shall be thoroughly mixed in a suitable container to ensure uniformity prior to immediate bottling in like containers. All bottles shall be capped with identifiable caps.

The milk samples shall be set out at a temperature of 50°F at the time of scoring. The official judges shall score each sample of milk for flavor before the contest.



The official judge of cottage cheese shall place in an appropriately sized dish one scoop of cottage cheese for each sample for grading of color and appearance. These dishes shall not be handled by anyone during the contest. These samples must be judged in the first 10 minutes after which they will be removed from the contest area. A warning will be given after 8 minutes.

The official judge of strawberry flavored, Swiss-style yogurts shall provide 3 replicates of each sample in their original 8 oz. commercial containers. Replicates #2 and #3 shall be covered with foil or a blank carton.

Replicate #1 shall be inverted, with minimal disturbance of product structure, on an appropriately sized plate. The students may not disturb the sample on the plate.

Replicate #2 shall have a spoon for removal of samples by the contestants. Samples should be removed without disturbing the remainder of the cup.

Replicate #3 shall be left undisturbed and shall be used to judge only 'free whey' and 'shrunken'. This sample must be judged in the first 10 minutes after which they will be removed from the contest area. A warning will be given after 8 minutes.

## **JUDGES**

An evaluation committee for each product shall consist of: (a) An official lead judge and no less than two official associate judges who shall be selected by the Superintendent of the contest from one or more commercial dairy enterprises, (official judges shall not participate as an official judge in the same product in regional contest) and (b) coach judges assigned to each product by the Chairperson of the Committee on Evaluation of Dairy Products, American Dairy Science Association, from the coaches with teams entered in the contest. The coach judge shall re-evaluate the contest product samples before the contest starts on the day of the contest.

It shall be the duty of the official judges to score each product in their portion of the contest and enter on a scorecard their scores and attributes which correctly characterize each product. These scores and attributes upon review by assigned coach judges become official for the contest and are used as the basis of computerized scoring of contestants' cards later. All official score cards for each product shall be verified and signed by all official, associate, and coach judges.

The associate judges shall work with the lead official judges and satisfy themselves that any attribute(s) noted by the lead official judges is (are) present to the degree indicated and that no attributes have been overlooked.

The coach judges, scoring independently of the official and associate judges, shall examine the products assigned them and satisfy themselves that the attribute(s) noted by the official judge is (are) present and scored correctly.

If there is disagreement, the All Products judge or Contest Superintendent shall be called to serve as a referee. If the disagreement cannot be rectified, the lead official judge shall replace the sample(s) in question by another sample(s) on which there is agreement.

The Superintendent may appoint an official All Products Judge from a commercial dairy enterprise or other neutral entity. The duties of the official All Products Judge shall be to examine all products set out for the contest noting whether: (a) The products selected fairly represent the different sections of the country; (b) the samples constitute a good class for student judging; and (c) the products are well judged.



All coach judges of dairy products shall remain in the contest room or in the vicinity of the product that they have judged until the contestants are under the direct supervision of the Superintendent of the contest.

The card-grading committee shall check the final official score cards noting particularly that attributes considered in grading contestant attributes are checked thereon and that the official judging has been done according to the rules.

The products shall be evaluated on the basis described on pages 10 to 15 and shall be checked after actually being placed on the table for the judging contest. In general, the products will be evaluated according to suggested scoring guides approved by the American Dairy Science Association. After the contest is over, the coaches may score the various products, and judges shall then give their scores and explain their evaluation to the coaches and contestants.

### **GRADING OF CONTESTANT'S CARDS**

The contestant's scorecards shall be graded by at least three computer tabulation officials selected by the Superintendent of the contest. The tabulation shall be accomplished by using a programmed computer scanner. Results shall not be revealed to any coach or contestant before the awards presentation.

The computer tabulation officials or a committee appointed by the Contest Superintendent shall check all scorecards for the presence of 10 and 5 point deductions. This review committee shall verify that 10 and 5 point deductions are not the result of computer failure.

Computer tabulation officials have the incumbent responsibility to ascertain accurate functioning of the computer and scanner used for card scoring. A standard card shall be used frequently during operation to ascertain similar correct scoring by the scanner.

The grading shall be done as follows:

#### **Score**

A contestant's score of each sample represented on the scorecard will be given a grade expressed by the difference between his/her score, except as indicated below, and the official score. For example, if a contestant scores "flavor" 7 and the judges' score is 5, the contestant shall receive a grade of 2 points

If, however, a contestant recognizes that the sample scores perfect, but fails to indicate that score on his/her scorecard, he/she shall receive a grade equivalent to the maximum cut for that sample. For example, the normal range of score on body and texture of cottage cheese, 1-5, represents a maximum cut of 5 points. The contestant's grade, therefore, shall be 5 when he/she fails to indicate the numerical score for that item. This rule holds regardless of the official score.

#### **Product Attributes**

The grading of attributes is independent of the grading of product scores, and is based on the contestant's proficiency in recognizing the same quality merits and defects of the various samples as noted by the official judges. Each attributes indicated by the contestant shall be involved in the grading. The contestant's grade on attributes for a single item shall be:

- (1) Perfect, 0, when the contestant:
  - (a) Marks only those attributes recognized by the officials, judges, or



- (b) Recognizes like the official judges that the item is above criticism, under which conditions a mark is not necessary.
- (2) The maximum, 2.0 points when the contestant:
- (a) Fails to check any of the defect(s) noted by the official judge;
  - (b) Marks a defect(s) when the sample was judged by the official judges as being above criticism;
  - (c) Fails to check a criticism(s) when the official judge scores the sample within the criticizable range (although the contestant may have scored the sample above criticism); or
  - (d) Fails to mark an attribute(s) when his/her score indicates he/she should have (although the official judges scored the sample above criticism).
- (3) Less than 2, 0.50, 0.67, 1.00, 1.33, 1.50, or 1.60, etc. of a point according to the percentage of the attributes checked correctly.

Examples:

- (a) The official judges marked 3 attributes and the contestant marks only 1 which is identical with one of the official attributes. The grade shall be 1.33.
- (b) The official judges marked 1 attribute and the contestant marks 3, one of which coincides with that of the official judge. The grade shall be 1.33.
- (c) The official judges marked 3 attributes and the contestant marks 3, one of which is identical with one of the official attributes. The grade shall be 1.60. (A total of 5 different criticisms has been involved by the official judges and contestant. The contestant and official agree on one of them. Thus, the contestant is 1/5 correct or 4/5 incorrect, earning a grade of 1.60).

## **Grades**

A contestant's grade on a sample shall be the sum of his/her grades on "score" and "attributes" of that sample. His/her grade on a product shall be the sum of his/her grades on the 8 samples of that product.

A team grade for each product shall be the sum of the grades of its members.

As "grade" in this contest means "points lost", the contestant with the lowest "grade" shall be the winner of the product evaluation, and the team with the lowest "grade" shall be the winning team for the product evaluation.

## **Certification of Grading**

The general supervisor of the computer tabulation officials shall certify to the committee on evaluation that each contestant card was graded accurately and according to the rules prescribed herewith. These certified grades shall be the official and final grades used by the Committee on Evaluation of Dairy Products, American Dairy Science Association, in determining the contestant and team standings in the contest.



## **Standings**

Contestant Standings in each product shall be obtained by arranging the grades of all contestants in that product in order from the lowest to the highest. Team standings in each product shall be obtained the same way.

Contestant standings in All Products shall be determined by arranging the sum of the ranks of the individual in each of the six products (butter; low, reduced and full fat Cheddar cheese; pasteurized, homogenized, 2% fat milk; vanilla ice cream; low, reduced and full fat cottage cheese; low, reduced and full fat strawberry flavored, Swiss style yogurt with natural and alternative sweeteners) in order from the lowest to the highest. Team standings in all products shall be determined by arranging the sum of the ranks of the team in each of the six products in order from the lowest to the highest.

## **Breaking Ties**

When two or more contestants or teams (except teams in "All Products") tie, the tie shall be broken in favor of the contestant or team having the lowest grade on flavor score; if there is still a tie, it shall be broken in favor of the one having the lowest grade on flavor attributes and then, if necessary, on other items in the order in which they appear on the various score cards. Team ties in "All products", involving a prize, shall be broken in favor of the team having the least sum of the individual grades (points lost) in the judging of the separate products. If no prize is involved, the placing may remain a tie.

## ***PARTICIPATION IN INTERNATIONAL DAIRY PRODUCTS EVALUATION EVENTS***

Participation of United States Dairy Products Evaluation Teams in similar contests organized in other countries may be arranged, as resources and invitations exist, with assistance from the officials of this contest. The following guidelines will apply to this participation.

1. The Superintendent, the ADSA Dairy Products Evaluation Committee and the Foundation of FPSA shall determine suitability of any international contest for participation by a U.S. team with input from other contest officials who may have knowledge of the event under consideration. The officials will consider the contest location, rules, scoring methods, products evaluated, and the general likeness of the international competition to the U.S. Collegiate Contest. The availability of financial assistance to help defray travel costs will also be considered.
2. A U.S. Dairy Products Evaluation Team will be established to represent the United States in the international competition. This team shall be composed of the undergraduates who place first through fifth in All Products at the current year's contest. Eligibility shall require United States Citizenship. If an eligible student should elect not to participate in the USA Team, the vacancy shall be filled by the eligible individual placing consecutively in All Products.
3. The USDA Team shall be accompanied and trained by the coach of the winning school in the current year's contest. Should that coach be unavailable, the coach of the team placing second (and consecutively) in the U.S. contest shall be appointed as the USA Team coach. Additionally, the USDA Team may be accompanied by the Superintendent or a designated representative, and other interested contest officials and team coaches, as may be appropriate or necessary.



**87<sup>th</sup> ANNUAL COLLEGIATE DAIRY PRODUCTS EVALUATION CONTEST**  
**October 21-22, 2008**  
**Product Attributes and Scores**

<b>Milk</b>					<b>Ice Cream</b>					<b>Butter</b>			
<b>Flavor</b>	<b>S</b>	<b>D</b>	<b>P</b>		<b>Flavor</b>	<b>S</b>	<b>D</b>	<b>P</b>		<b>Flavor</b>	<b>S</b>	<b>D</b>	<b>P</b>
Acid	3	1	*		Acid	4	2	*		Acid	6	5	4
Bitter	5	3	1		Cooked	9	7	5		Bitter	6	5	4
Cooked	9	8	6		High Flavor	9	8	7		Cheesy	3	2	1
Feed	9	8	5		High Sweetness	9	8	7		Coarse	9	7	6
Fermented/ Fruity	5	3	1		Lacks Fine Flavor	9	8	7		Feed	9	8	6
Flat	9	8	7		Lacks Freshness	8	7	6		Flat	9	8	7
Foreign	5	3	1		Low Flavoring	8	6	4		Garlic/Onion	3	2	1
Garlic/onion	5	3	1		Low Sweetness	9	8	6		High Salt	7	6	5
Lacks Freshness	8	7	6		Old Ingredient	6	4	2		Metallic	4	3	1
Malty	5	3	1		Oxidized	6	4	1		Musty	5	4	2
Oxidized - Light	6	4	1		Rancid	4	2	*		Neutralizer	5	4	3
Oxidized - Metal	5	3	1		Salty	8	7	5		Old Cream	6	5	4
Rancid	4	1	*		Syrup Flavor	9	7	5		Oxidized	4	3	2
Salty	8	6	4		Unnatural Flavor	8	6	4		Rancid	4	2	1
Unclean	3	1	*		Whey	7	6	4		Scorched	7	5	3
										Storage	6	5	4
					<b>Body/Texture</b>					Unclean/Utensil	5	4	3
					Crumbly	4	3	2		Whey	6	5	3
					Fluffy	3	2	1		Yeasty	4	3	2
					Greasy	4	3	2					
					Gummy	4	2	1					
					Icy	4	2	1					
					Sandy	2	1	*					
					Soggy	4	3	2					
					Weak	4	2	1					

**S = Slight**  
**D = Definite**  
**P = Pronounced**  
**\* = Unsalable**

Note: A slight cooked flavor that is not objectionable may be scored a perfect 10 with no criticism (Butter Only)





Cheddar Cheese				Swiss Style Yogurt				Creamed Cottage Cheese			
Flavor	S	D	P	Flavor	S	D	P	Flavor	S	D	P
Bitter	9	7	4	Bitter	9	7	5	Bitter	7	5	1
Feed	9	8	6	Cooked	9	8	6	Cooked	9	8	6
Fermented	7	5	3	Foreign	8	7	6	Fermented/Fruity	5	3	1
Flat/Low Flavor	9	8	7	High Acetaldehyde	9	7	5	Flat	9	8	7
Fruity	7	5	3	High Acid	9	7	5	Foreign	7	4	1
Heated	9	8	7	High Flavoring	9	8	7	High Acid	9	7	5
High Acid	9	7	5	High Intensity Sweeteners	9	7	5	High Diacetyl	9	7	6
Oxidized	8	6	3	High Sweetness	9	8	7	High Salt	9	8	7
Rancid	6	4	1	Lacks Fine Flavor	9	8	7	Lacks Fine Flavor	9	7	6
Sulfide	9	7	4	Lacks Freshness	8	7	6	Lacks Freshness	8	7	6
Unclean	8	6	3	Low Acid	9	8	6	Metallic	5	3	1
Whey Taint	8	7	5	Low Flavoring	9	8	7	Oxidized	5	3	1
Yeasty	6	4	1	Low Sweetness	9	8	7	Rancid	4	2	1
				Old Ingredient	7	5	3	Sweet	8	7	6
<b>Body/Texture</b>				Oxidized	6	4	1	Unclean	6	3	1
Corky	4	3	2	Rancid	4	2	*	Whey	8	7	5
Crumbly	4	3	2	Unclean	6	4	1				
Curdy	4	3	2	Unnatural Flavor	8	6	4	<b>Body/Texture</b>			
Gassy	3	2	1	Yeasty	6	4	2	Firm/Rubbery	4	2	1
Mealy	4	3	2					Mealy/Grainy	4	2	1
Open	4	3	2	<b>Body/Texture</b>				Overstabilized	4	3	2
Pasty	4	3	1	Gel-like	4	3	2	Pasty	3	2	1
Short	4	3	2	Grainy	4	3	2	Weak/soft	4	3	2
Weak	4	3	2	Ropy	3	2	1				
				Too Firm	4	3	2	<b>Appearance</b>			
				Weak	4	3	2	Free Cream	4	2	1
								Free Whey	4	2	1
				<b>Appearance</b>				Lacks Cream	4	3	2
				Atypical Color	4	3	2	Matted	4	2	1
				Color Leaching	4	3	2	Shattered Curd	4	3	2
				Excess Fruit	4	3	2				
				Free Whey	4	3	2				
				Lacks Fruit	4	3	2				
				Lumpy	4	3	2				
				Shrunken	4	3	2				

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**P = Pronounced**

**\* = Unsalable**