



Meat Grading & Certification Branch

**Written Grading and Certification Correlations
and Evaluations of Grading Accuracy**

Policy

It is the policy of the Meat Grading and Certification (MGC) Branch to conduct written correlations at all levels of the organization on beef, lamb, veal, and calf carcasses, and on various meat cuts, to validate the uniformity and accuracy in interpreting the official United States Standards for Grades of Carcass Beef; the United States Standards for Grades of Lamb, Yearling Mutton, and Mutton Carcasses; the United States Standards for Grades of Veal and Calf Carcasses; the Institutional Meat Purchase Specifications (IMPS); and, other official meat specifications. The MGC Branch will conduct Acceptable Quality Level (AQL) reviews to assess the accuracy of grading.

Correlations and AQL reviews are effective for ensuring the accurate application of grade standards and specifications. The results from these activities also provide a significant management tool for directing appropriate training resources. Therefore, correlations and AQL reviews shall be conducted for Assistant Directors, Supervisory Meat Graders, Meat Graders and Meat Grader Trainees in accordance with this Instruction.

Objectives

The objectives of conducting written correlations and AQL reviews are:

1. to provide the opportunity to formally evaluate, discuss and determine final and official carcass grade factors and specification interpretations in order to demonstrate areas of critical concerns in the application of standards and specifications;
2. to set and maintain the national grading and certification patterns; and,
3. to assess the accuracy rates for quality and yield grading.

National Level Correlations

The MGC Branch will conduct two grading and/or certification correlations each calendar year on one or more species or meat cuts for all MGC Branch Assistant Directors; Supervisory Meat Graders; Internal Review Specialists; representatives of the Standards, Analysis, and Technology (SAT) Branch; and the Audit, Review and Compliance (ARC) Branch Review Specialist. Each correlation will address one or more areas of critical concern in the application of the standards or specifications as

observed or requested from graders, supervisors, internal review personnel, industry representatives, SAT Branch personnel, and ARC Branch personnel.

For each correlation, a minimum of 40 carcasses and/or meat cuts will be evaluated as follows:

1. The correlation officials, whether at a plant or other suitable location, will select carcasses and/or meat cuts for the correlation which exhibit the specific areas of critical concern that will be demonstrated as well as other carcasses and/or cuts that will demonstrate grade and/or certification factors;
2. All correlation participants will individually record the grade and/or certification factors on the first 20 carcasses and/or cuts;
3. Marbling pictures, ribeye grids, preliminary yield grade rulers, etc., may be used by participants to assist in their evaluations; and,
4. All grade factors for carcass correlations will be expressed to the nearest 10 degrees or numerical points as contained in Standard for Recording Grade Factors (Exhibit A).

The data from each correlation participant will be entered into a computer correlation data program showing individual and group information for specific grade/certification factors.

The Director of Grading and Certification, a representative of the SAT Branch, and a representative of the ARC Branch will serve as the official committee and will individually evaluate the first 20 carcasses/cuts. The official committee will review each evaluation and arrive at a consensus decision on the official grade/certification factors of each carcass or cut. If needed, the official committee will also reevaluate any carcasses/cuts which, based on the participants' computer summary average, show deviations more than 20 percent from the committee's decision for specific factors. The committee will then discuss the final official grade/certification factors with the correlation participants and clarify any issues dealing with the interpretation of the standards and specifications.

The process will be repeated for a second set of carcasses/cuts. Prior to the completion of the correlation, a committee member will discuss in detail the final official grade/certification factors of any evaluated carcass/cut with the correlation participants and clarify any issues dealing with the interpretation of the standards and specifications to ensure accurate, uniform application of all factors. Completed correlation forms will be maintained at the MGC Branch Office.

Assistant Director, Supervisory Meat Grader, and Internal Review Specialist Correlations

Using the methodology cited in the section entitled "National Level Correlations," the Director of Meat Grading and Certification will meet at least twice per calendar year with the Assistant Directors to conduct two additional correlations on one or more species and/or meat cuts. Likewise, Assistant Directors will meet with Supervisory Meat Graders a minimum of once every three months, or more frequently as determined by the Assistant Director to conduct a correlation on one or more species and/or meat cuts.

Completed Supervisory Meat Grader correlation forms will be maintained in the MGC Branch Office. Copies of Supervisory Meat Grader correlation forms and statistical analysis shall be sent to the applicable Assistant Director. More correlations will be conducted on an individual basis with Supervisory Meat Graders whose correlation results are below the requirements of the Strategic Plan. The official committee for these correlations will be determined by the Assistant Chief.

Meat Grader Correlations

In accordance with the MGC Branch Strategic Plan, to improve the accuracy and uniformity of grading Meat Graders involved in grading assignments are required to estimate, measure and document Preliminary Yield Grade (PYG) and ribeye area (REA) of 10 carcasses per day. Additionally, in multi-grader plants if plant conditions permit, Meat Graders will correlate and discuss marbling, maturity, Adjusted Preliminary Yield Grade (APYG) and kidney, pelvic and heart (KPH) fat on the same 10 carcasses at least once per week. These activities are designed to increase accuracy, consistency and uniformity among graders at the same facility. Procedures for completing these activities will be established at the local level, approved by the Supervisory Meat Grader, and included in the Quality Plan.

Supervisory Meat Graders are required to conduct a written correlation at least once per month on one or more species and/or cuts with each Meat Grader involved in grading and/or certification assignments. In other assignments such as reprocessing, where written correlations are not practical, supervisors will conduct an alternative to a written correlation. Examples of alternatives to written correlations are reviewing an Agricultural Marketing Service (AMS) Directive, discussing the certification procedures of a specification, completing a technical worksheet such as balancing bone and lean maturities or completing exercises in the MGC Branch interactive training site.

Supervisors should be creative when conducting alternative correlations. Written correlations and alternative correlations shall be documented on the grader's monthly Employee Progress Review Report (MGC-18). If a written correlation is not conducted with a grader one month, supervisors will justify on the monthly MGC-18 the reason for not conducting a correlation. In multi-grader assignments, the methodology used for the National Level correlations may be used. Completed Meat Grader correlation forms and statistical data will be attached to the applicable MGC-18 and forwarded to the MGC Branch Office for analysis and filing. In accordance with the Strategic Plan, additional correlations will be conducted on an individual basis with Meat Graders whose correlation results are below the requirements of the Strategic Plan. The additional correlations and training will be documented on the applicable MGC-18.

Correlation Guidelines

Participants are expected to complete all required information and review carcasses/cuts at a reasonable pace. The following guidelines will be followed during the correlation:

1. There will be no discussions of grade factors among the participants during the actual correlation.
2. There must be at least one carcass between each participant when correlating.
3. Participants must complete their own correlation sheets with all required information and grade factors on all carcasses evaluated.
4. Changes on correlation sheets may only be made during the evaluation.
5. Participants must arrive on time and must move through the correlation as directed by the correlation official(s).
6. Participants must submit a completed correlation sheet to the correlation official prior to leaving the cooler.
7. Participants will complete all sections of correlation sheets and once the sheet has been submitted to a correlation official, no changes will be allowed.

Acceptable Quality Level and Consecutive Carcass Reviews

In accordance with the Strategic Plan, Supervisory Meat Graders shall conduct a bi-monthly AQL of each grader's quality and yield grading accuracy. In both chain and rail grading assignments, supervisors will randomly select every fifth carcass until twenty carcasses have been selected. Supervisors should select carcasses at a location on the grading stand following the grader's evaluation and as far away from the grader as possible. An alternative method of random selection may be used if plant conditions or procedures will not allow the every fifth carcass method. The supervisor will evaluate and record all quality and yield grade factors for each carcass, and record the grader's original grade placements. These same twenty carcasses may be used for the monthly written correlation with the grader. Quality and/or yield grade errors found during the AQL will be discussed with the grader. Special reviews and AQL's will also be conducted by higher levels of supervision to address industry concerns on the uniformity of grading from state to state. The Strategic Plan will be followed when the results of the AQL require more action. Results of all AQL's will be forwarded to the MGC Branch Office and the applicable Assistant Director. The MGC Branch Office will maintain historical data for quality and yield grading for each plant and each grader.

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Grade Factor Constants - Beef A Maturity

MarblingScore	Grade Score	Grade Score
AB90	990	PR90
AB80	980	
AB70	970	
AB60	960	PR80
AB50	950	
AB40	940	
AB30	930	PR70
AB20	920	
AB10	910	
AB0	900	PR60
MDA90	890	
MDA80	880	
MDA70	870	PR50
MDA60	860	
MDA50	850	
MDA40	840	PR40
MDA30	830	
MDA20	820	
MDA10	810	PR30
MDA0	800	
SLA90	790	
SLA80	780	PR20
SLA70	770	
SLA60	760	
SLA50	750	PR10
SLA40	740	
SLA30	730	
SLA20	720	PR0
SLA10	710	
SLA0	700	

MarblingScore	Grade Score	Grade Score
MD90	690	CH90
MD80	680	
MD70	670	
MD60	660	CH80
MD50	650	
MD40	640	
MD30	630	CH70
MD20	620	
MD10	610	
MD0	600	CH60
MT90	590	
MT80	580	
MT70	570	CH50
MT60	560	
MT50	550	
MT40	540	CH40
MT30	530	
MT20	520	
MT10	510	CH30
MT0	500	
SM90	490	
SM80	480	CH20
SM70	470	
SM60	460	
SM50	450	CH10
SM40	440	
SM30	430	
SM20	420	CH0
SM10	410	
SM0	400	

Grade Factor Constants - Beef A Maturity

MarblingScore	Grade Score	Grade Score	
SL90	390	SE90	690
SL80	380	SE80	680
SL70	370	SE70	670
SL60	360	SE60	660
SL50	350	SE50	650
SL40	340	SE40	640
SL30	330	SE30	630
SL20	320	SE20	620
SL10	310	SE10	610
SL0	300	SE0	600
TR90	290	S+	550
TR80	280		
TR70	270		
TR60	260		
TR50	250		
TR40	240		
TR30	230		
TR20	220		
TR10	210		
TR0	200		
PD90	190	S-	500
PD80	180		
PD70	170		
PD60	160		
PD50	150		
PD40	140		
PD30	130		
PD20	120		
PD10	110		
PD0	100		
D	0	U	300

Maturity

A0	200	C0	400
A10	210	C10	410
A20	220	C20	420
A30	230	C30	430
A40	240	C40	440
A50	250	C50	450
A60	260	C60	460
A70	270	C70	470
A80	280	C80	480
A90	290	C90	490
A100	299	C100	499
B0	300	D0	500
B10	310	D10	510
B20	320	D20	520
B30	330	D30	530
B40	340	D40	550
B50	350	D50	550
B60	360	D60	560
B70	370	D70	570
B80	380	D80	580
B90	390	D90	590
B100	399	D100	599
		E0	600
		E10	610
		E20	620
		E30	630
		E40	640
		E50	660
		E60	660
		E70	670
		E80	680
		E90	690
		E100	699

Ribeye Area is recorded as square inches (ex: 11.3, 9.8, 14.1)

KPH is recorded as actual percentage (ex: 1.0, 3.5, 0.5)