

STATE OF WASHINGTON
DEPARTMENT OF AGRICULTURE
Olympia

Order No. 936

Superseding Order No. 773

Effective March 1, 1964

RULES AND REGULATIONS RELATING TO WASHINGTON STATE STANDARDS, GRADES,
AND WEIGHT CLASSES FOR SHELL EGGS.

I, Joe Dwyer, Director of Agriculture of the State of Washington, after public notice and hearing held at Olympia on January 22, 1964 by virtue of authority vested in me under chapter 69.24 and chapter 34.04, Revised Code of Washington, do hereby promulgate the following rules and regulations relating to standards, grades, and weight classes for shell eggs:

REGULATION 1. Washington State Standards for Quality of Individual Shell Eggs.

Section 1. Application.

- (1) General. The Washington State Standards for quality of individual shell eggs contained in this order are applicable only to eggs that are the product of the domesticated chicken hen and are in the shell. Such standards are with respect to individual eggs with clean or dirty unbroken shells, and checked or cracked shells.

Interior egg quality specifications for these standards are based on the apparent condition of the interior contents of the egg as it is twirled before the candling light. Any type or make of candling light may be used that will enable the particular grader to make consistently accurate determinations of the interior quality of shell eggs.

- (2) AA Quality. The shell must be clean, unbroken, and practically normal. The air cell must not exceed 1/8 inch in depth and be practically regular. The white must be clear and firm so that the yolk appears well centered and its outline only slightly defined when the egg is twirled before the candling light. The yolk must be free from apparent defects.
- (3) A Quality. The shell must be clean, unbroken, and practically normal. The air cell must not exceed 2/8 inch in depth and must be practically regular. The white must be clear and at least reasonably firm so that the yolk appears at least fairly well centered and its outline only fairly well defined when the egg is twirled before the candling light. The yolk must be free from apparent defects.
- (4) B Quality. The shell must be unbroken and may be slightly abnormal and may show slight stains but no adhering dirt, provided, that they do not appreciably detract from the appearance of the egg. When the stain is localized, approximately 1/32 of the shell surface may be slightly stained and when the slightly stained areas are scattered, approximately 1/16 of the shell surface may be slightly stained. The air cell must not exceed 3/8 inch in depth, may show unlimited movement and may be free but not bubbly. The white must be clear and may be slightly weak so that the yolk may appear off-center with its outline well defined when the egg is twirled before the candling light. The yolk may appear slightly enlarged or slightly flattened and may show other definite defects.

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- (5) C Quality. The shell must be unbroken and may be abnormal, and may have slight to moderate stained areas covering not more than 1/4 of the shell surface but no adhering dirt. Prominent stains are not permitted. The air cell may be over 3/8 inch in depth and be free or bubbly. The white may be weak or watery so that the yolk may appear off-center and its outline plainly visible when the egg is twirled before the candling light. The yolk may appear dark, enlarged and flattened and may show clearly visible germ development, but no blood due to such development. It may show other serious defects that do not render the egg inedible. Small blood clots or spots may be present.
- (6) Dirty. The shell must be unbroken and it has adhering dirt or prominent stains or slight to moderate stains covering more than 1/4 of the shell surface.
- (7) Check. An individual egg that has a broken shell or crack in the shell but with its shell membranes intact and its contents do not leak.
- (8) Leaker. An individual egg that has a crack or break in the shell and shell membranes to the extent that the egg contents are exuding or free to exude through the shell. An egg which has a portion of the shell missing (in excess of an area 1/4 inch square) is considered a leaker even though the shell membrane is intact.

Section 2. Definitions of Terms Descriptive of Shell.

- (1) Clean. A shell that is free from foreign material and from stains or discolorations that are readily visible. An egg may be considered clean if it has only very small specks or stains, if such specks or stains are not of sufficient number or intensity to detract from the generally clean appearance of the egg. Eggs that show traces of processing oil on the shell are considered clean unless otherwise soiled.
- (2) Dirty. A shell which has dirt adhering to its surface or which has prominent stains or slight to moderate stains covering more than 1/4 of the shell surface.
- (3) Practically normal. A shell that approximates the usual shape and that is of good even texture and strength and is free from rough areas or thin spots. Slight ridges and rough areas that do not materially affect the shape, texture and strength of the shell are permitted.
- (4) Slightly abnormal. A shell that may be somewhat unusual in shape or that may be slightly faulty in texture or strength. It may show definite ridges but no pronounced thin spots or rough areas.
- (5) Abnormal. A shell that may be decidedly misshapen or faulty in texture or strength or that may show pronounced ridges, thin spots or rough areas.

Section 3. Definitions of Terms Descriptive of the Air Cell.

- (1) Depth of air cell (air space between the shell membranes, normally in the large end of the egg). The depth of the air cell is the distance from its top to its bottom when the egg is held air cell upward.

- (2) Practically regular. An air cell that maintains a practically fixed position in the egg and shows a fairly even outline with not more than 2/8 inch movement in any direction as the egg is rotated.
- (3) Free air cell. An air cell that moves freely toward the uppermost point in the egg as the egg is rotated slowly.
- (4) Bubbly air cell. A ruptured air cell resulting in one or more small separate air bubbles usually floating beneath the main air cell.

Section 4. Definitions of Terms Descriptive of the White.

- (1) Clear. A white that is free from discolorations or from any foreign bodies floating in it. (Prominent chalazas should not be confused with foreign bodies such as spots or blood clots.)
- (2) Firm. A white that is sufficiently thick or viscous to permit but limited movement of the yolk from the center of the egg, thus preventing the yolk outline from being more than slightly defined or indistinctly indicated when the egg is twirled.
- (3) Reasonably firm. A white that is somewhat less thick or viscous than a firm white. A reasonably firm white permits the yolk to move somewhat more freely from its normal position in the center of the egg and approach the shell more closely. This would result in a fairly well defined yolk outline when the egg is twirled.
- (4) Slightly weak. A white that is lacking in thickness or viscosity to an extent that permits the yolk to move quite freely from its normal position in the center of the egg. A slightly weak white will cause the yolk outline to appear well defined when the egg is twirled.
- (5) Weak and watery. A white that is thin and generally lacking in viscosity. A weak and watery white permits the yolk to move freely from the center of the egg and to approach the shell closely thus causing the yolk outline to appear plainly visible and dark when the egg is twirled.
- (6) Blood clots and spots (not due to germ development). Blood clots or spots on the surface of the yolk or floating in the white. These blood clots may have lost their characteristic red color and appear as small spots or foreign material commonly referred to as meat spots. If they are small (aggregating not more than 1/8 inch in diameter) the egg may be classed a "C" Quality. If larger, or showing diffusion of blood in the white surrounding them, the egg shall be classified as loss.
- (7) Blood white. An egg, the white of which has blood diffused through it. Such a condition may be present in new-laid eggs. Eggs with bloody whites are classed as loss.

Section 5. Definitions of Terms Descriptive of the Yolk.

- (1) Well centered. A yolk that occupies the center of the egg and moves only slightly from that position as the egg is twirled.

- (2) Fairly well centered. A yolk that is not more than one-fourth of the distance from its normal central position toward the ends of the egg and swings not more than one-half of the distance from its normal position towards the sides of the egg as it is twirled.
- (3) Off center. A yolk which is distinctly above or below center and swings close to the sides of the egg as it is twirled.
- (4) Outline slightly defined. A yolk outline that is indistinctly indicated and appears to blend into the surrounding white as the egg is twirled.
- (5) Outline fairly well defined. A yolk outline that is discernible but not clearly outlined as the egg is twirled.
- (6) Outline well defined. A yolk outline that is quite definite and distinct as the egg is twirled.
- (7) Outline plainly visible. A yolk outline that is clearly visible as a dark shadow when the egg is twirled.
- (8) Slightly enlarged and slightly flattened. A yolk in which the yolk membranes and tissues have weakened somewhat causing it to appear slightly enlarged and slightly flattened.
- (9) Enlarged and flattened. A yolk in which the yolk membranes and tissues have weakened and moisture has been absorbed from the white to such an extent that it appears definitely enlarged and flat.
- (10) Free from defects. A yolk that shows no spots or areas on its surface indicating the presence of germ development or other defects.
- (11) Practically free from defects. A yolk that shows no germ development but may show other slight defects on its surface.
- (12) Definite but not serious defects. A yolk that may show definite spots or areas on its surface but with only slight indication of germ development or other pronounced or serious defects.
- (13) Other serious defects. A yolk that shows well developed spots or areas and other serious defects such as olive yolks which do not render the egg inedible.
- (14) Clearly visible germ development. A development of the germ spot on the yolk of a fertile egg that has progressed to a point where it is plainly visible as a definite circular area of spot with no blood in evidence.
- (15) Blood due to germ development. Blood caused by development of the germ in a fertile egg to the point where it is visible as definite lines or as a blood ring. Such an egg is classified as inedible.

Section 6. Definitions - General Terms.

- (1) Loss. An egg that is inedible, smashed or broken so that the contents are leaking, cooked, frozen, contaminated, or containing bloody whites, large blood spots, large unsightly meat spots or other foreign material.

- (2) Inedible eggs. Eggs of the following description are classed as inedible: Black rots, white rots, mixed rots (addled eggs), sour eggs, eggs with green whites, eggs with stuck yolks, moldy eggs, musty eggs, eggs showing blood rings, eggs containing embryo chicks (at or beyond the blood ring stage), and any eggs that are adulterated as such term is defined pursuant to the State of Washington Food, Drug, and Cosmetic Act.

REGULATION 2. Washington State Consumer Grades and Weight Classes for Shell Eggs.

Section 1. General.

- (1) These grades are applicable to edible shell eggs in "lot" quantities rather than on an "individual" egg basis. A lot may contain any quantity of 2 or more eggs. References in these standards to the term "case" means 30 dozen egg cases as used in commercial practice in the State of Washington.
- (2) Terms used in this Regulation that are defined in Regulation 1 have the same meaning as defined therein.
- (3) An aggregate tolerance of 20 percent is permitted within each consumer grade (except Grade Checks or Chex which tolerance is 10 percent) only as an allowance for variable efficiency and interpretation of graders, normal changes under favorable condition during reasonable periods between grading and inspection and reasonable variation of inspector's interpretation.
- (4) Substitution of higher qualities for the lower qualities specified is permitted.

Section 2. Grades.

- (1) "State of Washington Consumer Grade AA" shall consist of eggs of which at least 80 percent are AA Quality. Within the maximum tolerance of 20 percent which may be below AA Quality, not more than 5 percent may be of the qualities below A, in any combination but not including Dirties and Leakers.
- (2) "State of Washington Consumer Grade A" shall consist of eggs of which at least 80 percent are A Quality or better. Within the maximum tolerance of 20 percent which may be below A Quality, not more than 5 percent may be of the qualities below B, in any combination, but not including Dirties and Leakers.
- (3) "State of Washington Consumer Grade B" shall consist of eggs of which at least 80 percent are B Quality or better. Within the maximum tolerance of 20 percent which may be below B Quality, 10 percent may be of C Quality, and not over 10 percent may be Checks in any combination.
- (4) "State of Washington Consumer Grade Checks or Chex" shall consist of eggs of which at least 90 percent are Checks or better. Within the 90 percent the shells may have slight to moderate stains covering not more than 1/4 of the shell surface and may be abnormal. The air cell may not exceed 3/8 inch in depth but may have unlimited movement and may be free and bubbly. The white may be slightly weak so that the yolk may appear off-center and its outline well defined when the egg is twirled before the candling light. The yolk must be practically free from apparent defects but may appear slightly enlarged and flattened. The remaining 10 percent may be of C Quality.

NOTE: No classification is established for a "State of Washington Consumer Grade C". Standards are provided in Regulation 1 for tolerance purposes only.

(5) Additional tolerances.

(a) Within the maximum tolerance permitted, an allowance will be made at receiving points or shipping destination for 1/2 percent Leakers in State of Washington Consumer Grades AA, A, and B, and 1 percent in Grade Checks or Chex.

(b) In lots of two or more cases, no individual case may fall below 70 percent of the specified quality and no individual case may contain more than double the tolerance specified for the respective grade (i.e., in lots of Grade A, not more than 10 percent of the qualities in individual cases within the sample may be C or Check, provided the average is not over 5 percent).

(6) "No Grade" or "Receipts" means eggs of possible edible quality on which no grade determination has been made or that fail to meet the requirements of an official Washington State Consumer Grade or that may have been contaminated by smoke, chemicals or other foreign material which may have seriously affected the character, appearance or flavor of the eggs. "No Grade" or "Receipts" eggs shall be sold only to a dealer who shall be equipped to assign a grade.

Section 3. Summary of Grades.

(1) The summary of the Washington State Consumer Grades for Shell Eggs follows as Table 1 of this paragraph:

TABLE I - SUMMARY OF WASHINGTON STATE CONSUMER GRADES FOR SHELL EGGS.

Wash. State Consumer Grades	At least 80% 1* (lot average) must be	Tolerance permitted		2*
		Percent		Quality
Grade AA	AA Quality	15 to 20 Not over 5	3*	A B, C or Check
Grade A	A Quality or better	15 to 20 Not over 5	3*	B C or Check
Grade B	B Quality or better	10 to 20 Not over 10	3*	C Check
Grade Checks or Chex	Check Quality or better (at least 90%)	Not over 10	3*	C Quality

(1*) In lots of two or more cases, no individual case may fall below 70 percent of the specified quality and no individual case may contain more than double the tolerance specified for the respective grade (i.e., in lots of Grade A not more than 10 percent of the qualities in individual cases within the sample may be C or Check, provided the average is not over 5 percent).

(2*) Within tolerance permitted, an allowance will be made at receiving points or shipping destination for 1/2 percent Leakers in Grades AA, A, and B, and 1 percent in Grade Checks or Chex.

(3*) Substitution of higher qualities for the lower qualities specified is permitted.

Section 4. Weight Classes.

(1) The weight classes for Washington State Consumer Grades for Shell Eggs shall be as indicated in Table 1 of this section and shall apply to all consumer grades:

TABLE I - WASHINGTON STATE WEIGHT CLASSES FOR CONSUMER GRADES FOR SHELL EGGS.

Size or Weight Class	Minimum net Weight per Dozen	Minimum net Weight per 30 Dozen	Minimum Weight for individual Eggs at Rate per Dozen
	Ounces	Pounds	Ounces
Jumbo	30	56	29
Extra Large	27	50-1/2	26
Large	24	45	23
Medium	21	39-1/2	20
Small	18	34	17
Peewee or Pullet	15	28	--

(2) Minimum weights listed for individual eggs at the rate per dozen are permitted in the various weight classes only to the extent that they will not reduce the net weight per dozen below the required minimum.

REGULATION 3. Minimum Sample Schedule

Section 1. Egg Samples.

(1) The following schedule is a minimum number of samples and shall be reasonably calculated to produce a fair representation of the entire lot of eggs examined.

<u>When size of lot is:</u>	<u>Minimum sample shall be not less than:</u>
1 to 30 dozen	All individual eggs
1 to 6 cases	100 eggs from each case up to 3 cases
7 to 15 cases	100 eggs from each of 4 cases
16 to 25 cases	100 eggs from each of 6 cases
26 to 50 cases	100 eggs from each of 8 cases
51 to 100 cases	100 eggs from each of 10 cases

For each additional 100 cases or fraction thereof, 100 eggs out of each of 3 cases shall be examined.



 JOE DWYER
 Director of Agriculture
 State of Washington

Signed at Olympia, Washington

Date: January 29, 1964