

VI. U.S. Standards, Grades, and Weight Classes for Shell Eggs

The U.S. standards, grades, and weight classes for individual shell eggs are applicable only to eggs of the domesticated chicken that are in the shell.

U.S. Standards for Quality of Individual Shell Eggs

The standards described below are summarized in table 2 and are based on the candled appearance of the egg.

AA quality — The shell must be clean, unbroken, and practically normal. The air cell must not exceed one-eighth inch (3.2 mm) in depth, may show unlimited movement, and may be free or bubbly. The white must be clear and firm, so that the yolk is only slightly defined when the egg is twirled before the candling light. The yolk must be practically free from apparent defects.

A quality — The shell must be clean, unbroken, and practically normal. The air cell must not exceed three-sixteenths inch (4.8 mm) in depth, may show unlimited movement, and may be free or bubbly. The white must be clear and at least reasonably firm, so that the yolk outline is only fairly well defined when the egg is twirled before the candling light. The yolk must be practically free from apparent defects.

B quality — The shell must be unbroken, may be abnormal, and may have slightly stained areas. Moderately stained areas are permitted if they do not cover more than one-thirty-second (0.8 mm) of the shell surface if localized, or one-sixteenth (4.8 mm) of the shell surface if scattered. Eggs having shells with prominent stains or adhering dirt are not permitted. The air cell may be over three-sixteenths inch (1.6 mm) in depth, may show unlimited movement, and may be free or bubbly. The white may be weak and watery, so that the yolk outline is 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 spots or meat spots (aggregating not more than one-eighth inch (3.2 mm) in diameter) may be present.

Dirty — An individual egg that has an unbroken shell with adhering dirt or foreign material, prominent stains, or moderate stains covering more than one-thirty-second of the shell surface if localized, or one-sixteenth of the shell surface if scattered.

Check — An individual egg that has a broken shell or a crack in the shell, but its shell membranes are intact and its contents do not leak.

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.

TABLE 2. Summary of U.S. Standards for Quality of Individual Shell Eggs.

SPECIFICATIONS FOR EACH QUALITY FACTOR			
Quality Factor	AA Quality	A Quality	B Quality
Shell	Clean Unbroken. Practically Normal.	Clean Unbroken. Practically Normal.	Clean to slightly stained.* Unbroken. Abnormal.
Air Cell	1/8 inch or less in depth. Unlimited movement and free or bubbly.	3/16 inch or less in depth. Unlimited movement and free or bubbly.	Over 3/16 inch in depth. Unlimited movement and free or bubbly.
White	Clear. Firm.	Clear. Reasonably firm.	Weak and watery. Small blood and meat spots present.**
Yolk	Outline slightly defined. Practically free from defects.	Outline fairly well defined. Practically free from defects.	Outline plainly visible. Enlarged and flattened. Clearly visible germ development but no blood. Other serious defects.
For eggs with dirty or broken shells, the standards of quality provide two additional qualities.			
Dirty		Check	
Unbroken. Adhering dirt or foreign material, prominent stains, moderate stained areas in excess of B quality.		Broken or cracked shell, but membranes intact, not leaking.***	
<div>* Moderately stained areas permitted (1/32 of surface if localized, or 1/16 if scattered.).</div> <div>** If they are small (aggregating not more than 1/8 inch in diameter).</div> <div>*** Leaker has broken or cracked shell membranes, and contents leaking or free to leak.</div>			

U.S. Consumer Grades and Weight Classes for Shell Eggs

Consumer Grades. The standards for shell eggs provide for “origin” and “destination” consumer grades. “Origin grading” is defined as a grading made on a lot of eggs at a plant where the eggs are graded and packed.

Table 3 gives a summary of the consumer grades, while table 4 gives the tolerance for individual cases within a lot.

U.S. Consumer Grade AA (at origin) shall consist of eggs that are at least 87 percent AA quality. The maximum tolerance of 13 percent that may be below AA quality may consist of A or B quality in any combination, except that within the tolerance for B quality, not more than 1 percent may be B quality due to air cells over three-eighths inch (9.5 mm), blood spots aggregating not more than one-eighth inch (3.2 mm) in diameter, or serious yolk defects. Not more than 5 percent (7 percent for Jumbo size) checks are permitted and not more than 0.5 percent leakers, dirties, or loss (due to meat or blood spots) in any combination, except that such loss may not exceed 0.3 percent. Other types of loss are not permitted.

U.S. Consumer Grade AA (destination) shall consist of

eggs that are at least 72 percent AA quality. The remaining tolerance of 28 percent shall consist of at least 10 percent A quality and the remainder shall be B quality, except that within the tolerance for B quality, not more than 1 percent may be B quality due to air cells over three-eighths inch (9.5 mm), blood spots aggregating not more than one-eighth inch (3.2 mm) in diameter, or serious yolk defects. Not more than 7 percent (9 percent for Jumbo size) checks are permitted and not more than 1 percent leakers, dirties, or loss (due to meat or blood spots) in any combination, except that such loss may not exceed 0.3 percent. Other types of loss are not permitted.

U.S. Consumer Grade A (at origin) shall consist of eggs that are at least 87 percent A quality or better. Within the maximum tolerance of 13 percent that may be below A quality, not more than 1 percent may be B quality due to air cells over three-eighths inch (9.5 mm), blood spots aggregating not more than one-eighth inch (3.2 mm) in diameter, or serious yolk defects. Not more than 5 percent (7 percent for Jumbo size) checks are permitted and not more than 0.5 percent leakers, dirties, or loss (due to meat or blood spots) in any combination, except that such loss may not exceed 0.3 percent. Other types of loss are not permitted.

TABLE 3. Summary of U.S. Consumer Grades for Shell Eggs.

U.S. consumer grade (origin)	Quality required ¹	Tolerance permitted ²	
		Percent	Quality
Grade AA	87 percent AA.	Up to 13 Not over 5	A or B. ⁵ Checks. ⁶
Grade A	87 percent A or better.	Up to 13 Not over 5	B. ⁵ Checks. ⁶
Grade B	90 percent B or better.	Not over 10	Checks.

U.S. consumer grade (destination)	Quality required ¹	Tolerance permitted ³	
		Percent	Quality
Grade AA	72 percent AA.	Up to 28 ⁴ Not over 7	A or B. ⁵ Checks. ⁶
Grade A	82 percent A or better.	Up to 18 Not over 7	B. ⁵ Checks. ⁶
Grade B	90 percent B or better.	Not over 10	Checks.

¹ In lots of two or more cases, see table 4 for tolerances for an individual case within a lot.

² For the U.S. consumer grades (at origin), a tolerance of 0.50 percent Leakers, Dirties, or Loss (due to meat or blood spots) in any combination is permitted, except that such Loss may not exceed 0.30 percent. Other types of Loss are not permitted.

³ For the U.S. consumer grades (destination), a tolerance of 1 percent Leakers, Dirties, or Loss (due to meat or blood spots) in any combination is permitted, except that such Loss may not exceed 0.30 percent. Other types of Loss are not permitted.

⁴ For U.S. Grade AA at destination, at least 10 percent must be A quality or better.

⁵ For U.S. Grade AA and A at origin and destination within the tolerances permitted for B quality, not more than 1 percent may be B quality due to air cells over 3/8 inch, blood spots (aggregating not more than 1/8 inch in diameter), or serious yolk defects.

⁶ For U.S. Grades AA and A Jumbo size eggs, the tolerance for Checks at origin and destination is 7 percent and 9 percent, respectively.

U.S. Consumer Grade A (destination) shall consist of eggs that are at least 82 percent A quality or better. Within the maximum tolerance of 18 percent that may be below A quality, not more than 1 percent may be B quality due to air cells over three-eighths inch (9.5 mm), blood spots aggregating not more than one-eighth inch (3.2 mm) in diameter, or serious yolk defects. Not more than 7 percent (9 percent for Jumbo size) checks are permitted and not more than 1 percent leakers, dirties, or loss (due to meat or blood spots) in any combination, except that such loss may not exceed 0.3 percent. Other types of loss are not permitted.

U.S. Consumer Grade B (at origin) shall consist of eggs that are at least 90 percent B quality or better, not more than 10 percent may be checks, and not more than 0.5 percent leakers, dirties, or loss (due to meat or blood spots) in any combination, except that such loss may not exceed 0.3 percent. Other types of loss are not permitted.

U.S. Consumer Grade B (destination) shall consist of eggs that are at least 90 percent B quality or better, not more than 10 percent may be checks, and not more than 1 percent leakers, dirties, or loss (due to meat or blood spots) in any combination, except that such loss may not exceed 0.3 percent. Other types of loss are not permitted.

Additional tolerances. In lots of two or more cases:

For grade AA — No individual case may exceed 10 percent less AA quality eggs than the minimum permitted for the lot average.

For grade A — No individual case may exceed 10 percent less A quality eggs than the minimum permitted for the lot average.

For grade B — No individual case may exceed 10 percent less B quality eggs than the minimum permitted for the lot average.

For grades AA, A, and B, no lot shall be rejected or downgraded due to the quality of a single egg except for loss other than blood or meat spots.

Weight Classes. The weight classes for U.S. consumer grades for shell eggs shall be as indicated in table 5, and shall apply to all consumer grades.

A lot-average tolerance of 3.3 percent for individual eggs in the next lower weight class is permitted, as long as no individual case within the lot exceeds 5 percent.

TABLE 4. Tolerances for individual cases within a lot.

U.S. consumer grade	Case Quality	Origin (percent)	Destination (percent)
Grade AA	AA (min)	77	62
	A or B	13	28
	Check (max)	10	10
Grade A	A (min)	77	72
	B	13	18
	Check (max)	10	10
Grade B	B (min)	80	80
	Check (max)	20	20

TABLE 5. Weight classes of U.S. Consumer Grades for Shell Eggs.

Size or weight class	Minimum net weight per dozen (ounces)	Minimum net weight 30 per dozen (pounds)	Minimum net weight for individual eggs at rate per dozen (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	15	28	—