



Egg Quality &
Sizing

EGG SIZING

FACTORS INFLUENCING SIZE

Several factors influence the size of an egg.

- **Age** - The major factor is the age of the hen. As the hen ages, her eggs increase in size.
- **Breed** - The breed of hen from which the egg comes is a second factor.
- **Size/Weight** - Weight of the bird is another. Pullets significantly underweight at sexual maturity will produce small eggs.
- **Environmental conditions** - Heat, stress, overcrowding and poor nutrition can all lower egg weight.

All of these variables are of great importance to the egg producer. Even a slight shift in egg weight influences size classification and size is one of the factors considered when eggs are priced. Careful flock management benefits both the hens and the producer.

Egg sizes are Jumbo, Extra Large, Large, Medium, Small and Peewee. Medium, Large and Extra Large are the sizes most commonly available.

SIZE EQUIVALENTS

Sizes are classified according to minimum net weight expressed in ounces per dozen.

Although any size egg may be used for frying, scrambling, cooking in the shell or poaching, most recipes for baked dishes such as custards and cakes are based on the use of large eggs. To substitute another size, use the following chart.

Size Equivalents				
LARGE	JUMBO	X-LARGE	MEDIUM	SMALL
1	1	1	1	1
2	2	2	2	3
3	2	3	3	4
4	3	4	5	5
5	4	4	6	7
6	5	5	7	8

To Make 1 Cup			
EGG SIZE	WHOLE	WHITES	YOLKS
Jumbo	4	5	11
X-Large	4	6	12
Large	5	7	14
Medium	5	8	16
Small	6	9	18

Modified from American Egg Board

Egg Quality



Grade AA

Grade A

Grade B

Break Out Appearance

Covers a small area

Covers a moderate area

Covers a wide area

Albumen Appearance

White is thick and stands high; chalaza prominent.

White is reasonably thick, stands fairly high; chalaza prominent.

Small amount of thick white; chalaza small or absent. Appears weak and watery.

Yolk Appearance

Yolk is firm, round and high

Yolk is firm and stands fairly high

Yolk is somewhat flattened and enlarged

Shell Appearance

Approximates usual shape; generally clean,* unbroken; ridges/rough spots that do not affect the shell strength are permitted.

Abnormal shape; some slight stained areas permitted; unbroken; pronounced ridges/thin spots permitted.

Usage

Ideal for any use, but are especially desirable for poaching, frying and cooking in shell.

Ideal for any use, but are especially desirable for poaching, frying and cooking in shell.

Good for scrambling, baking, and as an ingredient in other foods.

*An egg may be considered clean if it has only very small specks, stains or cage marks. Source: USDA

GRADING

Classification determined by interior and exterior quality and designated by letters — AA, A and B. In many egg packing plants, the USDA provides a grading service for shell eggs. Its official grade shield certifies that the eggs have been graded under federal supervision according to USDA standards and regulations. The grading service is not mandatory. Other eggs are packed under state regulations which must meet or exceed federal standards.

In the grading process, eggs are examined for both interior and exterior quality and are sorted according to weight (size). Grade quality and size are not related to one another. In descending order of quality, grades are AA, A and B.

There is NO difference in nutritive value between the different grades.

Because production and marketing methods have become very efficient, eggs move so rapidly from laying house to market that you will find very little difference in quality between Grades AA and A. Although grade B eggs are just as wholesome to eat, they rate lower in appearance when broken out. Almost no Grade B's find their way to the retail supermarket. Some go to institutional egg users such as bakeries or foodservice operations, but most go to egg breakers for use in egg products.

Grade AA

A 'Grade AA' egg will stand up tall. The yolk is firm and the area covered by the white is small. There is a large proportion of thick white to thin white.

Grade A

A 'Grade A' egg covers a relatively small area. The yolk is round and upstanding. The thick white is large in proportion to the thin white and stands fairly well around the yolk.

Grade B

A 'Grade B' egg spreads out more. The yolk is flattened and there is about as much (or more) thin white as thick white.