

Study eyes egg quality and composition

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(PhysOrg.com) -- There's no substantial quality difference between organically and conventionally produced eggs. That's one of a number of findings in an Agricultural Research Service (ARS) study examining various aspects of egg quality.

ARS food technologist Deana Jones and her team in the Egg Safety and Quality Research Unit in Athens, Ga., found that, on average, there was no substantial quality difference between types of eggs. So, no matter which specialty egg is chosen, it will be nearly the same quality as any other egg.

About 6.5 billion dozen shell eggs are produced each year in the United States, with a value of about \$7 billion, according to the U.S. Department of Agriculture (USDA) Economic Research Service.

The ARS team found the biggest difference was the size of egg within a carton between brown and white eggs. Though brown eggs weighed more, white shell eggs had higher percentages of total solids and crude fat. But, according to the study, there was no significant difference in the quality of white and brown eggs.

Quality is measured by Haugh units, named after Raymond Haugh. In 1937, he developed the Haugh unit as a correlation between egg weight and the height of the thick albumen, or thickest part of the egg white. The Haugh unit has become the most widely used measurement of interior egg quality and is considered to be the "gold standard" of interior egg quality determination.

Jones and her team conducted a survey of white and brown large-shell eggs with various production and nutritional differences such as traditional, cage-free, free-roaming, pasteurized, nutritionally-enhanced, and fertile. The goal was to determine if physical quality and compositional differences exist among these different [eggs](#).

Among the claims most often addressed on shell egg cartons are: husbandry practices, hen nutrition, enhanced egg nutrition (omega-3), organic and fertile. Pricing for these products is typically at a premium but can vary from market to market.

This research was published in the journal *Poultry Science*.

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