



BC SPCA FARM ANIMAL WELFARE NEWS

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FAST FACTS ABOUT EGGS AND EGG-LAYING HENS

Hen facts

- A hen can lay about 320 eggs per year at her highest production. This number decreases as the hen ages.
- In the wild, chickens can live for 5-11 years, but their life is many years shorter (usually 1-2 years) on a farm.
- Chickens can recognize and remember about 100 other chickens.
- Chickens clean themselves by taking dust baths.
- Chickens have nerve endings in their beaks, meaning de-beaking (beak trimming) is painful, unlike many people believe.
- More than 90% of Canada's egg-laying hens are confined in small cages called "battery cages". They are often grouped 4-6 to a cage.
- Free-run eggs are from hens that are housed on litter and/or slatted floors. They can roam about indoors on the barn floor but free-run hens do not go outdoors.
- Free-range eggs are also from hens that are housed on litter and/or slatted floors, but free-range hens can access an outdoor area with vegetation when the weather is nice.
- Certified organic eggs are from free-range hens (weather permitting) fed a certified organic diet and raised according to Canadian Organic Standards. Organic eggs in British Columbia are certified by such groups as the Certified Organic Associations of British Columbia (COABC) or by OCPP/Pro-Cert Canada.
- Free roaming chickens walk about 3 kilometres a day.

Egg color

- Egg shell colour depends on the breed of hen. White-shelled eggs are from hens with
- white earlobes (e.g. White Leghorn). They have the same nutritional value as brown-shelled eggs, which are from hens with pinkish-red earlobes (e.g., Hyline Brown, ISA or Lohmann). Shell colour is not dependent on feather colour.
- The colour of an egg's yolk is determined by what the hen eats. Feeding corn and alfalfa-based diets and diets high in carotenes to egg laying hens typically produces the popular yellow-orange yolk. Wheat-based feeds and diets low in carotenes produce a pale yellow yolk. Feeding cottonseed meal produces green yolks, popular in



the world of Dr. Seuss! Yolk colour does not affect flavour and is not indicative of nutritive value or quality of the egg.

Egg handling, grading and sale

• At the farm, eggs are collected daily then placed in coolers. They are picked up by refrigerated trucks and taken to federally-licensed egg grading stations where they are refrigerated before and after grading. Eggs are usually washed, graded, and

packed into cartons within 24 hours of arrival. Refrigerated trucks deliver the eggs to retail stores soon after grading. BC eggs usually arrive at the store within 4-7 days of being laid by hens.

- Eggs are graded by weight and quality (shell quality, interior quality, and the size of the air cell located at the larger end of the egg). Eggs are classified as Grade A, B or C.
- Grade A eggs are sent to retailers and restaurants. Grade B eggs are used in commercial baking or sent to breaking plants to be used in further food processing. Grade C eggs are sent to breaking plants to be used in food processing or used in non-food items. Grades B and C eggs are not sold to retail stores.
- Grade A eggs are electronically weighed to further classify them as Jumbo (70 gram or more), Extra Large (63-69 grams), Large (56-63 grams), Medium (49-55 grams), Small (42-48 grams), and Peewee (under 42 grams).



 Egg cartons are stamped with a "best before" date, which is typically 35-40 days after the date of egg grading. It indicates the length of time that eggs will maintain their Grade A quality if stored properly in the refrigerator. After that time, the eggs will still be safe to eat but will slowly lose quality. Most people prefer to use older eggs in cooking and baking.

Egg nutrition

- Health Canada's Food and Drug Act on nutrition labeling requires nutrient information about calories, fat, saturated fat, trans fat, cholesterol, sodium, carbohydrate, fibre, sugars, protein, vitamins A and C, calcium, and iron to appear on all prepackaged foods. Some of these nutrients will have a value of zero on egg cartons because they are not present in eggs (e.g., trans fat, fibre, sugars, vitamin C). The nutrient values will vary depending on the size of eggs in the carton (jumbo, extra large, large, medium, small or peewee).
- Eggs naturally have many essential and critical nutrients, such as high quality protein, vitamins A, B6, D, E, thiamine, riboflavin, folate, pantothenic acid, iodine, phosphorous, magnesium, iron, calcium, and zinc. Lutein and zeaxanthin, two antioxidants occurring naturally in eggs, are important for healthy eyes. Choline contributes to healthy mental development and attention span. About half of the egg's protein is in the whites, but almost all of the egg's nutrients are in the yolk, so eat the whole egg if you want to gain all of its health benefits.



- Omega-3 enhanced eggs are from hens that are fed an all-vegetarian diet with significant amounts of ground flaxseed. As a result, these eggs are a source of omega-3 fatty acids.
- Since the 1960's it has been illegal in Canada to give hormones or steroids to egglaying hens. Antibiotics and medication are only given under the direction of a veterinarian. If hens become sick, their eggs are not used for public consumption until the hens are well again. Young laying hens are vaccinated for the same reason we vaccinate our children: to prevent specific diseases. This is true for all types of Grade A eggs available at Canadian grocery stores.

Egg storage

 Eggs lose more freshness in one day at room temperature than they do in one week in the fridge, so keep your eggs refrigerated! They should be kept in their original cartons so they don't lose moisture or absorb odours from other foods. Keep them on one of the refrigerator's shelves rather than in the door to avoid frequent temperature changes.

Cooking eggs

- When preparing raw or lightly cooked eggs (e.g. eggnog or Caesar salad), you must use proper food handling methods. Use only Grade A eggs with clean, uncracked shells that have been kept refrigerated. Wash your hands in hot, soapy water before and after handling the eggs. Eat the dish immediately after preparation or immediately refrigerate it until served, keep it cold during serving, and consume it the same day it is prepared. Throw out the leftovers.
- A hard-to-peel hardboiled egg means that it is really fresh! Air has had little time to enter the pores in the shell and get between the shell and its membrane. The membrane allows the egg white to cling tightly to the shell. Hard boil eggs after they have been in your refrigerator for at least a week to ensure they are easier to peel.
- Getting that greenish-greyish ring around the yolk of your hardboiled eggs? Cooking for too long or at too high a temperature may cause a chemical reaction between the naturally-occurring iron in the yolk and sulphur in the egg white. The result is

the formation of a harmless greenish or grayish coating on the yolk's surface. Proper cooking methods and chilling hardboiled eggs in cold water as soon as they are cooked prevent the formation of this discolouration.

 What are those stringy things in egg whites? Known as *chalazae* (sha-lay'-zee), those thick strands of egg white protein attach the top and bottom of the yolk to the shell to keep it centred in the egg. They become unnoticeable once the egg is cooked.

