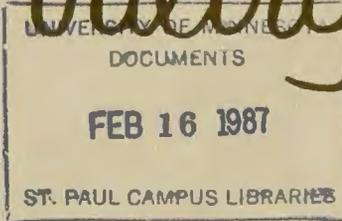




Poultry Patter



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QUESTIONS OFTEN ASKED ABOUT EGGS

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Eggs and egg products are used in many forms and can be prepared in a variety of ways for every meal of the day. They are not only versatile but nutritious and inexpensive. Despite this, egg consumption has decreased due to changes in life style and adverse publicity.

Consumers raise many questions about egg use, some based on inaccurate information or old views that have become myths. More serious damage is done by incidents given wide news coverage so that the significance is often blown badly out of proportion. A positive image of eggs must be created and promoted if the egg industry is to regain a healthy status. Some attempts are being made by various segments of the industry to provide consumer information and erase some of the doubts about egg use. But without an overall national approach that is soundly financed, the industry makes a poor showing in relation to the well-supported campaigns generated by other aspects of the food industry.

Lacking a well-organized industry campaign, each producer must step up individual efforts to publicize and promote eggs. Producers can do a better job of promoting egg nutritional value, pointing out their versatility, and the fact that eggs are one of the best food buys in today's market. They can also be prepared to correctly answer some of the questions and doubts that consumers might raise about eggs. Some of the most frequently raised points about eggs follow with information that can be used to help correct many of the misunderstandings about egg quality or nutritive value.

Blood spots. Blood spots occur when a blood vessel on the yolk surface or in the wall of the oviduct ruptures during egg formation. Breed of hen, feed, and environmental conditions can affect blood spot occurrence. Only a small percentage of eggs have blood spots and most of these are removed in candling. Occasionally one is overlooked and an egg with a blood spot reaches the consumer. There is nothing wrong with the rest of the egg, so the user can just remove the spot and use the rest of the egg. The fresher the egg the harder it is to detect small blood spots.

Shell color. As the number of farm flocks continues to decline in Minnesota, brown shelled eggs are becoming more uncommon. Due to their farm background, some users prefer brown eggs to white, claiming better flavor and nutrition. Shell color is determined by the breed of hen. Since shell color follows formation of all other parts of the egg, it can have no influence on egg quality.

If the birds have received the same ration, eggs will be nutritionally equivalent regardless of shell color. They will also be similar in flavor, keeping quality, whipping and cooking characteristics.

There are questions sometimes asked about shell colors other than white and various shades of brown. Hens which have some breeding traced to the Araucana breed may have egg-shell colors of green, blue or other tints. Again, the shell color is the only thing that is different.

Chalazae. The thick, white cord-like strands which appear on opposite sides of the yolk are referred to as the chalazae. They are a normal part of the egg and anchor the yolk in the thick white. The prominence of the chalazae is an indication of high egg quality. The chalazae become less prominent as the egg ages; however, some hens tend to lay eggs with small chalazae so eggs with small chalazae can still be high quality.

Some consumers think the chalazae an evidence of fertility and try to remove them. This is not necessary as the chalazae are wholesome parts of the normal egg white.

Greenish whites. Some eggs seem to have a greenish or straw color to the white rather than a crystal clear appearance. It has been found that this greenish or straw-colored white is unusually high in riboflavin, one of the B vitamins. This condition is most frequently observed in some fresh, high quality eggs.

Discoloration around yolk. Frequently a greenish coating around the yolks of hard-cooked eggs causes consumer concern. The eggs have usually been cooked at too high a temperature, or for too long a time, or they have not been cooled rapidly after cooking. The normal sulfur and iron compounds in the egg form this discoloration on the yolk surface when eggs are overcooked. Although the discoloration is considered unattractive by many, the eggs are still wholesome and nutritious, and the flavor is not affected.

One recommended method to avoid the discoloration in hard-cooked eggs is to put the eggs on the stove in cold water. Bring the water to a boil, turn off the heat and cover. Then allow the eggs to remain in the hot water for 15 minutes, followed by immediate cooling in cold running water.

Peeling difficulties. Shells are sometimes difficult to peel from hard-cooked eggs. The consumer should understand that eggs which do not peel easily are frequently very fresh and high quality. Eggs that have been stored for several days before hard-cooking will usually be much easier to remove from the shell.

Some egg shells crack during cooking due to expansion of the egg contents. This cracking can be prevented by making a small hole through the large end of the egg into the air cell.

Egg white browning. Occasionally the white of hard-cooked eggs turns a brownish color after cooking. This browning, under high temperatures, is due to a reaction between the small amount of sugar present in egg whites and the protein. The condition usually occurs when eggs are held at a high temperature for a prolonged time after cooking and can be



prevented by immediate cooling. Fresh eggs seem to be less apt to discolor than eggs that have been stored for some time.

Fertile eggs. Food faddists have been promoting claims and beliefs that fertile eggs are better nutritionally than infertile ones. There is no scientific evidence to support these claims. While fertile eggs may have undergone a few cell divisions at the embryo site, the amount of development is so small in relation to the total egg content, it is unlikely that measurable nutritional differences occur. The cost of fertile eggs is a large price to pay for unsubstantiated claims of superiority over market eggs.

Cloudy whites. Sometimes very fresh eggs or eggs which have been oil-treated right after laying will have cloudy or milky whites. This is because the carbon dioxide which is present in fresh eggs has not yet escaped through the shell. This characteristic is normal in some very fresh eggs and as the gas escapes the white becomes clearer. The flavor of these very high quality eggs is not affected by the cloudiness of the white.

Yolk color. Some consumers feel that egg yolks are lighter in color than they used to be. Many of these people formerly lived in rural areas where farm flock chickens had access to green feed during a good portion of the year. Yolk color is almost entirely dependent on the pigmentation in the feed the birds eat. Hens that have access to grass pasture or have yellow corn or alfalfa meal in their rations will produce darker colored yolks.

Since commercial laying flocks are confined, lighter and more uniformly colored yolks are being produced. The yolk color does not affect cooking characteristics or nutritive value. The egg yolk is a rich source of vitamin A regardless of color.

Organic eggs. While definitions of organic eggs differ among food faddists, claims for higher nutritional values are made in many instances. Hens which laid these eggs supposedly have had no access to any agricultural chemicals and consumed only natural, untreated feeds. Claims have been made that eggs have a better flavor when chickens eat bugs, worms, decaying matter or similar material while ranging on the farm. This is a doubtful nutritional plus at any price.

Egg sizes. These are based on weight classifications that have not changed recently. The observation has been made that eggs seem smaller than before. There is often a shorter period between production and consumption, so many consumers are getting a higher quality egg. The albumen height of the broken-out egg tends to be higher and the egg does not cover as much space in the frying pan.

Producers should put uniform size eggs into a carton. Putting a couple of larger eggs into a carton makes the other eggs look smaller. Instead of feeling it's a bargain with the two larger eggs, the consumer often feels gyped by getting ten smaller ones.

In summary, these are some of the consumer concerns you may have heard about eggs. If you can provide an answer to one person, you may help yourself and your industry by increasing his or her consumption of eggs. The correct information may also prevent the further spread of misinformation by improperly informed consumers. This issue discussed questions about egg quality; nutritive and economic egg value will be the subject of another issue.

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