

## Poultry Questions & Answers

As many of you know, there is a large interest in backyard poultry production

throughout the state of Florida and I receive many poultry-related questions during the year. The following Q & A section is comprised of the most common questions that I receive. If you have a question about poultry, please be sure to check out *Feathered Facts*, a poultry newsletter which can be found online at <http://baker.ifas.ufl.edu/FeatheredFacts.html>.



### General Poultry Q & A

**Q: What is the average lifespan of a chicken?**

**A:** Chickens can live for several years if their living conditions are correct. It is not uncommon for a chicken to live from 6 to 10 years. However, this does not mean that the animal will stay in peak production for that amount of time. Most commercial laying hens are kept for 2 to 3 years.

**Q: How old are chickens when they begin to lay eggs?**

**A:** Under ideal conditions (nutrition, day length, housing, and management), hens should begin to lay eggs at around 20 weeks of age. There may be some that start a little earlier than this, and some that may start a bit later, but 20 weeks is the average age.

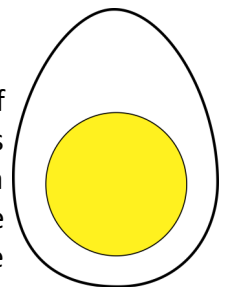
**Q: My hen just hatched some baby chicks. What is the male/female distribution? How can I tell if my chicks are male or female?**

**A:** Under normal conditions, a random mating will result in a 50:50 ratio of male to female offspring. Determining the sex of newly hatched chicks is very difficult. There are some crosses that result in differences in feather length of male and female offspring, but these are accomplished under controlled conditions. In most cases, you will have to wait until the chicks are older to determine the sex.

### Incubation, Embryology, and Egg Q & A

**Q: Which part of the egg develops into the baby chick, the yolk or the white?**

**A:** Actually, neither the yolk or the white develop into the baby chick. There are a group of cells on top of the yolk called the germinal disc. In an unfertilized egg, the cells look like a small, pale dot. In a fertilized egg that has been incubated for a few hours, the disc has a doughnut shape. It is these cells that eventually become the baby chick. The egg white contains many antibacterial elements that help protect the developing embryo, while the yolk is the nutrient source.



**Q: Will a double-yolk egg develop into twin chicks?**

**A:** No. While both germinal discs may start to develop inside the egg during incubation, there is not enough room inside the shell to support the development of two chicks. Even if they are fertilized, double-yolk eggs almost never hatch out; and if they do, only one chick will have developed.

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**Q: I've heard that changing the incubation temperature will influence the sex of the hatching baby chicks. Is this true?**

**A:** The incubation temperature has no influence on the sex of the baby chick that hatches. In chickens, the chromosomes that determine sex are ZZ for male and ZO for female (compared to XX for female and XY for male in humans). It is the combination of these chromosomes that determines the sex of the baby chick. Temperature fluctuations outside of the normal range may cause the embryos to stop developing, resulting in few or no chicks hatching.

## Poultry Meat and Egg Products Q & A

**Q: Are hormones used to produce poultry meat?**

**A:** No. Hormones are not fed to or administered to commercial poultry. Federal law prohibits the use of hormones in poultry meat and egg production. The rapid growth rates, high egg production, and excellent feed efficiencies that are seen in today's poultry are the result of selective breeding, excellent nutrition, and good husbandry practices. Please note that poultry product labels cannot contain claims such as "No Hormones Added" unless it is followed by a statement that says "Federal regulations prohibit the use of hormones".

**Q: Why do some chickens in grocery stores have yellow skin while others have white skin?**

**A:** The yellow color of some chicken skin is caused by the ingestion of yellow and orange pigments in the poultry feed. Corn is an example of a feed ingredient that has yellow pigments. These pigments are absorbed from the feed and produce the yellow skin. This also happens in egg production and is why the yolks can have varying hues from light yellow to almost orange. There is no nutritional difference in these eggs, only differences in pigmentation.

**Q: Why do chickens and turkeys have light and dark meat?**

**A:** As with other animals, different muscles in these birds perform different tasks. This leads to different muscles being used at varying rates. Muscles that are used a great deal and over long periods of time require a lot of oxygen to perform well. There is a compound in these muscles that helps to store oxygen for periods of increased or long-term use called myoglobin. Myoglobin is similar to hemoglobin, which is found in red blood cells and carries oxygen throughout the body. Each of these molecules contains iron and when they are loaded with oxygen, they have a reddish color. Muscles that are used extensively have a lot of myoglobin, which results in their reddish or darker hue. Muscles that are used less frequently or only for short periods of time have much less myoglobin and are lighter in color. This is why chickens and turkeys have darker meat in the legs and thighs (muscles which are used a lot) and light or lighter meat in the breast and wings (commercial chickens and turkeys don't fly often or for long periods). Other fowl that fly, such as ducks, will have dark meat in the breast and wing area as well.

