

KSU Poultry Newsletter

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What Color and Intensity are Your Egg Yolks?

The color you see in an egg yolk comes from the diet of the hen; she does not synthesize any yolk color herself. The color in poultry diets is mostly from yellow corn. Other common ingredients with color in your feed may be alfalfa meal, corn gluten meal, and distillers grains. Birds fed diets with barley, wheat, and sorghum lay eggs with pale yolks since they do not have much of the yellow pigment called xanthophyll. All yolk color in feed must come from natural sources which may include specialty feed ingredients such as marigold meal or oil, yellow yeast, etc. Adding color to darken egg yolks can be costly.

If your small flock has access to lush, rapidly growing green vegetation, this will also add a deeper color to your yolks. Notice that it must be lush and green because the birds won't normally consume mature and stemmy vegetation. If your birds are running free in a large outdoor pen without any green vegetation, then the birds are not getting yolk color other than from their feed because exercise and outdoor access does not affect yolk pigmentation. Birds kept in the same outdoor pen all year will soon eliminate most vegetation, which also is dormant during winter, so color intake may vary throughout the year. What does this tell you about egg pigmentation from pastured hens, where there is no "pasture"?

Yolk color does not mean the birds are organic. The intensity doesn't mean they get more sunlight. It's not really breed-related either. Bugs and worms have no effect on yolk color. And it surprises a lot of people when they learn that yolk color has about zero effect on nutrition. However, some eggs with intensified yolk color will certainly add more lutein and omega 3 fats to your diet if the birds were given specialty diets with these ingredients. Lutein helps night vision which diminishes with age, and the omega 3 fats influence heart health. Some consumers claim yolk color to be a taste criterion, but most data shows this not to be true. Or they claim that the darker eggs came from healthier hens although bird health is not connected to darker yolks. Store-bought eggs may have just as intensely colored yolks as the eggs from small flocks. Egg freshness is not related to intensity, either. However, if you allow an egg to sit in a cooler for many weeks, the freshness will decrease as expected, but the yolk color may actually get darker! This is because the proteins in the yolk are settling out, allowing the pigments to appear darker.

So, what is the intensity of the yolk color from your eggs? Well, you can run a bunch of expensive chemical tests or use digital methods and find out more than you want to know. Or you can simply use a yolk color wheel (pictured) and compare them by eye! Yolk color wheels or fans can be found in specialty poultry equipment catalogs, hatchery suppliers, and many sites on the internet. All you need to do is crack open an egg, then compare it to the wheel. The wheel has each intensity numbered so you can easily determine yolk color intensity. It's easy and reliable and the wheel lasts almost forever if you keep it stored folded up and away from light.



It's Almost Time for the Poultry Show at the Kansas State Fair!

I have always enjoyed walking down the rows of hundreds and hundreds of pens at the fair to see all the different types of poultry. Believe it or not, there are about 540 +/- breeds of chickens and waterfowl listed by the American Poultry Association! And here's an interesting point: NONE of them produce the eggs or meat sold commercially. Poultry that produce our food are mostly cross-bred specialty birds which would not qualify for a breed show.

When I was a kid, the first ever 4H ribbon I won was for showing Light Brahma roosters. Somehow, I convinced my parents to allow me to order 50 chicks and it seems that 40 of them were Light Brahma roosters. If you know what a Light Brahma chicken is, you know it's very tall, a bit lanky, has feathers down its legs and toes, and tends to be a bit more cranky than other roosters. And 40 of them is a whole lot of crankiness. It's not the kind of bird meant for the muddy Texas coast, or a mom who preferred not to be attacked when doing the chores for me. Do you know how badly black gumbo clay can stain the feathers on a chicken leg? And do you know how much it rains on the Texas coast?!?!?

I learned a lot from that first project about feeding and managing animals. Then, I won real prize money when I auctioned my pen of Grand Champion broilers a couple of years later. From those first projects, I began to raise show steers and eventually won even bigger real money from the sale of my Grand Champion steer in high school. Then, of course, that money turned into Angus heifers and an entire family enterprise. All of it started with a mail order hatchery that snuck in a bunch of unwanted rooster chicks in a little boy's order. Poultry can be great starting animal projects for youth that just might turn into something big!

The 2022 Kansas State Fair will be Sept 9-18 in Hutchinson. The poultry building has always been one of the most visited spots on the state fair grounds. The show poultry are judged on the first Saturday and the poultry judging contest for 4H youth will be the second Saturday. I'll be around both Saturdays helping out with some great Extension folks who run the events, so stop and say "hi" if you see me!

Question of the Month: How Much Feed Does a Hen Eat Each Day?

The answer to this week's question will come in handy when purchasing feed. A standard-bred chicken will consume about $\frac{1}{4}$ pound of feed each day. So, a 50-lb. bag of feed will last a single hen about 200 days! Or a dozen hens will go through a bag in about 16-17 days. Knowing this is important so that you don't have to use expensive gas to run back to the feed store if you unexpectedly run out! For those who buy from a COOP in bulk, this will give you an idea about how much feed to buy without buying too much and risking the feed going bad before it's used up.

Some flock keepers determine how much feed their birds need in a day, and then add just that amount to the feeder. If your feeders are empty by the time the birds roost, then rodents and other feed scavengers won't have any reason to try to steal your feed.

KSU Poultry Judging Trophies



This is one of the trophy cases in Call Hall that contains the awards that our KSU Poultry Judging Teams have won over the last 2 decades. There must be over a hundred trophies – not sure how many. Plus, they won watches, individual trophies, and other prizes that are not in the case. We've even managed to be national champions a couple of times!

Over the years, I've had some great teams, and got to know some great individuals. It's been a lot of fun. I have had a few that were young kids when they competed in the 4H judging contests I supervised, joined my team when they came to KSU, then went to vet school and are now professionals in the commercial poultry industry. I have also had a few team members that had never held a chicken in their life, who are now career professionals in the poultry industry. One team member's family went to the White House and was there when the president pardoned the Thanksgiving turkey raised at their farm!

Students on our judging teams often work in the animal industry. Judging helps develop critical thinking skills, while also affording networking opportunities and making lifelong friends. Some have earned scholarships. Some have become judges themselves and work with poultry shows in Kansas and other states. In the Department of Animal Sciences and Industry, a lot of our teams compete across the country evaluating animals and food products. Our meats team even traveled to Australia one year.

Please let new students know about these opportunities. These are great résumé-building events. At youth levels, there are opportunities to judge poultry in 4H and FFA. Consider being a team coach. It's a lot of fun! And thanks for all the people who have supported our teams over the years. The students truly appreciate the help.

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