

## Ross Mosteller

District Extension Agent  
Livestock & Natural Resources

### Where Have all the Eggs Gone?

As I look back at articles I've written, it seems that a beef focus persists. Some reading this may know that I do have a beef operation and that might drive some of that writing focus, but those who really know me, know I'm secretly a poultry fancier as well. Each night lately, it seems that fewer and fewer eggs get gathered at chore time, something many backyard flocks face this time of year. So, let's switch gears a bit this week to discuss avian matters.

I can always tell when eggs are limited or going up in price at the store, as interest in my farm fresh eggs goes up. 2022 has been a year of price increase (for everything!). If you want the full national egg price scoop, visit: <https://www.ams.usda.gov/mnreports/PYBShellEgg.pdf> In summary, year over year egg price has been consistently two to three times higher than the three year average in 2022. National average, large egg price per dozen now sits at over \$4 per dozen. If you've purchased chicken feed, you know that has increased too, but supply also plays a part due to avian influenza nationally and other production factors.

Enough about price and macroeconomics, why does egg production drop in the winter months? The amount of daylight hours affects a chicken's reproductive cycle. Hens will begin laying when the amount of daylight reaches 14 hours per day during spring. Maximum egg laying will occur when the day length reaches 16 hours per day. This biological process is designed so that chicks hatch in spring and develop and mature during the summer months. It is this 16-hour benchmark that is often used when discussing daylight length in egg production.

After the summer solstice in late June the days start getting shorter each day, until at some point there is not enough light to stimulate the hen to keep laying. This coincides roughly with the fall equinox in September. Egg production begins to drop and some birds shed feathers as they begin to molt. Hens do not lay while molting. This decreased light factor does not result in an instant drop in egg production, but is influenced by breed, bird condition, age, etc... For example; my dual purpose, standard breed chickens will take a break laying the first chance they get in winter, while the hybrid laying hens (purchased from K-State!) have consistently charged through the winter months with good production in year one and now two.

Poultry owners can manipulate the egg laying cycle to increase egg laying in their flocks by providing artificial lighting in coops. Supplemental lighting should be at a low intensity level, just bright enough to be able to read a newspaper at bird level. Lights should be placed above feeders and waterers and there should be few areas in the hen house that are shaded. You can use a light timer, and a lower watt LED or incandescent bulb in the hen house or roosting area and this should stimulate the birds to lay. Florescent type bulbs are less effective in cold weather.

There is some debate over adding light in morning or evening, but personally prefer to add time at both the start and end of each day. It is important to allow normal roosting behavior as birds do need darkness at night. For example, if sunrise is at 7 AM and sunset is at 5 PM, that is a total of 10 hours of natural light. You will need to add 6 more hours of artificial light to keep the day length at 16 hours of total light. Start a timer at 5 AM for two hours and 5 PM for four.

As always, hens should be managed appropriately as other factors such as nutrition and overall health also have an effect on egg production. Don't forget that molting is a natural part of a hen's lifecycle and this "break" is something their bodies need. For more information and resources on egg production and hen management, visit the K-State Animal Science Poultry website at: <https://www.asi.k-state.edu/extension/poultry/>