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Why do I get so few eggs from my hens?

My hens were laying, and now they are not! Why have they stopped laying?

We get these types of questions from many clients, especially when they received their hens in the summer and the egg laying was good. But suddenly, during winter, they note a sharp decline in egg production.

Another area of concern is when clients receive their point-of-lay age and weight hens in autumn or winter and then are alarmed when the hens do not start to produce eggs as expected, and as they would in the summer months. 1

During summer, the daylight hours are longer, enabling the hens to produce an egg in the approximately 24 to 26 hours. The hen needs 14 to 16 hours of sunlight and/or artificial light or a combination of both in order to regularly produce an egg.

Why egg production reduces or stops

The following information is based on our own experience and additional information was extracted from various websites, which you are welcome to visit by clicking on the relevant links found in the footnotes and bibliography.

There are multiple reasons why hens stop laying eggs, or reduce in their egg production. Following are some of the causes, but note that the actual reason in a particular environment might be a combination of factors. You will need to analyse your situation and, by process of elimination, find the answer to your questions.

Light

If you are an egg producer, you may have noted that during the summer you could get an egg from each hen almost every day, or about 9 out of 10 days. Hens produce eggs in clutches of 8 or 9 and lay an egg every approximately 24 to 26 hours.

Hens need 14 to 16 hours of light during the day in order to make an egg. Light provides a hormonal stimulus to the hen to form an egg. During the summer, 14 to 16 hours of light is natural but some producers make use of additional artificial light to create this environment for the hen year-round. If you opt for this route, will need a 25 Watt / LED 3 to 9 Watt bulb per 9 square meters of coop/henhouse space. This might be something you need to consider if you need to maintain consistent numbers of eggs for your market.

- 1 In fact, in some instances, hens delay starting to lay until spring or summer;
<https://www.hobbyfarms.com/3reasons-for-delayed-egg-laying/>
- 2 <https://thehipchick.com/how-much-should-a-chicken-sleep/>;
<https://peteducate.com/how-long-do-chickens-sleep/>

Please note: do not keep artificial lights on all night. To be healthy and happy a hen needs to sleep 8 hours per night. Use timers to regulate artificial lighting.

Brooding

Eggs need to be removed from the cages or nesting boxes regularly, but at minimum every day. This is extremely important, especially when it comes to free range hens. Hens must never be permitted to sit on eggs. When they sit on eggs they become broody, will get quite agitated if anyone comes near the eggs to try to remove them and may even start to pull out her own chest feathers in anticipation of keeping the eggs warm for hatching. If eggs are left and not removed regularly, and a hen sits on the eggs and goes into “brooding mode”, she will stop laying eggs for 21 days (which is the time it takes for a chick to hatch from an egg). Prevent hens from going into “brooding mode” by removing eggs regularly.

Nesting boxes must be kept closed at night so that hens don’t learn to sleep where they should be laying eggs; and the nesting boxes should be opened again early in the morning for the hens to start laying eggs in them.

Stress

Do not underestimate what will stress a hen! And do not underestimate how quickly they get stressed.

Playing classical music to your hens helps to drown out stressful sounds as well as encourages better egg-production.⁴

What can cause stress in hens?

Predators: Make sure that rats, snakes and other predators do not have access to where the hens lay eggs. Ensure that walls do not have holes in them, and that doors, screens and windows are predator-proof.

Over-crowding: Hens need about half a square metre per hen indoor space and half a square metre to a square meter per outdoor space to remain stress-free and produce eggs. Less than this can cause stress and aggression. Separate aggressive hens.

Noise: Some noises actually cause stress and fear in hens. The article “How to Reduce Negative Effects of Noise on Chickens” states the following important information:

“... Studies have shown that loud noises found near airports, rail road tracks or loud hydraulic or pneumatic equipment and machinery close to the chickens leads to lower egg production, stunted growth, higher blood pressure, stress and fatigue in the chickens”.

The abovementioned article provides some practical advice on how to identify problem areas, and how to overcome them, finding ways to muffle noise, etc. Importantly, it emphasizes that we must be sensitive to the hens physiological needs, stating that we must use “common sense and respect.” “We need to appreciate the fact that chickens are living

beings that need many of the same things that we as humans need including a good night's sleep and some peace and quiet during the day."

Heat stress: The feathers on a hen are very efficient in keeping the hen warm during winter, but those same feathers prevent the heat from escaping during summer. Hens do not have sweat glands, so they pant to keep cool. High temperatures, high humidity and bad ventilation cause severe stress in hens. Heat stroke can be fatal. Heat stress can affect growth and egg production, leading to eggs of reduced quality. Be vigilant to signs of hens gasping and panting, wattles and combs that have turned pale, hens lifting their wings away from their bodies, reduced feeding and reduced egg production. Some ways in which to mitigate heat stress:

- Hens must **always have access to fresh, cool water**.
- Ensure **sufficient shade and ventilation** for the hens.
- If the hens are in a henhouse and in cages, make sure that the hens at the top have good ventilation.
- **Prevent overcrowding**.

Feed and nutrition

In order to produce an egg with a strong, good quality shell, the hen needs 4 grams of calcium per day. Ensure that the layer feed that you give provides the essential food that hens need. By feeding the hens other scraps and foods you will possibly be diluting the effectiveness of the feed, so keep to proper hen nutrition.

Hens need approximately 140g of feed per day. Do not limit-feed hens; make sure that feed troughs are kept filled so that they can feed freely, ad-lib. Sufficient feed is needed for egg production (see the notes below on water).

Water

Water intake is an essential factor in egg production. Most of the albumen and yolk contain water. A hen drinks twice as much water as feed – this means that each hen needs about 250 ml of fresh clean readily available water per day. When a hen awakens in the morning, she firsts drinks water before feeding. No water is the top reason why hens stop laying eggs.

Molting

Aside from the molting process through which each hen goes before starting to lay, she also goes through molting at around 18 months and then each year thereafter. Because the hen uses her food-intake as energy to grow new feathers, there is likely to be an interruption in her egg production. This molt can take 2 to 4 months, but then she is likely to return to normal egg production. During this time you may want to switch to a feed that has a higher protein ratio (because she needs protein to grow feathers), but after the molt you can return her to layer feed high in calcium.

Age

Depending on the breed, hens begin laying eggs between 18 and 32 weeks of age and can continue to be productive throughout their lifetime. A hen can live to about 10 years of age but as the years go by, her eggs will lessen in quality (having soft / brittle shells and possibly tiny eggs) and regularity (down to about an egg or two per week).

Some main reasons why a hen stops laying eggs:

1. **Water:** she does not have access to any or sufficient fresh water. No water is the biggest reason why a hen stops laying eggs. Ensure all day access to fresh, clean water.
 - Be vigilant! Make sure that drinkers are operating correctly, that taps are open and that there is a free-flow of water. Note that certain medicines clog water filters, so check and clean water filters regularly.
 - If you notice that feed intake has declined, check the water: a hen first drinks water and then feeds. Also note that this could be the reason why hens lose weight and reduce egg production: they might have access to feed but will not feed unless fresh, clean water is readily available.
2. **Feed:** the feed composition is not conducive to egg production. Feed ad lib; feed should be freely available to the hens – there is no sense in limit feeding laying hens.
3. **Theft:**
 - Some hens learn to peck at eggs and eat them. This is one of the reasons why eggs, especially in free range, need to be removed frequently throughout the day. Proper nesting boxes must be provided for the hens so that they learn to lay eggs there – and only there: not on the grass and under bushes, etc. (which makes it very easy for the hens and other predators to steal the eggs).
 - Predators are stealing the eggs (snakes, rodents, cats, dogs etc. all love eggs).
 - Humans are stealing the eggs.
4. **On-going stress:**
See the notes above regarding stress.

Manage your flock with care

You need to know that hens are very sensitive. If anything in their environment is not to their liking or to their requirement, this will be reflected in their egg-production. The good, careful and sensitive management of your flock will most certainly show in the eggs you get from your hens. Get to know your hens: spend time observing them, and then you will be able to notice when a hen is not well or if there are other problems. A good rule-of-thumb is:

The 3rds rule

If the hens are comfortable and content, at any given time:

- Ø one third of the hens should be sleeping/lying down/sitting
- Ø one third should be drinking water
- Ø one third should be feeding

But, if not check:

- Is there enough ventilation to remove heat, carbon dioxide and/or ammonia?
- Is there enough fresh water?
- Is there enough food?
- Are they stressed for one or other reason?

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