



Why Did My Chickens Stop Laying?

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Egg production is a remarkable thing. A pullet (young female chicken) begins laying eggs at 18 to 20 weeks of age. She reaches peak production at about 35 weeks, with a production rate greater than 90 percent (that's 9 eggs in 10 days for a single hen or 9 eggs from 10 birds daily). This period of peak production lasts about 10 weeks, after which her egg production slowly begins to decline.

A high-producing hen's annual egg production is more than 10 times her body weight. The average commercial Single Comb White Leghorn hen lays about 265 eggs per year, with backyard breeds laying fewer. In most cases, the more exotic the breed, the poorer the egg production.

Hens stop laying eggs for a variety of reasons. External or internal stimuli affect hormone levels, which change the condition of the ovary and oviduct, the organs responsible for egg production. The result of these changes is the reduction or cessation of egg production. The most common stimuli that affect egg production are decreasing day length, disease, broodiness, poor nutrition, and stress. However, even under ideal conditions, every hen's egg production eventually slows down and stops.

Decreasing day length

Days become shorter beginning June 22 and begin to lengthen again on December 22. In Oregon, day length decreases from nearly 16 hours of light at the beginning of summer to just over 8 hours at

the beginning of winter. This change in day length causes hens to molt and cease egg production, a process that may take several months.

Preventing production losses due to changes in natural day length requires artificial lighting. To maintain production, day length must increase or remain constant at more than 12 hours per day; a 14- to 16-hour day is typical. Light needs to be just bright enough to read a newspaper, and the type of bulb does not matter. If a lighting program is started, it must be continued. Even a 1-day lapse can have a negative impact on egg production. It is best to use an inexpensive timer to control the light schedule.

Molt

Molting is a natural process that allows the hen to replace old, worn feathers and rejuvenates her oviduct, the organ that "makes" eggs. With the molt, the hen puts the bulk of her energy into feather growth, leaving little for egg production.

Natural molting is a seasonal process related to changes in day

length. It usually occurs in the fall after chicks fledge, but in domestic birds it can occur at any time, especially if the hen is exposed to some stress. Rapid feather loss by the entire flock usually is the result of a serious stressful event such as lack of water and/or feed or lighting problems.

Even with a lighting program, hens eventually molt. When molting during long day periods, the molt often is not complete, and hens may never be restored to full production. It is a good idea to allow hens to molt during their second winter. By turning off the lights for about 6 weeks during the winter, the birds will molt more completely and then can be placed on long days again to resume egg production.

NOTE: Molt does not result in localized feather loss or bare spots. When bare spots appear, they are almost always the result of picking.

Broodiness

Broodiness is the natural tendency for a hen to set on her eggs to hatch chicks. Most hens eventually go broody, some breeds more often than others, although some breeds rarely, if ever, go broody. (Cochins and Silkies are champions at going broody; broodiness is rare in Leghorns.) When a hen becomes broody, hormonal changes result in the cessation of lay.

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The stimulus for broodiness normally is a nest full of eggs; however, some hens will go broody without this stimulus. To reduce broodiness, collect eggs daily from nests and hiding places. If a hen shows a desire to stay on the nest for extended periods, remove her from access to the nest for several days. After a period of time, the broody behavior will cease and she will return to egg production.

Flock health

Disease problems occur from time to time in all flocks. In many cases, a drop in egg production is the first sign of trouble. Other signs include lethargy, inactivity, lameness, coughing, dull appearance, and death. Some mortality is normal, but if several birds show similar symptoms, seek professional help. In Oregon, contact your county Extension agent, Extension poultry specialist, or the Veterinary Diagnostic Lab at OSU (541-737-3261). In Washington and Idaho, contact the Avian Health Laboratory at WSU-Puyallup (253-445-4537) or the Washington Animal Disease Diagnostic Lab in Pullman (509-335-9696).

Age

Eventually, all hens cease egg production. Normally, chickens produce well until they are 2 to 3 years old, and then egg production declines. Molts become more frequent and prolonged, and physical problems with the ovary

or oviduct may occur. After all, when a high-producing hen has laid for 3 years, she may have produced more than 30 times her body weight in eggs.

In some instances, the oviduct becomes less able to expel eggs, and one or more becomes trapped in the oviduct, a condition called "egg bound." In other cases, hens ovulate egg yolks that are not collected by the oviduct and hence remain in the body cavity. This is normal for a low percentage of yolks, and the hen simply reabsorbs them. When this "mistake" is an everyday occurrence, the hen is considered an "internal layer."

Sometimes older hens attempt to pass an extremely large egg or a double-yolk egg. In this case, the oviduct, which normally externalizes when eggs are laid, may not return to its normal position inside the hen's body. The oviduct remains external, a condition known as prolapse, and becomes a very tempting article for other hens in the flock to pick. Remove such a hen from the flock immediately.

In each of these cases, egg production ceases, and the health of the hen is in jeopardy. There is little that can be done for these hens but to remove them from the flock.

Poor nutrition

Diet is very important to maintaining maximum egg production. Chickens require a balanced diet, and any

supplementation of scratch, table scraps, garden waste, etc. serves to unbalance the diet.

For maximum egg production, feed a **layer ration** free choice, provide free-choice oyster shell in a separate feeder, and supplement only what hens will clean up in 15 minutes or none at all.

NOTE: Do not feed starter or grower diets to layers. Nutrient levels of these rations are different, which will reduce egg production, and medications in starter diets may leave residues in eggs. For more information on feeding laying hens, see the Pacific Northwest Extension publication PNW 477, *How to Feed your Laying and Breeding Hens*.

Stress

Egg production is a hen's reproductive activity. It is not a requirement for hens to thrive. When a hen experiences stress, even so minimal as to go unnoticed, she may respond by ceasing egg production.

Moving, handling, overheating, fright, and lack of food or water are stresses that can be detrimental to egg production. Protection from the elements and predators, clean and well-maintained facilities, adequate ventilation in closed houses, constant availability of feed and water, etc. will reduce stress and help maintain high egg production. Maintaining a healthy, well-managed flock will result in high-producing hens and many high-quality eggs for the family or for sale.