

## Factors that Affect Egg Production in Chickens

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Egg production is affected by numerous factors.

- Day length
  - 16 hours of day length is ideal for egg production. When natural day length is short, artificial light can be added to supplement. 25-watt incandescent bulb per 100 sq feet is sufficient. Use an equivalent wattage fluorescent or LED light.
- Breed
  - Not all breeds are good egg layers. A good egg layer can produce up to 300 eggs in the first year. Australorps, Leghorns, Rhode Island Reds and Eastern Eggers are examples of good egg layers.
  - Bantams and Silkies are some of the worst egg layers. They may only provide less than 100 eggs in the first year.
- Age
  - Egg production decreases each year. The first year that birds lay eggs will be the most eggs you get from those birds. They will lay fewer eggs each year after that.
  - Years 1 and 2 will be productive years. When the hen approaches 3 years, she will begin to lay fewer eggs. In years 4-6, egg production will drop off. Between years 6 and 8, most hens will stop laying eggs.
- Feed
  - Nutrient intake has a large effect on egg production. Without the proper nutrition, chickens cannot maintain year-round production.
  - A complete layer feed should provide all of the nutrients needed to maintain egg production and should be the primary source of nutrition for the hens. Anything that isn't a complete layer feed should be fed in moderation. Too much other feedstuffs will dilute the layer feed and limit the ability to lay eggs. 90% of the hen's daily intake should be from a complete layer feed. The remaining 10% can be from scratch grains, mealworms, table scraps, cracked corn, sunflower seeds, etc.
  - Laying hen feed should contain around 3.5% calcium to provide the birds with enough for eggshell production. Many of the feed ingredients customers add to chicken diets do not contain enough calcium to support egg production. Oyster shell should always be offered to the birds if the complete feed is being blended with other ingredients by the customer.
- Water
  - Without water, birds will not eat, and will quickly stop laying eggs. Only takes a few hours without water to affect egg production.
  - During cold weather, drinking water should not freeze. This can lead to death of the chickens in a short period of time.
  - Care should be taken when adding apple cider vinegar or electrolytes to water. Too much vinegar can cause birds to stop drinking. Electrolytes for an extended period of time can create a mineral toxicity issue for the birds.
- Illness and Parasites



- If a bird is not feeling well, egg production is going to slow. When sick or dealing with internal or external parasites, egg production will be affected. Consult with a veterinarian as soon as possible to identify the issue and develop a treatment plan.
- Temperature
  - Extreme temperatures will affect egg production. High heat is more of an issue than cold weather. Wild temperature swings can also affect production.
  - Some breeds of chickens are better able to deal with hot weather or cold weather. Know the temp tolerances of your birds and what they will experience where you are. Heat hardy birds will not lay a lot of during the cold.
- Molt
  - Molt can occur any time of year. It typically happens in the fall but can occur in January or July. When birds are molting, egg production will be at a minimum.
- Season (Winter)
  - Many conditions that will cause a reduction in egg production occur in the winter. The biggest concern is shorter days. Supplement light to help with this. Encourage customers to stick to a complete feed and not offer the birds anything else. A complete feed is going to ensure that the birds are getting the nutrition that they need to tolerate the cold weather and stay healthy. Many people will want to feed cracked corn or more scratch to help birds stay warm. This is not a practice I recommend. Those items are not complete feeds and are lacking in every nutrient to keep birds healthy in the winter.
- Stress
  - This is a broad category in which everything previously mentioned falls into. Anything that causes stress to the birds can have an effect on egg production. Take a look at the environment and everything else surrounding you birds when egg production slows to determine if there is something that can be adjusted. Loud noises. Change in routine. New additions to the flock. Aggressive chickens. Aggressive roosters. Too many roosters. Over-crowding. Temperature. Predators. Weather. This list is nearly endless.