

Vitamin D Impacts on Chicken Eggs

Schmitt, Taylor (School: Northwestern High School)

Soft egg shells in the egg production business result in a loss of profit. A soft egg is when the shell does not form into a hard layer, but a flimsy, easily-punctured covering. If vitamin D is given in addition to chicken feed, then the eggs laid will have thicker shells. First, separate birds into two coops. Provide both coops regular chicken feed, and add additional vitamin D to the food for one coop. Measure the thickness and weight of the egg shell, and determine the eggs' sizes by weighing the yolks of five eggs from each coop. Repeat the measurements every three days. After following this procedure, the eggs laid by hens that received additional vitamin D had thicker shells and the shells were heavier, despite the eggs being smaller. The hypothesis was correct, and the eggs laid did have thicker shells.