

## Common Egg Shell Deformities & Discolouration Issues and Probable Reasons



Pic 1: Unnoticed Issues of Egg Shell Discolouration



Pic 2: Egg Shell Discolouration

Sl No	Egg Production Parameter	Concerned Nutrients & Factors
1	Egg Numbers	Energy, Protein, Amino Acids & Vit D3
2	Egg Shell Quality	Ca, Phosphorus, Zn, Mn, Cu & Vit D3
3	Hatchability	Vit D3 & Zn
4	Egg Size	Amino Acids & Heat Stress

**15 common Egg Shell deformities in respect of structure & colour as under:**

### 1. Pale Shelled Eggs

Reasons:

- Infections like Infectious Bronchitis & EDS
- Old Age Hen
- High Stress in flock
- Toxic Effect of Drug like Sulphonamides & Nicarbazine



## 2. Pink or Liliac Eggs

Reasons:

- a) High Stress in Flock
- b) Excess Dietary Calcium



## 3. Dirty Eggs

Reasons:

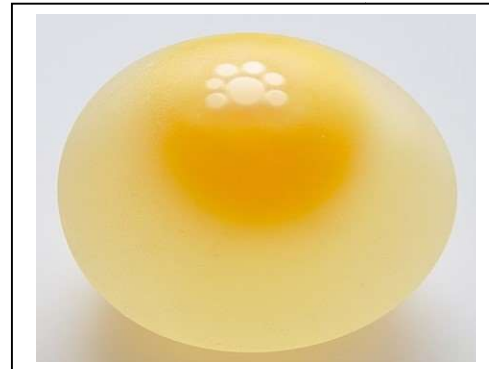
- a) Poor Gut Health
- b) High volume of indigestible ingredients in Feed
- c) Enteritis
- d) Electrolyte Imbalance



## 4. Shell-less Egg

Reasons:

- a) Disease like Avian Influenza, ND, IB & EDS
- b) Immature Shell Gland
- c) Nutrients like Ca, P, Mn or Vitamin D deficiency



## 5. Bloody Eggs

Reasons:

- a) Rupture of blood vessels inside Fallopian tube wall
- b) Rupture of blood vessels on Yolk surface
- c) Deficiency of Vit A or Vit K
- d) Large size in Egg in Old hen causing stretching and pressure on the lower area, may lead to bleeding
- e) Egg may broke inside hen's body & cause bleeding



## 6. Soft Shell Eggs

Reasons:

- a) Excess Phosphorus in Feed
- b) Heat Stress
- c) Old Age of Hen
- d) Electrolyte Imbalance



## 7. Cracked Egg

Reasons:

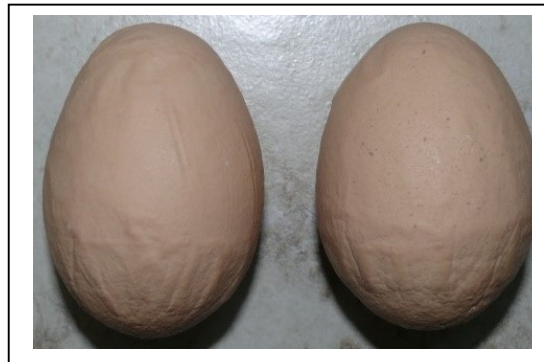
- a) Calcium & Vit D deficiency
- b) Heat Stress
- c) Old Age of hens
- d) Electrolyte Imbalance
- e) Mycotoxins



## 8. Corrugated Eggs

Reasons:

- a) Calcium, Copper & Vit D deficiency
- b) Heat Stress
- c) Old Age of hens
- d) Defective Shell glands
- e) Electrolyte Imbalance
- f) Mycotoxins
- g) Overuse of Antibiotics



## 9. Wrinkled Eggs

Reasons:

- a) Stress
- b) Infectious Bronchitis
- c) Defective Shell glands
- d) Overcrowding





## 10. Pimpled Eggs

Reasons:

- a) Eggs with Extra-calcification as granules on the blunt end
- b) Old Age Hen
- c) Inadequate Nutrition
- d) Strain of Chicken



## 11. Calcium Coated Eggs

Reasons:

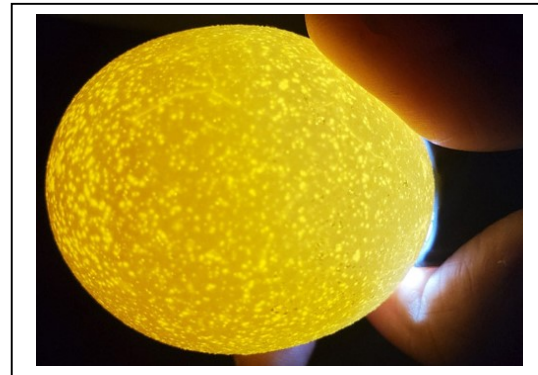
- a) Defective Shell gland
- b) Disturbance during Shell Calcification
- c) Excess Calcium in Feed
- d) Young hens under any stress usually hold Eggs longer leading to Calcium coated Eggs longer leading to Calcium coated Eggs



## 12. Mottled Eggs

Reasons:

- a) Disease like Avian Influenza, ND, IB & EDS
- b) High Humidity in hen house
- c) Mycotoxins
- d) Manganese Deficiency
- e) Overcrowding
- f) Any reason leading to shell fails to dry quickly



## 13. Broken or Mended Eggs

Reasons:

- a) Stress during Shell calcification
- b) Overcrowding
- c) Disturbances during Calcification



#### 14. Misshapen Eggs

Reasons:

- a) Immature Shell gland
- b) Disease like Avian Influenza, ND, IB & EDS
- c) Excessive Lighting
- d) Stress
- e) Overcrowding



#### 15. Spots (White Brown speckled) on Egg Shell

Reasons:

- a) Inadequate Nutrition
- b) Defective Shell gland
- c) Disturbance during Egg calcification
- d) Excess Calcium in Feed
- e) Stress during Laying



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