20 COMMON EGG SHELL QUALITY PROBLEMS

**Pale-shelled Eggs**
The degree of brown colour in the egg shell is dependent on the quality of pigment in the cuticle deposited onto the shell.

**Causes:**
- Infection
- Tendinitis
- Assimilation
- Egg size
- High stress in the flock
- Egg Drop Syndrome
- Use of chemotherapeutants agents, e.g. sulfadiazine and neomycin

**Lilac Eggs/ Pink Eggs**
The egg appears to be a pink or blue colour because of the association between the cuticle and an extra calcium layer.

**Causes:**
- Stress
- Excess calcium in the feed

**Dirty Eggs**
All or part of the egg shell is stained by blood. Food ingredients which can cause wet and sticky droppings should be avoided.

**Causes:**
- Wet droppings
- High index of mixed feed in flock
- Poor gut health
- Electrolyte imbalance/saline water

**Blood Stained Eggs**
Several eggs are more common on eggs from pullets in early lay. These eggs become contaminated with blood from a prolapsed cloaca, cannibalism or overt packing.

**Causes:**
- Pullets are over-weight or coming into lay
- Subtle large increases in dry density
- Poor hygiene in eggs, toys and belt pick-up systems

**Shell-less Eggs**
These eggs are laid without a shell layer and are only protected by the shell membrane.

**Causes:**
- Immature shell gland
- Disease: Newcastle disease, infectious bronchitis, avian influenza, Egg Drop Syndrome 76 etc.
- Inadequate nutrition: calcium, phosphorus, manganese or vitamin D3

**Soft-shelled Eggs**
These eggs are laid with an incomplete shell. A thin layer of calcium is deposited on the shell membrane.

**Causes:**
- Excess phosphorus consumption
- Heat stress
- Bird age: higher incidence in older hens
- Saline water
- Mystacism

**Corrugated Eggs**
The egg appears to be very wrinkled and corrugated. These eggs are characterised by a very wrinkled appearance due to the failure of the shell to dry out quickly.

**Causes:**
- High humidity in the shed
- Disease and mycotoxins
- High stress in the flock
- Bird age: higher incidence in older hens
- Over-crowding
- Poor nutrition, e.g. excess calcium

**Wrinkled Eggs**
Wrinkled eggs have finely crowned and wrinkled surfaces.

**Causes:**
- Stress
- Disease: e.g. infectious bronchitis
- Defective shell gland
- Over-crowding

**Pimpled Eggs**
Small lumps of calcified material appear on the egg shell. The number of pimples depends on the foreign material present during the calcification process.

**Causes:**
- Bird age
- Stressful bird
- Inadequate nutrition

**Calcium Coated Eggs**
Small lumps of calcified material appear on the egg shell. These lumps are larger than the usual pimpled eggs.

**Causes:**
- Stress
- Calcium metabolism
- Calcium deficiency

**Broken and mended**
In this case, a dislocated break occurs during formation and is mended again before lay.

**Causes:**
- Stress during calcification

**Misshapen Eggs**
An unhatched egg is an egg that differs from the normal shape and size in too small or large, round instead of oval or has major changes in the shape.

**Causes:**
- Immature shell gland
- Disease: Newcastle disease, infectious bronchitis, larvagrains, Egg Drop Syndrome 76 etc.
- Stress
- Over-crowding

**White Banded Eggs**
These eggs are the result of two eggs coming in contact with each other in the shell gland pouch. At this point, normal calcification is interrupted and the first egg retained in the pouch will have an extra layer of calcification - seen as the white band marking.

**Causes:**
- Stress
- Changes in lighting
- Disease

**Slab-sided Eggs**
The slab-sided egg is the second egg that enters the pouch. The second egg is not as complete as the first egg and is flattened at this point where the second egg made contact.

**Causes:**
- Stress
- Changes in lighting
- Disease

**Mottled Shells**
The eggs made contact. The egg and is flattened at the point where the eggs made contact.

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- Immature shell gland
- Disease: Newcastle disease, infectious bronchitis, avian influenza, Egg Drop Syndrome 76 etc.
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**Body-Checked Eggs**
The egg is cracked in the shell gland pouch and then repaired before lay.

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All or part of the egg shell is stained by blood. Food ingredients which can cause wet and sticky droppings should be avoided.

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