

Chicken Faecal Analysis

The colour and texture of chicken faecal material can indicate the health status of the digestive tract. This poster shows abnormal droppings and suggests the possible causes.



Pictures 2a, 4a, 9, 10a and 12 are courtesy of: www.thegardensmallholder.wordpress.com



1

Foamy cecal dropping
Surrounded with large amounts of brown watery and foamy urates excreta.
Causes (1): Malabsorption syndrome in young chicks (adenovirus, reovirus). Dietary changes: High lactose content in feed ingredient that is not digested and absorbed in small intestine, but fermented by cecal flora.
Local enteritis: Clostridium perfringens infection, coccidiosis, worm infestation.



2a

Polyuric dropping
Contains large amounts of solids paste, white to milky urates excreta.



2b



3

White urates
In clinical cases, only the white urates are being passed.

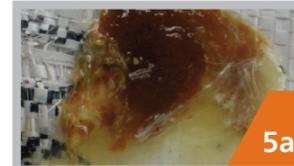


4a

Orange-reddish gut mucosa dropping
In subclinical cases, orange-reddish drops of intestinal linings in the faeces can be observed.



4b



5a

Orange gut mucosa dropping
In clinical cases, orange drops of gut mucosa discharge in the faeces can be observed.



5b

Causes (2, 3):
Kidney Disease: Viral infections (Infectious bronchitis), bacterial infections.
Immune Disease: Infectious bursal disease, lymphoid leukosis.
Mouldy Ingredient: Mycotoxin (aflatoxin, ochratoxin).
Drugs (sulfa, gentamycin) have been over used.
Heavy metals (zinc, lead) are not digested and absorbed.
Dietary changes: Combination of high calcium levels, high vitamin D, low vitamin A, high dietary protein in the diet, fed to older chickens (e.g. layers > 60 weeks old.)
Behaviour changes: Lack of drinking, excitement, stress.
Other Diseases: Worms, coccidiosis, toxoplasmosis.

Causes (4,5):
Gastrointestinal tract disease: Necrotic enteritis (*Clostridium perfringens*), *Salmonella Typhimurium*, coccidia, ascarids, enteric virus (torovirus-like virus), histomoniasis.
Disbacteriosis: Microbial imbalances.
Mycotoxin: Aflatoxin, fumonisins, sterigmatocystin, ochratoxin, and undefined toxins of Penicillium.
Toxic injury: Oxidised, rancid fats, biogenic amines.



6a



6b



6c

Undigested maize faeces
Undigested maize can be seen in the feces.
Causes (6):
Poor feed quality.
Coarse and large particle size of grinded corns.
Gizzard erosion.
malabsorption syndrome.



7a

Clear or watery runny droppings
Clear or watery, runny droppings show normal faecal matter but notably more fluid around the faeces.



7b



8a



8b

Brown runny droppings
Brown runny dropping which appear loose and watery in clinically infected chicken.

Causes (7, 8):
Malabsorption/maldigestion syndrome: Enteric virus (reovirus, rotavirus, bacterial enterotoxins, (*E. coli*, *Clostridium*, *chostridium*, *cholera*, *Salmonella*)).
Dietary Changes: High in salt, excess levels of magnesium (carbonate, sulfate, and oxide farms), non-starch carbohydrates (e.g. raffinose in soybean meal, lactose in whey, pentosans in small grains, or sucrose).
Behavioural: Increased water consumption during heat stress.
Physical or physiological stress: Vaccination, environmental temperature, drastic change in feed formulations.



9

Yellow foamy dropping
The sulphur yellow colour, blood stained and foamy dropping is due to a disease called Blackhead or Histomoniasis, which is caused by a protozoan parasite which affects the gut.



10a



10b

Greenish droppings
Greenish dropping combined with very little faecal matter and condensed urates, which contains little mucus around it.
Causes (10):
Systemic disease: *E. coli* infection; Newcastle disease, infectious bronchitis, Leucocytozoonosis, coryza, CDR, avian influenza, lymphoid leukosis.
Liver Malfunction, abnormal bile secretion: Mycotoxins, fatty liver, heavy metals.
Bird not eating: Infection, acute stressors (vaccination, medication, environmental temperature).



11

Light greenish dropping
Light greenish droppings are due to sudden change in environmental conditions.



12

Bloody droppings
Bloody droppings are due to cecal coccidiosis.



13a



13b

Cecal droppings
Cecal droppings are normally expelled two or three times a day (once in every 8 to 10 droppings). They look pasty, smell worse than regular droppings and are often mustard to dark brown in colour.



14a



14b

Solid, healthy dropping
Usually voided as digestive waste with white uric acid crystals on the outer surface and have no odour.

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