



Canadian Poultry Consultants Ltd.

Colibacillosis (E.coli Infection) in Broilers

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E. coli infection (Colibacillosis) is a common cause of mortality in broiler chickens. Although E.coli is a normal inhabitant of the intestinal tract in poultry, it is very capable of acquiring 'virulence factors' which allow it to colonize internal organs and cause disease. These strains are called avian pathogenic E.coli (APEC). In broiler chickens, Colibacillosis can be a primary disease, meaning it is capable of causing illness and mortality on its own, but more commonly it occurs secondary to some other 'stressor' or suppression of the immune system including:

- Chilling
- Overheating
- Inadequate ventilation (drafts, high CO₂, dust)
- Viral challenges (IBD, IBV in particular)
- Inadequate waterline sanitation
- Interruptions in feed and/or water access

The following interventions will help prevent morbidity and mortality due to E. coli infection:

- Poulvac E. coli vaccination at the hatchery or on farm
- Follow the Platinum Brooding Checklist®. Some key points are listed below:
 - Ensure continuous access to feed and water with no interruption to ensure flock remains on 'steady state'. Monitor crop fill.
 - Acidify the litter in the 'zone of comfort' – PLT is recommended per manufacturers' instructions
 - Ensure barn is well ventilated with no drafts. Monitor CO₂ levels and maintain below 3000ppm
 - Ensure proper waterline maintenance and sanitation – guidelines are available
 - Acidify the water – PWT is recommended per manufacturers' instructions
 - Ensure chicks are not being over heated or chilled. Ensure that overnight temperatures are not dropping. Monitor vent temperatures
 - Ensure effective sanitation and biosecurity programs are implemented and followed
- Administer on-farm 'booster' vaccines for IBD and IBV, particularly in the winter months when viral challenges are high. Infections with immunosuppressive viruses make mortality due to E.coli more likely.

For more information please contact *Canadian Poultry Consultants Ltd.*

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