

Canadian Poultry Consultants Inc.

Deep Pectoral Myopathy (DPM)

Introduction:

- Necrosis and atrophy of tenders
- It appears as pinkish hemorrhagic to a gray greenish discoloration of tenders
- It has not been associated with any infectious agent

Causes:

DPM has been associated with following factors

- Excessive wing flapping
- Heavy market weight
- Sex: Incidence can be higher in males compared to females
- High white meat yield
- Rapid growth rate

Categories of DPM:

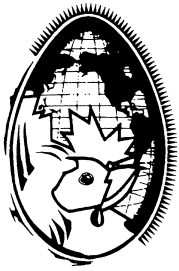
Category 1: Acute inflammatory lesion in which deep pectoral muscle is very red and hemorrhagic

Category 2: The lesion is in the inner fillet and has become well defined and sometimes circumscribed

Category 3: The lesion is degenerated and damaged tissue turns green

Prevention: The key to reducing the incidence of DPM lies in management of the broiler flock and minimizing wing flapping. Following are management guide lines to minimize unnecessary wing flapping:

- Eliminate novel sounds (buzzing security lights, sudden use of noisy ventilation fans, tractor generator operation in/near house)
- Limit weighing or penning birds. Weigh birds in bucket or similar instead by legs
- Avoid excitement induced by frequent thinning of flock
- In tunnel ventilated houses use migration fences approximately 100 feet apart
- Do not allow other animals in or around the house
- Avoid excessive human activity in the house, especially if the birds are flighty



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- Avoid walking birds too fast especially when migration barriers (nets, pipes or fences) are used; this may cause birds to pile up
- Train personnel for gentle bird handling techniques during catching. Do not catch birds by their wings
- Keep birds comfortable during transport to the processing plant. Low crate stocking densities can cause problems. Prevent any unnecessary bird movement when crated. Automatic catching systems can exacerbate wing flapping depending on the system used.
- Bird activity and flightiness increases with increasing natural day length
- Birds respond to increased light intensity with increased activity. Blue curtains may help calm the flocks in curtain sided facilities.
- In environmentally controlled houses, avoid sudden and excessive increases in light intensity with dimmers -especially under low light intensity (<3 lux) conditions.
- Avoid extended periods (>3-4 hours) of feed and/or water withdrawal.
- Intermittent lighting programs can be a potential problem due to frequent bird stimulation.
- Ensure that stocking density, feeder and drinker space is adequate.
- Minimize birds perching on swinging equipment such as feed tracks which allow birds to flap.
- A dawn to dusk type dimmer offers a gradual increase in lux.

Conclusion: Reducing DPM is a broiler management responsibility

Reference: Point form extract from Aviagen's article on DPM (www.aviagen.com)