GREEN LEG CONDEMNATIONS – GASTROCNEMIUS TENDON RUPTURE

Condemnations of broiler drums due to green discoloration occur in broiler processing plants. When the gastrocnemius tendon ruptures (GTR) periarticular hemorrhaging leads to the green discoloration seen here. The green discoloration is expected to occur when GTR happens more than 48 hours prior to processing while red discoloration is seen when GTR occurs less than 48 hours prior to processing. Gastrocnemius tendon rupture is a result of stress on weak tendons.

There are both infectious and non-infectious causes of weak tendons. During broiler growout, tendons can be weakened or damaged from reoviral or staphylococcal infections (tenosynovitis). Tendons can also be comparatively weak due to general inactivity (lack of exercise). When weight is applied to weak or damaged tendons, partial or full tendon rupture may occur. The combination of inactivity and greater body weight observed in larger broilers may increase the frequency of drum condemnations due to tendon rupture. Additionally, once one tendon has ruptured, the other tendon undergoes additional stress to compensate for the ruptured tendon. This often leads to both drums on the same carcass with visual lesions being condemned.

Once the gastrocnemius tendon ruptures the bird will be lame ( creeper). During processing, the green lesions become apparent following defeathering. Although gastrocnemius tendon rupture has typically been described in broiler breeders as either acute or chronic lesions, rupture is also being observed with heavier weight broilers in the processing plant.