



Worthwhile Operational Guidelines & Suggestions

BROILER PROCESSING TIMELY INFORMATION – SEPTEMBER 2008

Fractured clavicle (wish bone)

Bone fragments in boneless-skinless meat are type of a physical hazard which must be addressed and controlled through the plant HACCP program. Regardless of type of deboning (manual or mechanical) is used, rib-cage and clavicle (wish bone) are the two most common sources of bone fragments associated with boneless-skinless broiler breast meat. Clavicle fractures are frequently observed in broiler carcasses, sometimes at rates as high as 40-50% at post-chill.



Clavicle fractures occur during the two distinct stages of processing:

1. Prior to scalding: Mostly occur due to pre-slaughter handling and struggle, stunning voltage and conditions, and excessive struggle during killing and bleeding. These types of clavicle fractures are typically associated with mild to severe bleeding (blood splash) in the surrounding tissues (See carcass shown on the left).
2. Post-picking: Mostly due to physical/mechanical forces applied by the various processing equipment (i.e., pickers, croppers, pac-man and vacuum). These fractures appear fairly clean without visible blood splash in soft tissues (see carcass shown on the right).

Defining and categorizing the type(s) of clavicle fractures observed in the plant should help plant personnel focus their efforts to identify the root-cause(s) this problem.



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