Intestinal fragility

Processing plants often complain about “weak” or fragile intestines during evisceration that can lead to carcass contamination with the contents of the digestive tract. Intestinal fragility can be caused by enteric diseases, exposure to mycotoxins via feed, and by excessive fasting by the birds (i.e., either voluntarily or imposed with withdrawal of feed) prior to slaughter.

Intestinal strength can be quantified objectively. The breaking (or tensile) strength (amount of force required, in grams, to break the intestine under controlled pulling conditions) of the intestines from birds subjected to fasting periods from 6 to 18 hours, during both winter- and summer-time conditions, is presented in above. Intestinal strength was higher (i.e., required more force to break) during the cool than warm weather and declined significantly (i.e., required less force to break) when the total fasting periods exceeded 12 hours. It is important that both voluntary (due to heat stress, feed outages etc.) fasting by the birds should be minimized to stay within the “target window” of pre-slaughter fasting for optimal evisceration efficiency.

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