Processability of broiler chickens

We demand a lot from a modern-day broiler chicken and it continues to deliver… In addition to good reproductive capacity (egg production, fertility and hatchability) and growth performance (rate of growth and feed efficiency; meat yield; and livability), it has become increasingly important that broiler chickens also possess good “processability” characteristics. Broiler chicken, by definition, is developmentally a juvenile animal and therefore may lag behind in structural maturity at market-age. As we continue to make gains in growth rate and decrease age at marketing, one would have anticipated problems with tissue integrity during high-speed mechanized processing. On the contrary, broiler chickens are designed (i.e., bred) and nurtured (i.e., reared) commercially to be “resilient” enough to withstand the diverse stressors of intensive production, rigors of handling, confinement, and transportation, as well as “tough” enough to resist the physical and mechanical inputs/forces of slaughter and processing procedures.

Thanks to the heritable traits such as weight uniformity, general disease and colonization resistance, tissue integrity and functionality (skin, skeletal, digestive, muscular and immune systems), and body composition (feathering; meat to bone ratio; fat content and distribution) and others, through successful genetic selection, the commercial strains of broiler chickens facilitate many final-product quality attributes (yield, grade, color, portion size and shape, composition, safety and wholesomeness). Without these inherent characteristics that the broiler industry expects, it would be very difficult to meet ever increasing market/customer demand for product consistency.