

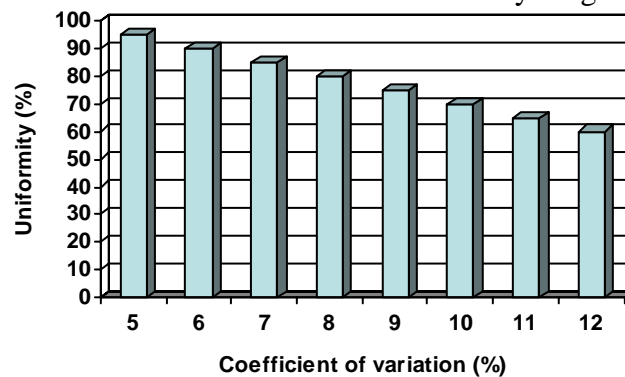


Worthwhile Operational Guidelines & Suggestions

BROILER PROCESSING TIMELY INFORMATION - APRIL 2004

UNIFORMITY

Uniformity is an extremely important parameter in terms of processing plant line efficiency, and product quality, yield, and value. In modern-day poultry processing plants, the level of automation and processing line speeds increasingly dictate that the product, whether be live birds entering the plant, carcasses hung on a cut-up line, or a deboned fillets destined for a portion-controlled product, are uniform in size. Often we assume that all the birds in a given flock or batch of product weigh the same. This is not possible, as variation is an inherent characteristic of everything in the universe.



How can we determine uniformity? Weighing all the birds in a market age flock to determine uniformity would be ideal, but not possible, practical, or necessary. Often we take representative samples (i.e., 50 males and 50 females per house) and calculate parameters like mean (average), standard variation (SD), and coefficient of variation ($CV=SD/\text{mean} \times 100$) to make inferences about the entire flock or population. The graph above illustrates the linear relationship between CV and uniformity (% of samples within 10% of the mean). Lower the CV, higher the uniformity. A broiler or turkey flock with CV 6 or less (90 % or more of the flock within 10% of the average weight) would be considered very uniform. Flock environment, management, nutrition, and health programs must be designed and implemented for optimum flock uniformity.

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