

DECLARATION

**EFFECT OF SLAUGHTERING AGE AND SEX OF
STRAIN COBBS AND HYBRO ON CUTUP
WEIGHTS**

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ABSTRACT

The qualitative properties of the meat are of major importance for poultry processing, since meat is now widely consumed as cuts or as processed products. The aim of this study was to evaluate the effect of slaughtering age, sex and strain Cobb and Hybro PG⁺ on cutup weights. The experiment was conducted with 192 broilers of two different strains (Cobb and Hybro) were reared in a fully automated, closed house system at Crysbro Group of Company, Jayamalapura, Gampola. Birds were slaughtered at the age of 33 to 42 days. All broilers were weighed before slaughter and after having 12 hours starvation period. At the end of processing, carcasses were portioned into five different parts such as: Leg, Breast, Back, Wing and Neck. Weights of those parts were measured by using electrical balance. Data were analyzed by Multiple Regression of two dummy variables. Two dummy variables have been employed to take Sex and Strain in to account. Age of birds was taken as a quantitative variable. Five regressions were built according to the different parts. The age was significantly affect ($P < 0.05$) for all variables except the Neck %. The strain was significantly affect ($P < 0.05$) for all variables. Sex was significantly affect ($P < 0.05$) for all variables except Wing %. Breast% (Br %), Leg (L %), were increased with slaughtering age and Wing (W %) and Back (B %) were decreased with slaughtering age but Neck (N %) was not changed with slaughtering age. Wings% (W %) and Neck% (N %) were decreased with the slaughtering age. Processed male weight higher than the female in both strains. Strain Cobb was the most suitable for portioning. Expensive cut percentage such as: Breast% and Leg % are higher in Cobbs than Hybro PG⁺. Strain Cobb could be used to obtain high carcass weight or expensive portions from 38 days of age. At 38 days of slaughtering age, strain Cobb produced average 2.143 kg of live weight, Back 15.19%, Wing 7.68%, Leg 23%, Breast 27.615% and Neck 4.43%.

Key Words: Hybro PG⁺, Cobb, Strain, Carcass weight, Starvation