

## Chemical Composition, Palatability and Physical Characteristic of Venison from Farmed Deer.

### ABSTRACT

The quality of venison farmed deer were evaluated based on chemical composition, palatability scores, W-B shear force, ultimate pH, and color. The samples of venison were derived from javan rusa ( *Cervus timorensis russa*). Moluccan rusa ( *Cervus timorensis moluccensis*), sambar (*Cervus unicolor brookei*), fallow (*Dama dama*) and imported red deer (*Cervus elaphus*). Moluccan rusa and red deer were fed grass. Javan rusa, sambar and fallow deer were fed concentrate. The venison obtained from grazing deer (grass-fed) gave higher moisture content (75.3%) than concentrated-fed or confinement-raised deer (74.4%) and imported venison (70.62%). Fat content in venison shows some differences between muscles and spines. The concentrated-fed animals had a higher (  $p<0.05$ ) fat content in the venison than the grazing deer. Temperate deer (fallow and red deer) showed higher ( $p<0.05$ ) fat content than tropical deer (rusa and sambar deer). Venison obtained from concentrated-fed deer showed normal ultimate pH values ( $pH\leq 6.0$ ) and more reddish in color than grass-fed deer. The concentrated-fed venison produced slight higher ( $p>0.05$ ) palatability scores than grass-fed venison. Feeding regimens (grass-fed vs. concentrated-fed) significantly ( $p<0.05$ ) influenced fat composition in the venison of farmed deer in this study.

**Keyword:** chemical composition, concentrate-fed, farmed deer, grass-fed, palatability, venison