B-28 Udder and body parameters in relation to milk yield in dairy cows

E R K Perera, P R Dharmaratne, A N F Perera
(*Dept of Animal Science, Faculty of Agric, Univ of Peradeniya*)

A study was conducted to examine the relationship between udder and body parameters with milk yield in Friesian, Sahiwal and cross bred cows. Data on test day milk yield, udder length udder depth, teat height and teat circumference, body weight, heart girth, barrel girth, folded skin thickness at neck, shoulder and flank were obtained from Friesian, Sahiwal and cross bred (n=60 each) cows. Mean test day milk yield was highest in Friesian (10.7 l) and lowest in Sahiwal (6.2 l) cows. Milk yield varied among different stages of lactation and lactation numbers in all genetic groups. Skin thickness was highest in Sahiwal cows. In all genetic groups, thicker skin was observed at the flank. Udder depth, udder length and teat size were highest in Friesians. Milk yield was negatively correlated ($P \leq 0.05$) to skin thickness at shoulder in Friesians ($r = -0.35$), and at neck ($r = -0.41$) in Sahiwal cows. Udder length ($r = 0.70$; $P \leq 0.05$) and udder depth ($r = 0.63$; $P \leq 0.05$) were positively correlated to milk yield in Sahiwal cows. Regression

equations were computed to explain these relationships. Other parameters had no significant correlation with milk yield. However, positive correlations existed between body weight and heart girth in Friesian ($r=0.73$; $P \leq 0.01$), and cross bred cows ($r=0.71$ $P \leq 0.05$). Body weight in Sahiwal cows also had positive correlations ($P \leq 0.05$) with barrel girth ($r=0.70$), distance between pin bones ($r=0.75$) and with skin thickness ($r=0.42$).

These results suggest that udder length and udder depth can be used as useful criteria in selecting superior dairy cows from Sahiwal herds.