

## **ABSTRACT**

Based on the livestock size are divided into two parts, where firstly the small one and the other the large one. Whereas the small one consists of poultry, sheep, goats, rabbit, etc. Measuring in the small animal weight could be directly weight, because very easier than the large one. To measure the weight of large animal, especially beef cattle, there are some differences. The body length, chest circumference, height and width of this animal is could be estimated.

Any kind of method in measuring the weight of livestock are calculated systematically. However the measurement is not entirely accurate when predicting the weight of beef cattle life. That is why, it is possibly to get a simply method to estimate the weight of beef cattle meat. The technical information for analyzing of beef cattle weight which call a digital image processing could be used, because it can analyze via photograph system. By using digital image processing with specific algorithms could be recognized certain objects.

The side picture of cattle and Chest Circumference feature was appropriate to calculate the weight of cattle. Linear regression gives better accuracy compare to calculation using Scroll and Winter Formula, 73.21362%, while the accuracy from using Scroll Formula is 71.4712%, and the accuracy from using Winter Formula is 72.4912%.

**Keywords:** livestock, beefcattle, weight, digital image processing