ABSTRACT

The case behind this final project is the selection of beef quality . Consumers want to get good beef for consumption. Good beef has gone through a good process of handling so it will feasible for consumtion. Consumers can be a housewife who wanted to provide the best beef for her family. And also consumers who will reprocess the beef.

Final Project has made to implement a digital image processing to produce a software that can diagnose the feasibility of beef consumption and analyzing the performance of texture feature extraction that used. In general, detection system of beef consumption consists of two main parts, texture feature extraction using the Run Length and classification using k-Nearest Neighbor.

From the results of performance testing system, it is known that the performance of the system reaches the highest accuracy when the preprocessing process using only red layer with the parameters set out in the classification of *k-NN* are the value of k = 3 and 5 for the Euclidean distance,anda the value of k = 3 for the City Block distance. The accuracy that is obtained by the system is ± 91.111 %.

Key words: beef consumption, run length method, k-Nearest Neighbor, feasibility