## **ABSTRACT**

This study aims to determine and implement the appropriate action to reduce the causes of defects that occur and to know the main factors causing product defects fish feed PERKASA / ALFA (  $\alpha$  ) produced and provide remedial solutions to reduce the number of defects in the product feed fish PERKASA / ALFA ( $\alpha$ ) produced by CV . Mentari Nusantara Feedmill .

This type of research is in the form of a study of implementation. To be able to do this research, using six sigma methods with DMAIC cycle and four tools of quality that consists of histogram, Pareto diagram, Ishikawa diagram and control chart.

Based on the research that has been done, there are founded the main causes of disability of product fish feed PERKASA / ALFA (a) come from human resource factor with the value of risk priority number 294, so the focus of improvement is emphasized on human resource in the first year that followed by improvement in engine, methods, materials and environment but the proportion of these four is lower that the human resource until the term of approximately 5 years improvements, company will have reach improvement of six sigma, reminded that the current position of company today on production process is still on 3,12 sigma.

Keywords: Quality control, DMAIC, Six Sigma, Tools of Quality.