

ABSTRACT

PT Multi Bintang Indonesia is a multinational level company under Heineken® group, specializing in beer production. The internship was taken place from 30th of January to 15th of May 2023 in Quality Control and Quality Assurance Department that is located at Tangerang brewery. Total polyphenol and sensitive protein in beer is promoted by malt and hops. However, presence of haze active polyphenol and sensitive protein in beer can give a detrimental effect towards its colloidal stability thus, addition off PVPP as a stabilizer was commonly done. Since use of PVPP is quite costly and colloidal stability is a factors that affecting beer's shelf life, the company wants to know the reduction and amount of polyphenol and sensitive protein after filtration in the beer; correlation between colloidal stability, polyphenol, and sensitive protein. This project was aimed to Investigate the reduce in amount of sensitive protein and polyphenol contained after filtration and its amount contained in the beer; difference in turbidity and colloidal stability value of Beer; as well as relation between polyphenol, sensitive protein and colloidal stability. Sample was collected during filtration and packaging line. Polyphenol analysis was measured using spectrophotometry, sensitive protein, turbidity and colloidal stability was measured using haze meter. Polyphenol and sensitive protein content reduce significantly after filtration and there are significant differences among Beer brands in term of their polyphenol content, sensitive protein, turbidity, and colloidal stability. Correlation test between polyphenol, sensitive protein, and colloidal stability results in weak correlation.

Keywords: *beer, colloidal stability, polyphenol, sensitive protein, turbidity*