THE EFFECT OF STORAGE ON PROTEIN FORTIFIED LIQUID WHOLE EGG RHELOGICAL PROPERTIES

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Liquid egg products are well known worldwide, the usage of it in bigger industries is becoming more common due to the fact that it's microbiologically stable and easier to handle. 100 g of liquid whole egg contains 76.15g of water, 9.5g fat and 12.56g protein. Egg proteins are high quality proteins, with an amino acid score of 100 and highest net protein utilization rate. Many studies investigated the characteristics and health benefits of egg white protein have found that consuming egg white proteins can increase muscle mass and strength, reduce visceral fat and blood cholesterol. Because of the health benefits of egg and egg white proteins this study was aimed to investigate the effect of adding powdered egg white protein on liquid whole egg to increase its nutritional values. The effect of adding egg white protein was assist by evaluating the rheological properties of liquid whole egg. Different percentages of egg white protein 3,5,10% were added to 200 g of raw homogenized liquid whole eggs then the product was heat treated at 65 °C for 15 minutes in water bath then stored for 21 days at 4°C. The rheological effect was tested on day 1, 7, 14, and 21 viscosity measurement was performed by MCR 92 rheometer (Anton Paar, Les Ulis, France) at 15 °C. Viscosity was affected through out the experiment it has changed with the change of egg white protein percentage and storage time.