

## **ABSTRACT**

### **EFFECT OF 25 GRAMS TURMERIC POWDER IN WOSTED COOKED OIL ON WATER CONTENT WITH VARIATIONS IN ADSORPTION TIME**

**(Time Length Variations 35,45,50,55 and 60 minutes)**

**Novia Urbanggi**

Cooking oil that is used repeatedly can reduce the quality of the oil. One of the decreases in the quality of cooking oil is the increase in the water content contained in used cooking oil. To improve the quality of the oil, you can add antioxidants, this is due to the hydrolysis and oxidation processes that occur during frying. One method used is the adsorption technique. Turmeric is used as an adsorbent because the antioxidants contained in turmeric can inhibit oil oxidation. The factor considered in this research is the concentration of water content contained in used cooking oil which has been adsorbed over varying lengths of time, which is very important because the length of adsorption contact time can influence the amount of water content contained in used cooking oil. So the aim of this research is to determine the effect of 25 grams of turmeric powder to reduce the water content contained in used cooking oil with varying lengths of time of 35, 45, 50, 55 and 60 minutes. The results of the tests carried out show that variations in the length of adsorption time can reduce the water content by 0.1350%, 0.1213%, 0.1132%, 0.1019%, 0.0952%, 0.0771%, respectively. The best results were obtained at an adsorption time of 60 minutes.

Key words: Adsorption, turmeric powder, used cooking oil, time variation, water conten