

CHAPTER V

CONCLUSIONS AND SUGGESTIONS

5.1 Conclusions

AP powder production had yield of 13.90%. AP powder was characterized to have moisture content of 2.14%, ash content of 1.81%, protein content of 1.27%, fat content of 0.79%, carbohydrate content of 83.11%, and dietary fiber content of 12.50%. SFS butter had a fat content of 49.60%. The best WF substitution with AP powder percentage in making waffle cones was 70% and the best VO substitution with SFS butter percentage in waffle cone formulation was 100%.

Waffle cone formulation made from 70% WF substitution with AP powder with 100% VO substitution with SFS butter was 'slightly liked' (4.78 ± 1.10) by the panel. Waffle cone had a 'brown' color (4.69 ± 0.75) with a lightness value of 50.87 ± 2.66 and °hue of 69.52 ± 1.65 . Waffle cone had a 'slightly fruity' aroma (4.00 ± 1.10) and 'slightly fruity' taste (3.78 ± 1.25). Based on texture, it was 'slightly hard' (4.42 ± 1.11) with a hardness value of 1364.70 ± 179.00 grams, and 'slightly easy to fracture' (3.61 ± 1.52) with a fracturability value of 1364.70 ± 179.00 grams. Waffle cones made from 70% WF substitution with AP powder had a dietary fiber content of 14.60% and waffle cones made from 100% VO substitution with SFS butter had a fat content of 8.54%.

5.2 Suggestions

Decreased fat content means that there is less chance for lipid oxidation which should increase product shelf life due to less off flavor and aroma. However, increased dietary fiber content can increase waffle cone water absorption which could influence texture during storage. This is a problem because the main parameter in panel acceptance of waffle cone was its texture. Determination of waffle cone shelf life based mainly on texture attributes should be done. In addition to shelf life, a study on waffle cone texture deterioration due to water transmission into waffle cones when used to hold ice cream should also be determined.

Phenolic content of best waffle cone formulation made with 70% AP powder with 100% SFS butter should be done to determine ability of AP powder as source of phenolic compounds in baked goods.

Substitution of remaining wheat flour with other flour substitutes such as rice flour and tapioca flour should also be explored to produce gluten free waffle cones with acceptable sensory properties to create an alternative to conventional waffle cones for people with Celiac disease.