

CHAPTER VII

CONCLUSION

The current study can be concluded that okra pods could be used as a raw material for hot water extraction of gum with an adequate yield. The optimal extraction condition was obtained at 90 °C for 60 min which give the highest yield. Okra gum composed of pectin about one to third of its weight. Physical property determination revealed that okra gum and pectin were pectin-like polysaccharides in which okra pectin contained greater amount of pectin. Okra pectin appeared to be a low methoxy pectin with a large number of acetyl groups. The rheological properties of okra gum and pectin solution indicated a pseudoplastic or shear thinning type fluid. Furthermore, okra gum and pectin could be sources of dietary fiber with both soluble and insoluble fiber fractions.

Okra gum and pectin were applied in food products namely non fat pasteurized chocolate milk and orange-flavored beverage. Both products were accepted by the panelists in terms of color, odor and overall acceptability with an improved consistency and mouth feel compared with control. Okra pectin could also help to prevent precipitation of cocoa powder in chocolate milk during refrigerated storage. Therefore, it could be concluded that okra gum and pectin showed potential uses as a thickening agent and stabilizer in some food products as shown in this experiment.