Cookies are one type of biscuit made from dough is soft, high-fat, relatively crisp when on break and a cross-cut tertekstur solid, but cookies are rich in nutrients needed to do additional nutrition by utilizing the antioxidant content of mulberry leaves, and take advantage of snacks such as local sweet potato as a substitute for wheat flour.

The purpose of this study was to obtain sweet potato cookies roasting temperature and determine the concentration of mulberry leaf extract on the characteristics of sweet potato cookies.

The method performed include preliminary research and primary research. The preliminary study is to determine the formulation ratio of sweet potato flour with flour mocaf using organoleptic response to the attributes, color, aroma, and taste. The main study was done using the experimental design randomized block design (RBD) and using the treatment design consisting of two factors, namely A (temperature roasting) and Factor B (concentration of leaf extract mulberry).

Selected samples are sample test results rank a2b1 (1600 roasting temperature with mulberry leaf extract concentration of 0.5%) which has a value of water content of 4.26%, 4.83% protein, fat content of 18.31%, 30.73% starch content.

The results of analysis of antioxidants in selected sample that is on the cookies before baking products have IC50 values 3537.5 ppm, the treatment cookies after dipanggan have IC50 values 5913.386 ppm.

Keywords: cookies, sweet potatoes, mulberry leaves, baking temperature, and concentration of leaf extract mulberry.