ABSTRACT

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UTILIZATION OF PINEAPPLE SKIN (Ananas comosus L. Merr) AS RAW MATERIAL IN CIDER MAKING
(xvi + 65 pages: 22 figures, 18 tables, 34 appendics)

Pineapple is known to produce waste in form of pineapple skin with total production of 60% every year. There are four provinces in Indonesia that has the highest level of pineapple fruit production such as Palembang, Pemalang, Subang and Sunpride. The phytochemical components of pineapple fruit like carbohydrate, vitamin, polyphenols and minerals, are also found in pineapple skin. Therefore it can be used as a source of antioxidant compounds, dietary fiber and nutrition for microbes, in the making of cider. Cider was made using three different sugar concentrations of 15, 20 and 25%, then was fermented for 3 days. Between those four pineapple skin ciders, sugar concentration of 15% was chosen as the best formulation in cider making, which produced alcohol of 7.56, 7.56, 7.59 and 7.91%; pH of 3.73, 3.64, 3.54 and 3.57; total titratable acidity of 0.54, 0.53, 0.56 and 0.59%; total soluble solid of 9.60, 10.60, 8.37 and 9.93 oBrix. These results show that cider that was made from Pemalang skin pineapple has the highest antioxidant activity with IC_{50} of 10753.87 mg/L and phenolic compounds of 282.13 mg/L. However, the highest dietary fiber was found in Palembang skin pineapple cider.

Keywords: Ananas comosus L. Merr, cider, sugar, pineapple skin, variation of pineapple