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### Moringa Leaf Potential (Moringa Oleifera) for the Manufacture of Instant Drink Powder with Variations in Tween 80 Volume and Drying Temperature as an Antioxidant Drink

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**Abstract:** This study is expected to provide opportunities for the food industry that is closely related to the development of new products and increase the selling value of the moringa leaves in the form of antioxidants instant drink. This is because a lot of active substances are contained in the moringa leaves (moringa oleifera) one of them is quercetin. Quercetin is an antioxidant compound that can neutralize free radicals and prevent damage caused by free radicals to normal cells, proteins, and fats. Antioxidants are also defined as compounds that protect cells from harmful effects of reactive oxygen free radicals. The purpose of this research is processing moringa leaf into an antioxidant instant drink of high nutritional value and demanded by consumers. The method used is the experimental method in the laboratory. Using variation variables of addition of tween 80 0,5ml, 0,75 ml, 1 ml, 1,25 ml, 1,5 ml) and variation of drying temperature (40 °C, 45 °C, 50 °C, 55 °C, 60°C) using the method of foaming drying to determine the effect on the making of antioxidant instant drink from moringa leaves with optimal quality to produce instant drinks rich of natural antioxidants and durable. The results showed that the best drying temperature is 60°C and addition of tween 80 volume as much as 1.5 ml, with result of analysis that is 1,67% water content, 89,83% solubility. While when viewed from the total quercetin and total antioxidant activity, the best temperature is at 40 °C and the addition of 80 ml tween volume of total quercetin 230.96 ppm and total antioxidant activity of 395,710 ppm.

**Keywords:** moringa leaf, foam mat drying method, instant drink, tween 80.

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