

**ANTIOXIDANT POTENTIAL OF DIFFERENT PARTS OF THREE
PINEAPPLE VARIETIES N36, MADU AND MD2**

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ABSTRACT

ANTIOXIDANT POTENTIAL OF DIFFERENT PARTS OF THREE PINEAPPLE VARIETIES N36, MADU AND MD2

Pineapple is widely consumed and appreciated not only due to its taste and aroma and also to its nutritional, functional and antioxidant properties, including its vitamin C and carotenoid contents. In an attempt to explore new antioxidant leads, the pineapple waste is often neglected in the pineapple industry. Fruit processing has considerably higher ratios of by-products and pineapple by-products are not exceptions as they consist basically of the residual pulp, peels, stem, and leaves. Pineapple waste is a by-product resulting from canning processing of pineapple that produces about 35% of fruit waste and leads to serious environmental pollution. In this study, antioxidant activities from different parts of three pineapples (N36, Madu, and MD2) were measured using the DPPH method. Methanol solvent has been used for extraction and various parts of pineapple were used to determine the effect of different plants toward antioxidant. The part that has been used is stalk, core, peel, and crown. These samples were determined by using ultraviolet (UV) spectrophotometer. The result for scavenging activity (DPPH) indicates Madu varieties displayed high scavenging activity compared to MD2 and N36 varieties. Madu varieties demonstrated a significant free radical scavenging ability where their crown has IC_{50} and cores are merely IC_{50} at 175ppm and 500ppm. The MD2 crown also demonstrates IC_{50} at 275 ppm. The results suggest that Madu varieties and the crown of pineapple studied may be useful as potential sources of natural antioxidants.

Keywords: Bromeliaceae, MD2, Madu, N36 Antioxidant, Pineapple waste.