

ABSTRACT

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Study Program : Food Technology

Title : Investigation of The Physicochemical Properties of Spray Dried *Musa Cavendischi*
and Saba Banana Powder

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Banana is a tropical fruit and is in high demand in the world particularly Asia. This study investigated the physicochemical properties of spray dried *Musa cavendischi* and saba banana powder through spray drying process. Banana powders were produced using different types of banana, concentrations of water and maltodextrin concentration then, analysed for their physicochemical properties. *Musa cavendischi* and Saba banana were processed to banana puree and added with different combinations of 20% or 25% of maltodextrin and 1:3 or 1:4 samples to water ratio. The spray dryer was set as 175°C (inlet temperature) and 100°C (outlet temperature) for 2 hours. The spray dried banana product was collected and was analyzed for physicochemical analysis such as color, pH, Aw, and moisture content. The results revealed that physicochemical analysis was affected by maltodextrin and banana species. Aw from *Musa cavendischi* (0.15 – 0.16), pH (4.64 – 4.74), and moisture (1.70 %– 2.25 %), while Saba banana (Aw: 0.15 – 0.21, pH: 4.65 – 4.83, Moisture: 1.96 %– 2.29 %). Within this study, *Musa cavendischi* with 1:3 and 1:4 to water and 20% and 25% maltodextrin were preferred to be made into banana powder.