

Three varieties of bananas Nam Wa, Khai and Hom Thong with fully ripening stages were dehydrated by solar tunnel and tray dryers. The products were analysed for color (hue and chroma), shear force, polyphenol oxidase (PPO) activities, moisture, water activities, acidity, pH, reducing sugar and total sugar. It was found that fully ripening Nam Wa was the most suitable varieties because of its high resistance to shear force, unlikely to get bruised, and has hue value higher than those just ripening samples, but has less chroma. Fully ripening Nam Wa appeared least PPO activities which was not significantly different from Hom Thong. These meant that displayed least browning, since the pH was lower than 5.0 which was lower than optimal pH of PPO activities, also has highest vitamin C content as compared with other varieties.

When soaked fresh banana prior to drying in several solutions such as sodium chloride, calcium chloride, syrup, mixture of ascorbic acid and citric acid (1:1) and blanched at 85°C for 5 minutes, it appeared that the mixed acid with pH 4.5, soaking for 15 minutes seemed to give best result. The optimal conditions of solar and tray drying for dehydrated Nam Wa were 4 and 2 days at 65 °C respectively, indicated by lowest PPO activities.

After keeping vacuum and non-vacuum packed products at 5 °C and 30°C, vacuum packed at 5 °C was more superior than other methods as indicated by chemical, physical, microbiological and sensory analysis. These products displayed 3 months shelf-life.