

## **Sirih (Piper Betle L.): extraction and drying technology of its bioactive components**

### **ABSTRACT**

Piper betle L., more commonly known as betel or local name of Sirih, belongs to the family Piperaceae. Previous research has shown that the leaves of P. betle possess tremendous beneficial effects including antimicrobial, antioxidant, anti-diabetic, wound healing and gastro-protective properties. The presence of these beneficial properties indicates that leaf extract of betel has great potential for development into a wide range of health food supplements. However, there is a lack of research on the processing aspects to produce its bioactive component. This book aims to provide information and experimental studies on a few key processes including post-harvest betle leaves drying, solid-liquid extraction, spray drying and freeze drying of extracts which are involved in processing of bioactive extract from betel leaves. Different experiments were designed and carried out to look into the effects of various operating parameters on the qualitative and quantitative aspects of betel leaves extract. Hydroxychavicol (HC) and eugenol (EU) were selected as the quality indicators of the product because these two compounds were reported to play an important role in the bioactivities of betel leaves including antioxidant, anti-inflammatory, and anticarcinogenic and antibacterial.