# The Diurnal and Nocturnal Floral Scent of
# *Dracaena fragrans* (L.) Ker Gawl. in Thailand

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## ABSTRACT

*Dracaena fragrans (L.) Ker Gawl., with its green leaves and attractive shape, is a popular ornamental plant in Thailand, used for both interior decorating and outdoor landscaping. Its fragrant flowers only bloom at night. This study investigated the volatile chemicals from the flowers of D. fragrans during the day and night. Volatile compounds were extracted by Head Space Solid Phase Micro-extraction (HS-SPME) technique and determined by Gas Chromatography-Mass Spectrometry (GC-MS). Thirty compounds were identified; sesquiterpenes were the most prevalent (α-farnesene, 23.1-50.8%). The composition of the volatile compounds from the flowers differed between day and night.*

## INTRODUCTION

*Dracaena fragrans* (L.) Ker Gawl. (Asparagaceae) is a shrub with a vertical stem that can grow to than 15 m in height. Its leaves are green and lorate-oblanceolate. Inflorescences are erect and located at the terminal branch. Its flowers are white with a red to purple line through the center; they bloom in the nighttime (Bos, 1984; Hyde et al., 2018).

*D. fragrans* is one of the world economic plants (Wiersema and Leon, 2013). It is used as an ornamental plant in wedding ceremonies and in folk medicine to ward off witchcraft (Kakudidi, 2004). It has many ethnomedicinal usages, including boiling the roots in water and using to fight illness (Moshi et al., 2012), collecting rainwater from its leaves to treat ear pain, using the