

days. Basil oil treatment and subsequent modified atmosphere packaging of Cavendish banana is recommended as an ecofriendly strategy for air freight or long distance transport over land.

**Keywords:** Basil oil, Cavendish banana, Gas Chromatography-Mass Spectrometry (GC-MS), Nutritional properties

## INTRODUCTION

*Ocimum basilicum* L. which is known as Sweet Basil in the family Lamiaceae is a native herb to Asia, enriched with plenty of phytochemicals with considerable nutritional and antioxidant properties as well as ample health benefits (Paton, 1992; Shafique et al., 2011). Basil is widely cultivated and extensively used for food, perfumery, cosmetics, pesticides, and medicine due to their natural flavor and aroma and bioactive properties (Kobaet al., 2009). Sweet basil is widely used for preparation of essential oils, dried leaves as a culinary herb, condiment/spice in various dishes and food preparations (salads, sauces, pasta and Mediterranean cuisine). In medicine it is used for treating of headaches, kidney malfunctions, constipation, coughs, diarrhea, worms and warts (Benaliet al., 2014).

Basil essential oil has attracted attention of many scientists due to its antimicrobial and antioxidant properties which is very valuable in terms of food Industry. Utilization of essential oil in the food industry reduces the usage of synthetic fungicides / additives, and subsequently improves the freshness and sensory quality of the produce. Further, there is an increasing demand from public for natural food additives (Koba et al., 2009).

Several researchers had provided evidence on the antifungal action of basil oil. According to Doube et al.(1989) basil oil at 1.5 ml/l completely inhibited the growth of 22 mold species, including aflatoxigenic *Aspergillus parasiticus* and *A. flavus*. Soliman and Badeaa (2002) reported that basil oil was effective as a fungistatic agent against *F. verticillioides* at 2000 ppm concentration, and as a fungicidal agent at 3000 ppm concentration. Fandohan et al. (2004) demonstrated a complete inhibition of growth of *F. verticillioides* at basil oil concentrations higher than 2.7 µl/ml. According to Zollo et al. (1998) basil oil showed a complete inhibition of the growth of *Candida albicans* and *A. flavus* at 5000 ppm concentration, during a 7-day incubation period. Further, this oil