

CHAPTER VI

CONCLUSION

The present investigation deals with the determination of chemical components and antimicrobial activity of essential oils isolated from selected Thai Lamiaceous plants.

A total of 10 species of Thai Lamiaceous plants representing 6 genera have been investigated. Oxygenated monoterpenes and phenylpropanes are commonly found in these particular species. A unique species; *Pogostemon cablin* was found to contain oxygenated sesquiterpenes as major components. In this investigation, the essential oils among 4 *Ocimum* species were compared. The major constituents were in the phenylpropane group which thereby may be used as markers for the identification of individuals species. Additionally, the ten species of western Lamiaceous plants cultivated in Thailand were also compared with regard to their content and composition, with previously reported data. Each of Thai cultivars was found to produced essential oil with similar constituents but lesser amount, compared with its original counterpart. In addition, it was found that certain essential oils showed antibacterial activity against Gram-positive and Gram-negative bacteria. Although the antibacterial properties of the essential oils in this study were much lower than those of currently used antibiotics, the present study indicates the possibility of using some essential oils as natural antibacterial agents.