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# Clove Oil as Biopesticides

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**Abstract:** The most essential oil that is derived from flower buds, leaves and stems is clove oil. It is having a biological component is Eugenol. As many plant essential oils are recognised as natural source of pesticides. Clove oil is also used as insecticide, fungicide, herbicide. It is also used as direct crawling, flying and stinging insects with direct contact. For stored pest and grains also it is very useful and for repelling dogs and cats too. This oil in world population is estimated at the rate of 45000 tonnes. As the essential oils are capable of elaborating the compounds that constitute oils in both industrial and household uses. As the compounds in this essential oils are also used to control many harmful insects and their derivatives are useful for the natural enemies in the nature. Also the essential oils based commercial products are being developed for a range of human and animal uses in that includes pest control. As these products are only for better management and some of them are subject to rigorous testing. As in the view of above points it is focused on the essential oils and uses with reference and also of various things those are included in that like extraction, pesticidal property, mode of action, safety aspects, sustainability.

**Key words:** Essential oils, pesticidal property, phytotoxicity, safety etc

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## Introduction

As these essential are volatile in nature with complex secondary metabolites with strong order and also it is having a very low density with respect to water. These have been lipophilic in nature and with many basic metabolic, biochemical and physiological and behavioral function of insects. The essential oils of compounds are elaborated in various families like Myrtaceae, Lauraceae, Rutaceae, Lamiaceae, Asteraceae etc. Mainly for controlling insects and pests of various types with these essential oils and their products is useful and beneficial to some natural enemies. They were also of 17500 aromatic plant species in among that higher plants and approximately 3000 essential oils are known out of which some are commercially important for some other purposes like in pharmaceutical, perfumes etc. Many of

them had searched and studied about these and came for a conclusion of their larvicidal and antifedant activity having the capacity to reduce development, adult emergence, and fertility that is effecting the Ovi position. With respect to these they also did about the properties and problems related to their volatility, pure water solubility have to be resolved before they have been used as an alternative pest control systems. As there are many articles have been published and reviewed with respect to pest control and Management, but this is being concentrated on sustainability and essential oils in management of pest. Eugenol is the active ingredient in clove oil has been widely used in dental profession to alleviate pain, and it is also tively incorporated into many dental products. It will used in controlling insects like ants but it will also provide a knock out to hard to control pests