

**CONTROL MEASURES FOR LEAF FALL DISEASE  
IN CLOVE (*Syzygium aromaticum*) IN SOUTHERN SRI  
LANKA**

Date: 31-01-2013

*[Signature]*  
Signature of the Candidate

We endorse the declaration

A dissertation submitted to the  
Faculty of Animal Science and Export Agriculture  
UvaWellassa University  
In partial fulfillment of the requirements for the award of the  
Degree of Bachelor of Science in Export Agriculture

Principal Supervisor  
Department of Export Agriculture  
Faculty of Animal Science & Export  
Agriculture  
Uva Wellassa University  
Ragalla  
Sri Lanka

Chairman Research Board  
Faculty of Animal Science and Export  
Agriculture  
Uva Wellassa University

By

**GAYATHRIE SENARATNE**

Date: 1/1/12

**Faculty of Animal Science and Export Agriculture  
Uva Wellassa University**

2012



## ABSTRACT

Leaf fall disease in Cloves (*Syzygium aromaticum* L.) is serious problem which cause severe defoliation and dieback of seedlings and young and mature clove plants. Earlier it was spread throughout the up country region and currently spread through the southern Sri Lanka. Field experiment was conducted at Keerapitiya, Urubokka in Matara district and laboratory experiments were carried out at Cinnamon Research Station, Thihagoda, Matara to confirm the causal organism of disease. Three different fungicides namely Tebuconazole 200 mg/ml, Thiophanate methyl 70% and Hexaconazole 50 g/l were tested with using water as control and three different application methods namely foliar application, bark application and root application to manage disease using mature plants from farmer field. Tebuconazole 200 mg/ml with foliar application was showed as the most effective method for management of disease in severely infected plants. Both bark application and foliar application of Tebuconazole 200 mg/ml and Thiophanate methyl 70% were also effective methods to manage disease in slightly infected plants. Bark application method much beneficial to manage disease in slightly infected plants whereas root application method was not suitable method for three fungicides used either severely infected or slightly infected plants. Progression of the disease was also highly depending on some environmental, physical and biological factors. *Cylindrocladium spp* was identified as destructive pathogen of leaf fall disease in southern Sri Lanka. Tebuconazole 200 mg/ml and Thiophanate methyl 70% are recommended to manage the disease. Bark injection was more effective and economical for tall trees.

Key Words: Cloves, leaf fall, fungicides, application method