

**DISTRIBUTION OF BANANA BUNCHY TOP DISEASE IN
THE REGION OF PALEMBANG, SOUTH SUMATRA**

A THESIS

**Submitted as Partial Fulfillment of the Requirements for the Degree
of Magister Science (M.Si)
In Department of Crop Science
Post Graduate Program
Sriwijaya University**

**By
IKA PARIDAWATI
20082002014**



**POST GRADUATE PROGRAM
SRIWIJAYA UNIVERSITY
SEPTEMBER, 2011**

APPROVAL PAGE

Research Title : Distribution of Banana Bunchy Top Disease in the
Region of Palembang, South Sumatra

Student Name : Ika Paridawati

Student Number : 20082002014

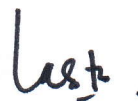
Study Program : Crop Science

Academic Major : Integrated Food Production and Management Planning

Approved by:



Dr. Ir. A. Suparman SHK.
Supervisor I

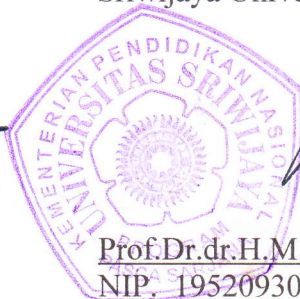


Dr. Ir. Yulia Pujiastuti, M.S.
Supervisor II

Head of Crop Science Department, Director of Post Graduate Program
Sriwijaya University,





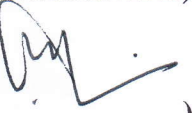
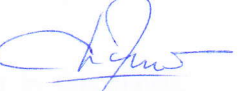
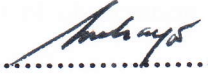
Dr. Ir. Abu Umayah, M.S.
NIP. 195811251984031007



Prof. Dr. dr. H.M.T. Kamaluddin, M.Sc. SpFK.
NIP. 19520930 198201 1 001

DATE OF APPROVAL: SEPTEMBER 2011

EXAMINATION COMMISSION APPROVAL

1. Supervisor 1 : Dr. Ir. H. Suparman SHK  (.....)
2. Supervisor II : Dr. Ir. Yulia Pujiastuti, MS.  (.....)
3. Member : Dr. Ir. H. Abu Umayah, MS.  (.....)
4. Member : Dr. Ir. Chandra Irsan, MSi.  (.....)
5. Member : Dr. Ir. Hj. Nurhayati, MSi.  (.....)

Known by,
Director of Post Graduate Program
Sriwijaya University



Prof. Dr. dr. H. M. T. Kamaluddin, M.Sc., SpFK.
NIP. 19520930 198201 1 001

Palembang, August 2011
Head of Crop Science Department,



Dr. Ir. Abu Umayah, M.S.
NIP. 19581125 198403 1 007

STATEMENT PAGE

I am who sign below:

Name : Ika Paridawati

Student's Number : 20082002014

Department : Crop Science

Special Study : Integrated Food Production and Management Planning

Make the real statement with:

1. All data, information, interpretation and statement presented in this thesis, except those being mentioned the source are my own result of observation, research and thoughts with the direction of supervisor.
2. Thesis written was original and never been proposed or used as requirement for academic degree at Sriwijaya University or other colleges.

This statement is made with truth and if the future, there is trouble found in above statement, I agree to receive academic sanctions such as cancellation of academic degree I acquired through the submission of this thesis.

Palembang, August 2011



Ika Paridawati
NIM: 20082002014

SUMMARY

IKA PARIDAWATI. DISTRIBUTION OF BANANA BUNCHY TOP DISEASE IN THE REGION OF PALEMBANG, SOUTH SUMATRA (SUPERVISED BY H. SUPARMAN SHK AND YULIA PUJIASTUTI).

Musa, a plant genus of extraordinary significance to human societies. Produces the most food in the world today (after rice, wheat and maize) (Nelson *et al.*, 2006). In Indonesia, banana is one of the most important fruit crops. Many varieties of banana grow well in the country with annual production more than 2.8 tons per year, which is lower than its potential yield of more than 6 tons per year. It is caused by the existence of banana bunchy top disease (Purnomo, 1996), the most serious viral diseases of banana caused by banana bunchy top virus (BBTV) (Widyastuti and Hidayat, 2007; Jones, 2002).

The objectives of this research were to analyze the distribution pattern of Bunchy top disease of banana in the region of Palembang, to identify host preference and vector appearance.

This study was conducted from December 2009 to March 2010, in locations representing banana growing areas in Palembang, South Sumatra Indonesia. The results showed that Banana Bunchy Top Disease has spread in 10 districts locations observed. Percentage of diseased plants by BBTV in Kalidoni, Sematang Borang, Sukarami, Gandus, Sako, Ilir Barat I, Kemuning, Ilir Barat II, Plaju and Alang-alang Lebar District were 42.6%, 42.25%, 39.33%, 36.6%, 36.5%, 32.16%, 31.33%, 30.4%, 25% and 20.75%, respectively. The infestation of *P. nigronevosa* in diseased plants was 100% in banana Putri variety. Bunchy Top Virus attacked various banana varieties, among them are Australia (100%), Mas (71%), Nangka (63%), Lilin (62%), Putri (58%), Udang (56%), Ambon (29%), Geda (25%), Kapas (25%), Kepok (11%) and Raja (7%). The highest percentage of attacked was 51% in Sukarami Sub District while the lowest percentage of infected plants was 5% in Srijaya Sub District.