Workshop on Ceratocystis in Tropical Hardwood Plantations

February 15-18, 2016 | Yogyakarta, Indonesia

As a Presenter

Awarded to

Suwandhi

CFBTI, Director

Dr. Mahfudz, M.
Sehubungan dengan Surat Ketua Peneliti Penelitian Desentralisasi skema penelitian Unggulan Perguruan Tinggi Lembaga Penelitian Universitas Sriwijaya Kementerian Riset Teknologi dan Pendidikan Tinggi RI tanggal 9 Februari 2016 Perihal: Permohonan Surat Tugas SPPD, dengan ini Ketua Lembaga Penelitian Universitas Sriwijaya menugaskan:

<table>
<thead>
<tr>
<th>No</th>
<th>Nama</th>
<th>NIP</th>
<th>Pangkat/Golongan/jabatan Fungsional</th>
<th>Unit Kerja</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dr. Ir. Chandra Irsan, M.Si</td>
<td>19650219 198903 1 004</td>
<td>Penata TKI, Golongan III/d Lektor Kepala</td>
<td>Fakultas Pertanian Unsri</td>
</tr>
<tr>
<td>2</td>
<td>Dr. Ir. Suwandi, M. Agr</td>
<td>19881111 199302 1 001</td>
<td>Pembina, Golongan IV/a Lektor Kepala</td>
<td>Fakultas Pertanian Unsri</td>
</tr>
</tbody>
</table>

Untuk melakukan diseminasi hasil penelitian melalui International Workshop on “Ceratocystis in Tropical Hardwood Plantations” dengan judul makalah “Ceratocystis wilt of Lansium tree: New Disease and Threat to Duku Fruit Production in Indonesia” yang akan dilaksanakan pada:

Hari : Senin s.d Kamis
Tanggal : 15 s.d 18 Februari 2016
Tempat : Yogyakarta

Demikianlah, agar tugas ini dilaksanakan dengan penuh tanggungjawab.

DIKELUARKAN DI INDERALAYA
PADA TANGGAL 10 FEBRUARI 2016

[Signature]

PROF. DR. IR. H.M. SAID, M.Sc.
NIP: 19610812 198703 1 003

Tembusan:
1. Rektor (sebagai laporan)
2. Wakil Rektor I
3. Dekan Fakultas Pertanian
Universitas Sriwijaya
Date : 3 February 2016  
Our ref: S. 0146/XIII/BBPBPTH-1/2016  
Encl. : 2nd Announcement of International Workshop

Re: Invitation to present a talk at the International Workshop on “Ceratocystis in tropical hardwood plantations” 15-19th February 2016

Dr. Suwandi  
Sriwijaya University

Dear Dr. Suwandi

The Center for Forest Biotechnology and Tree Improvement Research (CFBTI), with support from the Australian Centre for International Agricultural Research (ACIAR) will hold an International Workshop on “Ceratocystis in tropical hardwood plantations” on 14-19th February 2016 in Yogyakarta and Riau. The workshop will review the current state of knowledge about Ceratocystis diseases in forest trees with a special focus on tropical hardwood plantations.

It is my pleasure on behalf of the Organizing Committee to formally invite you to be one of the presenters at the above international event, in the subject of “Ceratocystis wilt of Lansium tree: New Disease and Threat to Duku Fruit Production in Indonesia”. Please find the enclosing attachment of the seminar’s second announcement additionally to allow you highlight the general information, and perhaps to look into your schedule accordingly.

We are looking forward to hearing from you soon, and thank you in advance for your kind attention and cooperation.

[Signature]

MINISTRY OF ENVIRONMENT AND FORESTRY RESEARCH DEVELOPMENT AND INNOVATION AGENCY CENTER FOR FOREST BIOTECHNOLOGY AND TREE IMPROVEMENT RESEARCH Jln. Palagan Tentara Pelajar Km. 15 Purwobinangun, Pakem, Sleman, Yogyakarta 55582, INDONESIA. Phone. +62274 895954, +62274 896080. Fac. +62274 896080. Email: breeding@biotifor.or.id. Website: www.biotifor.or.id
Workshop
CERATOCYSTIS
in tropical hardwood plantations
Yogyakarta - Indonesia
February
15 - 18
2016
Guidelines & Abstracts
PREFACE

Plantation forests of Australian hardwood species in South-East Asia now exceed 7M ha. The viability of these plantations is increasingly threatened by diseases and pests.

* Ceratocystis* is considered an extreme threat, causing mortality of up to 20% in *Acacia* plantations in Vietnam and, combined with *Ganoderma* root rot has reduced productivity on infected sites by 15 m$^3$/ha/year. Effective disease management is critical to the economic viability of plantations in SE Asia. Switching from acacia to eucalypt is not a universal solution because eucalypts have their own pest and disease challenges and site type limitations and require higher levels of management inputs (vegetation management and fertilizer application) to achieve satisfactory growth rates than do acacias. The workshop will review the current state of knowledge about *Ceratocystis* diseases in forest trees with a special focus on tropical hardwood plantations.

The aim of this workshop is to update the status of *Ceratocystis* disease in hardwood plantation in SE Asia, and link the management strategies between interested events/parties. This will be achieved by addressing the following main topics:

- Disease Impact
- Taxonomy
- Host-pathogen Interaction
WORKSHOP
CERATOCYSTIS IN TROPICAL HARDWOOD PLANTATIONS
Yogyakarta – Riau, February 15th – 18th 2016

- Host Resistance
- Dissemination and Biosecurity
- Silvicultural Management

Speakers at the workshop consist of 2 keynote speakers from Brazil and South Africa, and 21 presenters from Australia, Indonesia, Malaysia, United States of America and Vietnam.

We wish to acknowledge all our invited speakers, presenters, and all participants for contributing to this workshop. We also thank the Australian Centre for International Agricultural Research (ACIAR), University of Tasmania, the Centre for Forest Biotechnology and Tree Improvement (CFBTI), the Vietnamese Academy of Forest Sciences (VAFS), the University of the Sunshine Coast, the University of Gadjah Mada (UGM), Riau Andalan Pulp and Paper (PT. RAPP-RGE), PT. Arara Abadi-Sinarmas Forestry, PT. Musi Hutan Persada (MHP) and the International Union of Forest Research Organisations (IUFRO) for their support.

TENTATIVE PROGRAM

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<td>Registration and Lunch</td>
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<td>12.45 – 13.05</td>
<td>Dr. Henry Bastaman (Director-General of FOERDIA) Opening address</td>
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<tr>
<td>Session 1</td>
<td>Disease Impact (part 1), chaired by Dr. Anto Rimbawanto</td>
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<td>13.05 – 13.20</td>
<td>Dr. Iryal Yasman (APHI)</td>
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<td>'The challenges of developing plantation forest in Indonesia'</td>
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<td>13.20 – 13.30</td>
<td>Assoc. Prof. Caroline Mohammed (University of Tasmania, and CSIRO)</td>
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<td>Background to ACIAR Project</td>
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<td>13.30 – 14.20</td>
<td>Keynote Speaker</td>
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<td>Prof. Acelino Couto Alfenas (Universidade Federal de Viçosa)</td>
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<td></td>
<td>'Impacts and control of Ceratocystis wilt caused by Ceratocystis fimbriata on different crops in Brazil'</td>
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<tr>
<td>14.20 – 14.40</td>
<td>Dr. Suwandi (Sriwijaya University)</td>
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<td>'Ceratocystis wilt of Lantian tree: New disease and threat to Duku fruit production in Indonesia'</td>
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<td>14.40 – 15.00</td>
<td>Rahman Gilang Pratama (Gadjah Mada University)</td>
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<td>'Spatial and temporal distribution of stem-canker diseases on Acacia decurrens at Gunung Merapi National Park, Yogyakarta, Indonesia'</td>
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<td>15.00 – 15.15</td>
<td>Afternoon tea</td>
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<td>Session 2</td>
<td>Silvicultural Management, chaired by Dr. Abdul</td>
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WORKSHOP
CERATOCYSTIS IN TROPICAL HARDWOOD PLANTATIONS
Yogyakarta – Riau, February 15th – 18th 2016

Gafur
15.15 - 15.35
Dr. Chris Beadle (CSIRO)
'Silviculture of Acacia species'
15.35 - 15.50
Dr. Tran Lam Dong (VAFS)
'Dealing with diseases from a silvicultural perspective in Vietnam'
15.50 - 16.10
Discussion
Session 3
16.10 - 17.10
Taxonomy, chaired by Dr. Morag Glen
Keynote Speaker
Dr. Irene Barnes (University of Pretoria)
'Ceratocystis manginecans causing Acacia mangium canker and wilt: taxonomy, biology and population genetics'
17.10 - 17.30
Discussion
17.30
Close
18.30
Workshop dinner at Bale Raos

DAY 2
TUESDAY, 16 February 2016
Session 4
08.30 - 09.15
J.B. Friday, Lisa Keith, Flint Hughes and Phil Cannon (USDA Forest Service)
'Ceratocystis wilt of 'Ohi'a (Rapid 'Ohi'a Death): A new disease in Hawai'i (by skype)

Session 5
09.15 - 09.35
To be advised.
09.35 - 09.50
Dr. Trang Tran Thanh (VAFS)
'Chemical responses to Ceratocystis in Acacia' (by skype)

Session 6
09.50 - 10.10
Dr. Chris Harwood (CSIRO)
'The background to Acacia genetics and breeding'
(by skype)
10.10 - 10.30
Dr. Jeremy Brawner (University of the Sunshine Coast)
'Evaluating Ceratocystis acacivora symptom expression in Acacia mangium breeding populations and clonal seed orchards'
10.30 - 11.00
Morning tea
11.00 - 11.20
Dr. Arif Nirsatmanto (CFBTI)
'Screening trials to develop Ceratocystis resistant breeds of Acacia in Indonesia: Summarizing the research plan'
11.20 - 11.40
Prof. Wickneswari Ratnam (Universiti Kebangsaan Malaysia)
'SNP diversity and implications for disease resistance breeding in Acacia mangium and Acacia auriculiformis'
11.40 - 12.00
Dr. Abdul Gafur (RAPP)
'Other Acacia species as a source of resistance to Ceratocystis'
12.00 - 12.20
Aswardi Nasution (RAPP and University of Tasmania)
'Developing a rapid screening protocol for resistance to Ceratocystis'
12.20 - 12.40
Riassalma Rizkatiwi (Gadjah Mada University)
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CERATOCYSTIS IN TROPICAL HARDWOOD PLANTATIONS
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Session 7
Dissemination and Biosecurity, chaired by Assoc.
Prof. Caroline Mohammed
14.00 – 14.20
Prof. Pham Quang Thu (VAFS)
'Ceratocystis wilt - a serious threat to Acacia plantations in Vietnam'
14.20 – 14.40
Dr. Abdul Gafur (RAPP)
Field Trip Introduction
14.40 – 15.00
Dr. Meltini Wahyuni Probirini (Udayana University)
'Ceratocystis as a fungal parasite on wooden statues'
15.00 – 15.20
Discussion
15.20 – 15.50
Afternoon tea

Session 8
Other Potential Management Strategies, chaired by Dr. Istiana Prihatini
15.50 – 16.10
Dr. Budi Tjahjono (Arara Abadi, Sinarmas Forestry)
'Ceratocystis disease incidence in Acacia plantation of Sinarmas Forestry and its management'
16.10 – 16.20
Aswadi Nasution (RAPP and University of Tasmania)
'Endophytic bacteria as potential biological control agents'
16.20 – 16.40

16.40 – 17.00
Discussion
Session 9
Eucalyptus Rust Workshop, chaired by Dr. Budi Tjahjono
17.00 – 18.00
Prof. Acelino Couto Alfenas (Universidade Federal de Viçosa)
Presentation by followed by general discussion
18.00
Workshop close
20.00
ACIAR FST 2014-068 Project meeting, chaired by Assoc. Prof. Caroline Mohammed

WEDNESDAY, 17 February 2016

Session
Field Trip to Riau
10.30 – 12.30
Meeting point at Adisutjipto airport Yogyakarta
12.30
Flight to Pekanbaru
12.30 – 13.30
Arrival at the SSQ II airport – Pekanbaru
13.30 – 15.00
Lunch
15.00 – 16.00
Travel to RAPP Complex
16.00 – 17.30
Unigraha Hotel check in
RGE Technology Center tour
19.00
Dinner at Unigraha Hotel

THURSDAY, 18 February 2016

06.00 – 07.00
Breakfast at Unigraha Hotel
07.00 – 10.30
Travel to trial sites in Baserah from Unigraha Hotel
10.30 – 12.00
Visit to trial site 1 and site 2
'Level of Ceratocystis natural infection in some Acacia mangium materials'
12.00 – 13.00
Lunch in Baserah
13.00 – 14.00
Travel to trial site in Teso
14.00 – 15.00
Trial visit
Chandra Irsan, Suwandi, Khoirotun D. Asriyani, Abu Umayah, and H. Hamidson

Laboratory of Plant Pathology, Faculty of Agriculture, Sriwijaya University

Abstract

Defoliation, dieback and massive mortality of Lansium tree (Lansium domesticum Corr.) in Ogan Komering Ulu (OKU) Regency, South Sumatera Province was first noticed in 2014 and caused substantial economic losses to duku fruit production. The disease prevailed along Ogan riverside on the trees after being scratched by a squirrel. A Ceratocystis species was consistently recovered from the infected branches, stem and taproot. Koch's postulates were fulfilled by inoculating the mycelial plug of fungus onto the stem and branches of Lansium tree. The morphology of teleomorph and anamorph were similar to that of C. acaciicola. Blast searches of ITS and TUB region in GenBank indicated that isolates are grouped within the C. fimbriata sensu lato species complex.

SPATIAL-TEMPORAL DISTRIBUTION OF STEM CANKERS DISEASES ON Acacia decurrens AT