

Globalization of Jamu Brand Indonesia

Programs and Abstracts



The 2nd International Symposium on Temulawak

Utilization and Application of *Curcuma xanthorrhiza* Roxb.
through Scientific and Technological Approach toward Better and
Healthy Life

The 40th Meeting of National Working Group on Indonesian Medicinal Plant

Exploration, Conservation, Development and Utilization of
Indonesian Medicinal Plant

IPB International Convention Center (IICC),
Botani, Square, Jl. Pajajaran, Baranangsiang,
Bogor, Indonesia
May 26-27, 2011

Welcome Address from Chairman of Organizing Committee

Ministeries of Indonesian Cabinet
Government Officials
Rector of Bogor Agricultural University
Deans of Faculties of Bogor Agricultural University
Indonesian and Foreign Researchers
Jamu Stakeholders
Distinguish Guest, Ladies and Gentleman

Praise and gratitude towards Allah who has given His Grace so that the Symposium of globalization of Jamu Brand Indonesia can be conducted in this magnificent IPB International Conference Center since May 24th and till 29th 2011.

As Chairperson and on behalf of the committee of this second International Symposium on Temulawak (*Curcuma xanthorrhiza* Roxb.) and the 40th Meeting of National Working Group on Indonesian Medicinal Plant (POKJANAS TOI), it is a great pleasure to welcome all of you. We are very pleased of the enthusiastic response of participant to participate these events. Many of you had attended our-pre-conferences such as workshop on Quality Assurance, workshop on Natural Therapy, Business meeting and scientific output dissemination. Also as a part of our events, Batik Design Competition with theme Jamu as Brand of Indonesia was conducted since Desember of 2010 and finalized this end April. Overwhelming responses of participant of at least 150 designs entered the competition then selected to 5 finalists. Welcome drink formula competition also contributed as part of this symposium. In conjunction with symposium presentation, Jamu Products Exhibition will be held throughout the symposium period.

This symposium is organized by Bogor Agricultural University (IPB) in collaboration with various government and private institutions as well as foreign parties. The aim of the symposium is to promote the utilization and research development of *Temulawak* as Indonesian medicinal herbal toward healthy life of global society, and the objective of National Working Group on Indonesian Medicinal Plants is to promote and develop *Solanum torvum* and *Annona sp* as Indonesian medicinal plants.

We are very pleased to report that total 579 participants from various institutions in Indonesia and overseas participants, 48 oral presentation, 128 poster presentation, 71 workshop participants, 14 honorable invited speakers from Japan, Hungaria, India, Malaysia, Netherlands and Indonesia. In this occasion we would like to launch the Indonesian road map Jamu and database of Indonesian jamu

We wish to thank the meeting sponsors and co-sponsors for their support, without them, this symposium would not have been possible. Their support greatly facilitated the

Globalization of Jamu Brand Indonesia

participation of exhibition, small/medium entrepreneurs, and farmers to joint this event.

Ladies and gentlemen, and all participants

With humbleness, we do apologize for any inconvenient during the symposium and we welcome input or suggestions. We are grateful for the advice and support of the Steering Committee, highest appreciation to the guest speakers, participants and sponsor for their cooperation to symposium.

Finally, on behalf of the Organizing Committee, to all of you, we hope you have a fruitful and pleasant meeting, also we hope you will enjoy your stay and the atmosphere of Bogor "The Rainy City".

Thank you.

Dr. Min Rahminiwati

Content:

1	Welcome Address form Chairman of Organizing Committee	1
2	Address by Secretary General of National Working Group on Indonesian Medicinal Plant (POKJANAS TOI).....	3
3	Acknowledgment from Rector of Bogor Agricultural University.....	6
4	Symposium at Glance	9
5	Room Layout	11
6	Symposium program	13
7	Guidelines	22
8	Uploaded Presentation File Schedule for Oral Presenter	24
9	Poster Presentation Schedule	25
10	Pidato Kunci Menteri Pertanian Republik Indonesia	33
11	Plenary Abstract	37
12	Oral Abstract	50
13	Poster Abstract	85
14	List of Participants	168
15	Acknowledgment	192
16	Author Index	193
17	Subject Index	199

P0119

The Anti-Oxidant Activity of Pegagan Extract (*Centella asiatica*) from a Different Location with DPPH method and its Correlation with Yield.

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Abstract

Activity of active substances of medicinal plants greatly influenced the growth. On the basis of this has been done testing the antioxidant activity by DPPH method of *Centella asiatica* growing at s venlocations on the island of Java : Pacitan, Wonogiri (2 locations), Wonosobo, Solo, Tawangmangu and Bogor. *Centella asiatica* is extracted by maceration method using 30% ethanol. The antioxidant activity showed by *Centella asiatica* extract concentration required to alter the free radical 1.1-diphenyl-2-picrilhydrazil (purple) to 1.1-diphenyl-2-pikrilhidrazin (yellow) which is not radical. The results showed that the *Centella asiatica* extract from Wonogiri (b) has smallest IC 50 with average 32.28 ppm and the highest IC 50 generated by the extract of *Centella asiatica* of Pacitan at 88.03 ppm. As a positive control used Vitamin C with IC 50 of 11.64 ppm. With Pearson Product Moment correlation analysis showed that anti-oxidant activity and yield of extracts positively correlated with $r = - 0.951$ and P-value = 0.001 is smaller than $\alpha = 0.01$ showing a significant linear relationship between the yield of extract and antioxidant capacity in which the higher the level the higher the potential yield levels of antioxidants.

P0120

Anthelmintic Activity of Temu Ireng (*Curcuma aeruginosa*) on Adult Worm and Eggs of *Ascaris suum* in vitro

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Abstract

Worm infection in children remains a public health problem in Indonesia both in rural and in urban slums. Indonesia as a tropical country is a high-potential area for the occurrence of parasitic worm infections that are transmitted through soil (Soil-Transmitted Helminthes = STH), one of which is an infection of *Ascaris suum* (ascariasis). *Curcuma aeruginosa* is one of the medicinal plants that have therapeutic effects on worm disease. This is because the content of the substances contained in these medicinal plants. Natural materials such as *Temu ireng* (*Curcuma aeruginosa*) by the public is often used as an anthelmintic. The aim of this study is to examine the

effectiveness of medicinal plants *Curcuma aeruginosa* as anthelmintic on ascariasis disease. This study is an experimental research conducted by testing several concentrations of the extracts of *Temu ireng* on adult worms and *Ascaris suum* eggs. The next step is calculating the percentage of *Ascaris suum* who suffered paralysis or death and counting the percentage of eggs that are infertile after incubation in test solution, a solution of positive and negative controls. Vermifuges effect of *Temu ireng* extracts (*C. aeruginosa*) to eggs of *A. suum* is indicated by the paralysis and the death of the worms in the immersion of *Temu ireng* extract. The results showed that worm *A. suum* would paralyse along with the increasing concentration and the duration of contact with the *Temu ireng* extract. Paralysis of 20% of worms could be found at a concentration of 2% in 3 hours and the number increased in the next concentration. In more than 24 hours, there are more than 50% of worms that suffered from paralysis and 20% - 40% of worms were death. Essential oils of *Temu ireng* extract act as vermifuges substance. In addition, monoterpenes and sesquiterpenes are also part of the active substances of *Temu ireng* plants that have anthelmintic effect that worked as an antagonist of acetylcholine. Ovicidal effect known by IC_{50} value of 0.343% of the *Temu ireng* extract is counted by probit analysis. The extract of *Temu ireng* rhizome is effective to be the anthelmintic drugs (anthelmintic) of *Ascaris suum*, in which it has vermifuges activity by stunning the parasitic worms and ovicidal effect, so that it is relevant to be developed for eradicating human ascariasis.

Keyword: *Curcuma aeruginosa*- vermifuges – ovicidal – *Ascaris suum*

P0121

The effect of *Phyllanthus niruri* to the oocysts production of *Eimeria tenella* in the chicken faeces

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Abstract

This research was conducted to find the effect of *Phyllanthus niruri* given with degraded concentration to the oocysts production of *Eimeria tenella* in the chicken faeces. Fifty-four two-week-old male chickens were divided into 6 groups: Negative Control, Positive Control, Drug Control and 3 groups given with *Phyllanthus niruri* of 5 % (PN 1), 10 % (PN 2) and 15 % (PN 3), respectively. Two-week-old chickens were infected with *Eimeria tenella* with the doses of 1×10^4 oocysts/chick and water extract of *P. niruri*. The oocysts countings in faeces were conducted started on day 4 after infection. The results of the research indicated that oocysts production from *P. niruri* group of 5 %, 10 % and 15 % were lower than those from Positive Control and Drug Control on day 7 until day 11 after infection. The oocysts production on day 12 until day 14 from *P. niruri* groups of 5 % and 10 % were lower than those in Control Positive and Drug Control. Total production of oocysts for all *P. niruri* groups were lower than those in Positive Control and Drug Control.

Key word : *Phyllanthus niruri* , *Eimeria tenella* , oocysts production