



PREFACE

Dear Colleagues,

On behalf of the organizing committee, we would like to express our great honor and pleasure for your attendance and your active participation on "International Symposium of Medicinal Plant and Traditional Medicine for Human Welfare" held in Tawangmangu, June, 4-6th, 2014, organized by Medicinal Plant and Traditional Medicine Research and Development Center (MPTMRDC), National Institute of Health Research and Development, Ministry of Health Republic of Indonesia collaborating with National Working Group of Indonesia Medicinal Plant.

We were honored to have eight keynote speakers both from Indonesia and overseas who are playing a leading role in the frontline of each research field. In this symposium, we particularly focused on medicinal plant and traditional medicine with *Litsea cubeba* and *Equisetum debile* as specific topics. It was a great success to provide the excellent opportunity to discuss how medicinal plant and traditional medicine contributes for human welfare. All accepted articles will be published in the proceeding of symposium after reviewed by competent reviewers.

Ministry of Health, Republic of Indonesia through "Saintifikasi Jamu" program aimed to provide scientific evidence based of Jamu efficacy and safety for utilization in health services. In order to support that program, research and development of medicinal plant and traditional medicinal especially Jamu, from upstream to downstrean by collaboration among research institutes, universities and all stakeholders absolutely needed. In this symposium, the distinguished invited speakers will present their latest findings regarding the symposium theme, and we hope that the participants will enthusiastically discuss the newly raised research and clinical questions with the leading experts.

We hope you will have an excellent opportunity to acquire advanced knowledge and information of medicinal plant and traditional medicine and to strengthen mutual friendship during the symposium.

Sincerely yours,

Organizing Committee

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WELCOME REMARKS BY SECRETARY GENERAL

NATIONAL WORKING GROUP OF INDONESIAN MEDICINAL PLANTS

at the 46th International Symposium on Indonesia Medicinal Plant, June 4th – 6th 2014, Tawangmangu, Central Java, Indonesia

Your Excellency Minister of Health of the Republic of Indonesia, Ibu Nafsiah Mboi

Your Excellency Minister of State Owned Enterprises Republic of Indonesia, Bapak Dahlan Iskan

Distinguished Governor of Central Java or his Representative

Distinguished WHO Representative to Indonesia

Distinguished Director General National Institute of Health Research and Development, MOH,

Distinguished Director General National Institute of Agriculture Research and Development, MOA

Distinguished The Regent of Karanganyar District,

Distinguished the Steering Board of the National Taskforce of Indonesia Medicinal Plant

Distinguished Speakers,

Distinguished Participants, Guests,

Ladies and Gentlemen,

Assalamu'alaikum wa rahmatullahi wa barakatuh, and best wishes for all of us

The right words at the beginning of the talks is to give thanks and gratitude to God that we all have been given health and may be present at this symposium in Tawangmangu. This greeting implies that health is embedded in our culture and lifestyle.

Ibu Menteri and Bapak Menteri, Ladies and Gentlemen,

In this great opportunity, I would like to express our thanks to Ibu Minister of Health and Bapak Minister of State Owned Enterprises who has the pleasure to present at this meeting. I wish to thank all participants who have strong enthusiasm to participate in this symposium, especially to guest speakers from South Korea, Vietnam, India and Thailand for their sharing valuable of knowledges and experiences in this symposium. I am proud of welcoming you all in Tawangmangu, the one of the preferred and famous tourist destinations with good scenery and its fresh air.

Distinguished Participants,

May I inform you that Pokjanas TOI has formed since 1990, is one of the non-profit association consisting of representatives from research institutes, universities and relevant ministries, industries and individual experts. As regular activities, Pokjanas TOI organizes the seminar twice a year, and if implemented in Java then required to be held internationally. The seminar is aimed to exchange the information of conducted research and to apply them to related users for the development of medicinal plant utilization. Each seminar discussed two medicinal plants and reviewing the research results of the one selected medicinal plant. This symposium will discuss two topics, namely *Litsea cubeba* (krangean) and *Equisetum debile* (horsetail). Krangean fruit is a medicinal plant for aphrodisiac and common cold, that grows native exotic and endemic to the slopes of Mount Lawu, while the Horsetail is used to reduce joint pain inflammation and as a source of calcium for people with osteoarthritis and calcium decifiency.

Distinguished Guest and Participants,

Other than two above main medicinal plant subjects, other research themes will also be granted. The special topic that will be discussed within this 3 days seminar is "Indonesia Traditional Medicine for Human Wellfare". As we know that beside for health program, medicinal plants have multifunctions and multi player effects such as green-environment, green-economy, health-tourism, agro-tourism and also has been proven to increase the household income as well as to strengthen the people-economy. Moreover, we do hope that the research

not only stop on the scientific publication but also continue to the downstream of end product that has the economical value or New Chemical Entity (NCE), particularly to encourage national self-reliance of medicine raw materials. The sequences of medicinal plant and traditional medicine research and development activities involving research, development, design, prototype, trial, stimulating the growth of herbal industry, and service support should be able to create competitive products, acceptable by market both domestically and internationally, and accessible for health service. But on the other side, it is still a very long way for the use of herbal medicine nationally. Let's look at the reality. Number of experts are quite enough, medicinal plant resources are very abundant but we are still fighting to get raw materials, we are also able to master the technology, then, what makes us very slow to move forward?

The spirit and the willingness?

Budget?

Evidence of clinical data?

Lack of medicinal plant farmers?

Okay, let's remove the constraints, but how?

I still remember Ibu Nafsiah Mboi said: "People will be healthy and prosperous if all stakeholders work together..."; and Bapak Dahlan Iskan said: "Indonesia would be great if all the potential incorporated in the full coordination...". These are the wonderful songs which always sung by the Indonesian best singers.

Ibu Menteri, Bapak Menteri and All the Participants,

We confess that the data on the safety and efficacy of Jamu (herbal medicine) are still very limited. Standardized medicinal plants are also few in number. Similarly, data of research institutions' profile, publications, "research-gate", and all the mutually informations regarding the development Jamu of are scaterred and each still need to be completed. Considering these conditions, the Ministry of Health, Republic of Indonesia and WHO Representative to Indonesia creating new-model of Jamu database called *JamuNet* that is accessible to the world.

To that end, we plead to the Minister of Health respectively, after the opening of this symposium officially, may be simultaneously launched the JamuNet.

On the other hand, the support of BUMN will guaranteed the acceleration and the utilization of Jamu in order to maintain the health of people, reduce the costs for treatment, Jamu dosage forms, modernization of Jamu and strengthening the people's economy.

Ladies and Gentlemen,

On behalf of the POKJANAS TOI, I would like to express our appreciation to the contributions of many individuals and Institutions as well as sponsors. I also greatly appreciate for the tireless effort of the committee of MPTMRDC in organizing this International Symposium Finally, I do hope this seminar may contribute to the development of the utilization of Medicinal Plants and Jamu in Indonesia.

Tawangmangu June 4th, 2014 National Working Group of Indonesia Medicinal Plants,

Indah Yuning Prapti, S.KM., M.Kes. Secretary General

TERMS OF REFFERENCE

I. BACKGROUND

Indonesia is well known as megabiodiversity country which has high biological resources and large number of different ethnics, cultural groups, and traditional medicinal knowledge. Indonesian traditional medicine is the sum total of the knowledge, products, skills and practices based on theories, beliefs and indigenous experiences of different ethnics (WHO, 2001).

Jamu is one of Indonesian traditional medicine that has been widely used by generations to health maintenance as cultural part. There has been increased attention in research and utilization of medicinal plant as Jamu raw material since Scientification of Jamu establishment. Scientification of Jamu is Ministry of Health's program to provide scientific evidence of Jamu efficacy and safety for utilization in health service.

Indonesian biodiversity and cultural as well as Scientification of Jamu is potential challenge for raising up Jamu as an honored host in its own country. The academics, researchers and herbal industry are very interisting to touch the palliative, promotive, preventive and curative side of Jamu in community application. POKJANAS TOI or National Working Group of Indonesia Medicinal Plant is an organization consisiting of research and development institutions associated with exploration, conservation, development and utilization of medicinal plant.

POKJANAS TOI has the regular agenda to organize collaborative seminar twice a year. In this year, 2014, B2P2TO-OT (The Centre of Medicinal Plant and Traditional Medicine Research and Develompment) is appointed as the organizer of 46th International Symposium on Traditional Medicine: Indonesian traditional medicine for human welfare. This symposium is to bring together leading experts in the field of natural products sciences all around the world and forge global partnerships for sustainable utilization of medicinal plant and traditional medicine for the common benefit of humanity and rapid development of the countries. The special topics in this symposium are the exploration, conservation, utilization and development of Equisetum debile Roxb. ex Vauch and Litsea cubeba (Lour.) Pers.

II. SPEAKERS

Keynote speech:

- dr. Nafsiah Mboi, Sp.A, MPH (Health Minister, Indonesia)
 Policy on Integration of Traditional Medicine in National Health Care
- Prof. Dr. (HC) Dahlan Iskan (State Owned Enterprises Minister, Indonesia)
 Supporting of Ministry of State Owned Enterprises (BUMN) on Indonesia Traditional Medicine (ITM)
 Development

Plenary Speech:

- Dr. Khanchit Limpakamjanarat (WHO Representative to Indonesia)
 Promoting Traditional Medicine for the Community and Health Care System
- Director General of National Institute of Health Institute Research and Development, Ministry of Health, Indonesia
 - Evidence Based Jamu for Health Service System in Indonesia
- Director General of National Institute of Agriculture Research and Development Ministry of Agriculture, Indonesia
 - Breakthrough Program to Support Sustainability of Standardized Medicinal Plant
- Dr. Anchalee Chutaputti (Department of Traditional Medicine, Thailand)
 Fostering Integration Thai Traditional Medicine in Health Services
- Prof. Chandrakant Salunke (Post Graduate of Botany Centre, University Khrisna Maha Vidyalaya)
 Advanced Research in Development of Medicinal Plant and Biodiversity Conservation

- Dr. dr. Trihono, M.Sc (National Institute of Health Research and Development)
 Evolution of Indonesia Traditional Medicine
- Dr. dr. Siswanto (National Institute of Health Research and Development)
 Clinical Research on Traditional and Complementary Medicine
- Nguyen Thi Thu Huong, PhD (Research Center of Ginseng and Medicinal Materials, Ho Chi Minh City National Institute of Medicinal Materials, Vietnam)

The Milestone of Vietnam Gingseng Research and Development

- 9. GP Jamu The Challenge of Traditional Medicine in Global Markets
- Dr. Sei-Ryang Oh (Director of Natural Medicine Research Centre (Korean Research Institute on Biology and Biotechnology)

Phytochemical Role in Medicinal Plant Standardization

 Dr. Ir. Pasril Wahid, M.S., APU. (The Centre of Plantation Research and Development, Ministry of Agriculture, Indonesia) Research Review of Lada (Piper nigrum, L.)

Call for Paper Topics

- 1. Ethnomedicine and ethnopharmacology
- 2. Medicinal plant cultivation and conservation
- 3. Post harvest technology, quality control & marketing of herbal products
- 4. Molecular biology & biotechnology of medicinal plants
- Phytochemistry of medicinal plants
- 6. Pharmacology and clinical study of medicinal plant and traditional medicine

III. PURPOSES

The purpose of this symposium is to improve the role of Jamu in health and to achieve Indonesian healthy people. This symposium is aimed:

- to improve the utilization of Jamu networking in Indonesia
- 2. to improve the interest of Jamu utilization by community and medical staff

IV. DATE AND VENUE

Date

June 4th-6th 2014

Place

Auditorium of The Centre of Medicinal Plant and Traditional Medicine Research and

Development, Lawu Street No. 10, Tawangmangu, Karanganyar, Solo.

V. PARTICIPANTS

The expected participants are:

- 1. Academics, researchers and students in the field of health, pharmacy, agriculture, and biology
- Professionals: medical doctors, pharmacists, nurses, health analyst, nutritionists, midwives, health practician
- 3. Institutions related to industry of Jamu, traditional medicine, and pharmaceutical

The participants will be divided into two categories:

- Presenter participants (oral and poster)
- 2. Regular participants

VI. ORGANIZER

The symposium is organized by Medicinal Plant and Traditional Medicine Research and Development Centre (MPTMRDC), National Institute of Health Research and Development, Ministry of Health Republic of Indonesia

ORGANIZING COMMITTEE

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Minister of Health

Advisory

Director General of National Institute of Health Research and

Development

Project Director

General Secreatary of Working Group of Indonesia Medicinal Plant Director of Medicinal Plant and Traditional Medicine Research and

Development Centre

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Prof. Suwijiyo Pramono, DEA., Apt

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Endang Brotojoyo, Amd

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Toif Setiani, Amd Coordinator

Sugeng Winarsih

Equipment, accomodation, and Transportation

Akhmad Saikhu, M.ScPH Coordinator

Edwin Fajar Setyawan, SKM

Agus Windarto, STP

Agus Effendy, ST

Sarwono Kamino

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Exhibition and Sponsorship

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Asri Wuryani, Amd

Bagas Nur Adi, Amd

thanthat of single treatment of APEE or GPEE. Based on this study, that combination could potentially be developed as an antidiabetic agent.

Keywords: Andrographis paniculata, Gynura procumbens, Hypoglycemia, Alloxan

O-PMP-002

EFFECT OF SAGA AND KEMUNING LEAVES MEAL ON PARASITES INFECTION OF ETAWAH CROSSBRED GOAT

Winarni, A1, Harlina, E2,3, Evvyernie, D.1,3*

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Parasites infection is a disease that can cause harm economically on the livestock. Saga and kemuning leaves meals contain phytochemicals that are alleged to have anthelmintik activity. The aim of this research was conducted the effect of giving saga and kemuning leaves meal on parasites infection of etawah crossbred goat. Twelve etawah crossbred goat with initial body weight 49.4 kg were divided into four groups, P0 (feed without treatment) as a control, P1 (feed contained leaves saga meal 1.5%), group P2 (feed contained leaves kemuning 8.5%), and P3 (feed contained combination of saga and kemuning leaves meal). Each group consisted of 3 goats. This study used block randomized design and data were analysis using ANOVA. Parameters observed were the number of egg per gram (epg) from the faeces that were collected in every week during one month of research, consumption of dry matter, and blood profile such as hemoglobin, PCV, and eosinofil. The result of this research showed that saga and kemuning leaves meal were not affect on the consumption of dry matter and blood profile of etawah crossbred goat, but there was indication of decreasing the total number of egg within two weeks of research. As conclusion, saga and kemuning leaves meal were not able to eliminate the parasites infection effectively on etawah crossbred lactation goat.

Keywords: etawah crossbred lactation goat, parasites infection, saga leaf, kemuning leaf

O-PMP-003

HISTOPATHOLOGIC EVALUATION AND ENDOMETRIAL THICKNESS AFTER TREATMENT OF KEPEL FRUIT EXTRACT IN AN EXPERIMENTAL MICE MODEL

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Kepel (Stelechocarpus burahol) fruit used to prevent a pregnancy by princess palace, but there has been no scientific evidence. This study was conducted to determine the effects of *kepel* fruit extracts on ovarian histology and endometrial thickness. Ten female Balb/C mice were used in this study and randomly divided into two groups: group 1 as control (n = 5) was treated water and group 2 (n = 5) was treated with *kepel* fruit extract on dose 1,3 mg/kg BB for 14 days. All animals were sacrificed by decapitation to obtain ovaries for histological examination and uterus for endometrial thickness. Independent Sample T-Test analysis were used and statistical significance was defined as p < 0.05. Histopathologic evaluation of ovaries showed that ovaries from the control group have the mean number of primary, secondary, and de Graaf's follicles were 11,40 ± 5,18, 12,60 ± 4,67, 6,60 ± 1,14, respectively. On the group 2, the mean number of primary, secondary, and de Graaf's follicles were 20,25 ± 9,18, 20,25 ± 6,75, 7,50 ± 2,08, respectively. There was no difference in each folicles number variables between groups (p > 0.05). The endometrial thicknes in the *kepel* fruit extract group (695.96 ± 252.70 μm) was higher than control group 582.70 ± 120.52 μm), but



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