INDONESIAN JOURNAL OF AGRICULTURAL SCIENCE

Vol. 17, 2016: 1-83

Author Index

Α

Annisa, Wahida, "Iron Dynamics and Its Relation to Soil Redox Potential and Plant Growth in Acid Sulphate Soil of South Kalimantan, Indonesia", 17(1): 1-8

Annisa, Wahida, "Capillary Water Rise in Peat Soil As Affected By Various Groundwater Levels", 17(2): 75–83

Anwar, Syaiful, "Capillary Water Rise in Peat Soil As Affected By Various Groundwater Levels", 17(2): 75–83

Apriyana, Yayan, "Production and Quality Enhancement of Mango Using Fan Jet Sprayer Irrigation Technique", 17(2): 41–48

\mathbf{E}

Efendi, Darda, "Effect of Different Sources of Plant Growth Regulator on The Induction and Development of Mangosteen Somatic Embryos", 17(1): 9–16

Н

Heryani, Nani, "Production and Quality Enhancement of Mango Using Fan Jet Sprayer Irrigation Technique", 17(2): 41–48

I

Izzah, Nur Kholilatul, "Development of EST-SSR Markers to Assess Genetic Diversity of Broccoli and Its Related Species", 17(1): 17–26

K

Kartiwa, Budi, "Production and Quality Enhancement of Mango Using Fan Jet Sprayer Irrigation Technique", 17(2): 41-48

L

Lestari, Puji, "Genomic Variation of Five Indonesian Cacao (*Theobroma cacao* L.) Varieties Based on Analysis Using Next Generation Sequencing", 17(2): 57-64

Lestari, Puji, "The Potential Use of SSR Markers to Support the Morphological Identification of Indonesian Mungbean Varieties", 17(2): 65-74

Listanto, Edy, "Agrobacterium tumefaciens-Mediated In-Planta Transformation of Indonesian Maize Using plG121Hm-Cs Plasmid Containing nptII and hpt Genes", 17(2): 49-56

N

Nugraha, Muhammad Imam, "Capillary Water Rise in Peat Soil As Affected By Various Groundwater Levels", 17(2): 75–83

Nursyamsi, Dedi, "Iron Dynamics and Its Relation to Soil Redox Potential and Plant Growth in Acid Sulphate Soil of South Kalimantan, Indonesia", 17(1): 1–8

J

Joni, Yosi Zendra, "Effect of Different Sources of Plant Growth Regulator on The Induction and Development of Mangosteen Somatic Embryos", 17(1): 9–16

P

Prihatini, Riry, "Effect of Different Sources of Plant Growth Regulator on The Induction and Development of Mangosteen Somatic Embryos", 17(1): 9–16

Prihatini, Riry, "Sensitivity of Pigment Content of Banana and Orchid Tissue Culture Exposed to Extremely Low Frequency Electromagnetic Field", 17(1): 27–34

R

Reflinur, "Development of EST-SSR Markers to Assess Genetic Diversity of Broccoli and Its Related Species", 17(1): 17–26

Reflinur, "The Potential Use of SSR Markers to Support the Morphological Identification of Indonesian Mungbean Varieties", 17(2): 65-74

Rijzaani, Habib, "Genomic Variation of Five Indonesian Cacao (*Theobroma cacao* L.) Varieties Based on Analysis Using Next Generation Sequencing", 17(2): 57–64

Riyadi, Imron, "Effect of Gamma Irradiation on The Growth and Development of Sago Palm (*Metroxylon sagu* Rottb.) Calli", 17(1): 35-40

Riyanti, Eny Ida, "*Agrobacterium tumefaciens*-Mediated *In-Planta*Transformation of Indonesian Maize Using plG121Hm-Cs
Plasmid Containing *npt*II and *hpt* Genes", 17(2): 49–56

Roostika, Ika, "Effect of Different Sources of Plant Growth Regulator on The Induction and Development of Mangosteen Somatic Embryos", 17(1): 9-16

Rosdianti, Ida, "Genomic Variation of Five Indonesian Cacao (*Theobroma cacao* L.) Varieties Based on Analysis Using Next Generation Sequencing", 17(2): 57-64

Rubiyo, "Genomic Variation of Five Indonesian Cacao (*Theobroma cacao* L.) Varieties Based on Analysis Using Next Generation Sequencing", 17(2): 57–64

S

Saleh, Norihan Mohamad, "Sensitivity of Pigment Content of Banana and Orchid Tissue Culture Exposed to Extremely Low Frequency Electromagnetic Field", 17(1): 27–34

Satyawan, Dani, "Genomic Variation of Five Indonesian Cacao (*Theobroma cacao* L.) Varieties Based on Analysis Using Next Generation Sequencing", 17(2): 57-64

Suk-Ha-Lee, "The Potential Use of SSR Markers to Support the Morphological Identification of Indonesian Mungbean Varieties", 17(2): 65–74

Sumaryono, "Effect of Gamma Irradiation on The Growth and Development of Sago Palm (*Metroxylon sagu* Rottb.) Calli", 17(1): 35-40

Sustiprijatno, "Agrobacterium tumefaciens-Mediated In-Planta Transformation of Indonesian Maize Using plG121Hm-Cs Plasmid Containing nptII and hpt Genes", 17(2): 49–56

Syahbuddin, Haris, "Production and Quality Enhancement of Mango Using Fan Jet Sprayer Irrigation Technique", 17(2): 41–48

Syaufina, Lailan, "Capillary Water Rise in Peat Soil As Affected By Various Groundwater Levels", 17(2): 75–83

T

Tasma, I Made, "Genomic Variation of Five Indonesian Cacao (*Theobroma cacao* L.) Varieties Based on Analysis Using Next Generation Sequencing", 17(2): 57–64

V

Yang, Tae-Jin, "Development of EST-SSR Markers to Assess Genetic Diversity of Broccoli and Its Related Species", 17(1): 17–26

INDONESIAN JOURNAL OF AGRICULTURAL SCIENCE

Vol. 17, 2016

Subject Index

Banana Carotene 27 Chlorophyll 27 Electro-magnetic field 27	Metroxylon sagu Embryogenic calli 35 Gamma irradiation 35 Somatic embryo 35	
Orchid 27 Broccoli Cauliflower 17 EST-SSR markers 17 Genetic diversity 17	Mungbean DNA fingerprint 65 Morphological characters 65 SSR markers 65 Varietal identity 65	
Kohlrabi 17 Ferrous iron Acid sulphate soil 1 Plant growth 1 Redox potential 1	Peat soil Bulk density 75 Capillary water 75 Groundwater level 75 Water content 75	
Garcinia mangostana Callus induction 9 Plant growth regulator 9 Somatic embryo 9	Somatic embryo Garcinia mangostana 9 Metroxylon sagu 35 Theobroma cacao	
Maize Agrobacterium tumefaciens 49 In-planta transformation 49	Genome sequencing 57 Genome variation 57 Next generation sequencing 57 SNP 57	
Mango Fan jet sprayer 41 Production 41 Quality 41	SNP 57	

ACKNOWLEDGEMENT OF REVIEWERS

The editorial staff of IJAS would like to acknowledge the scientists who reviewed articles published in 2016. Their contributions ensure scientific quality of the publication.

Name	Address	Discipline
Prof. Ika Mariska	Indonesian Center for Agricultural Biotechnology and Genetic Resources Research and Development Jalan Tentara Pelajar No. 3A Bogor 16111, Indonesia	Plant Physiologi and Biotechnology
Dr. Backki Kim	Texas A&M University, College Station, TX 77843, United States	Biochemistry, Genetics and Molecular Biology
Kularb Laosatit	Faculty of Agriculture at Kamphaeng Saen, Kasetsart University, Kamphaeng Saen, Nakhon Pathom, 73140, Thailand	Genetic and Molecular Biology
Dr. Sutoro	Indonesian Center for Agricultural Biotechnology and Genetic Resources Research and Development Jalan Tentara Pelajar No. 3A Bogor 16111, Indonesia	Agronomy
Dr. Made Jana Mejaya	Indonesian Center for Food Crops Research and Development Jalan Merdeka No. 147 Bogor 16111, Indonesia	Plant Breeding
Dr. Ahmad Kurnain	Lambung Mangkurat University Banjarmasin, Indonesia	Soil Science
Prof. Purwiyatno Hariyadi	Bogor Agricultural University IPB Dramaga Campus, Bogor 16680, Indonesia	Postharvest

INSTRUCTIONS TO AUTHORS

GENERAL REQUIREMENTS

The journal publishes primary research articles of current research topics, not simultaneously submitted to nor previously published in other scientific or technical journals. General review articles will not be accepted. The journal maintains strict standards of content, presentation, and reviewing. The official language of the journal is English. The manuscript should be prepared in good English (American or British usage is accepted, but not a mixture of them). Author(s) of non-native English speakers are encouraged to get help from colleagues who have good English. The journal does not provide any English assistant in correcting the manuscript. All manuscripts are firstly screened on their topic suitability and language quality. The journal is free open access and free of charge. For more information, please contact the editorial office.

SCOPE

The journal will consider papers from any source if they make an original contribution to the experimental or theoretical understanding and application of theories and methodologies of some aspects of agricultural science. The definition of agricultural science is kept as broad as possible to allow the widest coverage in the journal including socio-economic aspects. The focus of the journal is in the following areas: Agronomy, animal science, soil science, climate and environment related to agricultural aspects. Agronomy covers the topics of plant breeding, physiology, production, biotechnology, plant protection (pest and disease) and postharvest. Animal sciences include breeding, nutrition, reproduction, and disease. Soil Sciences cover aspects of mineralogy, classification, land evaluation, chemistry, fertility, fertilizer, conservation, and biology. The journal is published twice a year.

MANUSCRIPT SUBMISSION

The manuscripts must be prepared using MS word with double spacing throughout, 3-cm margins on the top, bottom and left-hand side of the paper, and maximum 20 pages. Author(s) should provide the page number and numbered line for each page. The manuscript should be submitted online ad portal address: http://ejurnal.litbang.pertanian.go.id/index.php/ijas or attached file to The Editorial Office, Indonesian Center for Agricultural Library and Technology Dissemination, Jalan Ir. H. Juanda No. 20, Bogor 16122, Indonesia, E-mail: pustaka@litbang.pertanian.go.id.

MANUSCRIPT PREPARATION

The title should be concise, factual, informative, and should contain not more than 15 words in English and Indonesia. For non-Indonesian authors, the title in the Indonesian language will be handled by editors. The name(s) of the author(s) should appear below the title, followed by the full address at the time the work was carried

out, and their present addresses, if they are different. Indicate author's affiliation address with a superscript number and give asterisk (*) for the corresponding author who will handle the manuscript during review and revision processes. Provide email address for the corresponding author.

MANUSCRIPT STRUCTURE

The abstract summarizes the study in one paragraph of not more than 250 words in English and Indonesia (Indonesian abstract is not applied for non-Indonesian authors). The abstract should describe briefly the problem, state the scope and plan of the work, indicate significant data and give the principal findings, and conclusions. Only standard terms, scientific nomenclature and accepted abbreviations should be used.

Keywords appear immediately after the abstract of maximum 5 words. These keywords allow the readers to easily access the publication.

Subdivisions of manuscript cover Introduction, Materials and Methods or Approach/Methodology, Results and Discussion, Conclusion, and References. Acknowledgments and Appendices may be included if necessary. Those divisions are given in the capital letter. Further subdivisions are given subheading in the lowercase with capital for each word. The Introduction should put the work into regional or International perspective, briefly review the literature, and clearly state the objectives and the importance of the research. Summarized the methods for citation of already established. Sufficient details for new methods should be included in the Methods section to allow other workers to repeat or apply the procedures. Figures and tables should be used in the results section wherever possible. The paper should include a discussion of the results in relation to the objectives and to other works. The discussion should explore the significance of the results of the research, but not repeat them. Conclusions should be drawn with regard to the title, objectives, and discussion of the findings and should be supported by the data. Acknowledgments should be provided regarding financial support, material and instrument accessibility, technical assistance, and personal communications.

References should be made to previous work in the text with name-year system in one of two forms, Subandi (1990) or (Subandi 1990). Where more than one reference is used, they should be written in order of date; for example, (Partohardjono and Adiningsih 1991; Widjaja-Adhi 1995; Muljadi 1997). If there are more than two authors then the surname should be followed by *et al.* Remember that *et al.* is NEVER used in the list of references, although it is acceptable as a reference in the text. Please provide all authors and all editors in the references section. Unpublished references should be avoided. References should be listed in alphabetical order. Each list reference should be cited in the text, and each citation should be

listed in the references section. The following are examples of basic references format:

Journal articles

Anda, M. 2012. Cation imbalance and heavy metal content of seven Indonesian soils as affected by elemental compositions of parent rocks. Geoderma 189–190: 388–396.

Akhter, M. and C.H. Sneller. 1996. Yield and yield components of early maturing soybean genotypes in the mid-south. Crop Sci. 36: 877–882.

Anda, M, E.Suryani, Husnain, and D.Subardja. 2015. Strategy to reduce fertilizer application in volcanic paddy soils: Nutrient reserves approach from parent materials. Soil Till Res. 150: 10–20

Sumarno dan N. Zuraida. 2006. Hubungan korelatif dan kausatif antara komponen hasil dengan hasil kedelai. Penelitian Pertanian Tanaman Pangan 25(1): 38–43.

Book/complete book

Bosc, A.N., S.N. Ghosh, C.T. Yang, and A. Mitra. 1991. Coastal Aquaculture Engineering. Oxford and IBH Pub. Co. Prt. Ltd., New Delhi, India. 365 pp.

Articles in book/chapter

Powers, D.A. and P.M. Schulte.1996. A molecular approach to selectionist/neutralist controversy. p. 327–352. *In* J.D. Ferraris and S.R. Palumbi (Eds.). Molecular Zoology: Advances, Strategies, and Protocols. Wiley-Liss, Inc., Wilmington, Delaware (DE).

Sudaryono, A. Taufik, dan A. Wijanarko. 2007. Peluang peningkatan produksi kedelai di Indonesia. hlm. 130–167. *Dalam* Kedelai: Teknik produksi dan pengembangannya. Sumarno, Suyamto, A. Widjono, Hermanto, dan H. Kasim (Ed.). Pusat Penelitian dan Pengembangan Tanaman Pangan, Bogor, Indonesia.

Dissertation/theses

Simpson, B.K. 1984. Isolation, Characterization, and Some Application of Tripsin from Greenland Cod (*Gadus morhua*). PhD Thesis. Memorial University of Newfoundland, St. John's, Newfoundland, Canada. 179 pp.

Conference proceedings

Tangendjaja, B. and E. Wina. 2000. Tannins and ruminant production in Indonesia. p. 40–43. *In* J.D. Brooker (Ed.) Tannins in Livestock and Human Nutrition. Proceedings of an International Workshop, Adelaide, Australia, 31 May–2 June 1999. ACIAR Proceedings No. 92.

Budi, D.S. 2000. Toleransi kedelai (*Glycine max* (L.) Merr.) terhadap genangan air statis pada berbagai fase pertumbuhan. hlm. 207–212. *Dalam* V.W. Gunawan, N. Sunarlin, T. Handayani, B. Soegiarto, W. Adil, B. Priyanto, dan Suwarno (Ed.). Prosiding Lokakarya Penelitian dan Pengembangan Produksi Kedelai di Indonesia. Direktorat Teknologi Lingkungan, Jakarta, Indonesia.

Conference paper

Chin, L.J., L.M. Tan, and K. Wegleitner. 2007. The occurrence of mycotoxins in feed samples from Asia. A continuation of the Bromin mycotoxin survey program. Paper presented in 15th Annual ASA-IM Southeast Asian Feed Technology and Nutrition Workshop, 27–30 May 2007, Bali-Indonesia. Research papers/reports/working papers

Only papers appearing as part of an institutions working papers series should be classified as working process. These should always include a specific working paper number as assigned by the institution.

Example:

Heidhues, P. and B. Kassogi. 2005. The Impact of Consumer Loss Aversion on Pricing. Centre for Economic Policy Research Discussion Paper 4849.

Article online

Hawk, A. 2004. Mycotoxins. Proc. Grain Elevator and Processing Society (GEAPS). http://www.geaps.com/ proceedings/2004/Hawk.ctm. (1 July 2008).

Private correspondence should not be mentioned in the reference list but may be cited in the text as follows: (Z. Harahap, pers. com.).

Papers that have been accepted for publication but not yet published can be cited as 'in press' in the reference list, and they must be accompanied by the name of the journal.

Husen, E., A.T. Wahyudi, A. Suwanto, and R. Saraswati. 2008. Prospective use of ACC deaminase-producing bacteria for plant growth promotion and defense against biotic and abiotic stresses in peat-soil-agriculture. Microbiol. Indones. (in press).

Units of measurements of the SI System should be used for all measurements.

Tables should be typed with double spacing, numbered consecutively, have brief titles, and be referred to in the text. Vertical rules are not accepted. Denote footnotes using superscript numbers.

Illustration: All figures should be able to fit within journal size and proportion after reduction, without loss of details. Each figure should have the number, and caption, followed by a brief description of the way the particular experiment was carried out if this is not explained in the text. Image/photograph should be submitted online with a minimumof 531×1328 pixels (h × w) or proportionally more. The image should be readable at a size of 5×13 cm using a regular screen resolution of 96 dpi. Symbols and abbreviations used in the figure should also be explained in footnotes immediately underneath the figure. Each figure must be labeled for X and Y axes, All figures must be referred to in the text. The Editorial Office will provide detailed assistance if necessary. Spell out all abbreviations.

EDITOR'S AND REFEREE'S COMMENTS

All papers submitted to IJAS are reviewed by the Editorial Board. If the topic of the paper is beyond the scope of the Editorial Board, it is sent to an expert in the field for detailed refereeing. The referee will consider whether the paper makes a significant contribution to agricultural science if it is original and whether the results of the experiments are valid and significant. The report of the referee may recommend rejection, acceptance, or acceptance subject to further modification of the paper. Rejection of a paper by the Editorial of IJAS is final.

