

Skim Hibah : Maintenance Research Group –
Peneliti Utama (Publikasi)
Bidang Unggulan : Ketahanan dan Keamanan
Pangan

PROPOSAL



SOIL FORMATION AND CLASSIFICATION IN THE ORGANIC RICE FIELD

Nama Research Group :
Pembangunan Pertanian Berbasis Karakteristik Tanah-Lahan Setempat
(Agricultural Development Based on Local Soil-Land Characteristics)

Nomor Identitas Research Group :
H1105571

Ketua Tim Peneliti :
Dr. Mujiyo, SP., MP.
NIDN : 0010087302

Ketua Research Group :
Dr. Mujiyo, SP., MP.
NIDN : 0010087302

FAKULTAS PERTANIAN
UNIVERSITAS SEBELAS MARET
JANUARI, 2016

HALAMAN PENGESAHAN

No. Reg:



0010087302872016

Judul Penelitian	:	Soil Formation and Classification in the Organic Rice Field
Bidang Ilmu / Group Riset	:	PERTANIAN / Pembangunan Pertanian Berbasis Karakteristik Tanah-Lahan Setempat (Agricultural Development Based on Local Soil-Land Characteristics)
Bidang Kajian	:	Ketahanan dan keamanan pangan
SKIM	:	Hibah Peneliti Utama Sebagai Rujukan Hibah MRG-UNS
Ketua Penelitian		
A. Nama Ketua	:	Dr. MUJIYO, S. P., M. P.
B. NIDN	:	0010087302
C. Jabatan Fungsional	:	Lektor
D. Fakultas / Program Studi	:	PERTANIAN / S1 ILMU TANAH
E. Nomor HP	:	081329059538
F. Email	:	mujiyo_wa@yahoo.com
Anggota Penelitian		
1. Nama / NIDN(Kode Reg.) Group Riset	:	Dr. Ir. Jauhari Syamsiyah, Ms. / 0007065907 Pembangunan Pertanian Berbasis Karakteristik Tanah-Lahan Setempat (Agricultural Development Based on Local Soil-Land Characteristics)
2. Nama / NIDN(Kode Reg.) Group Riset	:	Rahayu / 0029057503 Pembangunan Pertanian Berbasis Karakteristik Tanah-Lahan Setempat (Agricultural Development Based on Local Soil-Land Characteristics)
3. Nama / NIDN(Kode Reg.) Group Riset	:	Sutarno / 0028125702 Pembangunan Pertanian Berbasis Karakteristik Tanah-Lahan Setempat (Agricultural Development Based on Local Soil-Land Characteristics)
4. Nama / NIDN(Kode Reg.) Group Riset	:	Widyatmani Sih Dewi / 0023116304 Pembangunan Pertanian Berbasis Karakteristik Tanah-Lahan Setempat (Agricultural Development Based on Local Soil-Land Characteristics)
Lama Penelitian Keseluruhan	:	Single Tahun
Penelitian Tahun Ke-	:	1
Biaya Penelitian Keseluruhan	:	Rp. 28.000.000,00
Biaya Tahun Berjalan	:	Rp.
Biaya Sumber Lain	:	Rp. 28.000.000,00
Asal Sumber Biaya Lain	:	

Mengetahui
Koordinator Group Riset

Dr. MUJIYO, S. P., M. P.
NIDN. 0010087302



Surakarta, 25 January 2016
Ketua Peneliti

Dr. MUJIYO, S. P., M. P.
NIDN.0010087302

Mengetahui
KPPM
Dr. Mujiyo, SP., MP.
NIDN.0010087302

ABSTRACT ARIKEL ILMIAH

Soil Formation and Classification in the Organic Rice Field

Soil formation process influenced by the parent material, climate, topography, living organisms and time. The contribution of the living activity are micro and macro organisms, plants and land management by humans interacting with other factors and influence the process of soil formation. Management system of organic rice field is characterized by the use of organic fertilizers in each growing season. The existence of organic matter in the soil in the long term have been reported related to the formation of complex organic-clay which affect the mobilization and immobilization of mass in the soil. Soil in organic rice field has been more developed than semi-organic rice field, conventional rice field and teak forest. The content of C-organic in the horizon I (Ap) on organic rice field is high, and it leads to increase eluviation processes (leaching) of soil materials, including clay, which is then deposited on the horizon II (Bt). Organic acids improve the dispersion of clay fraction, making it easier to be leached into the below horizon. Clay particle dispersions of micro-aggregates are caused by adsorption of complex organic acids that increase the negative charge on clay, and then led to the release of clay particles. Horizon II in organic rice field was clearly as a horizon of clay illuviation (precipitation). Clay content in this horizon was 40.16%, while in the horizon I was 24.56%. Horizon II in organic rice field has been qualified as endopedon argillic also the base saturation is more than 35%, so it is included as the order of Alfisols. Meanwhile horizon II in semi-organic, conventional and teak forest were not clearly as a horizon of clay illuviation and then it qualified as endopedon cambic, so the soil is included the order of Inceptisols.

Keywords : clay, argillic, organic rice field

TARGET JURNAL

Nama Jurnal	:	Soil and Water Research (SWR)
No. ISSN	:	ISSN 1801-5395 (Print) ISSN 1805-9384 (On-line)
Penerbit	:	Czech Academy of Agricultural Sciences
Kategori Jurnal	:	Internasional bereputasi
Abstraxing and Indexing	:	Science Citation Index Expanded [®] , Journal Citation Reports/Science Edition, Current Contents [®] /Agriculture, Biology, and Environmental Sciences, Biological Abstracts, BIOSIS Previews, AGRIS/FAO database, CAB Abstracts, Czech Agricultural and Food Bibliography, SCOPUS
Impact Factor	:	(Web of Science – Thomson Reuters) : 2014 – 0.659 SJR (SCImago Journal Rank – SCOPUS): 2014 – 0,321 – Q2 (Aquatic Science, Soil Science)
Alamat URL	:	http://www.agriculturejournals.cz/web/swr.htm

PAKTA INTEGRITAS

Yang bertanda tangan dibawah ini :

Nama : Dr. MUJIYO, S. P., M. P.
 NIDN : 0010087302
 Pangkat / Golongan : Penata / IIIc
 Jabatan Fungsional : Lektor
 Fakultas : PERTANIAN
 Program Studi : S1 ILMU TANAH


Dalam rangka pelaksanaan Hibah Peneliti Utama Sebagai Rujukan Hibah MRG-UNS dengan judul :

"Soil Formation and Classification in the Organic Rice Field"

Menyatakan Bahwa Saya :

1. Akan menggunakan dana sesuai dengan peruntukan yang telah ditetapkan dalam proposal **Hibah Peneliti Utama Sebagai Rujukan Hibah MRG-UNS**
2. Bertanggung jawab secara formal dan material atas pelaksanaan penelitian sesuai kontrak.
3. Memenuhi target luaran sebagai berikut :
 - a. Artikel dimuat di Jurnal Internasional bereputasi
 - b. Makalah disampaikan dalam Pertemuan Internasional
 - c.
4. Melaporkan hasil penelitian/pengabdian skema **Hibah Peneliti Utama Sebagai Rujukan Hibah MRG-UNS** sesuai ketentuan yang tertuang dalam perjanjian hibah **Hibah Peneliti Utama Sebagai Rujukan Hibah MRG-UNS**

Apabila saya melanggar hal-hal yang telah saya nyatakan dalam pakta integritas hibah ini, saya bersedia dikenai sanksi sesuai dengan ketentuan peraturan perundang-undangan.

Surakarta, 25 January 2016
 Yang menyatakan,

 Dr. MUJIYO, S. P., M. P.
 NIDN.0010087302