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HASIL PENILAIAN SEJAWAT SEBIDANG ATAU *PEER REVIEW*
KARYA ILMIAH : JURNAL ILMIAH

Judul karya ilmiah (artikel)	:	Cobb-douglas production function for analyzing dairy milk production factors
Jumlah Penulis	:	6 orang
Status Pengusul	:	Penulis ke 4
Nama Penulis	:	**Dr.Drs. Nugroho Sumarjiyanto Benedictus Maria, M.Si.**

Identitas Jurnal Ilmiah	:	a.	Nama Jurnal	:	Ecology, Environment and Conservation
	:	b.	Nomor ISSN	:	ISSN 0971–765X
	:	c.	Volume, nomor, bulan, tahun	:	Vol. 26 (1) : 2020; pp. (384-389)
	:	d.	Penerbit	:	EM International
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	:	f.	Alamat web jurnal	:	http://www.envirobiotechjournals.com/article_abstract.php?aid=10342&iid=298&jid=3
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b. Ruang lingkup dan kedalaman pembahasan (30%)	7,2	7	7,1
c. Kecukupan dan kemutahiran data/informasi dan metodologi (30%)	7,2	7	7,1
d. Kelengkapan unsur dan kualitas terbitan/prosiding (30%)	7,2	7,4	7,3
Total = (100%)	24	24	24
Nilai Pengusul =	1,92	1,92	1,92

Semarang, Oktober 2021

Reviewer 2

Prof.Dr.Drs. Purbayu Budi Santosa, M.S.
NIP. 195809271986031019
Departemen IESP FEB Undip
Jabatan Fungsional : Guru Besar

Reviewer 1

Prof. Drs. Waridin, M.S., Ph.D.
NIP. 196202121987031024
Departemen IESP FEB Undip
Jabatan Fungsional : Guru Besar

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c. Kecukupan dan kemutahiran data/informasi dan metodologi (30%)	**12**					7,2
d. Kelengkapan unsur dan kualitas penerbit (30%)	**12**					7,2
Total = (100%)	**40**					24
Kontribusi Pengusul (~~Penulis Pertama~~ / Anggota) = 40% x 24 : 5=						1,92

KOMENTAR / ULASAN PEER REVIEW	
• Kelengkapan dan kesesuaian unsur	Unsur artikel sesuai ketentuan jurnal, terdiri atas: Title, Abstract, Introduction, Materials and Methods, Results, Discussion, dan References. Unsur yang ditulis kurang lengkap.
• Ruang lingkup dan kedalaman pembahasan	Ruang lingkup sudah mengikuti substansi jurnal. Cakupan dan kedalaman pembahasan sudah menjawab permasalahan riset, yaitu untuk menelaah faktor-faktor yang memengaruhi produksi susu sapi di Kabupaten Boyolali. Artikel sudah didukung referensi yang cukup baik dan relevan.
• Kecukupan dan kemutakhiran data dan metodologi	Kecukupan dan kemutakhiran data/ informasi sudah baik. Metodologi sesuai tujuan bahasan dan sudah diuraikan cukup jelas. Data berasal dari survei ke peternak sapi sampel. Alat analisis yang digunakan adalah metode regresi fungsi produksi Cobb-Douglas, sudah sesuai tujuan riset. Hasil riset sudah memberikan penjelasan yang baik sesuai tujuan.
• Kelengkapan unsur dan kualitas penerbit	Mutu penerbit cukup baik. Jurnal ini tercatat di Scopus Q4 dengan SJR 0,149 (2020). Subject area: agricultural and environmental sciences (cukup sesuai dengan bidang ilmu pengusul).
Indikasi plagiasi	Tidak ditemukan adanya indikasi plagiasi. Dengan Turnitin, similarity indeks artikel 5% (internet sources 3%, publications 2%, students papers 1%), exclude matches off.
• Kesesuaian bidang ilmu	Substansi artikel sesuai dengan bidang ilmu pengusul (yaitu ilmu ekonomi), subject area jurnal cukup sesuai.

Nilai PAK Universitas sejumlah 24 ak

Semarang, 25 Oktober 2021

Reviewer 1

Prof. Drs. Waridin, M.S., Ph.D.
NIP. 196202121987031024
Departemen IESP FEB Undip
Jabatan Fungsional : Guru Besar

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c. Kecukupan dan kemutahiran data/informasi dan metodologi (30%)	12					7
d. Kelengkapan unsur dan kualitas penerbit (30%)	12					7,4
Total = (100%)	**40**					24
Kontribusi Pengusul (~~Penulis Pertama~~ / Anggota) 40% x 24 : 5						1,92

KOMENTAR / ULASAN PEER REVIEW	
• Kelengkapan dan kesesuaian unsur	Kelengkapan dan kesesuaian unsur dari jurnal sudah sesuai dengan pedoman yang ada
• Ruang lingkup dan kedalaman pembahasan	Ruang lingkup dan kedalaman pembahasan sudah baik
• Kecukupan dan Kemutakhiran Data & Metodologi	Kecukupan dan kemutakhiran data sudah terpenuhi serta didukung oleh metode analisis yang sesuai
• Kelengkapan unsur dan kualitas penerbit	Artikel memenuhi standard penulisan dan isi untuk. Kelengkapan unsur dan kualitas dari penerbit termasuk baik
Indikasi plagiasi	Tidak terdapat unsur plagiasi
• Kesesuaian bidang ilmu	Sudah sesuai dengan bidang ilmunya (IESP)

Nilai PAK Universitas sejumlah 24 ak

Semarang, 28 Oktober 2021

Reviewer 2

Prof.Dr.Drs. Purbayu Budi Santosa, M.S.
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Departemen IESP FEB Undip
Jabatan Fungsional : Guru Besar

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Documents

Budiraharjo, K., Sunarno, Solikhin, Nugroho, S.B.M., Gunanto, E.Y.A., Darwanto

Cobb-douglas production function for analyzing dairy milk production factors
(2020) *Ecology, Environment and Conservation*, 26 (1), pp. 384-389.

Abstract
The development of dairy cattle business by increasing dairy milk production is a supporting effort to the development of food security, especially in the fulfillment of domestic fresh milk availability (SSDN). Boyolali Regency is one of the districts with the largest population of dairy cattle in Indonesia. However, the dairy cattle population has decreased and resulted in the reduction of dairy milk production. This study aims to identify and analyze factors that are influential in the dairy milk production in Boyolali Regency. Multiple linear regression is used in this study to determine the influential factors in the dairy milk production, as a cattle upstream business, using Cobb-Douglas production function model. Research data are primary and secondary data. Primary data are obtained from the results of observations and direct interviews with dairy farmers in Boyolali Regency who are the respondents of this research. While the secondary data needed are collected from relevant Government institutions including the Department of Animal Husbandry of Central Java Province and Central Bureau of Statistics (BPS) of Boyolali Regency. The research results indicate that factors having simultaneous significant influence on milk production of dairy cattle are the number of cattle, the number of lactating cattle, forage, concentrates and manpower. However, only the numbers of cattle, forage, and concentrates which have significant influence, while manpower variable is a unique finding in this study because of its negative coefficient. © 2020, EM International. All rights reserved.

Author Keywords
Cobb-Douglas; Dairy cattle; Dairy milk production; Production factor

Index Keywords
cattle, dairy farming, forage, milk production, numerical method; Central Java, Indonesia

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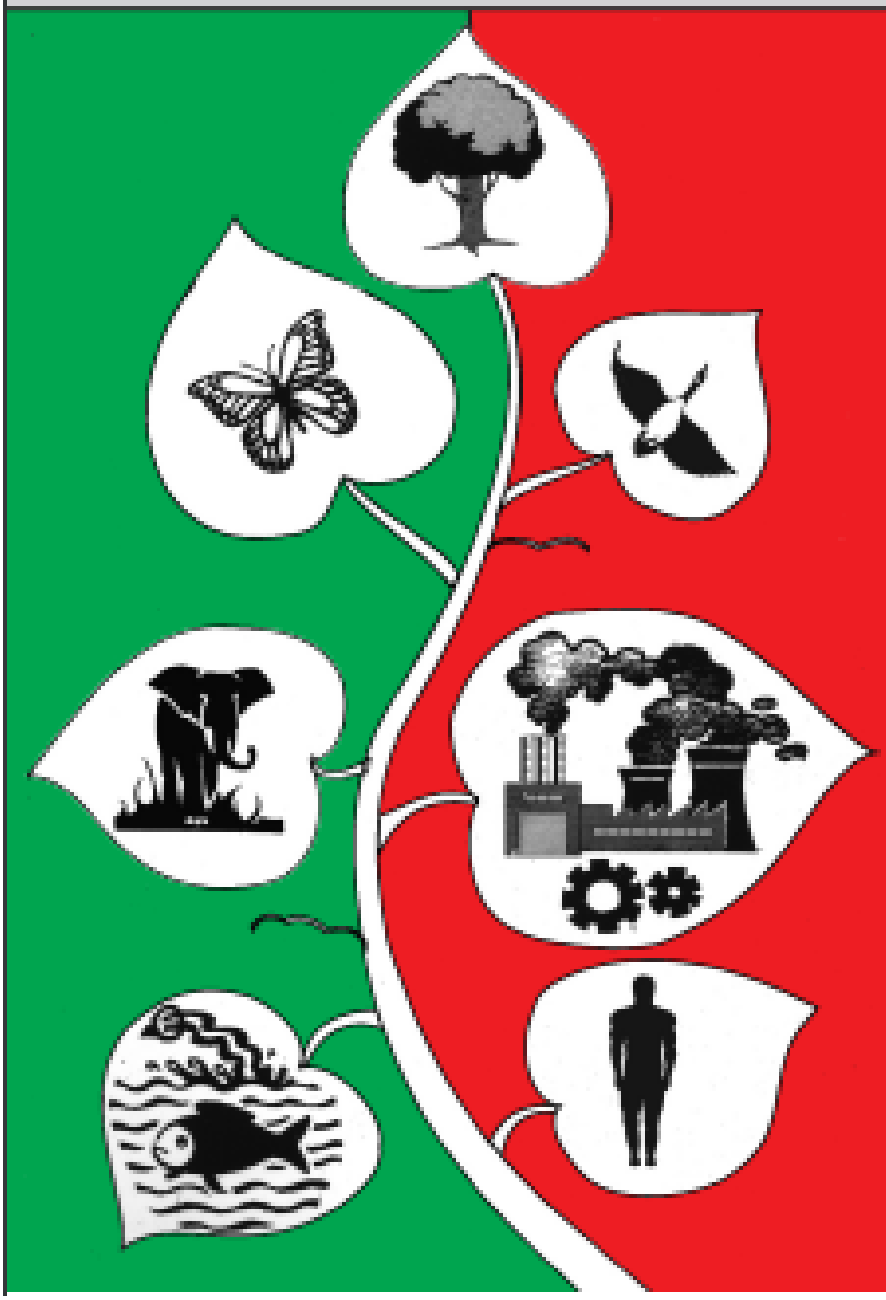

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Eco. Env. & Cons. 26 (1) : 2020; pp. (17-23)
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Stimulating the growth of (*Acacia arabica* Lam.) seedlings growing under water stress conditions chemically using proline and salicylic acid

Sabah G. Sh. Bajlan[1], Kadum M. Abdullah[2], Alaa M. Nasser Almulla[1] and Nawras K. Mohammed[1]

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[2]Plant Protection Department, Faculty of Agriculture, University of Kerbala, Kerbala City, Iraq

(Received 10 August, 2019; accepted 15 October, 2019)

ABSTRACT

(The experiment was carried out during the period from the cultivation of seeds on 21-2-2017 to 10-4-2018 where the seeds of Acacia arabica Lam. Seeds were planted inside the lath-house at the Faculty of Agriculture-University of Kerbala in Husseiniya district, Karbala, Iraq to examine the effect of proline acid (0, 75, and 150 mg.L^{-1}) and salicylic acid (0, 50 and 100 mg.L^{-1}) on this plant under water stress. The results showed that spraying the seedlings with proline at concentration of 150 mg.L^{-1} increased the relative moisture content and the total chlorophyll content in leaves with an increase ratio of (7.15 and 30.76%) respectively compared to the control treatment. The treatment of seedling with salicylic at concentration of 100 mg.L^{-1} of had a significant impact on all studied traits compared to the control treatment. The results also revealed the superiority of the interaction treatment between proline at a concentration of 150 mg.L^{-1} and salicylic at concentration of 100 mg.L^{-1} in all studied traits relatively to the control treatment. Foliar spraying of organic acids could be a relief treatment to maintain the growth and development of plants under environmental stresses particularly at the early stages of growing and flowering)

Key words : *Acacia arabica, Salicylic acid, Water stress proline*

Introduction

Acacia species is floral and dicotyledonous plant belong to the legume class. The Acacia genus contains about 1300 plant species of which 960 are native to Australia and the rest are distributed around temperate-warm regions in the northern and southern hemispheres (Farzana *et al.*, 2014).

The Arabic acacia tree (*Acacia arabica* Lam.)is medium-sized trees and native to Africa and Asia with dark stems, long white thorns, and evergreen leaves. Its Yellow flowers appear in the spring and summer, and will be ended with horny fruits. It is often planted in shade on the sides of agricultural roads, sides of streams and rivers. Ithas the ability to tolerate drought to some extent and grow in sandy, salty and stony land. It is propagated with seeds (Rajvaidhya *et al*., 2012).

Water stress is one of the most important types of environmental stresses that occur when soil water is low due to lack of rain or when the loss of water by transpirationis superior to the absorption of water by the roots, so drought is a major abiotic factors that affect the reduction of plant productivity around the world and causes significant agricultural losses especially in arid and semi-arid areas

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Biomarkers response in the snail *Cornu aspersum* (Gastropoda, Helicidae) used as bioindicator of soil pollution in extreme Northeast of Algeria

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ABSTRACT

Our study aims to use the snail *Cornu aspersum* as bioindicator species to biomonitoring soil quality in northeast of Algeria through measurement of the seasonal activities of three biomarkers, glutathione S-transferase, acetylcholinesterase and metallothioneins. *C. aspersum* were collected seasonally during the year 2016, at four sites located in the extreme northeast of Algeria. El Hadjar, site exposed to industrial wastes; the sites of El Tarf and Bouteldja subjected to urban and agricultural pollution; and El Kala, located in a protected park, chosen as a witness site. An inhibition of acetylcholinesterase and an increase of both glutathione S-transferase and metallothioneins were observed in samples collected from El Hadjar, El Tarf and Bouteldja as compared to El Kala. In addition, a significant seasonal effect was observed in spring and summer as compared to autumn and winter. This work reveal that *C. aspersum* can be used as a suitable bioindicator species for biomonitoring soil quality in northeast of Algeria who was related to sources of exposition to pollution.

Key words : *Snail, Cornu aspersum, Biomonitoring, Biomarker, Soil, Pollution*

Introduction

Intensive use of pesticides in agriculture, urban wastes, rapid industrialization and increasing vehicular traffic have produced an increase of soil pollution (Mleiki *et al.,* 2017). This pollution pose risks and hazards to ecosystems and human health through the contamination of ground water, as well as reducing the use of agricultural land (Roma *et al.,* 2017). That's why these last years, scientific research and international agencies increasing interest for soil pollution monitoring and assessment (Mariet *et al.,* 2017; Sturba *et al.,* 2018).

The extreme Northeast of Algeria is one of the most important urban, industrial, agricultural and tourist areas including El Tarf city, a very important agricultural area and Annaba city, the fourth greatest city in Algeria, shelter several major industries including those production phosphoric fertilizers (Fertial), pesticides (Asmidal), metallic construction (Ferovial) and one of the greatest steel complex of Africa (ArcelorMittal). Theses agricultural and industrial activities have generated an important contamination of aquatic and terrestrial areas especially metal contamination previously highlighted by other studies (Larba and Soltani, 2014; Belabed *et al.,* 2017; Drif *et al.,* 2019; Sifi and Soltani, 2019).

For terrestrial ecosystem, pulmonate gastropod mollusks, have been considered efficient sentinels to evaluate soil contamination (Kowalczyk-Pecka *et al.,* 2018). Among them, snail *Cornu aspersum* (syn. *Helix aspersa*) present several characteristics provide

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