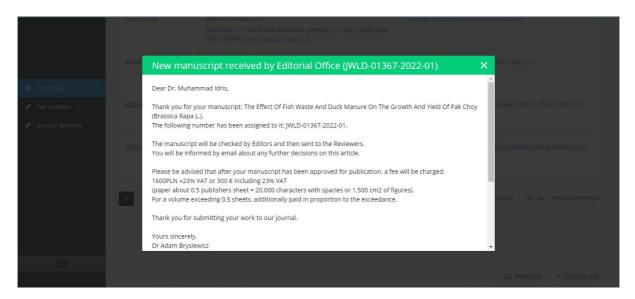
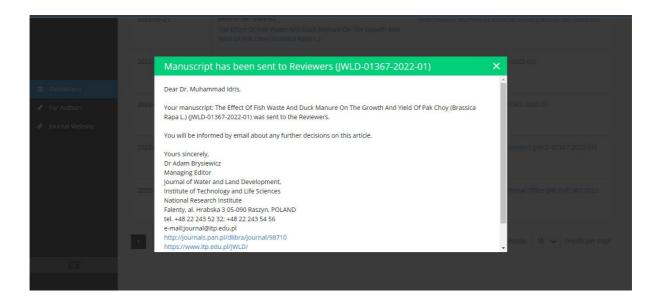
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- 1. Submitted to the journal (1-2022)
- 2. First sent Reviewer
- 3. First revision (23-2-2023)
- 4. Second revision
- 5. Third revision
- 6. Fourth Revision
- 7. Fifth Revision
- 8. Revision Reminder
- 9. Sixth Revision
- 10. Seventh Revision (30 May 2023)
- 11. Eighth Revision (3 July 2023)
- 12. Revision Reminder
- 13. Publishing
- 14. Publish Revision (16 Agustus 2023)
- 15. Acc Publish
- 16. Journal Publish (16 Agustus 2023)

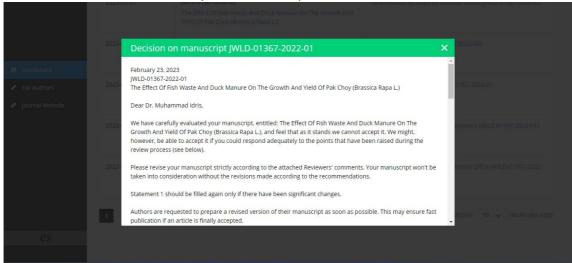
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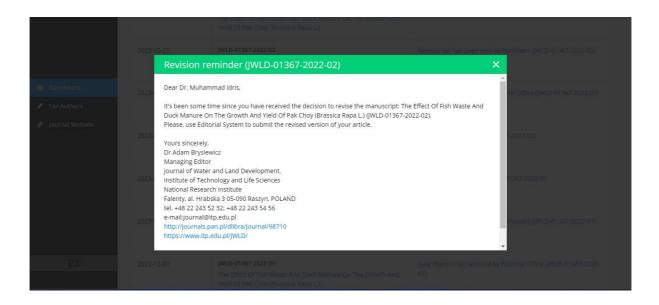
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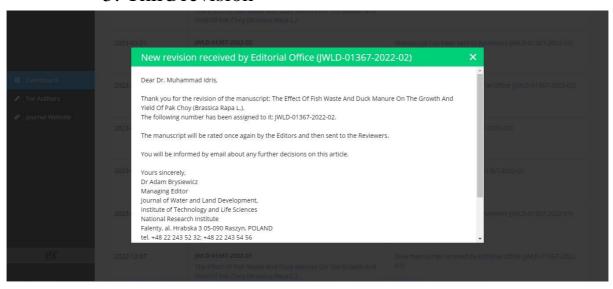
3. First Revision (23-2-2023)



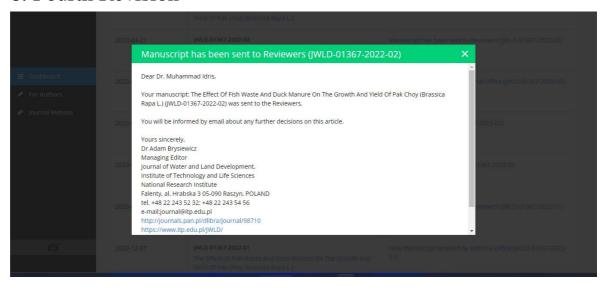
4. Second revision



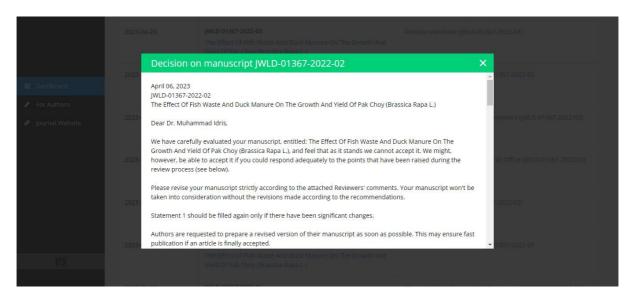
5. Third revision



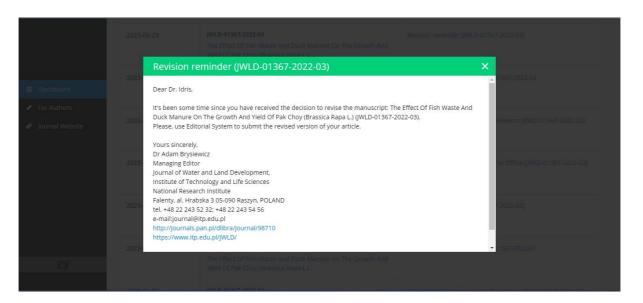
6. Fourth Revision



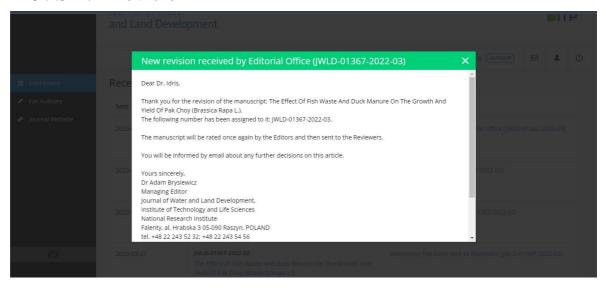
7. Fifth Revision (6-April-2023)



8. Revision Reminder



9. Sixth Revision



Dear Dr. Idris,

Dr Adam Brysiewicz

Your manuscript: The Effect Of Fish Waste And Duck Manure On The Growth And Yield Of Pak Choy (Brassica

Rapa L.) (JWLD-01367-2022-03) was sent to the Reviewers. You will be informed by email about any further decisions on this article.

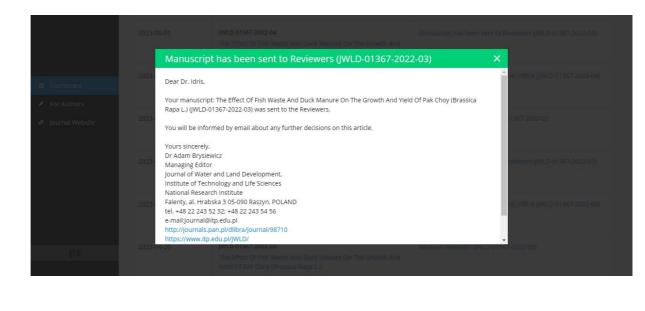
Yours sincerely,

Managing Editor Journal of Water and Land Development,

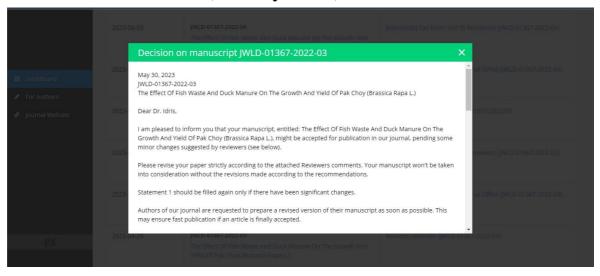
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e-mail:journal@itp.edu.pl http://journals.pan.pl/dlibra/journal/98710 https://www.itp.edu.pl/JWLD/



10. Seventh Revision (30 May 2023)



Journal of Water and Land Development, Institute of Technology and Life Sciences National Research Institute Falenty, al. Hrabska 3 05-090 Raszyn, POLAND tel. +48 22 243 52 32; +48 22 243 54 56

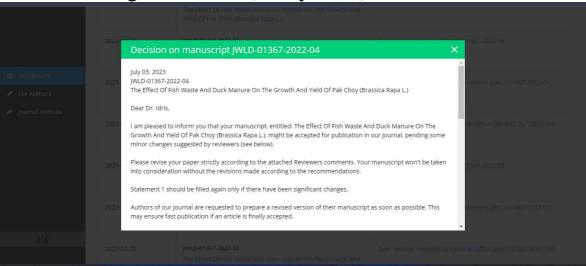
Yours sincerely, Dr Adam Bryslewicz Managing Editor

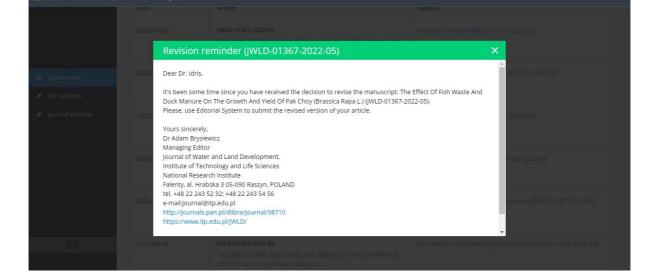
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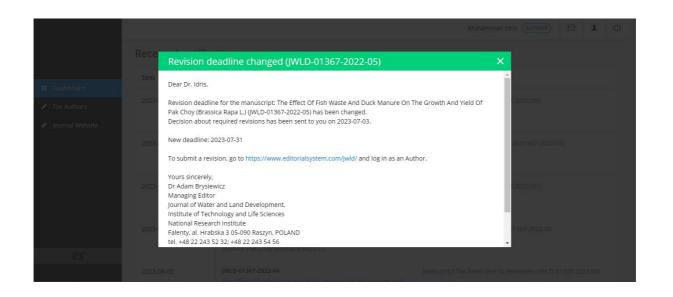
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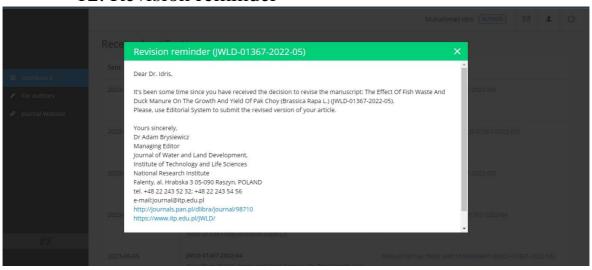
11. Eight Revision (3 July 2023)

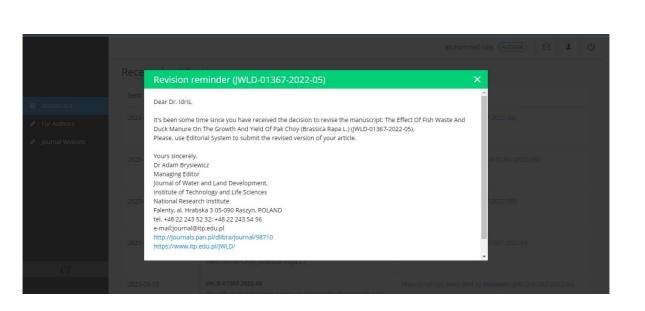






12. Revision reminder





Dear Dr. Idris,

I am pleased to inform you that your manuscript, entitled: The Effect Of Fish Waste And Duck Manure On The Growth And Yield Of Pak Choy (Brassica Rapa L.) (JWLD-01367-2022-05), has been initially accepted for publication

in our journal. Thank you for submitting your work to us.

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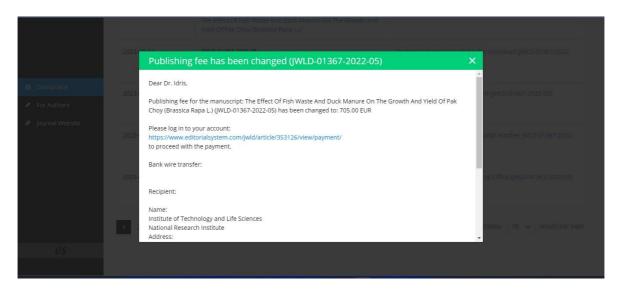
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13. Publishing



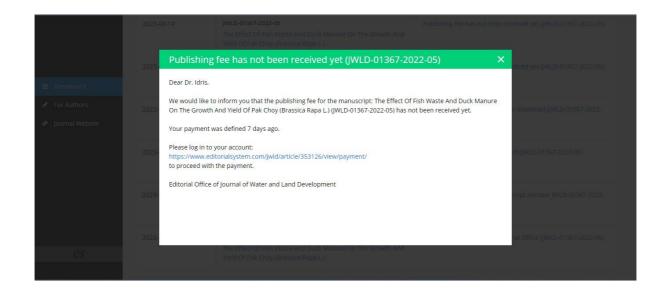
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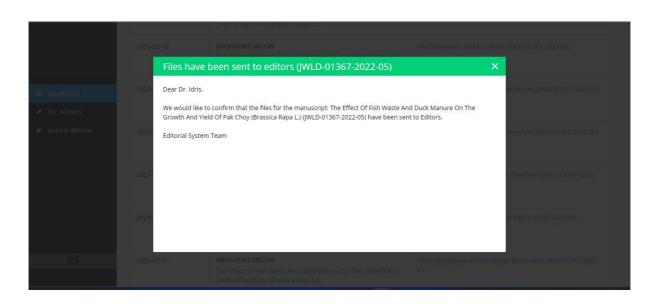
Dear Dr. Idris,

The proforma invoice concerning the publishing of your manuscript The Effect Of Fish Waste And Duck Manure On The Growth And Yield Of Pak Choy (Brassica Rapa L.) (JWLD-01367-2022-05) is available for download here: https://www.editorialsystem.com/dl/pay/33505/b3d13022345673aac4e91f3abf564d2/

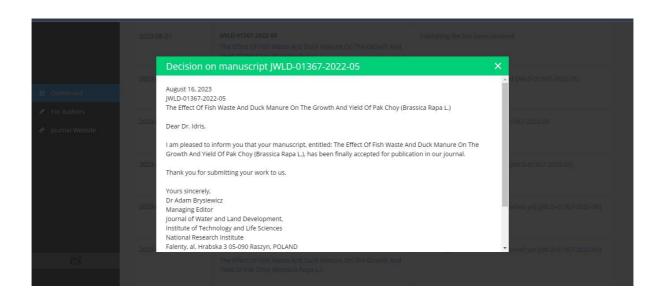
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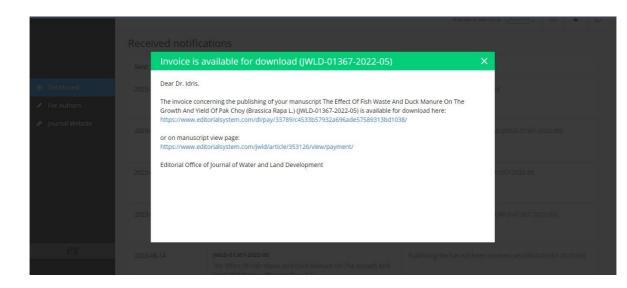
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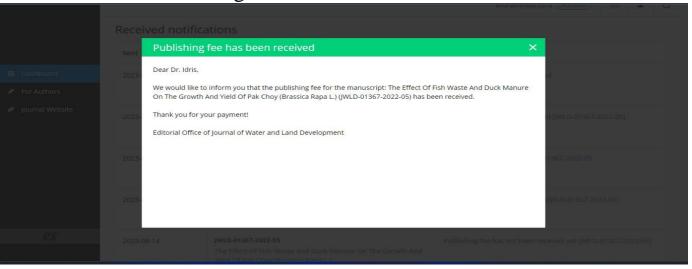


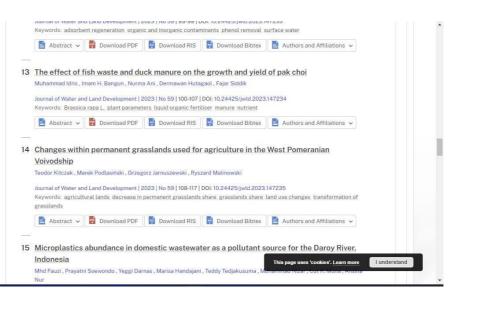
14. Publishing Revision (16-Agustus 2023)





15. Acc Publishing Revision





16. Journal Publish (16 Agustus 2023)



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The effect of fish waste and duck manure on the growth and vield of pak choi

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Abstract: In 2021, pak choi production in Indonesia was 727.47 Mg, marking an increase of 8.2% compared to the 2020 production, which was 667.47 Mg. Therefore, there is a clear need for cultivation improvement, puriscularly through the implementation of organic fertilisers. This study aimed to investigate the impact of liquid organic fertiliser (LOF) derived from fish waste and duck manure on the growth and yield of the pak choi plant (Brassica rang, L. var. Nauli F1). A randomised block design factorial was used with two factors and three replications. The first factor considered was LOF from fish waste, comprising three levels (LOF₀ = control, LOF₁ = 25 cm³ dm⁻³ of water, and LOF₂ = 50 cm³ dm⁻³ of water). The second factor focused on duck manure fertiliser (DMF) and involved four levels (DMF₀ = control, DMF₁ = 3.7 kg·plot⁻¹, DMF₂ = 5.55 kg·plot⁻¹, and DMF₃ = 7.4 kg·plot⁻¹). The results showed that the application of LOF from fish waste positively influenced the growth and yield of talk chos, with the most effective treatment observed in LOF: (25 cm3 dm-5 of water). However, the application of DMF did not yield a significant difference in its effect on the growth and yield of the pak choi plant. The control treatment (DMF,) reported comparable results and the combination of LOF from fish waste and DMF did not show a significant effect, with the most favourable findings observed in the LOF₂DMF₀ treatment (50 cm³-dm⁻³ and control).

Keywords: Brassica rapa L., plant parameters, liquid organic fertiliser, manure, nutrient

INTRODUCTION

Pak choi (Brazzica rana L.) is a vegetable plant that belongs to the Brassicaceae family. The popularity of the plant is primarily attributed to the broader stems and leaves compared to conventional green mustard. Consequently, this particular mustard variant is extensively cultivated and has a fairly bright business prospect for pak choi farmers (Aniani, Santoso and Sumarian, 2022). The plant can be grown in the lowlands and highlands provided enough sunlight is obtained, and good soil aeration with a soil pH of 6.5 - 7 (Sarido and Junia, 2017). In Indonesia, the production of mustard, including pak

choi, amounted to 727.47 Mg in 2021, marking an 8.2% rise from

not be sufficient to cater to the demands of the growing population, which experienced a growth rate of 0.9% in 2021 and 1.12% in 2022 (BPS, no date). Therefore, there is a pressing need to augment pak choi production to ensure an ample vegetable supply for the people of Indonesia. The application of inorganic fertilisers appears to be the quickest remedy but also poses significant challenges such as environmental pollution, ecological harm, and higher production costs (Purba et al., 2020; Keshavarz Mirzamohammadi er ul., 2021). Global climate change has negatively impacted soil organic matter quality. In line with the circular economy, agro-industrial, livestock, and agricultural waste with suitable physicochemical composition can be used for fertiliser production (Ma, Shen, and Liu, 2020). the 2020 figure of 667.47 Mg (BPS, 2021b). This increment may Organic fertilisation technology can also improve farmers'