

Efek Perbedaan Jenis Rumput Laut Sebagai Agen Fitoremediasi Pada Sistem Budidaya Udang Windu (*Penaeus monodon*) Semi Intensif

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Author Order	3 of 3
Accreditation	
Abstract	<p>The primary sources of organic waste in prawn ponds include feed waste from the farming process as well as ongoing metabolic activity, such as the production of urine and faeces. The increase in organic waste has an impact on reducing the water quality, one of the solutions is by implementing phytoremediation with seaweed. This research aimed to analyzed the growth and ability of seaweed <i>Sargassum</i> sp., <i>Gracillaria</i> sp., and <i>Caulerpa</i> sp. as phytoremediation agents to reduce organic matter in waters. This research was conducted for 68 days and used an experimental method with a completely randomized design (CRD) with 4 treatments and 3 replications. The treatment are A <i>Sargassum</i> sp., B <i>Gracillaria</i> sp., C <i>Caulerpa</i> sp. and D control. The results indicated that treatment C tended to decrease total organic matter (TOM) and sediment organic matter by 123.74 mg/l and 1.37%, respectively. The result also revealed that <i>Caulerpa</i> sp. the most effective seaweed to be used as phytoremediation organic materials in tiger shrimp farms compared to the two other seaweed species (i.e., <i>Gracillaria</i> sp. and <i>Sargassum</i> sp.). The growth of seaweed showed that there was a significant difference in specific growth of seaweed. The best specific growth rate value in treatment C was $1.37 \pm 0.1\%$. The results of this study shown that <i>Caulerpa</i> sp. has more effective remediate organic matter and improve seaweed growth than <i>Gracillaria</i> sp. and <i>Sargassum</i> sp.</p>
Publisher Name	Fakultas Kelautan dan Perikanan Universitas Udayana
Publish Date	2024-03-11
Publish Year	2023
Doi	DOI: 10.24843/jmas.2023.v09.i02.p16
Citation	
Source	Journal of Marine and Aquatic Sciences
Source Issue	Vol 9 No 2 (2023)
Source Page	311-316
Url	https://ojs.unud.ac.id/index.php/jmas/article/view/109657/54406
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