

Supplementary Material 3. Experiment 2: pictures & observations

Table S3.1. Photos & observations in Experiment 2, Cycle 4, March- April 2024. Final sampling in week 6

	Cage	Longline	Tube-net
a. Aeng Batu-Batu, Offshore, farmer Lurang			
Visual	Bad	Good	Moderate
b. Aeng Batu-Batu, Nearshore, farmer Sila			
	Bad	Good	Moderate
c. Ujung Baji, Nearshore, farmer Tika			
Visual	Moderate	Good	Moderate
d. Ujung Baji, Offshore, farmer Tayang			
Visual	Bad	Moderate	Moderate

Table S3.1. Continued

	Cage	Longline	Tube-net
a. Aeng Batu-Batu, Offshore, farmer Lurang	Bad Some Epiphytes are covering in front of the cagenet. But the cagenet still have seeds inside. The seeds have small size and have a good colour.	Good On the long line, seaweed growth is very good and large-sized. Although there are some missing points, the empty spaces at those points are covered by the growth of other points	Moderate On the tube net, growth is fairly good, but the seedlings are smaller compared to the longline.
b. Aeng Batu-Batu, Nearshore, farmer Sila	Bad The cage net has a big hole. We assume that caused by fish. The seeds are still inside on the cage net, but the seeds are smaller than the longline and tube net.	Good The seeds grow so well and have a good color, which is the best quality. The seeds also have bigger size	Moderate On the tube net, seaweed grows well, but the seedlings are smaller than the Longline and Cage net.
c. Ujung Baji, Nearshore, farmer Tika	Moderate On the cage net, seaweed grows to a fairly large size, but it does not significantly affect the quantity and weight of the seedlings after weighing	Good For the longline, the seeds grow well, have good color, which is best quality	Moderate On the tube net, seaweed grows well, but the seedlings are smaller than the Longline and Cage net.
d. Ujung Baji, Offshore, farmer Tayang	Bad Epiphytes and hydroids are very massive, attaching and covering the surroundings of the cage net	Moderate For the longline, seeds grow well, with a brownish-yellow colour. However, most of the seedlings fell from the line. Dg Tayang said that a few days earlier, there were strong waves for about 2-3 consecutive days. This is suspected to be the cause of the seaweed, which had grown large, being vulnerable to breaking from the waves.	Moderate Seeds grow well. But the tube net was not fixated on both ends, and then all the tube net got compressed in one end of the line.

Pictures & observations by Irna, JaSuDa team, 2024-04-20

Table S3.2. Photos & observations in Experiment 2, Cycle 5, May- June 2024. Final sampling in week 6

	Cage	Longline	Tube-net
a. Aeng Batu-Batu, Offshore, farmer Lurang			
Visual	Bad	Good	Bad
b. Aeng Batu-Batu, Nearshore, farmer Sila			
Visual	Bad	Good	Bad
c. Ujung Baji, Nearshore, farmer Tika			
Visual	Cage was lost	Moderate	Moderate
d. Ujung Baji, Offshore, farmer Tayang			
Visual	Moderate	Good	Moderate

Table S3.2.Continued

	Cage	Longline	Tube-net
a. Aeng Batu-Batu, Offshore, farmer Lurang	Bad On the cagenet, seedling growth was not good. There was no weight gain until harvest, and the seedlings in the cagenet were also affected by ice-ice disease. Farmers assume that the ice-ice occurs due to hot weather.	Good On the longline, the seaweed grew quite well with a yellowish-brown seedling color. However, the extremely hot weather made the seedling growth less optimal.	Bad On the tube-net, seaweed growth was not good. The net was dirty with moss, and also covered by epiphytes.
b. Aeng Batu-Batu, Nearshore, farmer Sila	Bad On the cagenet, there was no seed that could be harvested. The net had holes in all compartments, causing the seedlings inside to escape. The damage to the net was caused by fish biting the net.	Good On the longline, the seaweed grew quite well with a yellowish-brown seedling color. Similarly to Dg Sila, the weather at the planting site in Dg Lurang was also very hot, making seedling growth less optimal	Bad On the tube-net, seaweed growth was not good, and the seedlings were small
c. Ujung Baji, Nearshore, farmer Tika		Moderate On the longline, the seaweed grew well and reddish-brown seedling color. The seedlings were quite mossy or dirty.	Moderate On the tube-net, seedling growth was quite good with a reddish-brown color. The net was covered with mud and Gracilaria. The Gracilaria and mud covered the net were caused by the lack of floats on the tube-net.
d. Ujung Baji, Offshore, farmer Tayang	Moderate On the cagenet, seedling growth was quite good compared to the other three locations (Dg Sila, Dg Lurang, and Dg Tika). The weight of the cagenet from Dg Tayang location are very big more than another three locations.	Good On the long line, the seaweed grew very well and was of the best quality, and the seedlings were clean.	Moderate On the tube-net, seaweed growth was very good. Have a good quality seed and the size of the seeds are big. The seedling growth on the tube-net at the Dg Tayang location was better compared to the other three locations (Dg Sila, Dg Lurang, and Dg Tika).

Pictures & observations by Irna, JaSuDa team, 2024-06-20

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