



GENIALG

e-Learning course

Sustainable Seaweed Farming Practices

**Module 1 – Seaweed Cultivation and Monitoring
Protocols**

Self-assessment Quiz

©Atlantic Sea Farms



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Module 1 – Seaweed Cultivation & Monitoring Protocols



Self-assessment Quiz



1. What are the three technical variation factors on which cultivating seaweed depends?
2. What are the important parameters of seaweed cultivation?
3. What is the difference between seeding and planting?
4. When would you carry out a total harvest?
5. How can seaweed be used in industry?
6. What are some of the obstacles that need to be overcome in seaweed farming?
7. What type of survey design principle should guide environmental monitoring programs for seaweed farms?
8. How can the effect of seaweed farms as Essential Fish Habitats be monitored and quantified?
9. What techniques would you use to monitor the effect of seaweed farms on biophysical seabed attributes?



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Self-assessment Quiz



Please continue for
the answers!



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Self-assessment Quiz – Answers!



1. What are the three technical variation factors on which cultivating seaweed depends?
 - ✓ Species
 - ✓ Local conditions
 - ✓ Experience



Module 1 – Seaweed Cultivation & Monitoring Protocols



Self-assessment Quiz – Answers!



1. What are the three technical variation factors on which cultivating seaweed depends?
 - ✓ Species
 - ✓ Local conditions
 - ✓ Experience
2. What are the important parameters of seaweed cultivation?
 - ✓ Location choice
 - ✓ Control architecture
 - ✓ Dissolved oxygen
 - ✓ Turbidity



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Self-assessment Quiz – Answers!



3. What is the difference between seeding and planting?
- ✓ Seeding is attaching the right number or density of propagules with the desired characteristics to ropes or nets.
 - ✓ Planting is placing seeded ropes or nets at sea at a given depth in a predetermined spatial arrangement based on an optimised density of plants per area.



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Self-assessment Quiz – Answers!



3. What is the difference between seeding and planting?
 - ✓ Seeding is attaching the right number or density of propagules with the desired characteristics to ropes or nets.
 - ✓ Planting is placing seeded ropes or nets at sea at a given depth in a predetermined spatial arrangement based on an optimised density of plants per area.

4. When would you carry out a total harvest?
 - ✓ At the end of the growing season when maximum growth has been achieved.
 - ✓ To avoid the crop suffering negative effects from seasonal changes.



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Self-assessment Quiz – Answers!



5. How can seaweed be used in industry?

- ✓ In many ways, for example in:
 - ✓ Food
 - ✓ Pharmacy
 - ✓ Nutraceuticals
 - ✓ Bioremediation
 - ✓ Animal feed
 - ✓ Fertiliser
 - ✓ Cosmetics
 - ✓ Biomaterials
- ... to name but a few!



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Self-assessment Quiz – Answers!



6. What are some of the obstacles that need to be overcome in seaweed farming?
- ✓ Global warming resulting in a shortened growing season
 - ✓ Kelp preferring cold waters: less biomass
 - ✓ Epiphytes
 - ✓ Competition
 - ✓ Water turbidity
 - ✓ Poor growth
 - ✓ Animal predation (grazing)



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Self-assessment Quiz – Answers!



6. What are some of the obstacles that need to be overcome in seaweed farming?
- ✓ Global warming resulting in a shortened growing season
 - ✓ Kelp preferring cold waters: less biomass
 - ✓ Epiphytes
 - ✓ Competition
 - ✓ Water turbidity
 - ✓ Poor growth
 - ✓ Animal predation (grazing)
7. What type of survey design principle should guide environmental monitoring programs for seaweed farms?
- ✓ BACI design (Before, After, Control, Impact (or event))



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Self-assessment Quiz – Answers!



8. How can the effect of seaweed farms as Essential Fish Habitats be monitored and quantified?
- ✓ Surface header ropes – Replicated dive video transects, i.e. Fixed distance - 30 m- or timed - 5 minutes replicates;
 - ✓ Surface header ropes and droppers - Remote Go Pros yield satisfactory results;
 - ✓ Seafloor: Baited Remote Underwater Cameras



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Self-assessment Quiz – Answers!



8. How can the effect of seaweed farms as Essential Fish Habitats be monitored and quantified?
- ✓ Surface header ropes – Replicated dive video transects, i.e. Fixed distance - 30 m- or timed - 5 minutes replicates;
 - ✓ Surface header ropes and droppers - Remote Go Pros yield satisfactory results;
 - ✓ Seafloor: Baited Remote Underwater Cameras
9. What techniques would you use to monitor the effect of seaweed farms on biophysical seabed attributes?
- ✓ Grab or core sampling for infaunal communities
 - ✓ Detect change in sediment composition (granulometry), organic matter content





**SELF-ASSESSMENT
OF MODULE 1
COMPLETED**

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