



OYSTER CULTURE CYCLE: WORKSHEET

Answer the following questions for each section of the Oyster Culture Cycle:

Introduction:

1. Would you agree with the reasons given why we should have oyster farming? Explain.
2. Define mariculture and aquaculture.

Hatchery Business:

Stage 1 : _____

1. Using the information presented, what judgment would you make regarding the importance of this stage?
2. What examples would you use to show that temperature is not much of a problem in raising oysters?
3. Predict the outcome if the oysterproducer only farmed the oysters on-bottom as opposed to suspending the oysters in the water.

Stage 2 : _____

1. What are the algal species used at the Grand Isle hatchery?
2. Why do you think growing algae is important in the oyster hatchery business?
3. Describe what algae need for growth.

Stage 3 : _____

1. What is the type of oyster produced at the hatchery?
2. Why do you think the oysters are kept at a temperature of 10° C?
3. Do you think fresh water or seawater is used in the tanks? Explain your answer.

Stage 4 : _____

1. How are oysters encouraged to spawn?
2. Explain the two ways fertilization can be done.
3. Predict the outcome if oysters were not identified as males and females before spawning begins.
4. Why doesn't the hatchery allow all of the ripe oysters to spawn?

Stage 5 : _____

1. After the fertilization of the egg, what is the next stage in an oyster's life cycle?
2. Name the unique part of this stage that is different from the majority of an oyster's life.
3. Describe and name the part of the larvae that allows movement.
4. Write a hypothesis concerning
 - (a) oyster larvae and salinity:
 - (b) larvae and light:
 - (c) larvae and temperature:

Stage 6 : _____

1. Describe how larvae attach to substrate.
2. How can you determine whether the attachment has been successful?
3. What is meant by "metamorphic change?"

Production Business:

A. _____

1. Why do you think a 225-micron screen was used to harvest larvae?
2. What would happen if the paper toweling were to dry out?
3. Explain how an oyster producer would use remote setting.

B. _____

1. What stage is the oyster in for this part of the production business?
2. Why would clients want oysters set on a specific type of substrate?
3. What choice would you have made if you were a client?

C. _____

1. Why do you suppose seed was put into mesh bags?
2. Explain at least two of the listed growing methods.
3. Which method would you choose if you were an oyster farmer? Why?