



Lessons in Mariculture

Lesson 9: North Carolina Business Perspectives on Aquaculture

Objectives:

By the end of this lesson, students will be able to:

1. Describe the general operations of a North Carolina aquaculture business.
2. Identify and explain the major challenges and factors that influence success of the North Carolina aquaculture industry.

Overview:

Hearing the perspectives of people who work in the aquaculture industry is a useful way to gain insight into challenges and factors that influence success. In this lesson, students will focus on a specific N.C. aquaculture venture, exploring what makes it unique. Then they will compare and contrast that venture with other aquaculture businesses in the state.

Career and Technical Education Standards:

- Relevant to Agricultural Education courses

Grade Level: 11-12

Duration: 2 class periods

Vocabulary:

merroir [mehr-warr]: unique flavor profile imparted by different features of the sea, differentiated by salinity levels, types of phytoplankton and other distinct characteristics of the marine environment

Activity:

Students will watch a video on mariculture careers:

Careers in Mariculture (6:20) *North Carolina Sea Grant* <https://www.youtube.com/watch?v=PyOBKBybvPc>

The teacher should then facilitate a class discussion to answer the following questions:

1. What other jobs, apart from being a grower, support the marine aquaculture industry?
2. What are the three primary mariculture species grown in North Carolina?
3. What other species would you like to see grown in the state? Are those other species feasible? Why or why not?
4. What is the role of hatcheries and scientific research in shellfish aquaculture?
5. What are the differences in oyster flavor that Chef Keith Rhodes describes?
6. Are you familiar with the term merroir? What does merroir mean to you?



Next, students will select a specific N.C. aquaculture business and learn about its operations. Students can choose a farm listed in the N.C. Seafood Directory (<http://www.ncagr.gov/markets/seafood/seafooddirect/directory.asp>.) Another option is to select a business they already are familiar with, perhaps through a personal connection (e.g., a business from which their family purchases farmed seafood).

A final option is to select one of the following prerecorded interviews with these three businesses: Oysters Carolina (oysters), Hooper Family Seafood (clams), or Thomas Seafood (softshell crabs). Transcripts and audio files of each interview are available here (under "Materials"): <http://www.go.ncsu.edu/lesson-9-interviews>

Students will conduct online research about their chosen aquaculture business in order to answer the questions in the worksheet at the end of this lesson. During their research, they will explore what species the business grows, production methods used and factors that influence production and profitability.

After an exhaustive internet search, students can proceed to the next step: They should either set up a phone or in-person interview with the manager of the business they selected, or they can listen to an available interview. If a business manager cannot sit for a live interview, advise students to ask if another staff member knowledgeable about business operations is available. The goal is to answer any remaining questions that students could not address during their internet research.

When they are done with their internet research and interviews, students will create a bulleted list of their findings and provide a short presentation to the class.

Finally, as a class, students will list the challenges to managing an aquaculture business and the factors that influence success. Then they will vote on which of the aquaculture businesses that were presented has the most potential for success, and which business seems the most challenging to operate.



North Carolina Business Perspectives on Aquaculture



Student Worksheet Name _____

N.C. Aquaculture Business: _____

1. What aquaculture species do they raise? Are they raising a species that lives in the area naturally?
2. Do they grow the species in open water, on land in ponds or tanks, or another way?
3. What kind of everyday work do they do to keep their business running?
4. What type of equipment and resources did they need to start their business?
5. What were the primary startup costs?
6. How many years did it take to turn a profit?



7. What are a few reasons they might have a less profitable season?

8. Are aquaculture businesses common in the business' area?

9. How did the business founder or business manager (sometimes they are one and the same) get involved in this type of business?

10. Did the business founder or manager know someone who was in the business who helped them get started? Did someone answer their questions and offer advice?

11. What is some advice the business founder or manager might give someone starting this type of aquaculture?

12. Would the business founder or manager start the business again, knowing what they know now?

13. What was one challenge the business founder or manager encountered that they didn't anticipate?