

Aquaculture Nutrition Sample Quiz/Test Questions:

Objective 1: Calculation of Feed Conversion Ratio

1. Define feed conversion ratio.
2. How would you determine the growth of your fish during a summer season?
3. How would you determine how much feed you fed your fish for one year?
4. You've been feeding commercial feeds to your fish, and noticed an FCR of 0.75! Astounded at your fortune, you tell your friend down the road. What are some possible explanations he would give for your fish's great feed conversion?
5. True/False: Knowing the feed conversion ratio of your fish can help you save money on feed costs.
6. True/False: Knowing the FCR of your fish can help you determine when to sell your fish?
7. On a 50 acre fish farm, an ornamental fish farmer expects to produce 1000 pounds of Malawi cichlids per acre. From data he collected in previous years the farmer knows that the feed conversion ratio (FCR) of this fish is 1.75. Approximately how much feed will be needed to be purchased the first year, and what will be the total cost of feed if current prices are \$275/ton.
8. Oops! A heron has been eating fish for weeks from your farm. You estimate that he has killed 25% of your 100,000, 10 g tetras on site! You decide to sell the remaining fish before more losses can occur. Given that the fish have been fed nearly 1 ton of feed and started at 1 g each, what FCR did you achieve during this time?
9. A pond has an estimated standing crop of 10,000 lbs. of fish. A new sampling estimated that total fish weight at 30,000 lbs. Between the two samplings, about 1,000 lbs. of fish were lost. During this time 14 tons of feed were fed. What is the feed conversion ratio?

Objective 2: Students will discuss the differences in larval and adult food.

True/False:

1. Larval fish food can be fed to adult fish.
2. Commercial feeds can be made to provide just as much nutritional benefit for larval fish as adult fish.

Multiple Choice:

1. Which of the following is a good larval fish food?
a. rotifers b. artemia c. minnows d. extruded catfish pellets e. A and B

Short Answer:

1. Some fish are able to use natural foods in fish ponds. Name several types of natural food.
2. As a fish becomes larger, it needs more food. How would you ensure a smooth transition between larval and adult sizes in your growout operation?
3. What would happen to your larval fish if you fed them adult fish food?
4. Predict the outcome of feeding at feed to your fish that only the medium-sized fish can eat.
5. Name three differences between a larval food and an adult food.
6. Compare and contrast the differences between larval and adult fish foods from a nutritional standpoint and from a practical one.

Objective 3: Students will identify the pros and cons of live and commercial feeds.

True/False:

1. Live feeds are just as easy to prepare and distribute as commercial feeds.
2. Live feeds can be stored as easily as commercial fish feeds.
3. Commercial feeds are made to provide nutritionally complete diets for larval fish.
4. Commercial feeds are cheaper than live feeds.

Short Answer:

1. Why would a farmer use a commercial feed instead of a live one.
2. List the pros and cons of live food, of commercial.
3. Compare the pros and cons of live vs. commercial fish foods.

4. What are several advantages to using live food for aquatic animals.

Objective 4 and 5: Students will learn the diet composition of commercial feeds for aquatic animals and explain why the common ingredients in fish feed are important.

True/False:

1. Fish meal is an infinite source of protein for fish feeds.
2. Soybeans are the number one fish meal replacement in fish diets.
3. Fish meal provides essential nutrients such as amino acids and minerals to fish feeds.
4. Nothing can replace fish meal in diets fed to fish.

Short Answer

1. Why would you choose to feed a floating ration (feed) to your fish?
2. Why is it necessary that fish consume fish rapidly?
3. Why is fish meal being replaced in fish diets?
4. List several fish meal substitutes.
5. Describe the composition of commercial fish food.
6. Provide a list of ingredients to a common fish diet.
7. List several sources of protein found in fish diets.
8. Why is a binder necessary for fish diets?
9. What can be done to reduce the cost of fish feeds?

Essay:

1. What is the fate of nutrients in fish feeds?