



GROW
NEXT GEN

Standard Laboratory Operating Procedure #202 Feed Intake Plan for Fish in Aquaculture System

Laboratory: Biotechnology/Environmental
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Location: Science Lab
Last Revision: 7/15/2014

General: The objective of feeding fish is to provide the nutritional requirements for good health, optimum growth, optimum yield, and minimum waste. Nutrients essential to fish are the same as those required by most other animals. These nutrients include water, proteins (amino acids), lipids, carbohydrates, vitamins and minerals.

Safety: Wear proper PPE.

Materials:

Growth Rate and Feeding Rates Chart
Lab Notebook
Blue or Black Ink Pen

Procedure:

1. The feeding rates are only a guide but will help determine if the system is operating correctly. Use the calculations chart below to determine how much feed to give fish in aquaculture system:

Tilapia Growth and Feeding Rates

Month	Start Weight (g)	End Weight (g)	Growth Rate g/day	Feeding Rate (% weight)
1	1	5	0.2	15 - 10
2	5	20	0.5	10 - 7
3	20	50	1.0	7 - 4
4	50	100	1.5	4 - 3.5
5	100	165	2.0	3.5 - 2.5
6	165	250	2.5	2.5 - 1.5
7	250	350	3.0	1.5 - 1.25
8	350	475	4.0	1.25 - 1.0
9	475	625	5.0	1.0

Starting with one gram fry at month one, fingerlings would be starting at month two or three. Growth is approximate and is based on 84°F water temperature.

Resource chart from: <http://rdaquafarms.com/Tips.html>



a. Grams of Daily Feed = _____g of fish in system x % feeding rate

b. If needed, convert lbs to grams (1lb = 454 grams)

Example: 75g of fish in system x .03 = 2.25g of fish feed daily

2. Take the amount of grams of feed to give fish daily and divide by 3 since the fish need to be fed 3 times a day.

Example from above:

2.25g/3 times a day = .75g of feed per feeding time

3. Remember to observe the fish eating to help determine the proper amount of feed.