

COURSE: INTRODUCTION TO AQUACULTURE (FIS 309)

UNITS: 2

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1. Food supply

Definition of food in the aquatic culture environment: Food in the aquatic culture system refers to the organisms which serve as food for cultured fish.

Examples of food: Major are the plankton, made up of 1) Phytoplankton (floating microscopic, unicellular plants). 2) Zooplankton (floating, microscopic unicellular animals). 3) **Others are:** multi-cellular plants like floating and submerged plants and multi-cellular animals like insect larvae, insects and crustaceans.

Supply

This is basically by the introduction of lime and fertilizer into the rearing pond and/tanks. This boosts the growth of the unicellular green plants (green algae) upon which the endemic unicellular animals and other phytophagous feeders feed.

For the culture of a desired food organism, the culture medium should be inoculated with the desired organism.

2. Selection of culture species.

Criteria for selection

1. Ability to accept artificial feed
2. Ability to breed in captivity
3. High growth rate
4. Should be marketable
5. Must be hardy

3. Introduction of exotic species and implications.

Definition of exotic species. They are species that are not indigenous to the local environment.

Some examples of exotic species that were introduced into the Nigerian culture environment are: The Chinese carp, *Cyprinus carpio*, mirror carp, koi carp, Indian carps like Mrigal (*Cirrhinus mrigala*), *Catla catla* and rohu (*Labeo rohita*).

Conditions under which exotic species can be introduced

1. Must be able to occupy a niche in the environment without upsetting the environment.
2. It must be able to coexist favourably with other endemic species.
3. Must be able to reproduce in the new environment
4. Must be able to adapt to the physical and chemical parameters of the new culture system.
5. Must not be a vector to any parasite

6. Must have been quarantined before introduction..