Starting a Freshwater Fish Farm

A fish farm, like any other business, requires research to have a successful start-up. One must consider the skills and knowledge required to operate such a farm; and may require taking a course in fish production. Production of the commodity will require injection of capital for production necessities (equipment, land, labour) and marketing of the goods. The latter will also require you identifying markets for your freshwater fish, both for local and export consumption.

In summary the "must haves" for any successful aquaculture operation, include:

- Capital
- Market plan
- Labour & management
- Species of fish to be cultured
- Land availability and features
- Water availability and quality

Species Considerations

What strain or species will be cultured, and is there a demand for it? Do you have the proper technical support to aid in the management of the species?

Land Considerations

1. Regulations and laws

Are there any? This becomes important in:

- Wet-land areas National Resources conservation Authority (NRCA)
- Natural water bodies WRA
- o Flood Plains Office of Disaster Preparedness and Emergency Management (ODPEM)
- o Rivers and streams Fisheries Division

2. <u>Topography</u>

- Gentle sloping land (1-2%) is ideal. This results in good drainage of ponds.
- o Steeper slopes increases construction cost and soil erosion.
- o Sites that are dead flat are potential flood plains, especially in times of severe weather.

3. Soil characteristics

- Physical features relative amount of sand/silt/clay to determine porosity.
- o Chemical features salinity; metallic contaminants such as copper
- Available Acreage 3.5 ha (8.6 acres) is the economic unit

Water Considerations

- 1. Quantity: In terms of volume, a ½hectare (1.2 acre) pond requires about 7.2 million liters of water (1.6m gal) per crop, with an allowance for seepage and evaporation.
- 2. Flow rate of 2,250 liters per minute (2½ 45 gal. drums) guarantees filling of ponds in one week.
- 3. Quality: Water must be free of pesticides and heavy metals, as these contaminants have the potential to bioaccumulate and bio-magnify along the food chain. Contaminants become more poisonous as they are transferred up the food chain.

Other Factors to Consider

- Condition of access roads if any.
- Proximity to adequate electricity supply.
- Proximity to potential markets.
- Surrounding community from which labour force will be drawn.

Scope for expansion

Scope for expansion
Security
For more information, contact the
Fisheries Division
AQUACULTURE BRANCH
Twickenham Park
Spanish Town
Tel: 984-9343 or 984-9444
Fax: 984-5194
Email: aquabranch@micaf.gov.jm