NOTICE OF PUBLICATION

POND DYNAMICS/AQUACULTURE COLLABORATIVE RESEARCH SUPPORT PROGRAM

RESEARCH REPORTS

SUSTAINABLE AQUACULTURE FOR A SECURE FUTURE

Title: Technology for successful small-scale tilapia culture

Author: Daniel E. Meyer
Panamerican Agriculture School,
Zamorano, Honduras

Date: 15 January 2002 **Publication Number:** CRSP Research Report 02-179

The CRSP will not be distributing this publication. Copies may be obtained by writing to the authors.

Abstract: Tilapia are tropical African fish that adapt well to the artificial conditions of the culture environment. These fish are hardy and resistant to diseases. They gain weight quickly at temperatures between 25 and 30°C and they reproduce on the farm without special management or infrastructure.

Tilapia feed primarily on algae, other small organisms, and organic matter present in pond water and sediments. They quickly learn to consume artificial diets and can adapt to saltwater. Tilapia flesh is firm and white, and has an excellent flavor.

In spite of all the advantages of tilapia, most small-scale fish culture projects established in Central America during the past 30 years have failed These failures are often related to several fundamental errors committed when establishing objectives for rural development projects, in the site selection process for building new ponds, and in the implementation of fish culture projects in rural areas.

In many instances the aim of the extension or development program is to improve the nutritional status of the rural family by providing techniques for culturing fish. Fish are an excellent source of animal protein for humans. Historically, the emphasis on improved family nutrition has not been sufficient motivation to make tilapia culture a part of traditional agriculture production in rural Central America. There has been too little emphasis on establishing fish culture to improve the economic status of rural families in the region.

We often make the mistake of constructing ponds at high elevation or in situations lacking adequate water resources. A warm climate and a year-round supply of adequate water are requirements for successful culture of tilapia.

Continued...

Often farmers are unable to obtain fingerlings to continue culturing tilapia in subsequent cycles following the first harvest. Many extension agents promoting tilapia culture do not have adequate knowledge to advise and assist farmers in this new technology. Most farmers do not have the knowledge and skills to manage the use of basic inputs (fertilizers and feeds) for successful fish culture.

Small-scale tilapia production is not a panacea for rural poverty. Fish culture can provide high quality animal protein to improve the diet of rural families. The sale of fish can also contribute to improving the economic status of rural families in the region.

This abstract was excerpted from the original paper, which was published in D. Meyer (Editor), 6to. Simposio Centroamericano de Acuacultura Proceedings: Tilapia Sessions, 22–24 August 2001. Tegucigalpa, Honduras, pp. 97–106.

CRSP RESEARCH REPORTS are published as occasional papers by the Information Management and Networking Component, Pond Dynamics/Aquaculture Collaborative Research Support Program, Oregon State University, Snell Hall 418, Corvallis, Oregon 97331-1643 USA. The Pond Dynamics/Aquaculture CRSP is supported by the US Agency for International Development under CRSP Grant No.: LAG-G-00-96-90015-00.