
Development of Best Management Practices for Hawaiian Aquaculture - Termination Report

This project was terminated because all objectives were met.

Project Duration

September 1997 – September 2001

Funding Level

Year 1	\$10,000
TOTAL	\$10,000

Participants

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Objectives

1. Conduct a comprehensive literature review of current and proposed Best Management Practices for aquaculture systems in the United States (e.g. trout, channel catfish, salmon).
2. Review BMPs developed for other industries nationwide (beef, poultry, dairy, silviculture) and in Hawaii (sugar, pineapple) to determine how BMPs support and facilitate compliance with effluent discharge regulations.
3. Evaluate documents generated through other Regional Aquaculture Centers concerning effluent discharge and best management practices for aquaculture.
4. Examine international aquaculture best management practices and determine how these may apply to Hawaii aquaculture.

- 5. Interact with USDA Farm Service Agency to outline BMP criteria for aquaculture farmers to follow, allowing them to be eligible for federal crop disaster assistance.

The final result will be the development of a practical manual outlining guidelines, recommendations and defining principles of Best Management Practices for Hawaiian Aquaculture. It is then anticipated that this manual can be used by Hawaii’s aquaculture farmers to comply with permit regulations and increase farm efficiency

Principal Accomplishments.....

Objective 1

A thorough literature search was carried out using the internet and the University of Hawaii Hamilton Library. The CTSA-funded PRAISE (Pacific Region Aquaculture Information Service for Education) project was used to assist in the literature search.

merous other publications that were derived from RAC funded projects were also helpful.

Results at a glance . . .

Manual for *Best Management Practices for Hawaiian Aquaculture* was published and is available through CTSA.

Objective 2

Best management practices from other agriculture industries were reviewed and BMPs that were relevant to aquaculture were incorporated into the publication, Best Management Practices for Hawaiian Aquaculture.

Environmental Code of Conduct for Australian Prawn Farmers; Australian Water Quality Guidelines for Fresh and Marine Waters; Aquaculture and the Environment; Effluent and Solid Waste Management in Pond Aquaculture; Development of Strategies for Sustainable Shrimp Farming in Thailand.

Objective 3

A number of key documents produced through other USDA Regional Aquaculture Centers were especially useful. These publications included: *A White Paper on the Status and Concerns of Aquaculture Effluents in the North Central Region* (NCRAC); *Characterization and Management of Effluents from Aquaculture Ponds in the Southern United States* (SRAC); *Beneficial Utilization of Aquaculture Effluents and Solids* (NCRAC). Nu-

Objective 5

No interaction with USDA Farm Service Agency was carried out.

Objective 6

A thirty-one page manual entitled Best Management Practices for Hawaiian Aquaculture was pub-

Objective 4

A number of recent and relevant publications were reviewed including *Best Management practices for shrimp culture in Latin and Central America*;

lished by CTSA. This manual is available to aquaculture farmers in Hawaii to assist them in compliance with federal and state water quality regulations. Moreover, by following the practices out-

lined in the manual aquaculture producers may be able to increase farm efficiency and increase profitability.

Impacts

It is very difficult to quantify impacts of this project. The final outcome, a publication of best management practices will be made available to aquaculture producers in Hawaii. Although for there to be any positive impacts farmers should follow many

of the recommendations outlined in the manual. By utilizing best management practices producers will be more likely to comply with permit regulations and increase farm productivity and profitability.

Recommended Follow-up Activities

The Best Management Practices manual produced from this activity is, by the very nature of aquaculture in Hawaii, non-specific to species or culture systems. It is recommended that additional docu-

ments be produced that are specific to the wide variety of cultured species and culture systems found in Hawaii (e.g. traditional Hawaiian fishponds, re-circulating systems, Chinese catfish).

Publications in Print, Manuscripts and Papers Presented

Best Management Practices for Hawaiian Aquaculture. Center for Tropical and Subtropical Aquaculture. Publication No. 148.