

PUBLICATIONS, VIDEOS AND COMPUTER SOFTWARE

Reporting Period

March 1, 1995 – November 30, 2018

Funding Level	Year 1.....	\$50,000
	Year 2.....	60,948
	Year 3.....	45,900
	Year 4.....	60,500
	Year 5.....	67,000
	Year 6.....	77,358
	Year 7.....	82,205
	Year 8.....	77,384
	Year 9.....	60,466
	Year 10.....	50,896
	Year 11.....	45,723
	Year 12.....	63,764
	Year 13.....	80,106
	Year 14.....	78,072
	Year 15.....	73,982
	Year 16.....	73,974
	Year 17.....	76,159
	Year 18.....	68,668
	Year 19.....	46,214
	Year 20.....	45,000
	Year 21.....	44,052
	Year 22.....	30,906
	Total.....	\$1,359,277

Participants Texas A&M University System serves as Lead Institution, with Dr. Todd Sink as Project Leader. Participants in this project include authors and co-authors from all states and territories within the Southern Region as shown in the listing of publications.

PROJECT OBJECTIVES

- Objective 1. Review and revise, as necessary, SRAC Extension fact sheets, videos, or computer software.
- Objective 2. Prepare new Extension fact sheets, species profiles, videos, or computer software.
- Objective 3. Prepare Extension materials for regional or national distribution generated as part of SRAC research projects.
- Objective 4. Update the SRAC Publications (<https://srac.tamu.edu/>) and SRAC–Aquaponics Publications websites (<https://srac-aquaponics.tamu.edu/>) with new and revised publications, web presentations, videos, and computer software.

Objective 5. Prepare Final Project Summaries of completed SRAC research projects at such time as all data and conclusions are available and all publications resulting from the project have been published.

ANTICIPATED BENEFITS

The direct benefit from this project to the aquaculture industry is the widespread and ready availability of detailed information on production and marketing of aquacultural products, and production of informational and educational resources to prepare current students and future generations to enter the aquaculture industries. SRAC fact sheets, videos, web presentations, and other educational materials are distributed worldwide to a diverse clientele. All SRAC publications are based on research conducted within the Southern Region or in immediately surrounding areas with immediate potential impact to the industry within the region.

Extension Specialists. When this project was initiated, fewer than half the states had educational materials covering the major aquacultural species in their state. The concept of using the SRAC program to produce timely, high-quality educational materials is based upon the benefits of centralizing the production process while using a region-wide pool of expertise to develop materials. Distribution is then decentralized through the nationwide network of Extension Specialists and County Agents including the National eXtension Initiative. This process assures an efficient publication process that makes use of the best available talent in specific subject areas. The result is widespread availability of high-quality educational materials for scientists, educators, producers, students, and the general public.

Educators. Many high schools, colleges, and universities in the United States and around the world, use SRAC technical fact sheets as reference materials in aquaculture and fisheries courses. Educational institutions use SRAC extension materials in the classroom to make students aware of aquaculture production and associated trades as a possible vocation.

Consumers. Information is readily available for consumers through the consumer information series fact sheets who are seeking background information on aquaculture, the nutritional benefits of seafood, and the nutritional value of aquacultured products.

Producers. Information on the use of therapeutants, pesticides, methods of calculating treatment rates, and possible alternative crops and marketing strategies is in constant demand by aquaculturists. Videos and on-line presentations that demonstrate such techniques are a ready source of “how-to” information.

Potential investors. Detailed information on production and marketing constraints and ways to alleviate or manage those constraints are particularly helpful to people making decisions about entering the aquaculture business. Economic information is used by lending agencies and potential investors, as well as established producers who use the information to help make day-to-day decisions on farm management.

Internet access. Availability of SRAC publications and videos via the Internet makes access faster and easier, facilitates searching for needed information, and reduces costs and storage space requirements for printed documents or video media.

PROGRESS AND PRINCIPAL ACCOMPLISHMENTS

During this current project year, five new fact sheets manuscripts were completed. The new SRAC-aquaponics website was also created and populated with existing and new SRAC aquaponics fact sheets, as well as other SRAC fact sheets relevant to aquaponics. All publications have been distributed electronically throughout the Southern Region and to interested Extension Specialists in other regions. Four fact sheet manuscripts are completed but remain in the final editorial and layout stage. Two fact sheets were dropped from the project year due to author drop-outs and will be reevaluated in coming years with new proposed authors. All other publications and objectives for the project year have been completed. Research funding from universities within the region, as well as funding from private sources, has been used to support the work on which the fact sheets are based.

Work Planned

The next project year is currently in development and specific publications have been established. The SRAC Publications Steering Committee meets annually to develop the following year's project. Subjects and titles identified by the Publications Steering Committee for publications in the next project year are:

New fact sheets:

Denitrification in Recirculation Aquaculture Systems

Risk Management in Aquaculture

Coral Aquaculture

Treatment of Groundwater Prior to Use in Freshwater Aquaculture

Intensively Aerated Ponds for Production of Catfish

Fact sheet revisions/updating:

SRAC 0324: Red Drum: Production of Fingerlings and Stockers

SRAC 0201: Culture of Largemouth Bass Fingerlings

IMPACTS

This is a highly productive project with significant regional, national, and international impact. Fact sheets, web presentations, and videos are accessed and used by clientele in all 50 states on a regular basis. Fact sheets generated within the Southern Region are also widely distributed by RACs and extension personnel in other regions. Fact sheets, web presentations, videos, and other informational materials are accessed daily by people searching for technical information from the SRAC publications website, SRAC-aquaponics website, SRAC YouTube channel, and other various other government, university, and private websites.

During the reporting period from March 1, 1995 through November 30, 2018, the SRAC Publications, Videos, and Computer Software Project has,

- Produced 350 total fact sheets with **244** fact sheets in the current catalog
- Revised 97 total fact sheets
- Produced 20 species profiles
- Produced 7 consumer information series fact sheets
- Produced 32 videos
- Produced 7 web presentations
- Created 7 software programs or web tools
- Created 2 websites
- Created 1 YouTube channel
- Although web based analytics were not initiated until June of 2009, from that time,
 - SRAC fact sheets have been viewed or downloaded more than **3,992,851** times
 - SRAC fact sheets have been viewed or downloaded by more than **918,393** unique users

During the period from December 1, 2017 through November 30, 2018,

- **59,101** unique visitors accessed the SRAC publications or SRAC-aquaponics websites
- SRAC Publications website visitors viewed or downloaded SRAC fact sheets or presentations **249,581** times
- SRAC publications website visitors came from **169** countries/territories
- Because the fact sheets are also accessible through numerous other government, university research, university extension, and private websites and video channels, the total usage and impact is undoubtedly several times greater than reported here
- SRAC videos from several sources were viewed on YouTube **41,455** times
- The AquaPlant website, created with partial SRAC funding, had 233,279 visitors
- AquaPlant visitors accessed 592,196 pages
- AquaPlant website visitors came from 181 countries/territories

Publications and videos produced by SRAC are increasingly used in educating high school and college students about aquaculture. In recent years there has been a rapid expansion of aquaculture curricula in high schools. These programs heavily utilize our publications and videos for educational purposes but usage is impossible to measure because many people access the information from Internet sites. Aquaculture and fisheries courses taught at many colleges and universities also use SRAC technical fact sheets as part of their course reference material.

Another important impact is the education of local, state, and federal regulators about the aquaculture industry. This impact is difficult to measure but feedback from personnel in two states indicates that the fact sheets are recommended reading for all new employees dealing with aquaculture water quality, exotic species, and other permitting duties. This should be a positive influence toward making aquaculturists better understood and the development of more enlightened regulations.

The impact on consumers of aquaculture products is also likely significant, although it has not been quantified. Consumers are primarily interested in a wholesome, safe, and inexpensive product, and according to usage analytics the consumer-oriented fact sheets and videos developed within SRAC have generated more interest than the producer-directed materials. The fact sheets are in demand in both the English and Spanish versions, and as more information becomes available, extension materials on food safety are experiencing increased demand by health conscious consumers.

PUBLICATIONS, MANUSCRIPTS OR PAPERS PRESENTED

Fact Sheets Completed (12/01/17-11/30/18)

Hanson, L.A., W.G. Hemstreet and J.P. Hawke. 2019. SRAC Publication No. 0478, *Motile Aeromonas Septicemia (MAS) in Fish*. 5 pages

Mischke, C.C. 2019. SRAC Publication No. 0469/0471, *Fertilizing Fish Ponds*. 9 pages

Schwarz, M.H., R. Blaylock, M.A. DiMaggio, E. Saillant and E. Henry. 2019. SRAC Publication No. 0703, *Introduction to Marine Copepod Culture for Live Feeds Production*. 5 pages

Ray, A.J. 2019. SRAC Publication No. 2602, *Indoor Marine Shrimp Farming*. 7 pages

RESULTS AT A GLANCE

During this current project year, the PVCS project completed 4 fact sheets. The Southern Regional Aquaculture Center fact sheets, presentations, and videos were utilized worldwide by 59,101 users who viewed or downloaded 249,581 SRAC fact sheets from the SRAC publications and SRAC-aquaponics websites. SRAC website visitors represented 169 countries or territories. SRAC videos from several sources were viewed on YouTube 41,455 times during the reporting period. The AquaPlant website had 233,279 visitors from 181 countries or territories that accessed 592,196 pages. The SRAC Publications, Videos, and Computer Software project outlets have resulted in 333,835 individual contacts during the project calendar year, providing education about aquaculture and technology transfer to producers and the general public. Given that the SRAC fact sheets are also accessible through numerous other government, university research, university extension, and private websites, and the SRAC videos and web presentations are available from many different websites and YouTube Channels, the total usage and impact is undoubtedly several times greater.