Strengthening Regional Aquaculture Businesses through Collaborative Extension Programming

Theme B: Education & Workforce Development: *Producer Education*
Theme C: Marketing
Theme E: Sustainability & Economics

Chairperson: **Kwamena Quagrainie,** Purdue University
Co-Investigator(s): **Amy Shambach**, Purdue University
Matt Parker, University of Maryland Extension
Extension Liaison: **Nicole Wright**, Ohio Sea Grant, The Ohio State University
Industry Liaison: **Phil Shambach,** Tippco Fish, Indiana

Funding Request: $ 92,468
Duration: 2 years (01/01/2024 – 12/31/2025)

Objectives

1. Provide financial training to aquaculture producers emphasizing the importance of monitoring indicators of profitability, net worth, and available cash for economic success.
2. Create easy-to-use pro forma financial statement templates such as enterprise budgets, income statements, balance sheets, cash flow, and amortization schedules for aquaculture producers.
3. Expand producer-facing marketing programming by building on Illinois-Indiana Sea Grant's pre-existing aquaculture marketing webinar series.

Deliverables(s)

i. Two in-person programs, focusing on aquaculture business management, economics and marketing.
ii. Comprehensive financial business planning tools as described in object 2.
iii. One user guide/manual and interactive non-proprietary business management spreadsheets.
iv. A minimum of three marketing webinars covering industry requested topics.

Proposed Budget

Institution	Principal Investigator(s)	Objective(s)	Year 1	Year 2	Total
Purdue University	Kwamena Quagrainie Amy Shambach	1,2,3	$29,975	$27,761	$57,736
The Ohio State University	Nicole Wright	1,2,3	$0	$19,550	$19,550
University of Maryland	Matt Parker	1 & 2	$7,591	$7,591	$15,182
Totals			$37,566	$54,902	$92,468

Project Summary

Economic success of any aquaculture business depends on a farmer's ability to raise fish and monitor financial performance, control cash flow, understand economic indices, and adapt to changing market trends. For example, knowing when to upgrade equipment or expand and when to save can be the difference between business success or failure. Enterprise bottom lines such as net farm income, net worth, cash balance, and amortization schedules are virtually non-existent for many producers in the aquaculture sector. The primary focus of this project is to develop and deliver new opportunities for professional development, financial management tools, one-on-one support and to build on pre-existing marketing-focused programming. This extension project is geared toward providing extension and outreach programming and services to aquaculture businesses in the North Central Regional (NCR) utilizing existing research, input from farmers and the experiences of topical experts who have worked extensively with farmers in the Southern and Eastern regions. The goal of this outreach and extension project is to provide practical instruction and interactive experiences in the subject areas of business, economics, and marketing. Producer training focused on practical business management skill development can lead to stronger aquaculture businesses and stabilization or significant increases in farm revenue.

Justification

U.S. aquaculture businesses are striving to operate successful agricultural businesses to supply high-quality U.S. farm-raised products for both food and recreational markets. However, profit margins tend to be relatively small and the industry faces challenges such as high production costs compared to other suppliers, competition with imports (Quagrainie & Engle, 2002), regulator compliance burdens (Engel et. al., 2023) and increases in input costs which are creating a business climate that makes running a profitable aquaculture business challenging. In the NCR, the aquaculture industry is represented mostly by small- to medium-scale family-run aquaculture businesses is a diverse industry, that tends to be spread out through the region. Collectively, the region's farmers raise more than a dozen species of aquatic animals that are destined for a variety of end uses - food, bait, stocking, and ornamentals (USDA Aquacultre Census, 2018). What this means is, many aquaculture business owners and there families are often responsible for the day to day operation of the farm as well as the management of the farms finances and making critical financial decisions. Although some farm owners and staff are formally trained in business, having earned an undergraduate or graduate degree, few if any, have any formal training in economics, aquaculture business or marketing. In addition, few practical tools such as enterprise bottom lines, net farm income, net worth, available cash balance, and amortization schedules exist for the aquaculture sector.

U.S. based Aquaculture businesses are important contributors to the US economy (NOAA, 2022). Economic success of any aquaculture business relies on three economic pillars - ability to generate and maintain profits, equity, and available cash when needed. Enterprise bottom lines such as net farm income, net worth, available cash balance, and amortization schedules are virtually non-existent for the aquaculture sector. Although available business plan platforms such as AgPlan (https://agplan.umn.edu) cover the fundamentals of business and marketing plans, they do not include support for the standardized calculation of financial bottom lines without adding additional spreadsheets, making them cumbersome and unpopular among aquaculturists. Farm management involves more than just taking care of the biological processes and includes paying close attention to economic and financial measures of the farm business. The availability of such a non-proprietary business management tool is particularly vital for the sustainability of aquaculture enterprises in the wake of macroeconomic shocks such as pandemics or recessions. The ability of potential aquaculture industry entrants to make sound financial decisions is paramount to expanding a sustainable, profitable, domestic aquaculture industry (Kumar et al., 2020). While individual businesses located in the NCR may not have a lot in common, there are several topic areas that extension efforts can address. A regional focused extension and outreach project can work to support and strengthen farmers by providing professional development opportunities, developing interactive non-proprietary business management tools, providing one-on-one economic consultation, and by building on preexisting marketing focused programming (e.g., Illinois-Indiana aquaculture marketing webinar series).

Aquaculture economics experts Drs. Engle and Kumar who work with the aquaculture sector in the southern region of the U.S., have positively impacted catfish farms through a combination of research, producer training, and support services on catfish farm management (Kumar et al., 2020). Dr. Engle's book entitled Aquaculture Businesses: A Practical Guide to Economics and Marketing is one example of a practical resource that is written for aquaculture business owners. Aquaculture Business Specialist and Co-PI, Dr. Parker has done similar work with the shellfish industry in Maryland. He has produced spreadsheets and an online tool (Parker, 2023) that provides projected financial statements for farmers to insert directly into business plans and financing applications. By assembling a team of aquaculture business, economics, marketing, and extension and outreach specialists, the project team hopes to continue these lines of work by creating and delivering new opportunities for aquaculture business owners and staff operating farms in the NCR to get practical professional development training, finance management tools, and one-on-one support to provide farmers with the knowledge and tools to make informed financial decisions.

Related Current and Previous Work

The co-PI (Parker) and consultant (Kumar) with former University of Arkansas at Pine Bluff researcher (Engle) have studied aquaculture economics and business and worked directly with farmers in the southern region and Maryland to create and deliver economic, business and marketing opportunities to aid U.S. catfish and shellfish farmers. The PI (Quagrainie) has extensive experience studying economics and marketing trends in the NCR. Extension liaison (Wright) has over a dozen years experience developing and delivering extension programs to a variety of agricultural audiences.

Statement Regarding Duplication of Research

This proposed project is an extension project. This proposed project is not a duplication of previous research or outreach and extension projects.

Anticipated Benefits

Creation and delivery of extension and outreach programming, activities, extension products and one-on-one support has the potential to significantly impact NCR aquaculture businesses for several reasons. ***First,*** it will provide money management skills to both new and seasoned farmers. ***Second,*** knowledge gained in aquaculture business and financial management has the potential to positively impact all types of NCR businesses regardless of systems used to raise aquatic products, species, or intended end use of aquaculture products. ***Third,*** the development and delivery of spreadsheets and financial tools will provide projected financial statements for aquaculture businesses in the NCR. ***Fourth*****,** collectively, project deliverables will provide farmers with a comprehensive collection of resources and skills to make informed financial decisions that can lead to a stronger and more economically resilient industry. ***Fifth,*** by understanding the importance of constant monitoring of indicators, farmers will increase their knowledge in interpreting the meaning of indices and adopting new business management practices that can lead to stronger aquaculture businesses and stabilization or significant increase in farm revenues.

Objective(s)

This is an Extension and outreach project. Objectives are as follows:

1. Provide financial training to aquaculture producers emphasizing the importance of monitoring indicators of profitability, net worth, and available cash for economic success.

2. Create easy-to-use pro forma financial statement templates such as enterprise budgets, income statements, balance sheets, cash flow, and amortization schedules for aquaculture producers.

3. Expand producer-facing marketing programming by building on Illinois-Indiana Sea Grant's pre-existing Aquaculture Marketing webinar series.

Deliverables(s)

i. Two in-person programs, focusing on aquaculture business management, economics and marketing.
ii. Comprehensive financial business planning tools as described in object 2.
iii. One user guide/manual and interactive non-proprietary business management spreadsheets.
iv. A minimum of three marketing webinars covering industry requested topics.

Procedures

Objective 1: The project team will develop and deliver training on comprehensive financial business concepts and tools to producers, emphasizing the importance of constant monitoring indicators of profitability, net worth, and available cash for economic success. Training will provide opportunities for regional aquaculture business owners and staff to receive in-person instruction and support on how to utilize financial business tools. Tools will be developed specifically for the scale of farmers commonly found throughout the NCR region—small to medium-scale business. The project will involve the provision of hands-on training using spreadsheet templates on the importance and generation of these fundamental financial statements.

Objective 2: The project team will develop and deliver comprehensive financial business planning tools that address key financial statements such as enterprise budget, income statement, balance sheet, cash flow, amortization schedules for medium/long term loans, and conceptualized indicators of liquidity and solvency. These financial planning templates will be non-proprietary and made available in Microsoft Excel® format. Depending on the complexity of spreadsheets, the team will also explore the potential for expanding spreadsheets offerings to include a Google sheets version. These spreadsheet-based tools will enquire about farm details, production parameters, input, and investment costs. These decision-making tools will be designed to be user-friendly with embedded functions that benefit users. Some key financial bottom lines the tools will produce include profits, net farm income, net worth, investment feasibility (payback period, net present value, modified internal rate of return), available cash balance, and loan payoff information, income statements, balance sheets, cash flow budgets, and amortization schedules for loans. A user guide and manual explaining the indices will be provided along with the templates for easy interpretation of the feasibility of aquaculture farming business, providing an overview of how to use each type of analysis, financial statements, and series of economic and financial indicators.

Objective 3: This objective will build on existing Illinois-Indiana Sea Grant's producer-facing aquaculture marketing programming. Topics for webinars will be based on producer feedback. A minimum of three webinars will be produced. All webinars will be recorded, closed captioned, published online (Illinois-Indiana Sea Grants YouTube channel), and added to the "Aquaculture Marketing Series" playlist. Recorded content made available online creates opportunities for farmers to view at their convenience.

Outreach and Evaluation Plan

- Extension and outreach activities will include two in-person hands-on producer training events focused on economics/business management (one in Illinois/Indiana and one in Ohio) and a minimum of 3 virtual marketing webinars. Webinars will be recorded, close captioned, and published online (Illinois-Indiana Sea Grant's YouTube channel) for farmers to view at their convenience. In-person training will be planned in partnership with cooperative extension staff and state aquaculture associations when possible.
- Producer-facing extension and outreach materials include a user guide and manual and interactive non-proprietary business management spreadsheets. The target audience is aquaculture producers raising aquatic organisms on inland farms typical of the NCR for food (human consumption), recreational (bait and stocking), and ornamental markets.
- Extension programming will be promoted using an integrated marketing plan that includes social media posts, mailers, digital flyers, printed flyers, and announcements. Social media accounts associated with project team members (Illinois-Indiana Sea Grant, Ohio Sea Grant, Purdue Forestry and Natural Resources (FNR), etc.) will be used for project-related announcements. Regional partners (Michigan Sea Grant, Wisconsin Sea Grant, Minnesota Sea Grant, etc.) will be tagged to increase reach. Information on training and other project-related communications will also be sent to state associations, and cooperative extension services (CES) and promoted through a network of regional listservs managed by NCRAC, land grant universities, and Sea Grant partners.
- Evaluation plans will be developed for both the in-person economics/business management training and virtual producer-facing programming. For in-person training, participants will be evaluated pre- and post-training sessions to assess the effectiveness of the training. A series of questions using Likert-scale responses will be developed to evaluate several factors, including knowledge gained, the usefulness of training components, and the likelihood of changes to farm management based on knowledge gained. A follow-up survey will be emailed to participants six months after the successful completion of training to help evaluate short-term impacts. Separate sets of evaluation questions will be developed for virtual programming. Participants attending virtual programs will be provided a survey link via a follow-up email along with one reminder after the recording is published online.
- Online outreach will be accomplished by publishing recorded programming content online. Reach will be tracked and analyzed using online data tracking and analytics—numbers of views for videos on Illinois-Indiana Sea Grant's YouTube channels. Google Analytics data (e.g., visits, unique visits, duration) will be requested from regional websites (Great Lakes Aquaculture Collaborative). The reach of producer-facing videos will be reported to NCRAC/USDA/NIFA via project reports.

Logic Model

Situation: Midwest farmers raising both food, recreational and ornamental fish often have not received formal training in economics, business, and marketing or have access to beneficial financial planning tools specific to the aquaculture industry.
Goal: Create and deliver training and tools in the subject areas of business, economics, and money management.
Objective: Provide Midwest farmers with business skills to aid them in making informed financial discussion for their aquaculture businesses.

Inputs	**Outputs**		**Outcomes/Impacts**		
	Activities & Deliverables		**Knowledge Gain**	**Behavior Change**	**Conditions**
People -Project PIs -Consultant -Sea- and Land-Grant extension partners -Cooperative Extension Staff (CES) partners -State Aquaculture Associations -University support staff ***Resources*** -NCRAC funds -University facilities -Team staff time ***Extension*** - Previous projects that can serve as models for creation of new tools -Experience -One on one support	***Project management*** -Collaborative site selection -Collaborative event/training planning -Creation of extension products ***Outreach activities*** -Trainings (2X) ***Participants*** -Aquaculture producers -Project staff -Industry partners -NCRAC -Sea Grant	***Deliverables*** -in-person trainings -financial business planning tools including - user guide -webinars (3 or more)	-Extension team will visit NCR farmers to gain a better understanding about regional aquaculture businesses. -NCR farmers will increase knowledge about financial tracking and planning. -NCR farmers will learn what indices mean and how to utilize them. -NCR farmers will increase knowledge about market trends and marketing tools.	-NCR farmers will implement financial monitoring practices. -NCR farmers will utilize financial planning tools to make informed financial discussions. -NCR residents will utilize spreadsheets to create projected financial statements for business plans and financing application.	-NCR farmers will be aware of the importance of regular financial monitoring. -NCR farmers will understand what financial indices mean and how to use indices to inform financial decisions. -NCR farmers and Extension Staff will increase communication regarding aquaculture business planning, business planning, economics, and marketing. -NCR aquaculture businesses will experience stabilization or significant increases in farm revenue.

Facilities

This project will be housed within Illinois-Indiana Sea Grant at Purdue University. Project staff will have access to office space, administrative and business support, computer equipment, video editing software, and technical support associated with the Department of Agricultural Economics, the Department of Forestry and Natural Resources, and Purdue University. Venues of in-person training will be determined later and will be based on recommendations from project partners and collaborators. Free or low-cost venues will be prioritized.

References

Engle, C.R.; van Senten, J.; Clark, C.; Boldt, N. 2023. Has the Regulatory Compliance Burden Reduced Competitiveness of the U.S. Tilapia Industry? *Fishes*, *8*, 151. https://doi.org/10.3390/fishes8030151

Kumar, Ganesh & Engle, Carole & Van Senten, Jonathan & Hegde, Shraddha. 2020. Economics of U.S. catfish farming practices: Profitability, economies of size, and liquidity. Journal of the World Aquaculture Society. 51. 10.1111/jwas.12717.

National Marine Fisheries Service (2022). Fisheries of the United States, 2020. U.S. Department of Commerce, NOAA Current Fishery Statistics No. 2020. Available at: https://www.fisheries.noaa.gov/national/sustainable-fisheries/fisheries-united-states

Parker. Online Economic Spreadsheet Tool for Oyster Aquaculture. 2018-2023. University of Maryland. Available online: http://shellfishbiz.extension.umd.edu/

Quagrainie, K. K., & Engle, C. R. (2002). Analysis of catfish pricing and market dynamics: The role of imported catfish. *Journal of the World Aquaculture Society*, *33*(4), 389–397. https://doi.org/10.1111/j.1749-7345.2002.tb00018.x

United States Department of Agriculture Census of Agriculture: 2018 Census of Aquaculture. 2018. United States Department of Agriculture National Agricultural Statistics Service. Available online: https://www.nass.usda.gov/Publications/AgCensus/2017/Online_Resources/Aquaculture/index.php

Project Leaders

State	Name/Institution	Area of Specialization
IN	Kwamena Quagrainie/Purdue University	Economics and marekting
IN	Amy Shambach/Purdue University	Outreach and extension
MD	Matt Parker/University of Maryland	Aquaculture business
OH	Nicole Wright/The Ohio State University	Extension, learning and education
MS	Ganesh Kumar Karunakaran/ Mississippi State University	Aquaculture economics

BUDGET: Purdue University – Year 1

ORGANIZATION AND ADDRESS
Purdue University
Sponsored Program Services
2550 Northwestern Ave Suite 1900, West Lafayette, IN 47906

PROJECT DIRECTOR(S)
Kwamena Quagrainie

USDA AWARD NO. Year 1: Objectives 1 - 3

	Calendar	Academic	Summer	Duration Proposed Months: _12_ **Funds Requested by Proposer**	Duration Proposed Months: ____ **Funds Approved by CSREES** (If different)	Non-Federal Proposed Cost-Sharing/ Matching Funds (If required)	Non-federal Cost-Sharing/ Matching Funds Approved by CSREES (If Different)
A. Salaries and Wages (CSREES FUNDED WORK MONTHS) 1. No. of Senior Personnel							
a. ___ (Co)-PD(s)							
b. ___ Senior Associates							
2. No. of Other Personnel (Non-Faculty) a. ___ Research Associates-Postdoctorates . . .							
b. 1 Other Professionals	X			6,966			
c. Paraprofessionals							
d. ___ Graduate Students							
e. Prebaccalaureate Students							
f. Secretarial-Clerical							
g. Technical, Shop and Other							
Total Salaries and Wages →				6,966			
B. Fringe Benefits (If charged as Direct Costs)				2,189			
C. Total Salaries, Wages, and Fringe Benefits (A plus B) →				**9,155**			
D. Nonexpendable Equipment (Attach supporting data. List items and dollar amounts for each item.)							
E. Materials and Supplies				7,820			
F. Travel				1,000			
G. Publication Costs/Page Charges							
H. Computer (ADPE) Costs							
I. Student Assistance/Support (Scholarships/fellowships, stipends/tuition, cost of education, etc. Attach list of items and dollar amounts for each item.)							
J. All Other Direct Costs (In budget narrative, list items and dollar amounts and provide supporting data for each item.)				19,591			
K. Total Direct Costs (C through I) →				**28,411**			
L. F&A/Indirect Costs. (If applicable, specify rate(s) and base(s) for on/off campus activity. Where both are involved, identify itemized costs in on/off campus bases.)							
M. Total Direct and F&A/Indirect Costs (J plus K) →				**37,566**			
N. Other →							
O. Total Amount of This Request →				**37,566**			

P. Carryover -- (If Applicable) . . . . **Federal Funds: $37,566** **Non-Federal funds:** **Total $37,566**

Q. Cost Sharing/Matching (Breakdown of total amounts shown in line O)		
Cash (both Applicant and Third Party) →		
Non-Cash Contributions (both Applicant and Third Party) →		

NAME AND TITLE (Type or print)	**SIGNATURE** (required for revised budget only)	**DATE**
Project Director		
Authorized Organizational Representative		
Signature (for optional use)		

BUDGET: Purdue University – Year 2

ORGANIZATION AND ADDRESS	USDA AWARD NO. Year 2: Objectives 1, 2 & 3			
ORGANIZATION AND ADDRESS Purdue University Sponsored Program Services 2550 Northwestern Ave Suite 1900, West Lafayette, IN 47906 PROJECT DIRECTOR(S) Kwamena Quagrainie	Duration Proposed Months: _12_ **Funds Requested by Proposer**	Duration Proposed Months: ____ **Funds Approved by CSREES** (If different)	Non-Federal Proposed Cost-Sharing/ Matching Funds (If required)	Non-federal Cost-Sharing/ Matching Funds Approved by CSREES (If Different)

	CSREES FUNDED WORK MONTHS: Calendar	Academic	Summer	Funds Requested by Proposer	Funds Approved by CSREES	Non-Federal Proposed	Non-federal Approved
A. Salaries and Wages 1. No. of Senior Personnel							
a. ___ (Co)-PD(s)							
b. ___ Senior Associates							
2. No. of Other Personnel (Non-Faculty) a. ___ Research Associates-Postdoctorates . . . b. 1 Other Professionals	X			4,878			
c. Paraprofessionals							
d. ___ Graduate Students							
e. Prebaccalaureate Students							
f. Secretarial-Clerical							
g. Technical, Shop and Other							
Total Salaries and Wages →				4,878			
B. Fringe Benefits (If charged as Direct Costs)				1,533			
C. Total Salaries, Wages, and Fringe Benefits (A plus B) →				**6,411**			
D. Nonexpendable Equipment (Attach supporting data. List items and dollar amounts for each item.)							
E. Materials and Supplies				1,600			
F. Travel				2,500			
G. Publication Costs/Page Charges				5,250			
H. Computer (ADPE) Costs							
I. Student Assistance/Support (Scholarships/fellowships, stipends/tuition, cost of education, etc. Attach list of items and dollar amounts for each item.)							
J. All Other Direct Costs (In budget narrative, list items and dollar amounts and provide supporting data for each item.)				39,141			
K. Total Direct Costs (C through I) →				**48,491**			
L. F&A/Indirect Costs. (If applicable, specify rate(s) and base(s) for on/off campus activity. Where both are involved, identify itemized costs in on/off campus bases.)							
M. Total Direct and F&A/Indirect Costs (J plus K) →				**54,902**			
N. Other →							
O. Total Amount of This Request →				**54,902**			

P. Carryover -- (If Applicable) . . . . Federal Funds: $54,902 **Non-Federal funds:** **Total $54,902**

Q. Cost Sharing/Matching (Breakdown of total amounts shown in line O)		
Cash (both Applicant and Third Party) →		
Non-Cash Contributions (both Applicant and Third Party) →		

NAME AND TITLE (Type or print)	**SIGNATURE** (required for revised budget only)	**DATE**
Project Director		
Authorized Organizational Representative		
Signature (for optional use)		

BUDGET: Purdue University – Total (Yrs 1 & 2)

ORGANIZATION AND ADDRESS
Purdue University
Sponsored Program Services
2550 Northwestern Ave Suite 1900, West Lafayette, IN 47906

PROJECT DIRECTOR(S)
Kwamena Quagrainie

USDA AWARD NO. Year 1 & 2: Objectives 1 - 3

Item	CSREES FUNDED WORK MONTHS: Calendar	Academic	Summer	Duration Proposed Months: 24 **Funds Requested by Proposer**	Duration Proposed Months: ____ **Funds Approved by CSREES** (If different)	Non-Federal Proposed Cost-Sharing/ Matching Funds (If required)	Non-federal Cost-Sharing/ Matching Funds Approved by CSREES (If Different)
A. Salaries and Wages 1. No. of Senior Personnel							
a. ___ (Co)-PD(s)							
b. ___ Senior Associates							
2. No. of Other Personnel (Non-Faculty) a. ___ Research Associates-Postdoctorates . . .							
b. 1 Other Professionals	X			11,844			
c. Paraprofessionals							
d. ___ Graduate Students							
e. Prebaccalaureate Students							
f. Secretarial-Clerical							
g. Technical, Shop and Other							
Total Salaries and Wages ....→				11,844			
B. Fringe Benefits (If charged as Direct Costs)				3,722			
C. Total Salaries, Wages, and Fringe Benefits (A plus B) →				**15,566**			
D. Nonexpendable Equipment (Attach supporting data. List items and dollar amounts for each item.)							
E. Materials and Supplies				9,420			
F. Travel				3,500			
G. Publication Costs/Page Charges				5,250			
H. Computer (ADPE) Costs							
I. Student Assistance/Support (Scholarships/fellowships, stipends/tuition, cost of education, etc. Attach list of items and dollar amounts for each item.)							
J. All Other Direct Costs (In budget narrative, list items and dollar amounts and provide supporting data for each item.)				58,732			
K. ....Total Direct Costs (C through I) →				**76,902**			
L. F&A/Indirect Costs. (If applicable, specify rate(s) and base(s) for on/off campus activity. Where both are involved, identify itemized costs in on/off campus bases.)							
M. .... Total Direct and F&A/Indirect Costs (J plus K) . →				**92,468**			
N. ....Other →							
O. ....Total Amount of This Request →				**92,468**			

P. Carryover -- (If Applicable) . . . . **Federal Funds: $92,468** **Non-Federal funds:** **Total $92,468**

Q. Cost Sharing/Matching (Breakdown of total amounts shown in line O)		
Cash (both Applicant and Third Party) ....→		
Non-Cash Contributions (both Applicant and Third Party) →		

NAME AND TITLE (Type or print)	**SIGNATURE** (required for revised budget only)	**DATE**
Project Director		
Authorized Organizational Representative		
Signature (for optional use)		

Purdue University
(Kwamena Quagrainie & Amy Shambach)

In accordance with 2 CFR 200, Uniform Administrative Requirements, Cost Principles, And Audit Requirements for Federal Awards, Purdue University tracks and reports its professional personnel on a percent of effort and not on an hourly basis. Salaries are adjusted by standard University inflation rates each fiscal year (July 1): 3% for faculty, 2.5% for professional/technical assistants, and 2% for post docs, graduate/undergraduate students and service staff. Purdue University defines the term "year" as the university fiscal year (July-June) for purposes of the NSF Limitation on salary compensation for senior personnel.

Personnel:

Salaries and Wages

<u>Year 1: $6,966</u>
Funds are requested to support Illinois-Indiana Sea Grant Aquaculture Marketing Outreach Associate, Amy Shambach roughly for 2.06PM at $6,966 salary. Amy will be responsible for coordinating the financial training to aquaculture producers; assist in creating easy-to-use pro forma financial statement templates; and conducting producer-facing marketing programming and aquaculture marketing webinar series as described in Objective 1,2,3. Amy will work under the supervision of Dr. Quagrainie.

Fringe Benefits: $2,189 - Fringe benefits are budgeted in accordance with university policy as follows: Research Associate (TBD) 31.43% = $2,189.

<u>Year 2: $4,878</u>
Funds are requested to support Amy Shambach for roughly 1.41 PM at $4,878 salary. Amy will be responsible for developing and delivering the regional aquaculture extension program and will contribute to outreach material development as described in Objective 1,2,3. Year two will be spent putting the final touches on project deliverables and planning and organizing training. Amy will work under the supervision of Dr. Quagrainie.

Fringe Benefits: $1,533 - Fringe benefits are budgeted in accordance with university policy as follows: Research Associate 31.43%

Materials and Supplies

Year 1: We request $7,820 to cover materials and supplies needed to develop regional extension programming and products, including $50 to cover the partial lease of a computer and computer related accessories and $7,500 for rough 60 copies of Carole Engle's book on Businesses Management for training participants (~$125/unit) and an estimate of $270 for 180 minutes of video transcription (at $1.50/minute).

Year 2: We request $1,500 to cover the cost for one of the two projects in-person trainings which includes $350 for light refreshments ($7/per person), $900 for lunch ($18.00/person) and $250 miscellaneous workshop related expenses; $100 to cover materials and supplies needed to run a regional extension program, including $20 to cover the partial lease of a computer and $80 for projected- related printable costs and supplies.

Travel (domestic)

Year 1: We request $1,000 for 1 multi-day regional trip to visit farms pre training. Estimated cost include lodging, car rental, fuel, and per diem.

Year 2: We request $2,500 in travel to cover expenses for 2 multi-day trip. Estimated cost includes lodging (2 nights/trip), and per diem (3 days/trip).

All Other Direct Costs

Publication Costs
Year 1 $0

Year 2: $5,250 to cover layout and design fees for the manual.

Other Direct Costs
Year 1: We request $12,000 for outside consultant cost for program development and related travel.

Year 2: We request $12,000 for outside consultant cost for program and delivery including related travel costs.

Subcontracts:

Ohio State University (OSU)
Year 1: $0.00

Year 2: ($19,550)
OSU will be assisting in delivering training on comprehensive financial business concepts and tools to producers, as well as coordinating trainings programs for regional aquaculture business owners and staff to receive in-person instruction and support on how to utilize financial business tools.

University of Maryland (UM)
Year 1: $7,591
UM PI- Parker will work with other project team members to adapt previously developed aquaculture business planning presentations and tools for use in the NCRAC region. PI- Parker will also travel to the NCRAC region to provide an in-person workshop on aquaculture business planning topics.

Year 2: $7,591
UM PI- Parker will work with other project team members to develop industry tools. PI parker will also travel to the NCRAC region to provide an in-person workshop on aquaculture business planning topics.

BUDGET: Ohio State University – Year 1

ORGANIZATION AND ADDRESS The Ohio State University, Mount Hall 1050 Carmack Road Columbus, OH 43210				**USDA AWARD NO.** Year 1			
PROJECT DIRECTOR(S) Nicole Wright				Duration Proposed Months: _12_ **Funds Requested by Proposer**	Duration Proposed Months: ____ **Funds Approved by CSREES** (If different)	Non-Federal Proposed Cost-Sharing/ Matching Funds (If required)	Non-federal Cost-Sharing/ Matching Funds Approved by CSREES (If Different)
A. Salaries and Wages 1. No. of Senior Personnel	**CSREES FUNDED WORK MONTHS**						
	Calendar	Academic	Summer				
a. _1_ (Co)-PD(s)							
b. ___ Senior Associates							
2. No. of Other Personnel (Non-Faculty) a. ___ Research Associates-Postdoctorates . . . b. Other Professionals							
c. Paraprofessionals							
d. Graduate Students							
e. Prebaccalaureate Students							
f. Secretarial-Clerical							
g. Technical, Shop and Other							
Total Salaries and Wages ....→							
B. Fringe Benefits (If charged as Direct Costs)							
C.Total Salaries, Wages, and Fringe Benefits (A plus B) →							
D. Nonexpendable Equipment (Attach supporting data. List items and dollar amounts for each item.)							
E. Materials and Supplies							
F. Travel							
G. Publication Costs/Page Charges							
H. Computer (ADPE) Costs							
I. Student Assistance/Support (Scholarships/fellowships, stipends/tuition, cost of education, etc. Attach list of items and dollar amounts for each item.)							
J. All Other Direct Costs (In budget narrative, list items and dollar amounts and provide supporting data for each item.)							
K.................................Total Direct Costs (C through I) →							
L. F&A/Indirect Costs. (If applicable, specify rate(s) and base(s) for on/off campus activity. Where both are involved, identify itemized costs in on/off campus bases.)							
M......... Total Direct and F&A/Indirect Costs (J plus K) . →							
N...Other →							
O......................................Total Amount of This Request →							
P. Carryover -- (If Applicable) . . . . **Federal Funds:** **Non-Federal funds: $** **Total**							
Q. Cost Sharing/Matching (Breakdown of total amounts shown in line O) Cash (both Applicant and Third Party) ....→ Non-Cash Contributions (both Applicant and Third Party) →							

NAME AND TITLE (Type or print)	**SIGNATURE** (required for revised budget only)	**DATE**
Project Director		
Authorized Organizational Representative		
Signature (for optional use)		

BUDGET: Ohio State University – Year 2

ORGANIZATION AND ADDRESS The Ohio State University, Mount Hall 1050 Carmack Road Columbus, OH 43210 PROJECT DIRECTOR(S) Nicole Wright				**USDA AWARD NO.** Year 2: Objective 1- 3			
				Duration Proposed Months: _12_ **Funds Requested by Proposer**	Duration Proposed Months: ____ **Funds Approved by CSREES** (If different)	Non-Federal Proposed Cost-Sharing/ Matching Funds (If required)	Non-federal Cost-Sharing/ Matching Funds Approved by CSREES (If Different)
A. Salaries and Wages	**CSREES FUNDED WORK MONTHS**						
1. No. of Senior Personnel	Calendar	Academic	Summer				
a. _1_ (Co)-PD(s)		X		12,500			
b. ___ Senior Associates							
2. No. of Other Personnel (Non-Faculty) a. ___ Research Associates-Postdoctorates . . . b. Other Professionals							
c. Paraprofessionals							
d. Graduate Students							
e. Prebaccalaureate Students							
f. Secretarial-Clerical							
g. Technical, Shop and Other							
Total Salaries and Wages ....→				12,500			
B. Fringe Benefits (If charged as Direct Costs)				4,450			
C. Total Salaries, Wages, and Fringe Benefits (A plus B) →				**16,950**			
D. Nonexpendable Equipment (Attach supporting data. List items and dollar amounts for each item.)							
E. Materials and Supplies				100			
F. Travel				1,000			
G. Publication Costs/Page Charges							
H. Computer (ADPE) Costs							
I. Student Assistance/Support (Scholarships/fellowships, stipends/tuition, cost of education, etc. Attach list of items and dollar amounts for each item.)							
J. All Other Direct Costs (In budget narrative, list items and dollar amounts and provide supporting data for each item.)				1,500			
K. .... Total Direct Costs (C through I) →				**2,600**			
L. F&A/Indirect Costs. (If applicable, specify rate(s) and base(s) for on/off campus activity. Where both are involved, identify itemized costs in on/off campus bases.)				0.00			
M. .... Total Direct and F&A/Indirect Costs (J plus K) . →				**19,550**			
N. .... Other →							
O. .... Total Amount of This Request →				**19,550**			
P. Carryover -- (If Applicable) . . . . **Federal Funds: $19,550** **Non-Federal funds: $** **Total $19,550**							
Q. Cost Sharing/Matching (Breakdown of total amounts shown in line O) Cash (both Applicant and Third Party) ....→ Non-Cash Contributions (both Applicant and Third Party) →							

NAME AND TITLE (Type or print)	**SIGNATURE** (required for revised budget only)	**DATE**
Project Director		
Authorized Organizational Representative		
Signature (for optional use)		

BUDGET: Ohio State University – Total (Yrs 1 & 2)

ORGANIZATION AND ADDRESS The Ohio State University, Mount Hall 1050 Carmack Road Columbus, OH 43210				**USDA AWARD NO.** Year 1 & 2: Objectives 1 - 2			
PROJECT DIRECTOR(S) Nicole Wright				Duration Proposed Months: _24_ **Funds Requested by Proposer**	Duration Proposed Months: ____ **Funds Approved by CSREES** (If different)	Non-Federal Proposed Cost-Sharing/ Matching Funds (If required)	Non-federal Cost-Sharing/ Matching Funds Approved by CSREES (If Different)
A. Salaries and Wages	**CSREES FUNDED WORK MONTHS**						
1. No. of Senior Personnel	Calendar	Academic	Summer				
a. _1_ (Co)-PD(s)		X		12,500			
b. ___ Senior Associates							
2. No. of Other Personnel (Non-Faculty) a. ___ Research Associates-Postdoctorates . . . b. Other Professionals							
c. Paraprofessionals							
d. Graduate Students							
e. Prebaccalaureate Students							
f. Secretarial-Clerical							
g. Technical, Shop and Other							
Total Salaries and Wages →				12,500			
B. Fringe Benefits (If charged as Direct Costs)				4,450			
C. Total Salaries, Wages, and Fringe Benefits (A plus B) →				**16,950**			
D. Nonexpendable Equipment (Attach supporting data. List items and dollar amounts for each item.)							
E. Materials and Supplies				100			
F. Travel				1,000			
G. Publication Costs/Page Charges							
H. Computer (ADPE) Costs							
I. Student Assistance/Support (Scholarships/fellowships, stipends/tuition, cost of education, etc. Attach list of items and dollar amounts for each item.)							
J. All Other Direct Costs (In budget narrative, list items and dollar amounts and provide supporting data for each item.)				1,500			
K. Total Direct Costs (C through I) →				**2,600**			
L. F&A/Indirect Costs. (If applicable, specify rate(s) and base(s) for on/off campus activity. Where both are involved, identify itemized costs in on/off campus bases.)				0.00			
M. Total Direct and F&A/Indirect Costs (J plus K) →				**19,550**			
N. Other →							
O. Total Amount of This Request →				**19,550**			
P. Carryover -- (If Applicable) . . . . **Federal Funds: 19,550**				**Non-Federal funds: $**		**Total $19,550**	
Q. Cost Sharing/Matching (Breakdown of total amounts shown in line O) Cash (both Applicant and Third Party) ....→							
Non-Cash Contributions (both Applicant and Third Party) →							

NAME AND TITLE (Type or print)	**SIGNATURE** (required for revised budget only)	**DATE**
Project Director		
Authorized Organizational Representative		
Signature (for optional use)		

The Ohio State University
(Nicole Wright)

Yr1 total request: $0

Yr2 total request: $19,550
A. Salaries and Wages: $16,950
Year 1: $0

Year 2: Funds are requested to support 2.5 months of salary ($12,500) and fringe benefits ($4,450) for Ohio Sea Grant Aquaculture Extension Specialist Nicole Wright. Nicole will be responsible for reviewing manual and spreadsheets, contributing feedback for layout and design; training planning and event promotion, and contributing to evaluation development and distribution as described in Objectives 1, 2. Fringe benefits calculated at the rate of 35.6% for A&P staff in accordance with University policy.

B. Nonexpendable Equipment
Year 1: 0
Year 2: 0

C. Materials and Supplies: $100
Year 1: $0

Year 2: We request $100 to cover materials, supplies, and printing needed for in-person training and extension program.

D. Travel (domestic): $1,000
Year 1: $0

Year 2: We request $1,000 in travel to cover expenses for 2 multi-day trip. Estimated cost includes lodging (2 nights/trip), mileage (approx. 1000 miles reimbursed at federal rate), and per diem (3 days/trip).

E. All Other Direct Costs: $1,500
Year 1: $0
Year 2: We request $1,250 to include $350 for light refreshments ($7/per person), $900 for lunch ($18.00/person) and $250 miscellaneous workshop related expenses.

BUDGET: University of Maryland – Year 1

				Duration Proposed Months: _12_ Funds Requested by Proposer	Duration Proposed Months: ____ Funds Approved by CSREES (If different)	Non-Federal Proposed Cost-Sharing/ Matching Funds (If required)	Non-federal Cost-Sharing/ Matching Funds Approved by CSREES (If Different)
ORGANIZATION AND ADDRESS University of Maryland, College Park Office of Research Administration 7809 Regents Drive, College Park, MD 20742				**USDA AWARD NO.** Year 1 Onjectives 1 & 2			
PROJECT DIRECTOR(S) Matt Parker							
A. Salaries and Wages	**CSREES FUNDED WORK MONTHS**						
1. No. of Senior Personnel	Calendar	Academic	Summer				
a. _1_ (Co)-PD(s)				3,895			
b. ___ Senior Associates							
2. No. of Other Personnel (Non-Faculty) a. ___ Research Associates-Postdoctorates . . .							
b. Other Professionals							
c. Paraprofessionals							
d. Graduate Students							
e. Prebaccalaureate Students							
f. Secretarial-Clerical							
g. Technical, Shop and Other							
Total Salaries and Wages ....→				3,895			
B. Fringe Benefits (If charged as Direct Costs)				1,196			
C. Total Salaries, Wages, and Fringe Benefits (A plus B) →				**5,091**			
D. Nonexpendable Equipment (Attach supporting data. List items and dollar amounts for each item.)							
E. Materials and Supplies							
F. Travel				2,500			
G. Publication Costs/Page Charges							
H. Computer (ADPE) Costs							
I. Student Assistance/Support (Scholarships/fellowships, stipends/tuition, cost of education, etc. Attach list of items and dollar amounts for each item.)							
J. All Other Direct Costs (In budget narrative, list items and dollar amounts and provide supporting data for each item.)							
K....................................**Total Direct Costs (C through I)** →							
L. F&A/Indirect Costs. (If applicable, specify rate(s) and base(s) for on/off campus activity. Where both are involved, identify itemized costs in on/off campus bases.)							
M. .... **Total Direct and F&A/Indirect Costs** (J plus K) . →				**7,591**			
N....**Other** →							
O.......................................**Total Amount of This Request** →				**7,591**			

P. Carryover -- (If Applicable) . . . . **Federal Funds:$7,591** **Non-Federal funds:** **Total $7,591**

Q. Cost Sharing/Matching (Breakdown of total amounts shown in line O)		
Cash (both Applicant and Third Party) ....→		
Non-Cash Contributions (both Applicant and Third Party) →		

NAME AND TITLE (Type or print)	**SIGNATURE** (required for revised budget only)	**DATE**
Project Director		
Authorized Organizational Representative		
Signature (for optional use)		

BUDGET: University of Maryland – Year 2

ORGANIZATION AND ADDRESS	USDA AWARD NO. Year 1 Onjectives 1 & 2			
University of Maryland, College Park Office of Research Administration 7809 Regents Drive, College Park, MD 20742 PROJECT DIRECTOR(S) Matt Parker	Duration Proposed Months: _12_ **Funds Requested by Proposer**	Duration Proposed Months: ____ **Funds Approved by CSREES** (If different)	Non-Federal Proposed Cost-Sharing/ Matching Funds (If required)	Non-federal Cost-Sharing/ Matching Funds Approved by CSREES (If Different)

	CSREES FUNDED WORK MONTHS: Calendar	Academic	Summer	Funds Requested by Proposer	Funds Approved by CSREES	Non-Federal Proposed Cost-Sharing	Non-federal Cost-Sharing Approved
A. Salaries and Wages 1. No. of Senior Personnel							
a. _1_ (Co)-PD(s)				3,895			
b. ___ Senior Associates							
2. No. of Other Personnel (Non-Faculty) a. ___ Research Associates-Postdoctorates . . .							
b. Other Professionals							
c. Paraprofessionals							
d. Graduate Students							
e. Prebaccalaureate Students							
f. Secretarial-Clerical							
g. Technical, Shop and Other							
Total Salaries and Wages →				3,895			
B. Fringe Benefits (If charged as Direct Costs)				1,196			
C. Total Salaries, Wages, and Fringe Benefits (A plus B) →				**5,091**			
D. Nonexpendable Equipment (Attach supporting data. List items and dollar amounts for each item.)							
E. Materials and Supplies							
F. Travel				2,500			
G. Publication Costs/Page Charges							
H. Computer (ADPE) Costs							
I. Student Assistance/Support (Scholarships/fellowships, stipends/tuition, cost of education, etc. Attach list of items and dollar amounts for each item.)							
J. All Other Direct Costs (In budget narrative, list items and dollar amounts and provide supporting data for each item.)							
K. Total Direct Costs (C through I) →							
L. F&A/Indirect Costs. (If applicable, specify rate(s) and base(s) for on/off campus activity. Where both are involved, identify itemized costs in on/off campus bases.)							
M. Total Direct and F&A/Indirect Costs (J plus K) →				**7,591**			
N. Other →							
O. Total Amount of This Request →				**7,591**			

P. Carryover -- (If Applicable) . . . . Federal Funds:$7,591 **Non-Federal funds:** **Total $7,591**

Q. Cost Sharing/Matching (Breakdown of total amounts shown in line O)		
Cash (both Applicant and Third Party) →		
Non-Cash Contributions (both Applicant and Third Party) →		

NAME AND TITLE (Type or print)	**SIGNATURE** (required for revised budget only)	**DATE**
Project Director		
Authorized Organizational Representative		
Signature (for optional use)		

BUDGET: University of Maryland – Total (Yrs 1 & 2)

ORGANIZATION AND ADDRESS University of Maryland, College Park Office of Research Administration 7809 Regents Drive, College Park, MD 20742 PROJECT DIRECTOR(S) Matt Parker				**USDA AWARD NO.** Year 1 Onjectives 1 & 2 Duration Proposed Months: _12_ **Funds Requested by Proposer**	Duration Proposed Months: ____ **Funds Approved by CSREES** (If different)	Non-Federal Proposed Cost-Sharing/ Matching Funds (If required)	Non-federal Cost-Sharing/ Matching Funds Approved by CSREES (If Different)
A. Salaries and Wages	**CSREES FUNDED WORK MONTHS**						
1. No. of Senior Personnel	Calendar	Academic	Summer				
a. _1_ (Co)-PD(s)				7,790			
b. ___ Senior Associates							
2. No. of Other Personnel (Non-Faculty) a. ___ Research Associates-Postdoctorates . . . b. Other Professionals							
c. Paraprofessionals							
d. Graduate Students							
e. Prebaccalaureate Students							
f. Secretarial-Clerical							
g. Technical, Shop and Other							
Total Salaries and Wages →				7,790			
B. Fringe Benefits (If charged as Direct Costs)				2,392			
C. Total Salaries, Wages, and Fringe Benefits (A plus B) →				**10,182**			
D. Nonexpendable Equipment (Attach supporting data. List items and dollar amounts for each item.)							
E. Materials and Supplies							
F. Travel				5,000			
G. Publication Costs/Page Charges							
H. Computer (ADPE) Costs							
I. Student Assistance/Support (Scholarships/fellowships, stipends/tuition, cost of education, etc. Attach list of items and dollar amounts for each item.)							
J. All Other Direct Costs (In budget narrative, list items and dollar amounts and provide supporting data for each item.)							
K. Total Direct Costs (C through I) →							
L. F&A/Indirect Costs. (If applicable, specify rate(s) and base(s) for on/off campus activity. Where both are involved, identify itemized costs in on/off campus bases.)							
M. Total Direct and F&A/Indirect Costs (J plus K) →				**15,182**			
N. Other →							
O. Total Amount of This Request →				**15,182**			

P. Carryover -- (If Applicable) . . . . **Federal Funds:$ 15,182** **Non-Federal funds:** **Total $15,182**

Q. Cost Sharing/Matching (Breakdown of total amounts shown in line O)		
Cash (both Applicant and Third Party) →		
Non-Cash Contributions (both Applicant and Third Party) →		

NAME AND TITLE (Type or print)	**SIGNATURE** (required for revised budget only)	**DATE**
Project Director		
Authorized Organizational Representative		
Signature (for optional use)		

University of Maryland Extension
(Matt Parker)

Year 1
Senior/Key Person Salary
PI Parker requests 0.5-month salary ($3,895). PI Parker will assist with the development of materials and provide in-person extension programming.

Senior/Key Person Fringe
The University of Maryland uses a fringe rate of 30.7%. Fringe requested in year 1 is $1,196

Travel
PI Parker requests $2,500 for travel to the NCRAC region to provide in-person extension programming. The request will cover airfare, per diem, and hotel accommodations for the duration of the trip. The exact date and location of the workshop are TBD.

Total Year 1- $7,591

Year 2
Senior/Key Person Salary
PI Parker requests 0.5-month salary ($3,895). PI Parker will assist with the development of materials and provide in-person extension programming.

Senior/Key Person Fringe
The University of Maryland uses a fringe rate of 30.7%. Fringe requested in year 1 is $1,196.

Travel
PI Parker requests $2,500 for travel to the NCRAC regions to provide in-person extension programming. The request will cover airfare, per diem, and hotel accommodations for the duration of the trip. The exact date and location of the workshop are TBD.

Total Year 2- $7,591

Indirect Costs are not allowed per sponsor

Budget Summary

Year 1

	Objective #	Purdue University (Kwamena Quagrainie &Amy Shambach)	Ohio Sea Grant, The Ohio State University (Nicole Wright)	University of Maryland (Matt Parker)	Project Total
Salaries, Wages, and Fringe Benefits	1,2,3	$9,155		$5,091	$14,246
Nonexpendable Equipment					
Materials and Supplies	1,2,3	$7,820			$7,820
Travel	1,2	$1,000		2,500	$3,500
All Other Direct Costs	1,2,3	$12,000			$12,000
Total		$29,975	$0	$7,591	$37,566

Year 2

	Objective #	Purdue University (Kwamena Quagrainie & Amy Shambach)	Ohio Sea Grant, The Ohio State University (Nicole Wright)	University of Maryland (Matt Parker)	Project Total
Salaries, Wages, and Fringe Benefits	1,2,3	$6,411	$16,950	$5,091	$28,452
Nonexpendable Equipment			$0		
Materials and Supplies	1,2,3	$6,850	$100		$6,950
Travel	1,2	$2,500	$1,000	$2,500	$6,000
All Other Direct Costs	1,2,3	$12,000	$1,500		$13,500
Total		$27,761	$19,550	$7,591	$54,902

Years 1 & 2

	Objective #	Purdue University (Kwamena Quagrainie & Amy Shambach)	Ohio Sea Grant, The Ohio State University (Nicole Wright)	University of Maryland (Matt Parker)	Project Total
Salaries, Wages, and Fringe Benefits	1,2,3	$15,566	$16,950	$10,182	$42,698
Nonexpendable Equipment			$0		
Materials and Supplies	1,2,3	$14,670	$100		$14,770
Travel	1, 2	$3,500	$1,000	$5,000	$9,500
All Other Direct Costs	1,2,3	$24,000	$1,500	$0	$25,500
Total		$57,736	$19,550	$15,182	$92,468

Schedule for Completion of Objectives

Start date: 01/01/2024

Completion date: 12/31/2025

Objectives and Tasks	**Year 1**						**Year 2**					
	J F	M A	M J	J A	S O	N D	J F	M A	M J	J A	S O	N D
Objective 1 Develop training materials												
Objective 1 Training planning												
Objective 1 Provide financial aquaculture training to producers emphasizing the importance of constant monitoring indicators of profitability, net worth, and available cash for economic success												
Objective 2 Create easy-to-use pro forma financial statements such as enterprise budget, income statement, balance sheet, cash flow, and amortization schedules for aquaculture producers.												
Objective 2 Develop user guide/manual												
Objective 2 Delivery												
Objective 3 Expand producer-facing marketing programming by building on Illinois-Indiana Sea Grant's pre-existing Aquaculture Marketing webinar series.												

List of Principal Investigators per Institution

Parker, Matt	University of Maryland
Quagrianie, Kwamena	Purdue University
Shambach, Amy	Purdue University
Wright, Nicole	The Ohio State University

Kwamena K. Quagrainie
Department of Agricultural Economics / Illinois-Indiana Sea Grant
Purdue University, 403 West State Street, West Lafayette, IN 47907
Tel: 765-494-4200 | kquagrai@purdue.edu

Present Position
Aquaculture Economics & Marketing Professor / Extension Specialist

Education
Ph.D., Agricultural Economics, University of Alberta, Canada
M.S., Agricultural Economics, University of Alberta, Canada
B.S., Agriculture, University of Science and Technology, Ghana

Selected Research / Scholarly Publications

1. Carlton, J. S., Shambach, A. M., & Quagrainie, K. (2023). Aquaculture Extension Capacity in the USDA North-Central Region: Results from a Survey. Journal of Human Sciences and Extension, 11(1), 13.
2. Quagraine, K., de Souza, S. V., Athnos, A., Etumnu, C., Knudson, W., Kinnunen, R., & Hitchens, P. (2022). The seafood basket: Application of zero-inflated model to fish count purchase. Aquaculture.
3. Athnos, A., Valle de Souza, S., Quagrainie, K., Etumnu, C., Knudson, W., Kinnunen, R., & Hitchens, P.. Are U.S. consumers willing to pay more by the lake? An analysis of preferences for Great Lakes region fish. Agricultural and Resource Economics Review, 1-26, 2022.
4. Flores, R. M. V., Preckel, P. V., Quagrainie, K. K., Widmar, N. O., Silva, L., da Costa, J. I., Pinho, S. M., Portella, M. C., Branco, T. C., and Filho, M. X. P. Efficiency tests for screening production strategies in a lettuce-juvenile tilapia aquaponics system in Brazil. Aquaculture International, 1-22, 2022.
5. Pinho, S. M., Flores, R. M. V., David, L. H., Emerenciano, M. G., Quagrainie, K. K., andPortella, M. C. Economic comparison between conventional aquaponics and FLOCponics systems. Aquaculture, 552(15); 737987. 2022.
6. Flores, R. M. V., Widmar, N. O., Quagrainie, K., Preckel, P. V., & Pedroza Filho, M. X. Establishing Linkages Between Consumer Fish Knowledge and Demand for Fillet Attributes in Brazilian Supermarkets. Journal of International Food & Agribusiness Marketing, 1-21, 2021.
7. Akuffo, A.S., Quagrainie, K.K., and Obirikorang, K.A. Analysis of the determinants of fish consumption by households in Ghana. Aquaculture Economics & Management, 24(3); 294-309, 2020.
8. Chenyambuga, S. W., Munubi, R. S., Madalla, N. A., Quagrainie, K., Frimpong, E., and Egna, H. Effects of Fertilization and Concentrate Feeding on Water Quality and Growth Performance of Nile Tilapia (Oreochromis niloticus) Grown in Concrete Tanks. African Journal of Biological Sciences, 2(4), 65-72, 2020.
9. Akuffo, A.S., and Quagrainie, K.K. Assessment of household food security in fish farming communities in Ghana. Sustainability, 11(10); 2807, 2019.
10. Quagrainie, K.K. Consumer Willingness to Pay for a Saline Fish Species Grown in the US Midwest: The Case of Striped Bass, *Morone saxatilis*. Journal of the World Aquaculture Society. 50(1); 163-171, 2019.
11. Amankwah, A., and Quagrainie, K.K. Aquaculture Feed Technology Adoption and Smallholder Household Welfare in Ghana. Journal of the World Aquaculture Society. 50 (4):827-841, 2019.
12. Quagrainie, K.K., and Chu, J. Determinants of Catch Sales in Ghanaian Artisanal Fisheries. Sustainability. 11(2); 298, 2019.
13. Quagrainie, K.K., Flores, R.M.V., Kim, Hye-Ji, and McClain, V. Economic Analysis of Aquaponics and Hydroponics Production in the U.S. Midwest, Journal of Applied Aquaculture. 30(1); 1-14, 2018.
14. Amankwah, A., Quagrainie, K.K., and Preckel, P.V. Impact of Aquaculture Feed Technology on Fish Income and Poverty in Kenya. Aquaculture Economics & Management. 22(4); 410-430, 2018.
15. Amankwah, A., Quagrainie, K.K., and Preckel, P.V. Demand for Improved Fish Feed in the Presence of a Subsidy: A Double Hurdle Application in Kenya. Agricultural Economics. 47(6); 633-643, 2016.
16. Darko, F.A., Quagrainie, K.K., and Chenyambuga, S. Consumer Preferences for Farmed Tilapia in Tanzania: A Choice Experiment Analysis. Journal of Applied Aquaculture 28(3); 131-143, 2016.
17. Anane-Taabeah, G., Quagrainie, K.K., and Amisah, S. Assessment of Farmed Tilapia Value Chain in Ghana. Aquaculture International, 24, 903–919, 2016.
18. Ndanga, L.Z.B., Quagrainie, K.K., Ngugi, C.C., and Amadiva, J. An Application of Porter's Framework to Assess Aquaculture Value Chain in Kenya. African Journal of Food, Agriculture, Nutrition and Development. 15(3); 10118–10137, 2015.

Amy Shambach
Purdue University
195 Marsteller Street, Forestry, Lafayette, IN 47907-2033

Phone: 765-496-4085
Fax: - 765-496-2422
E-mail: ashambac@purdue.edu

Education

A.A., A.S. College of the Redwoods, 2002, Science and Mathematics, Marine Science Technology
B.S. Ball State University, 2010, Biology

Position

2019 – present Aquaculture Marketing Outreach Association, Illinois-Indiana Sea Grant, Purdue University, Indiana
Oct. 2014 – 2019 Aquaculture Lab Technician, RDM Aquaculture LLC, Indiana
Aug. 2014 – Oct. 2014 Consultant, Aqua International Corporation, Costa Rica
Jan. 2014 - Aug. 2014 Compliance and Certification Coordinator, Bell Aquaculture, Indiana
2012 – 2013 Farm Manager, Bell Aquaculture, Indiana
2010 - 2012 Analytical Research Coordinator, Bell Aquaculture, Indiana
2010 Undergraduate Intern, Oregon State University, Oregon

Scientific and Professional Organizations

- Indiana Aquaculture Association Inc. (2015-present)
- North Central Regional Aquaculture Center (2015-present)
- Southern Illinois Aquaculture Association (2022-present)
- Ohio Aquaculture Association (2023)
- US Aquaculture Society | World Aquaculture Society (2023)

Selected Publications

1. Carlton, J., Shambach, A. M., & Quagrainie, K. (2023). Aquaculture Extension Capacity in the USDA North-Central Region: Results from a Survey. *Journal of Human Sciences and Extension, 11*(1), 13. DOI: https://doi.org/10.55533/2325-5226.1385
2. Shambach, Amy. 2023. Atlantic Salmon farmed fish fact sheet. Illinois-Indiana Sea Grant Fact Sheet: IISG22-SFA-BRC-021. https://iiseagrant.org/publications/atlantic-salmon-farmed-fish-fact-sheet.
3. Quagrainie, K., Shambach, A. 2022. A Guide to Small-Scale Fish Processing Using Local Kitchen Facilities. Illinois-Indiana Sea Grant Report: IISG22-SAF-BRC-012. https://iiseagrant.org/publications/a-guide-to-small-scale-fish-processing-using-local-kitchen-facilities/
4. Shambach, Amy. 2022. Channel catfish farmed fish fact sheet. Illinois-Indiana Sea Grant Fact Sheet: IISG21-SFA-BRC-054. https://iiseagrant.org/publications/channel-catfish-farmed-fish-fact-sheet/
5. Quagrainie, K., Shambach, A. 2021. Aquaculture Markets in the 21st Century. Choices. Accessible: https://www.choicesmagazine.org/choices-magazine/theme-articles/the-economics-of-us-aquaculture/aquaculture-markets-in-the-twenty-first-century
6. Carlton, C., Shambach, A., Hartenstine, H., 2021. Voices from the Industry: Aquaculture Producers in the Midwestern United States. Choices. Accessible: https://www.choicesmagazine.org/choices-magazine/theme-articles/the-economics-of-us-aquaculture/voices-from-the-industry-aquaculture-producers-in-the-midwestern-united-states
7. Shambach, Amy. 2021. American paddlefish farmed fish fact sheet. Illinois-Indiana Sea Grant Fact Sheet: IISG21-SFA-BRC-054. https://iiseagrant.org/publications/american-paddlefish-farmed-fish-fact-sheet/
8. Shambach, Amy. 2021. Pacific white shrimp farmed fish fact sheet. Illinois-Indiana Sea Grant Fact Sheet: IISG21-SFA-BRC-051. https://iiseagrant.org/publications/pacific-white-shrimp-farmed-fish-fact-sheet/
9. Shambach, Amy. 2021. Rainbow trout farmed fish fact sheet. Illinois-Indiana Sea Grant Fact Sheet: IISG21-SFA-BRC-044. https://iiseagrant.org/publications/rainbow-trout-farmed-fish-fact-sheet/
10. Shambach, Amy. 2021. Tilapia farmed fish fact sheet. Illinois-Indiana Sea Grant Fact Sheet: IISG21-SFA-BRC-012. https://iiseagrant.org/publications/tilapia-farmed-fish-fact-sheet/
11. Shambach, Amy. 2021. Yellow perch farmed fish fact sheet. Illinois-Indiana Sea Grant Fact Sheet: IISG21-SFA-BRC-001. https://iiseagrant.org/publications/yellow-perch-farmed-fish-fact-sheet/
12. Carlton, J.S., Foley, C. Shambach, A., 2020. Walleye Aquaculture Working Group Workshop: Identifying Walleye Marketing and Production Barriers. https://iiseagrant.org/publications/walleye-aquaculture-working-group-workshop-identifying-walleye-marketing-and-production-barriers/

NICOLE WRIGHT
Aquaculture Extension Specialist and LEARN Coordinator
Ohio Sea Grant, The Ohio State University
1314 Kinnear Road, Area 100, Columbus, OH 43221 USA
Telephone: 330-202-3594 E-Mail: wright.1128@osu.edu

WORK HISTORY

- Aquaculture Extension Specialist and LEARN Coordinator, Ohio Sea Grant, Ohio State University Extension, The Ohio State University (2020-present).
- Project Coordinator, School of Environment and Natural Resources, Ohio Agricultural Research and Development Center, The Ohio State University (2019-2020).
- Program Coordinator, Department of Horticulture and Crop Science, Ohio Agricultural Research and Development Center, The Ohio State University (2017-2020).
- Seasonal Field Survey Technician, Plant Protection and Quarantine, Animal and Plant Health Inspection Service (2017-2019).
- Research Assistant, Department of Entomology, Ohio Agricultural Research and Development Center, The Ohio State University (2016).
- Program Coordinator, Ohio State University Extension, the Ohio State University (2007-2016).

EDUCATION

MS: Plant Health Management, The Ohio State University, Columbus, Ohio 2016.
BA: Sociology, Oberlin College, Oberlin, Ohio 1999.

REPORTS AND EXTENSION OUTREACH PUBLICATIONS

1. Inwood, S., Plakias, Z., Clark, J.K., Wright, N., Irish, A., & J.D. Vittie. (2022). *Preparing for Food System Resiliency in Ohio: Policy and Planning Lessons from COVID-19*. College of Food, Agricultural and Environmental Sciences & John Glenn College of Public Affairs, Technical Report. Columbus, OH: The Ohio State University
2. Pippidis, M., Braun, B., Ketterman, J., Inwood, S., Wright, N. (2022). *Engaging Communities Through Issues Forums: A How-To Guide*. Kansas City: Extension Foundation. ISBN: 978-1-955687-09-6
3. Wright, N., Plakias, Z., Inwood, S., Winslow, K., Samadi, K., and Barclay, D. (Lean on your Land Grant COVID-19 Food System Taskforce Leadership Team and Knowledge Exchange Staff). (2020). *Food System Expertise Mapping Report*. Internal Technical Report, College of Food, Agricultural, and Environmental Sciences.
4. Borawski E., Bottoms L., Pike S., Joshi K., Taggart M., Wright N., Osborne A., Freedman, D. (2016). *Fresh Local Produce for All: A Cleveland Success Story. Cleveland, Ohio. Prevention Research Center for Healthy Neighborhoods*. Case Western Reserve University.

SELECTED OUTREACH AND EDUCATION PRESENTATIONS

1. Wright, N. 2022. Growing Aquaculture Literacy Using Local Context. National Aquaculture Extension Conference. Portland, ME.
2. Wright, N. 2022. Local Fish is Local Food: Commercial Fish Production in Ohio. Ohio Food Policy Network Virtual Convening. Virtual, OH.
3. Wright, N. 2021. Ohio: Aquaculture and Sea Grant. Lake Erie Science & Outdoor Writers Virtual Conference. Virtual, OH
4. Wright, N., Gardiner, M.M. 2016. Spider Mite Biological Control in Hops. Ohio Hops Field Night. Piketon, OH.
5. Wright, N., Wright, W. 2016. Beyond the Farmers' Market: New Markets for Local Foods. Cleveland State University and Ohio State University Extension, Cuyahoga County. Wooster, OH.

Matthew Parker

Personal Information
Name: Matthew Parker
Department: Agricultural and Natural Resources Rank: Principal Agent Associate
Year of Appointment: 2011

Education
1. Ph.D. in Marine Estuarine and Environmental Sciences- May 2019, University of Maryland
2. Master of Business Administration, December 2002, Auburn University
3. Master of Aquaculture, August 2001, Auburn University
4. B.S. in Fish and Wildlife Science, December 1997, North Carolina State University

Employment
- Aquaculture Business Specialist, North Carolina Dept. of Agriculture and Consumer Services-December 2002-September 2010
- Aquaculture Business Specialist, Maryland Agricultural & Resource-Based Industry Development Corporation-October 2010-January 2011
- Principal Agent Associate and Aquaculture Business Specialist, Department of Agriculture and Natural Resources, University of Maryland- February 2011-Present

Select Peer Reviewed Publications
1. Parker, M., D. Delong, R. Dunning, T. Losordo, A. Hobbs. 2012. A Spreadsheet Tool for the Economic Analysis of a Recirculation Tank System. Southern Regional Aquaculture Center Publication No. 456, Stoneville MS.
2. Parker, Matt. 2013. FAQ: How big does my shellfish farm need to be in order to make a profit? http://www.extension.org/pages/67029/how-big-does-my-shellfish-farm-need-to- be-in-order-to-make-a-profit#.U1UWKFVdWtM.
3. Parker, Matt. 2013. FAQ: Do I have to write a business plan for my aquaculture business? http://www.extension.org/pages/67028/do-i-have-to-write-a-business-plan-for- my-aquaculture-business#.U1UV2lVdWtM.
4. Parker, Matt. 2013. Business Planning in Marine Aquaculture. http://www.extension.org/pages/67022/business-planning-in-marine- aquaculture#.U1UVfVVdWtM.
5. Cornwell, J., Rose, J., Kellogg, L., Luckenbach, M., Bricker, S., Paynter, K., Moore, C., Parker, M., Sanford, L., Wolinski, B., Lacatell, A., Fegley, L., Hudson, K., 2016. Panel Recommendations on the Oyster BMP Nutrient and Suspended Sediment Reduction Effectiveness Determination Decision Framework and Nitrogen and Phosphorus Assimilation in Oyster Tissue Reduction Effectiveness for Oyster Aquaculture Practices. Dec. 2016

Select Non-Peer Reviewed Publications
1. Dill, S. P., & Parker, M. (2010). Developing a Business Plan for the Maryland Shellfish Aquaculture Financing Program. 35pp. Adapted business planning workbook for shellfish aquaculture loan.
2. Parker, M., Webster, D., Meritt, D., & Dill, S. P. (2011). Economics of Remote Setting in Maryland. UM--SG-SGEP-2011-02. SeaGrant. 7pp. Team developed workbook and spreadsheet. Educator provided text and review. http://www.mdsg.umd.edu/sites/default/files/files/remote_setting_instruction_booklet.pdf http://www.mdsg.umd.edu/sites/default/files/files/Remote_Setting_Worksheet.xls
3. Parker, M., Dill, S.P., Webster, D., & Meritt, D. 2013. Bottom Culture Cost Analysis. Oyster Aquaculture Technology Series. 16pp. Team developed workbook and spreadsheet. Educator provided text and review of document and spreadsheet. http://www.extension.umd.edu/sites/default/files/_images/programs/aquaculture/Bottom
4. %20Culture%20Cost%20Analysis%20full.pdf http://www.extension.umd.edu/sites/default/files/_images/programs/aquaculture/Bottom
5. %20Culture%20Cost%20Analysis%20Spreadsheet.xlsx
6. Parker, M., Dill, S.P., Webster, D., & Meritt, D. (2015). Container Culture Cost Analysis. Oyster Aquaculture Technology Series. Team developed workbook and spreadsheet.

GANESH KUMAR KARUNAKARAN, Ph.D.

Associate Research Professor,
Mississippi State University, Delta Research and Extension Center,
Stoneville, Mississippi
Phone: (662) 686-3586
Email: gkk27@msstate.edu

EDUCATION

Ph.D.	2015	University of Arkansas at Pine Bluff	Aquaculture Economics
M.S.	2007	University of Arkansas at Pine Bluff	Aquaculture/Fisheries
M.S.	2001	C.I.F.E., Mumbai, India	Inland Aquaculture
B.S.	1999	Kerala Agricultural University, India	Fisheries Science

PROFESSIONAL ACTIVITIES

- Secretary and Treasurer, International Association of Aquaculture Economics and Management (IAAEM). 2009 - Present.
- Finance committee 2017: United States Aqauculture Society (USAS)
- Member of World Aquaculture Society (WAS).
- Member of American Fisheries Society (AFS) (Arkansas Chapter).
- Member of Catfish Farmers of Arkansas (CFAr).
- Member of National Aquaculture Association (NAA)

RESEARCH AREAS

Aquaculture economics, marketing, farm management, mathematical programming, risk analysis

PUBLICATIONS (selected from 54)

Hegde, S., , Kumar, G., Engle, C. R., Hanson, T. R., Roy, L. A., van Senten, J., Johnson, J. W., Avery, J. L., Aarattuthodi, S., Dahl, S., Dorman L., & Peterman, P. (2021). Economic contribution of the U.S. catfish industry, Aquaculture Economics & Management, DOI: 10.1080/13657305.2021.2008050

Hegde, S., Kumar, G., Engle, C. R., Hanson, T. R., Roy, L. A., van Senten, J., Johnson, J. W., Avery, J. L., Aarattuthodi, S., Dahl, S., Dorman L., & Peterman, P. (2022). Technological progress in the US catfish industry (2022). Journal of World Aquaculture Society. https://doi.org/10.1111/jwas.12877.

Kumar, G., C. R. Engle, S. Hegde, and J. van Senten. 2020. Economics of U.S. catfish farming practices: Profitability, economies of size, and liquidity. *Journal of World Aquaculture Society*.

Engle, C.R. T. R. Hanson, G. Kumar. 2022. Economic history of the U.S. catfish industry: Lessons for growth and development of U.S. aquaculture. Aquaculture Economics & Management. 26:1, 1-35, DOI: 10.1080/13657305.2021.1896606

Kumar, G., S. Hegde, D. J. Wise, C. C. Mischke, B. Dorr. *2021*. Economic losses of catfish to avian predation. A case report. North American Journal of Aquaculture, 83(3): 127-137.

Engle, C. R, G. Kumar, J. van Senten. 2020. Cost drivers and profitability of U.S. pond, raceway, and RAS aquaculture. *Journal of the World Aquaculture Society* 2020,1– 27. doi.org/10.1111/jwas.12706

Kumar, G., T. S. Byars, T. E. Greenway, S. Aarattuthodiyil, L. H. Khoo, M. J. Griffin, and D. J. Wise. 2019. Economic assessment of commercial-scale *Edwardsiella ictaluri* vaccine trials in the U.S. catfish industry. *Aquaculture Economics & Management*, 23(3), 254-275.

Kumar, G, C. R Engle, and C. S. Tucker. 2018. Factors driving aquaculture-technology adoption. *Journal of the World Aquaculture Society*, 49(3), 447-476.

Kumar, G. 2018. Aquaculture production and marketing: A peek into the world of producers and consumers, *Aquaculture Economics & Management*, 22(3), 279-283.

Kumar, G, and C. R. Engle. 2017. Optimal investment pathways for new catfish production technologies. A recursive programming approach. Aquaculture Economics & Management. 21(1), 144-162.

Kumar, G., and C.R. Engle. 2016. Technological advances that led to growth of shrimp, salmon, and tilapia farming. *Reviews in Fisheries Science & Aquaculture,* 24(2), 136-152.

THE OHIO STATE UNIVERSITY

Ohio Sea Grant College Program

Schiermeier Olentangy River Wetlands Center
352 Dodridge St.
Columbus, OH 43202

September 14, 2023

Letter of Support and Collaboration

Dear Dr. Quagrainie,

Please accept this letter in support of your NCRAC proposal titled "**Strengthening Regional Aquaculture Businesses through Collaborative Extension Programming.**" Ohio Sea Grant Extension is glad to be an Extension and outreach partner of this project to complete the scope of work outlined in Objectives 1 and 2 of the proposal.

Business planning and management is crucial to achieving profit and success for an aquaculture business. By providing both hands-on training opportunities and business management spreadsheets, this project strives to prepare and equip aquaculture producers to measure and meet their goals. Additional webinars in the Aquaculture Marketing series can respond to questions or gaps that need further attention. Evaluations that can capture impacts on participants can be used for both future program improvement and telling the story of the importance of training and development on business improvement.

Ohio Sea Grant is well positioned to develop outreach materials and deliver programs to producers and other industry stakeholders while measuring their impacts. I look forward to working with you and the project team. Please let me know if there is anything else you need.

Sincerely,

Nicole Wright

Nicole Wright
Ohio Sea Grant Extension Educator
The Ohio State University
wright.1128@osu.edu
330-202-3594

North Central Regional Aquaculture Center

Liaison Letter of Intent

In accordance with the Guidelines for Extension Involvement in the North Central Regional Aquaculture Center (adopted in 1994), directives of the NCRAC Board of Directors and USDA-NIFA guidance, all NCRAC-funded projects must include an Extension Liaison that is funded to do extension and outreach activities associated with that project. NCRAC projects must also include an Industry Liaison who will serve as a contact between project PI(s) and the industry.

Name (Appointed Liaison): Nicole Wright

Title of Project: Strengthening Regional Aquaculture Businesses through Collaborative Extension Programming

Project Duration: 2 years

The conditions and terms of the offer being made to you are outlined below:

Position (Extension or Industry): Extension

Primary Duties/Activities of Liaison:

Assist in delivering training on comprehensive financial business concepts and tools to producers, as well as coordinating trainings programs for regional aquaculture business owners and staff to receive in-person instruction and support on how to utilize financial business tools.

Appointment offered by: Kwamena Quagrainie 09/22/2023

Project Chair **Date**

Offer approved by: NCRAC Director Date

I have read and I understand the offer and its terms and conditions, and I agree to these terms and accept this offer. The terms of this offer may be modified only by subsequent written agreement signed by both parties.

Liaison signature: Nicole Wright **9/23/2023**

Date

North Central Regional Aquaculture Center

Liaison Letter of Intent

In accordance with the Guidelines for Extension Involvement in the North Central Regional Aquaculture Center (adopted in 1994), directives of the NCRAC Board of Directors and USDA-NIFA guidance, all NCRAC-funded projects must include an Extension Liaison that is funded to do extension and outreach activities associated with that project. NCRAC projects must also include an Industry Liaison who will serve as a contact between project PI(s) and the industry.

Name (Appointed Liaison): Phil Shambach

Title of Project: Strengthening Regional Aquaculture Businesses through Collaborative Extension Programming

Project Duration: 2 years

The conditions and terms of the offer being made to you are outlined below:

Position (Extension or Industry): Industry

Primary Duties/Activities of Liaison:

Liaise with the aquaculture industry in delivering training on comprehensive financial business concepts and tools to producers. Will assist in coordinating trainings programs for regional aquaculture business owners and staff to receive in-person instruction and support on how to utilize financial business tools.

Appointment offered by: Kwamena Quagrainie 09/22/2023

Project Chair **Date**

Offer approved by: NCRAC Director Date

I have read and I understand the offer and its terms and conditions, and I agree to these terms and accept this offer. The terms of this offer may be modified only by subsequent written agreement signed by both parties.

Liaison signature:

Date

9-25-23

Ohio Aquaculture Association
9676 Harriott Rd.
Marysville, OH 43040

June 5, 2023

Dr. Stephen Dinsmore
Interim Director - NCRAC
339 Science II
Ames, IA 50011-3221

Dear Dr. Dinsmore,

I am very pleased to write a letter of support on behalf of the Ohio Aquaculture Association (OAA) for the proposal *"Strengthening Regional Aquaculture Businesses through Collaborative Extension Programming"* to be submitted by Dr. Kwamena Quagrainie et al. for funding consideration from NCRAC. The OAA and myself are strongly supportive of this project's objectives to develop easy-to-use financial tools to assess farm economic status and future viability. Additionally, the information transfer and training strategies proposed to educate producer are exceptional in their targeting of aquatic farms to increase use of financial tools to help ensure that economic success. Very few farms know how to assess cash flow, interpret economic farm indices, and develop annual enterprise budgets to adapt to changing market conditions and opportunities. My farm, Millcreek Perch Farm LLC, quarterly and annually uses such financial tools and has greatly enhanced our success as an aquatic farm. However, the tools we use are not small farmer friendly – so any development of easier tools and the training to use them would be appreciated by the aquatic culture industry in the region. The OAA would be very pleased to host a training workshop in conjunction with our annual aquaculture conference to support the objectives of this project.

I strongly encourage NCRAC to fund this project as it will provide critical financial tools and training for aquatic producers in the NCR and thereby allow producers to successfully and easily assess farm economic status and increase the likelihood of future farm success.

Sincerely,

Bill Lynch

William Lynch
Millcreek Perch Farm, LLC
President, Ohio Aquaculture Association
Board Member, USDA North Central Regional Aquaculture Center

State of Illinois Aquaculture Association
412 Overlook Drive, Carterville, IL 62918
(618) 528-0749

To Whom It May Concern,

The State of Illinois Aquaculture Association Inc. (SIAA) strongly supports the pre-proposal from Ms. Amy Shambach of Purdue University that will assist in the development of a course/training. It is our understanding the course/training will be geared towards aquaculture businesses in educating farmers on the economics of managing an aquaculture business.

With over 20 farms in southern Illinois alone this would be a huge benefit to our region and beyond. The aquaculture community here in southern Illinois is always looking for ways to help our local farms be more sustainable and profitable. We have lost a few farms in the past year partly due to the economic pressures and return on investment for the local farms. A course that could help expand our understanding and knowledge of the impact of rising feed costs, mortality rates, and feed conversion ratios would be very beneficial. I am quite certain depending upon location and availability to attend the presentation via zoom or other avenues would we have a very high rate of attendance at this event.

We respectfully request you give this project serious consideration in order to support the many families, farms, and those interested in aquaculture business here in the state of Illinois.

Sincerely,

Jim Hawkinson,

President, State of Illinois Aquaculture Association

SIAA
STATE OF ILLINOIS
AQUACULTURE ASSOCIATION

June 7, 2023

Professor Stephen Dinsmore, Interim Director,
North Central Regional Aquaculture Center,
Iowa State University,
339 Science II Building, 2310 Pammel Drive,
Ames, IA 50011

Dear Professor Dinsmore,

Hello, my name is Clarence Bischoff. I am the president of the Minnesota Aquaculture Association and founder and CEO of Blue Water Farms. I am writing to you today on behalf of the Minnesota Aquaculture Association and Blue Waters Farms to express our support for the North Central Regional Aquaculture Center project proposal **"Strengthening Regional Aquaculture Businesses through Collaborative Extension Programming."** We support work that helps farmers make financial and marketing tasks more efficient.

I want to take just a moment to tell you a little about Minnesota aquaculture. The Minnesota aquaculture industry is small and diverse. Minnesota farmers primarily raise sportfish, and bait fish, but a handful of farms in the state raise fish and shellfish for human consumption. Two things many Minnesota aquaculture businesses have in common are family-owned businesses passionate about farming aquatic organisms. They could benefit from a better understanding of farm financing and having access to financial tools specifically designed with them in mind. Regardless of our aquaculture businesses' similarities and differences, extension programming focusing on business management and marketing would be of great value to most aquaculture businesses in the state and region.

The Minnesota Aquaculture Association and Blue Waters Farms support this proposal and hope that it will be funded.

Sincerely,

Clarence Bischoff

Clarence Bischoff
Blue Waters Farms, Founder and CEO
Minnesota Aquaculture Association Inc., President

White Creek Farms of Indiana LLC

White Creek Farms of Indiana LLC

farm fresh fish

7808 N County Road 240 E
Seymour, IN 47274
(812) 569-3034
mike@wcfi.net

June 2, 2023

Professor Stephen Dinsmore, Interim Director,
North Central Regional Aquaculture Center,
Iowa State University,
339 Science II Building, 2310 Pammel Drive,
Ames, IA 50011

Dear Professor Dinsmore,

I am writing this letter of support for Kwamena Quagrainie and Amy Shambach at Purdue University and the rest of the project team regarding their proposal "**Strengthening Regional Aquaculture Businesses through Collaborative Extension Programming**." Today I am writing to you on behalf of the Indiana Aquaculture Association Inc. (IAAI) and as an aquaculture business owner. Let me take a minute to introduce myself. My name is Mike Searcy. I am the owner of White Creek Farms of Indiana LLC. and serve on the board of the IAAI. I have been farming rainbow trout, in an indoor recirculating aquaculture system, for close to 10 years and have been active in the IAAI for just as long.

The IAAI is in support of this project, and we are excited for the opportunity it will provide farms in our state and the North Central Region. Learning practical information about what numbers to track and what those numbers mean is a skill many farmers could benefit from and while you may think that only beginning farms would be interested, that is not the case. We have members that have owned and operated aquaculture businesses for years who could benefit from this type of outreach and extension programming.

One thing we appreciate about this proposed project is that the information farmers would learn could be applied to the majority, if not all, farmers in the state. It is not specific to any species, system, market or geographic location. The topic is relevant to all farmers. That is different from a lot of what we see offered. Indiana, like other states in the region, has a diverse aquaculture industry. You name it and there is a chance one of the farmers in the state raises it. Except for one farm all of the farms in the state are small to medium scale operations and most are family owned and operated. Training on farm finances and business management would be useful to almost all of us.

The IAAI supports the proposal to develop and deliver outreach and extension programming in the region. We see that in-person training is proposed for Indiana or Illinois. The IAAI would gladly partner with the project team to co host an in-state program if Indiana is selected. We believe this project can provide knowledge and tools to help farmers manage their aquaculture businesses and has the potential to provide farmers with the tools and support to become more profitable when business is good and stay afloat when things are hard.

The IAAI and White Creek Farms of Indiana LLC support this outreach and extension proposal and we hope it is funded by NCRAC.

Sincerely,

Mike Searcy
Whitecreek of Farms of Indiana LLC, owner
Indiana Aquaculture Association Inc., treasurer

Checklist for Submission of Full Proposals

Follow guidelines with the exception of the budget sheets.

_✓__ Format manuscripts for 22 x 28 cm (8½ x 11 inch).

_✓_ Number *all* pages sequentially.

__✓_ Use 10-12 font; Times New Roman. Do not justify right margins.

__✓_ Format headings appropriately.

_✓__ Leave at least a 2.5-cm (1-inch) margin on all sides.

_✓__ Use metric units of measurement with English units in parenthesis, e.g. 2.54 cm (1 inch).

__✓_ Define all abbreviations the first time they are used.

_✓__ Express ratios by using a slant line (e.g. mg/L).

_✓__ Scientific names should accompany common names in the title and when they are first mentioned in the abstract and in the text. Authority for scientific names need not accompany the genus and species unless needed for clarity.

_✓__ Spell out one to ten unless followed by a unit of measurement (e.g. four fish, 4 kg, 14 fish). Do not begin a sentence with a numeral. Use 1,000 instead of 1000; 0.13 instead of .13; and % instead of percent.

__✓_ Use the 24-hour clock for dial time: 0830, not 8:30 a.m. The calendar date should be day month year (7 August 1990).

_✓__ Include signed Letters of Intent for identified Extension and Industry Liaisons.

_✓__ Signed Authorized Organization Representative (AOR) form from each funded PI's institution are welcomed but not required at this time.

_✓_ Include the required three (3) Letters of Support from Industry members who are not directly involved in the proposed project.

__✓_ Assemble the full proposal in this order: Title Page, Project Summary, Justification, Related Current and Previous Work, Statement Regarding Duplication of Research, Anticipated Benefits, Objective(s), Deliverables, Procedures, Project Deliverables, Evaluation and Outreach (Logic Model included), Facilities, References, Project Leaders, Budget, Budget Explanation per Institution, Budget Summary, Schedule for Completion of Objectives. References, Participating Institutions and Principal Investigators, Curriculum Vitae for Principal Investigators (PIs).

_✓__ Provide names of three possible reviewers who will not have a Conflict of Interest

_✓__ All identified co-PIs have been provided a final draft of the full proposal.

_✓__ Submit proposal (including all required documentation) in single MS Word document.

If the NCRAC Administrative Office cannot verify inclusion of any element, the Full Proposal will not be accepted.

KHahnQuagrainie *9/27/2023*

Principal Investigator Signature Date

Suggested Reviewers

Dr. Kamal Gosh
Langston University, OK
Tel: (405) 466-6100
Email: kgosh@langston.edu

Dr. Ye Su
Lincoln University, MO
Tel: 573-681-5370
Email: SuY@LincolnU.edu

Russell Grice
Gulf Shores, AL
Tel: 251-229-0826
Email: rtg0010@auburn.edu