

## Physical Resources

Land and Facilities	Description
<b>Virginia Tech owned land and Facilities</b>	A two-story, 9,200-square-foot building containing offices, a classroom, dormitory rooms, a test kitchen, a well-equipped microbiology laboratory, a small chemistry laboratory, 24 replicated closed-system aquaculture tanks, live-culture rooms for artemia and rotifers, broodstock holding rooms, and an outside room for culture of tropical clown fish. The building sits on approximately one acre of land.

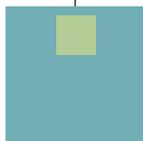
**Director – Michael Schwarz, 757-727-4861, mschwarz@vt.edu**

## Resident Faculty

Faculty	Research and Extension Focus Areas
<b>Robert Lane</b> Extension Specialist, Engineering	Thermal process validations/verifications for food safety and quality. Sustainable/solar/green energy resource usage and process equipment applications
<b>Michael Schwarz</b> Extension Specialist, Aquaculture	Recirculating aquaculture system (RAS) larval culture development for emerging species, international RAS training
<b>Abigail Villalba</b> Extension Specialist, Muscle food safety and quality	Safety and quality of seafood, meat and poultry products. Bilingual (Spanish and English) HACCP, GMP's and sanitation training and technical assistance support

## Non-resident Faculty Conducting Research and Collaborative Work

Faculty	Research Involvement
<b>Darrell Bosch</b> Professor, Agricultural and Applied Economics (AAEC)	Resources and environmental economics
<b>Renee Boyer</b> Assistant Professor, FST	Food science; consumer food safety
<b>Joe Eifert</b> Associate Professor, FST	Food science; food safety
<b>Diedre Gibson</b> Hampton University	Environmental science
<b>Jason Grant</b> Assistant Professor, AAEC	Trade
<b>Andrij Horodysky</b> Assistant Professor, Marine and Environmental Science	Aquaculture
<b>Nicolai Kuminoff</b> Assistant Professor, AAEC	Public
<b>David Kuhn</b> Assistant Professor, AAEC	Aquaculture
<b>Kumar Mallikarjunan</b> Professor, Biological Systems Engineering (BSE)	Food science/bioprocess engineering
<b>Sean O'Keefe</b> Professor, FST	Food chemistry
<b>Kurt Stephenson</b> Professor, AAEC	Resources and environmental economics
<b>Dan Taylor</b> Professor, AAEC	Production, resources, and international development
<b>Jesse Trushenski</b> Associate Professor, Southern Illinois University	Finfish Nutrition



## Farm Management, Technical, and Office Staff

Funding Category	Employees	Comment
State Funded, full-time	2	Steve Urick, Hatchery Manager; Gail Jamison, Executive Assistant
Grants and Contracts, full-time	3	Helen Crocker, Microbiologist
01500 Wage Employee	2	George Wenn Amanda Morris

## Research and Extension Programs

- Industrial initiatives include cobia, marine ornamentals, sea bass, flounder, pompano, and bait production. Additional new species identified by industry, which may be included in future program initiatives, include yellowtail and red porgy. (Schwarz)
- Outputs include international training, development and optimization of marine finfish larviculture and grow-out production protocols to address emerging and new species for Virginia's growing marine finfish aquaculture sector. (Schwarz)
- Additional outputs include producer and educator workshops, certification programs, publications, and lectures. These initiatives will address increased demands in aquaculture, including bay and coastal environmental education programs identified by the private sector, environmental groups, and education groups. (Schwarz)
- Work with the seafood industry in Virginia to improve food-handling, -processing, and -storage operations to ensure food safety and food quality. (Jahncke and Villalba)
- Outputs may include environmental and product sampling and analysis for microbiological safety and quality. Determinations of shelf-life, quality, and safety for new value-added products. Working with processors on new packaging designs to improve shelf-life, quality, and safety for new value-added products. (Jahncke and Villalba)
- Provide hands-on and webinar training on HACCP, sanitation, good manufacturing practices (GMPs), and good employee hygiene practices for personnel working in the seafood industries in Virginia. This training will be conducted in both English and Spanish. (Villalba and Jahncke)
- Develop a food waste-management program in cooperation with the Virginia Recycling Association, Mid-Atlantic Composting Association, and Virginia Sea Grant. Support more effective development of food waste business in Virginia and other Mid-Atlantic states. (Lane)
- Outputs may include dissemination of the general inventory data through website, future workshops and publications to general public and waste-treatment industry (e.g. commercial composting facilities). Identify compost and biomass products source areas so products can be composted at specific compost facilities or incorporated into higher-value products. (Lane)
- Development of an energy-use educational model for basic instruction in determining amounts of energy common household, business, and other items use and how to determine the cost of energy these items use. (Lane)
- Provide extension support in product temperature monitoring, thermal process validation. (Lane)
- Verifications; Alternative./sustainable energy generation. (Lane)
- Help aquaculture companies develop production planning and goals. Assist with the development unit production costs for company outputs and identify what break-even production levels are. Assist with cash flow planning. (Kauffman)
- Help identify and research new market opportunities for both wild caught and aquacultured species. As appropriate, write grants applications to assist with the development of new marketing channels for industry. (Kauffman)
- Seafood value-added programs for wild-caught and aquacultured species. (Kauffman)