Physical Resources

<table>
<thead>
<tr>
<th>Land and Facilities</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land and Facilities</td>
<td>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.</td>
</tr>
</tbody>
</table>

Director – Michael Jahncke, 757-727-4861, mjahncke@vt.edu

Resident Faculty

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Research and Extension Focus Areas</th>
</tr>
</thead>
</table>
| Michael Jahncke  
Professor, Food Science and Technology (FST) | Safety and quality of commercial and aquaculture fishery products. HACCP and biosecurity for aquaculture operations. |
| Dan Kauffman  
Extension Specialist, Business and Marketing Community Development | Business and marketing for agriculture products, community development |
| Robert Lane  
Extension Specialist, Engineering | Composting, GIS, validation/verifications of thermal processes |
| Michael Schwarz  
Extension Specialist, Aquaculture | Recirculating aquaculture system (RAS) larval culture development for emerging species, international RAS training |
| Abigail Villalba  
Extension Specialist, Muscle food safety and quality | Safety and quality of seafood, beef, poultry, and pork products. HACCP and bilingual training (Spanish and English) in food safety and quality. |

Non-resident Faculty Conducting Research and Collaborative Work

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Research Involvement</th>
</tr>
</thead>
</table>
| Darrell Bosch  
Professor, Agricultural and Applied Economics (AAEC) | Resources and environmental economics |
| Renee Boyer  
Assistant Professor, FST | Food science |
| Joe Eifert  
Associate Professor, FST | Food science |
| Nicolai Kuminoff  
Assistant Professor, AAEC | Public and environmental economics |
| Kumar Mallikarjunan  
Professor, Biological Systems Engineering (BSE) | Food science/bioprocess engineering |
| Sean O’Keefe  
Professor, FST | Food chemistry |
| Jaren Pope  
Assistant Professor, AAEC | Environmental, public and urban economics |
| Luis Andre Sampaio  
Federal University of Rio Grande, Brazil | Aquaculture |
| Kurt Stephenson  
Professor, AAEC | Resources and environmental economics |
| Dan Taylor  
Professor, AAEC | Production, resources, and international development |
| Jesse Trushenski  
Associate Professor, Southern Illinois University | Finfish Nutrition |
Postdoctoral Scientists, Graduate Students, and Student Interns

<table>
<thead>
<tr>
<th>Individual</th>
<th>Advisor</th>
<th>Program and Focus Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arturo Rombenso</td>
<td>Schwarz (Co-advisor)</td>
<td>M.S. Fish Nutrition with Southern Illinois University</td>
</tr>
<tr>
<td>John Bowser</td>
<td>Schwarz (Co-advisor)</td>
<td>Ph.D. Fish Nutrition with Southern Illinois University</td>
</tr>
<tr>
<td>Sarah Norton</td>
<td>Jahncke</td>
<td>M.S., FST Food Safety</td>
</tr>
<tr>
<td>Andrea Walker</td>
<td>Jahncke</td>
<td>M.S., FST Food Safety</td>
</tr>
</tbody>
</table>

Farm Management, Technical, and Office Staff

<table>
<thead>
<tr>
<th>Funding Category</th>
<th>Employees</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Funded, full-time</td>
<td>2</td>
<td>Steve Urick, Hatchery Manager; Gail Jamison, Executive Assistant</td>
</tr>
<tr>
<td>Grants and Contracts, full-time</td>
<td>3</td>
<td>Helen Crocker, Microbiologist; George Wenn, Laboratory Specialist, Aquaculture; Alex Squadrito, Research Specialist, Aquaculture</td>
</tr>
</tbody>
</table>

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 yellowfin tuna. (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)
- Outputs may include a web/disk/downloadable program from the initial workshop that individuals could use to determine ways to control energy usage. (Lane)
- Assist with the development of higher value production processes for the red crab. Output: Assist Virginia processors to develop better ways to keep red crab alive on-shore so it can be sold into live markets; develop handpicking methods to reduce the amount of shell in the meat; develop sections for cluster market. (Kauffman)
- Seafood value-added programs for wild-caught and aquacultured species. (Kauffman)