### Physical Resources

<table>
<thead>
<tr>
<th>Land and Facilities</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virginia Tech owned</td>
<td>226 acres: Office and lab complex, farm buildings, farm manager’s residence, graduate student housing, cropland, pond, and woodlands</td>
</tr>
</tbody>
</table>

**Director**  -  Steve L. Rideout, 757-414-0724 ext. 17, srideout@vt.edu

### Resident Faculty

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Research and Extension Focus Areas</th>
</tr>
</thead>
</table>
| Zachary M. Easton  
Assistant Professor, Biological Systems Engineering (BSE) | Water Quality and Best Management Practices, watershed modeling |
| Joshua H. Freeman  
Assistant Professor, Horticulture | Cultural management of vegetables, alternative crops, and fumigant alternatives |
| Mark S. Reiter  
Assistant Professor, Crop and Soil Environmental Sciences (CSES) | Soils and nutrient management of vegetable, oilseed, grain, and fiber crops |
| Steve L. Rideout  
Associate Professor, Plant Pathology, Physiology, and Weed Sciences (PPWS) | Plant disease management and biology of vegetable, oilseed, and grain crops |
| Henry P. Wilson  
Professor, PPWS | Weed management, weed resistance, and new herbicide technology |

### Non-Resident Faculty Conducting Research and Collaborative Work

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Research Involvement</th>
</tr>
</thead>
</table>
| Carl A. Griffey  
Professor, CSES | Small grain variety breeding |
| W. Hunter Frame  
Assistant Professor, CSES (Tidewater AREC) | Cotton variety evaluation |
| D. Ames Herbert, Jr.  
Professor, Entomology (ENTO) (Tidewater AREC) | Soybean insecticide research |
| David L. Holshouser  
Associate Professor, CSES (Tidewater AREC) | Soybean variety evaluation |
| Thomas P. Kuhar  
Associate Professor, ENTO | Integrated pest management on vegetable and oilseed, and grain crops |
| Wade E. Thomason  
Associate Professor, CSES | Small grain variety evaluation |

### 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>Jane Corson-Lassiter</td>
<td>Reiter</td>
<td>MALS Student; Soil Fertility/Environmental Science Concentration</td>
</tr>
<tr>
<td>Ursula Deitch</td>
<td>Reiter/Freeman</td>
<td>MALS Student; Soil Fertility/Environmental Science Concentration</td>
</tr>
<tr>
<td>Kathryn Fiedler</td>
<td>Rideout</td>
<td>Ph.D. Candidate, Postharvest Diseases of Tomato</td>
</tr>
<tr>
<td>Catherine Fleming</td>
<td>Reiter/Freeman</td>
<td>Ph.D. Candidate; Nutrient Management in Sandy Loam Soils</td>
</tr>
<tr>
<td>Ganyu Gu</td>
<td>Rideout</td>
<td>Postdoctoral Research Associate, Plant Pathology and Produce Safety</td>
</tr>
<tr>
<td>Emily Lassiter</td>
<td>Easton</td>
<td>M.S. Student, BSE Watershed Science and Engineering</td>
</tr>
<tr>
<td>Mark Rogers</td>
<td>Easton</td>
<td>Ph.D Candidate; BSE Watershed Science and Engineering</td>
</tr>
<tr>
<td>Nick Smith</td>
<td>Easton</td>
<td>M.S. Student, BSE Watershed Science and Engineering</td>
</tr>
<tr>
<td>Daniel Fuka</td>
<td>Easton</td>
<td>Post Doctoral Associate BSE; Watershed Science and Engineering</td>
</tr>
</tbody>
</table>
Theresa Long Rideout MALS Student; Plant Science and Pest Management Concentration
Kurt Vollmer Wilson Ph.D. Candidate, Herbicide Resistant Weeds

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>7</td>
<td>Includes farm manager, 2 office staff, and 4 technical staff</td>
</tr>
<tr>
<td>Grant Funded, full-time</td>
<td>3</td>
<td>Includes 1 technical staff and 2 post-doctoral research associate</td>
</tr>
<tr>
<td>Grants and Contracts, part-time</td>
<td>30</td>
<td>Includes 1500 hour/year, seasonal and summer employees</td>
</tr>
</tbody>
</table>

Research and Extension Programs

- Evaluation and implementation of alternatives for the soil fumigant methyl bromide (Freeman, Rideout, Wilson, Kuhar)
- Evaluation and implementation of alternatives for the soil fumigant methyl bromide (Freeman, Rideout, Wilson)
- Investigating the feasibility and performance of grafted tomato and watermelon plants (Freeman)
- Evaluating new potato varieties for Virginia (Freeman)
- Improved management of tomato bacterial wilt through resistant cultivars and grafting (Rideout, Freeman)
- Study and outreach involving food-safety concerns involving Salmonella in tomatoes (Rideout, Gu)
- Develop better understanding of postharvest diseases of vegetables (Rideout, Fiedler)
- Determine optimal timings, fungicide selection, and feasibility of fungicide applications in field crops for Eastern Shore producers (Rideout, Long)
- Oversee the Virginia Potato Disease Advisory, a weekly report that advises potato growers on the likelihood of potato disease development (Rideout)
- Stewarding new plastic mulch technology into production systems (Freeman)
- Increase fertilizer use efficiency and production of vegetable, grain, oilseed, and fiber crops (Reiter, Fleming, Freeman)
- Interaction of fertilizer management and disease pressure/resistance for grain and vegetable crops (Reiter, Rideout)
- Alternative fertilizer sources for vegetable and grain crops (Reiter, Corson-Lassiter)
- Reduce soil and nutrient loading to waterways from vegetable, oilseed, and grain crop production systems (Reiter, Fleming, Freeman, Easton)
- Increase carbon sequestration; thereby, improving physical and chemical soil attributes for increased production in vegetable and grain systems (Reiter)
- Refining macro- and micronutrient recommendations for plant tissue and soil tests in Virginia vegetable, grain, and oilseed crop production systems (Reiter, Holshouser)
- Reclamation of agricultural land following strip mining in Southeast Virginia (Reiter, Evanylo, Daniels)
- Best management practices for poultry litter to increase air quality and fertilizer use efficiency while reducing nutrient loads into waterways (Reiter, Maguire)
- Determining the most appropriate planting date and management strategies for strawberries (Freeman)
- Developing alternative controls for herbicide-resistant weeds (Wilson)
- Italian ryegrass control and herbicide resistance (Wilson)
- Yellow nutsedge control in plasticulture tomatoes (Wilson, Freeman)
- Weed management in vegetable beans (Wilson)
- Investigation of 2,4-D and Dicamba resistant soybeans (Wilson)
- Improving the transport component of the P Index (Easton)
- Quantifying greenhouse gas production during denitrification (Easton)
- Developing substrates to control reduction/oxidation (redox) reactions during denitrification (Easton)
- How does land use (change) impact water quality (Easton)
- How do agricultural management practices affect water quality (Easton, Reiter)
- What processes control the fate and transport of nutrients and sediments (Easton)
- Developing innovative and cost effective best management practices for improvement of environmental quality (Easton, Reiter)