Implementation of Agroecology Summer Institutes for Secondary Teachers in South Texas

Tim Sears, Assistant Professor in Practice
The Rio Grande Valley of South Texas

- one of the highest obesity and diabetes rates in the country
- ranks last in the percentage of the state population that eats vegetables regularly; one of the agriculturally richest areas in TX
- invasive species and recent urban development threaten the sustainability of local agricultural efforts
Three-Year Grant-Funded CENA Program (2014-2016)

- Curriculum Development, Experiential Learning, Networking, and Agroecology for a diverse clientele in South Texas (CENA) program

- A project of UTRGV’s Agroecology and Resilient Food Systems Program
  - College of Sciences: School of Earth, Environmental, and Marine Sciences

- Grant funds awarded from the USDA’s National Institute of Food and Agriculture were used to increase teachers’ awareness of agroecology concepts and research, one component of the university’s program

- Dr. Alex Racelis, Agroecology Program Director
  - Poster Presentation today from 2:05-3:10 pm (number 274)
  - Oral Presentation tomorrow at 11:10 am (number 272)
Summer Institute Goals

1. Mechanism to improve agricultural education in South Texas

2. Create a high school-college-career pipeline for Hispanic students in the agroecological and food related sciences

3. Increase future participation in our Hispanic-Serving Institution’s research internships and undergraduate and graduate environmental sciences programs
## Summer Agroecology Institute Applicants & Participants

<table>
<thead>
<tr>
<th>Summer Institute</th>
<th>Summer 2014</th>
<th>Summer 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong># Applicants</strong></td>
<td>33</td>
<td>103</td>
</tr>
<tr>
<td>- Elementary</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>- Middle School</td>
<td>23</td>
<td>43</td>
</tr>
<tr>
<td>- High School</td>
<td>3</td>
<td>60</td>
</tr>
<tr>
<td><strong># School Districts</strong></td>
<td>10</td>
<td>25</td>
</tr>
<tr>
<td>- # of Schools</td>
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<td>66</td>
</tr>
<tr>
<td><strong>Participants</strong></td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>- # of Districts</td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>- # of Campuses</td>
<td>14</td>
<td>21</td>
</tr>
</tbody>
</table>
Activities on Four Fridays in June

• Morning session: field trips to local USDA and university agricultural research facilities
  • UTRGV university research garden, community garden, and greenhouse
  • Texas A&M AgriLife Extension Service (Weslaco, TX)
  • USDA APHIS CPHST (Mission, TX lab) - fruit fly production, current research on citrus pests, and cattle tick fever research
  • Terra Preta organic farm and Rio Farm (Edinburg, TX)
  • Plantation Produce Packing Plant (Mission, TX)

• Afternoon session: hands-on activities related to plant science, local crops and organic farming

• Teacher participants reported that they incorporated the local issues and concepts into their schools’ secondary science curriculum

• Third institute is planned for July 2016
Contact Information

Tim Sears
Assistant Professor in Practice
The University of Texas Rio Grande Valley
tim.sears@utrgv.edu

Dr. Alex Racelis
Agroecology Program Director
The University of Texas Rio Grande Valley
agroecology@utrgv.edu
utrgv.edu/agroecology