QUICK FACTS
- Faculty scientists (69 FTE), graduate research assistants (81 FTE), and research staff (99 FTE)
- 8 sites
- Future Swine Education and Research Facility, Cow-Calf Education and Research Facility, and Headhouse/Greenhouse construction starts/continues in 2015
- $34.5M of operating and external funds expended in the conduct of scientific research in FY14
  - $12.2M on animal production and protection
  - $10.6M on plant production and protection
  - $7.8M on natural resources (includes agriculture, natural resource, and bioengineering)
  - $4.0M on food, human health and nutrition, families, youth, and communities
- 1 invention disclosure, 2 patent or plant variety protection filings, and 3 plant variety protections issued in FY14
- Contributions made to South Dakota economy include Prairie Aquatech, Medgene Labs, Cyanosun, and a precision agriculture enterprise collaboration

WHAT IS SDSU AES?
- One of three major components comprising the university’s land-grant mission of teaching, research, and outreach
- Partnership of USDA and state for relevant agriculture, food, and nutrition research
- Feeds economic development in targeted GOED industry sectors of value-added agriculture and agribusiness, energy and environment, and materials and advanced manufacturing
- Growing AES research is part of the IMPACT 2018 goals of increased innovation, technology transfer, and economic development

SDSU AES FY14 EXTERNAL RESEARCH FUNDS

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>$350,356</td>
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<tr>
<td>Nonprofit</td>
<td>$3,366,751</td>
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<tr>
<td>Private</td>
<td>$867,185</td>
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<td>Federal</td>
<td>$8,096,704</td>
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</table>

Total Actual Expenditures: $12,782,996

SDSU AES FY15 BUDGET AUTHORITY

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal</td>
<td>$3,379,680</td>
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<tr>
<td>Federal Restricted</td>
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<tr>
<td>Other</td>
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<td>State General Funds</td>
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<td>School &amp; Public Lands</td>
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<td>State Appropriated</td>
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</table>

Actual federal appropriation is $3,379,680

RECENT HIGHLIGHTS
- Precision agriculture initiative
  - Partnering with Jerome J. Lohr College of Engineering
  - 2020 Vision: South Dakota Science and Innovation Strategy
- Greenhouse, headhouse, and seed house complex planning and fundraising completed – targeted construction start in 2015
- Increased visibility – hosted USDA Chief Scientist Dr. Cathy Woteki and USDA-NIFA Director Dr. Sonny Ramaswami
- External project funding during the last six months:
  - 22 percent more proposals submitted
  - 5 percent more grants and contracts awarded (162)
  - 49 percent increase in awarded funds ($12.1M)
- $2.2M sponsored by partnering commodity organizations (FY14)

CHALLENGES
- Shortfalls of salary policy, insurance, and benefits on federal salaries erode impact of federal funds
  - Deferred maintenance and repair
  - Deferred vacancy fills
  - Stopping of some research
  - Limited responsiveness to new research questions
- Federal funds erosion FY13-FY15 of $647,000
- Although new capital construction will enhance productivity, deferred maintenance and repair on other existing facilities limits research and faculty recruitment and retention