As Texas Tech University celebrates its centennial in 2023, it is fitting that we honor the past while turning our focus to the future. This document celebrates and honors the long and consistent history of Texas Tech’s College of Agricultural Sciences and Natural Resources (CASNR) service to the public, and provides a framework for faculty, staff and students as we work to meet the challenges of a rapidly changing world. The strength of CASNR at Texas Tech University lies in its ability to develop students with disciplinary understanding as well as personal and professional abilities to become leaders in the industries we serve. A major focus of CASNR is to develop new knowledge, products and processes, thus enhancing the sustainability and the quality of life for Texans and others while at the same time delivering new information to the public.

In discussions with the CASNR Advisory Committee and members of the industries we serve, we ask about the traits and qualities they seek in new employees. We recognize that knowledge in a discipline is important, but it must be combined with the development of “soft skills.” For example, can students work independently, can they work in a team, can they articulate a point, will they represent themselves and the company well? Guiding students to incorporate “soft skills” into their experiences and tool kit is a towering accomplishment of CASNR and a historical strength of the college.

The commitment of CASNR faculty to student success is evident in faculty advising, providing experiential learning opportunities, paths to internship experience, undergraduate leadership opportunities, undergraduate research, and graduate student training. These activities, for which we are known, must continue at the same high level, although new approaches and techniques are needed to balance the new mission areas for which Texas Tech will also focus in the future.

Since 2015, Texas Tech University has been listed among 90 public universities in the United States by the Carnegie Classification of Institutions of Higher Education as an institution with Very High Research Activity (R1). This achievement has a positive impact on everything we accomplish at Texas Tech. We are now considered a major national and international research university, not a regional college with a focus on teaching only. CASNR is one of the leading colleges at Texas Tech in research activity, and it has the research capability to continue developing new knowledge for those we serve. The Research-1 status increases our stature among undergraduate and graduate students and compels us to grow research activity, especially with federal partners.

CASNR’s philosophy focuses on service for the public good. Undergraduates and graduate students are involved in developing new technologies and information designed to improve lives, and we transfer that knowledge to the public. Community engagement ranges from service learning opportunities for students and the community to field days designed to demonstrate new research to assist our farm and ranch and other clientele.

We appreciate the input provided by stakeholders, faculty, staff and students who contributed to the development of the CASNR Strategic Plan. Recent momentum generated through the three-part mission of teaching, research and engagement within Texas Tech University, and this strategic plan is a bold roadmap for taking the college to even higher levels of excellence in all we do.

Sincerely,
CASNR Strategic Planning Committee
Vision Statement

CASNR will empower, elevate, and transform lives to address the challenges of a changing world.

Mission Statement

CASNR develops global leaders through innovative teaching, research, and scholarship while engaging with diverse communities to improve the world’s food, fiber, and natural resources.

Values

Integrity: Value a personal commitment to honesty and accountability.

Relationships: Maintain personal relationships as we interact with students and their families, colleagues, staff, alumni, and the community.

Spirit: Foster a can-do attitude through service.

Empowerment: Develop leaders through high impact experiences.

Innovation: Conduct research that addresses issues relevant to the community, state, nation, and world.

Inclusion: Create an environment that makes everyone an important part of the college’s success.

Engagement: Work in local and global partnerships to solve problems.

CASNR Strategic Guidance

- CASNR will grow industry and private partnerships to provide guidance/input and resources to accomplish our academic, research and engagement goals. Public and private partnerships will focus on endowments and contracts/agreements to support undergraduate and graduate student scholarships, international experiences for students, internships, graduate assistantships, mentoring programs with industry representatives, research space and projects, faculty positions, and other activities.

- CASNR will increase transdisciplinary collaborations across TTU Colleges and beyond, to meet the needs of a global society. Establish partnerships across the TTU System to build modern curriculum and strengthen research outcomes especially with federal agencies.
Strategic Priorities identify areas of vital importance to the state, region, country and world. These are areas of focus where CASNR, in collaboration with others, can bring together the teaching, research and outreach missions of the various departments, colleges and disciplines within CASNR and beyond to address real world challenges.

Student Success and Leadership: We aim to create opportunities for our students to succeed through high impact learning that includes research and service learning and career training. Our goal is to develop successful leaders who think critically and communicate effectively. Students in our college develop expertise and soft skills through internships, leadership programs like the Matador Institute of Leadership Engagement (MILE), Governmental Internship Programs, collaborations with industry, and other high impact experiences.

Rural Economic and Societal Sustainability: The resilience of rural areas and populations which support agricultural and natural resource activities is a critical issue for our state, region and the nation. Working inside and beyond CASNR, we focus on improving rural sustainability in several areas, including natural resources, energy, health, education, and technological development of rural communities.

Water and Soil Health: Water availability and water use efficiency in the face of changing agriculture are vital to the economy and society of Texas. CASNR proactively focuses on several aspects of water management, from housing a leading genomics laboratory that focuses on tolerance to water and salt stress to research centers that focus on water-efficient cropping, landscaping, forages and animal care, and irrigation methods to minimize water waste. Soil health is the capacity of soil to sustain plants, microbes, animals, and humans. Soil chemistry, physics, microbiology, and other suitability aspects are important in native environments, production systems, landscapes, and anything else that uses soil. Understanding these relationships and interactions can inform management decisions now and adaptations in the future.

Natural Resources and Wildlife: CASNR brings together education, research and outreach to address the challenges of natural resource management focusing upon a diversity of topics related to wildlife and range conservation and management, aquatic resource sciences and conservation, and application of geospatial technologies to solve natural resource problems. Faculty and students within CASNR work closely with private landowners, public natural resource agencies, collaborators at other universities, and regionally invested stakeholders to address relevant questions related to sustainable conservation and management of our natural resources. Collectively, our emphasis areas strategically use cutting edge technologies to provide viable solutions to stakeholders for conserving terrestrial and aquatic wildlife, managing rangeland resources, managing watersheds to protect water resources, surveilling wildlife health and disease and controlling invasive species.

Agricultural Commodities: Texas supports a vibrant agricultural economy, leading the United States in cattle and cotton production and ranking second in wine production. CASNR has been and will continue to be a leader in education, research, and outreach in the improvement of production and fiber quality in cotton. This research includes identification of novel tolerance mechanisms to stress, the development of plant-based plastics and other bioproducts, development of precision production practices, and development of innovative methods of identifying and improving cotton fiber quality. Further, a thriving animal science program focuses on nutrition, animal well-being, genetics, and physiology in cattle, horses, sheep, goats, and swine.

Improving Quality of Life: Quality of life is a qualitative standard of health and happiness that are experienced throughout one’s life and can be described individually and as a community. CASNR has several programs that benefit individuals and communities and add to quality of life. The companion animal program studies the interactions of dogs and other companion animals with the people who rely on them. The viticulture
and enology program teaches students the science of grape production and winemaking while integrating with commercial vineyards in Texas. Other research centers focus on natural resource preservation, beautification of landscapes and green spaces, and communications with the local and regional communities.

**Food Security and Safety:** The quality and availability of food is vital to a growing global population, and CASNR leads research in food science and safety through an interdisciplinary approach to address the issues of food security and safety through science, economics, education, and communication.

### CASNR Leadership Roles

- Develop policies and procedures to promote the hiring and retention of the highest quality faculty and staff.
- Recognize and support the importance of the creative process and the goal of excellence in all we do.
- Invest in teams that deepen the integration across mission areas and disciplines to demonstrate global leadership in addressing priority issues by valuing cross-mission and interdisciplinary collaborations.
- Grow new, and continue to improve existing, student leadership development programs to expand the learning outcomes of undergraduate and graduate students.
- Participate in university, state, and national leadership programs to build leadership skills of faculty and staff members.
- Fully engage the CASNR and departmental advisory committees to develop and utilize proactive approaches for identifying the highest priority issues facing the stakeholders we serve.
- Invest in dedicated co-working spaces (renovated Dairy Barn) to stimulate collaborations across all colleges at Texas Tech. The CASNR Grants Office will be located in the renovated Dairy Barn.
- Conduct exit interviews with all departing faculty and staff.
- Increase the number of named endowed chair and professorships during the strategic planning period until 2025.
- Continue and improve a Faculty Fellows Development Program, a 9-month program for pre-tenure faculty which covers the aspects of how to become a successful faculty member.
Educate and Empower a Diverse Student Body

**Goal 1:** Advance and sustain a campus climate and culture characterized by accessibility, inclusiveness and high academic quality.

**Goal 2:** Nurture and enhance a learning environment that fosters success and wellness.

**Goal 3:** Deliver unique and transformative learning opportunities and experiences.

**Goal 4:** Increase retention, graduation rates, and placement of graduates.

**Strategies**

- Enhance diversity of our faculty and student population through targeted recruitment and retention activities.
- Provide exceptional curriculum and student support to ensure retention and completion of degree.
- Dedicate adequate resources to address infrastructure needs related to personnel and facilities that keep pace with enrollment growth.
- Increase awareness of the diverse career opportunities for CASNR students.
- Increase opportunities for international programs and partnerships to recruit international students and support more study abroad experiences.
- Enhance curriculum with high impact learning opportunities (including internships, research, service learning, study abroad, and entrepreneurship) to meet the needs of our student body to be leaders in the industries we serve.
- Improve students’ essential skills related to communication, problem solving, critical thinking, decision making, leadership, and ethical behavior.
- Cultivate a supportive environment for faculty to improve their teaching effectiveness while acknowledging the workload dedicated to this crucial mission.
- Maximize effectiveness of faculty advising through the adoption of a sustainable advising model to provide students with both academic guidance and career mentoring.
- Increase online course and degree delivery opportunities.
- Engage with alumni, state and federal agencies, and private industry to seek feedback to inform curriculum development efforts, create internship opportunities for students, and ensure job placement of graduates.

**Strategic Initiatives**

**CASNR Faculty Academic Council:** A council comprised of faculty members from each department in the college who will discuss issues of importance to the faculty related to advising, teaching, research, outreach, mentoring and more. This council will provide a unified voice to present recommendations to college leadership and inform the development of new initiatives and programs.

**Matador Institute of Leadership Engagement (MILE):** This program presents a unique opportunity to provide our students with leadership and professional development opportunities while they learn more about future career possibilities. It is important to extend the reach of this program to involve more students in the college and build networks with alumni and supporters.
Bill Bennett Student Success Center: This center is a crucial hub to continue supporting the recruitment and retention efforts of the college. This center can also provide resources for study abroad, student organizations, Congressional internships, and alumni engagement. In addition, renewed emphasis on diversity and inclusion are necessary to best serve our students, faculty, and staff. This center can also foster the development of high-impact learning opportunities, innovative curriculum, and student mental health support.

Focus on Enhancing Agriscience Communication: Individuals outside of agriculture and natural resource areas of expertise are asking vital questions about industry practices and impacts. Regardless of the academic discipline, effective communication skills are vital to provide information in meaningful ways. Additionally, improving both undergraduate and graduate students’ communication skills will lead to more employees that are successful and improve their ability to make broader contributions to society.

Educate & Empower a Diverse Student Body - Targets

<table>
<thead>
<tr>
<th>College of Agricultural Sciences &amp; Natural Resources</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2020 Target</th>
<th>2025 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-year retention rate of FTIC freshman ((\text{Fall}))</td>
<td>86.5%</td>
<td>89.1%</td>
<td>87.3%</td>
<td>90%</td>
<td>91%</td>
</tr>
<tr>
<td>6-year graduation rate of FTIC freshman ((\text{Fall}))</td>
<td>2011</td>
<td>2012</td>
<td>2013</td>
<td>2015</td>
<td>2020</td>
</tr>
<tr>
<td>4-year graduation rate of FTIC freshman ((\text{Fall}))</td>
<td>2013</td>
<td>2014</td>
<td>2015</td>
<td>2017</td>
<td>2022</td>
</tr>
<tr>
<td>Percent of FTIC enrollment ((\text{Fall}))</td>
<td>14.44</td>
<td>29.43</td>
<td>23.10</td>
<td>24</td>
<td>27.5</td>
</tr>
<tr>
<td>* African-American/Black</td>
<td>2.59</td>
<td>2.34</td>
<td>2.14</td>
<td>2.5</td>
<td>4</td>
</tr>
<tr>
<td>* Asian</td>
<td>.37</td>
<td>.78</td>
<td>.71</td>
<td>.75</td>
<td>1.5</td>
</tr>
<tr>
<td>* Hispanic</td>
<td>14.44</td>
<td>29.43</td>
<td>23.10</td>
<td>24</td>
<td>27.5</td>
</tr>
<tr>
<td>Number of baccalaureate degrees awarded ((\text{FY}))</td>
<td>381</td>
<td>422</td>
<td>446</td>
<td>465</td>
<td>500</td>
</tr>
<tr>
<td>Number of master’s degrees awarded ((\text{FY}))</td>
<td>78</td>
<td>88</td>
<td>102</td>
<td>118</td>
<td>150</td>
</tr>
<tr>
<td>Number of doctorate degrees awarded ((\text{FY}))</td>
<td>30</td>
<td>31</td>
<td>41</td>
<td>42</td>
<td>55</td>
</tr>
<tr>
<td>Number of undergraduate students enrolled ((\text{Fall}))</td>
<td>1,752</td>
<td>1,902</td>
<td>2,070</td>
<td>2,085</td>
<td>2,189</td>
</tr>
<tr>
<td>Number of graduate students enrolled ((\text{Fall}))</td>
<td>420</td>
<td>401</td>
<td>417</td>
<td>400</td>
<td>420</td>
</tr>
<tr>
<td>Number of students studying abroad ((\text{CY}))</td>
<td>60</td>
<td>43</td>
<td>60</td>
<td>N/A</td>
<td>75</td>
</tr>
<tr>
<td>Total student credit hours ((\text{FY}))</td>
<td>43,359</td>
<td>47,900</td>
<td>50,186</td>
<td>51,189</td>
<td>53,748</td>
</tr>
<tr>
<td>Regional site enrollment ((\text{Fall}))</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>Student credit hours per full time student (undergraduate) ((\text{Fall}))</td>
<td>12.36</td>
<td>11.87</td>
<td>11.22</td>
<td>13</td>
<td>15</td>
</tr>
<tr>
<td>Number of student credit hours taken online (undergraduate &amp; graduate) ((\text{FY}))</td>
<td>2214</td>
<td>2623</td>
<td>2877</td>
<td>3020</td>
<td>3201</td>
</tr>
<tr>
<td>Total number of faculty (FTE and headcount, excluding TA-GPTI) ((\text{Fall}))</td>
<td>120.56</td>
<td>125.2</td>
<td>128.3</td>
<td>128.3</td>
<td>130.3</td>
</tr>
<tr>
<td>Student-to-faculty ratio (THECB) ((\text{Fall}))</td>
<td>16</td>
<td>15</td>
<td>16</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Presidential scholarships awarded ((\text{Fall}))</td>
<td>114</td>
<td>210</td>
<td>326</td>
<td>330</td>
<td>360</td>
</tr>
<tr>
<td>Average FTIC ACT/SAT scores ((\text{Fall}))</td>
<td>24</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
</tr>
</tbody>
</table>

**TTU Fact Book**

**\(\gamma\) TTU Metrics for Colleges and Departments:**

[www.depts.ttu.edu/irim/CollegeProfiles/IR_OnlineSCH.php](http://www.depts.ttu.edu/irim/CollegeProfiles/IR_OnlineSCH.php)

**\(\gamma\) Scholarships Office:** Jennifer Fauls

**\(\gamma\) College Profiles:**

[www.depts.ttu.edu/irim/CollegeProfiles/IR_RegionalSite.php](http://www.depts.ttu.edu/irim/CollegeProfiles/IR_RegionalSite.php)

**\(\gamma\) Study Abroad Office**
Enable Innovative Research and Creative Activities

**Goal 1:** Increase the productivity and impact of research, scholarship, and creative activity that advances knowledge, benefits human society and quality of life, and contributes to economic development.

**Goal 2:** Enhance capacity and opportunities for research, scholarship, and creative activity for faculty, students, and staff.

**Goal 3:** Advance entrepreneurial activity, collaboration, and innovation and technology transfer.

**Strategies**

- Expand the number of cross-college and multi-institutional teams developing federal and other proposals where CASNR can be both a lead and a collaborator. Engage the CASNR grants office and the TTU Office of Research Services to assist faculty teams in preparing these proposals.

- Build a faculty appointment system that defines faculty expectations and responsibility (% teaching, % research, % service).

- Emphasize the number of grants submitted and amount of dollars requested, regardless of sources (federal, state, private, industry, etc.).

- Track the number of awards made and dollar value awarded by faculty member, department and college, by source (federal, state, private, industry, etc.).

- Track total expenditures and research expenditures as determined by the NSF HERD report.

- Grow the number and quality of publications in top-tier disciplinary journals.

- Grow the number and quality of faculty and student presentations made at professional society meetings. Evaluate the success of programs using an assessment and evaluation team comprised of faculty from each CASNR department. The assessment team will establish an annual faculty report on progress.

- Develop a CASNR level committee to advocate nominations for the types of honors and recognitions that are targeted in professional societies.

- Implement a CASNR Research Day.

- Develop a CASNR funding mechanism for scholarly output.

- Establish a grant program with the VPR to support these activities and create a CASNR-specific “Innovation Hub.”

- Create links to the CASNR webpage and the CASNR alumni webpage to transfer information to stakeholders. Provide links to Development Office and CASNR Alumni Publications/Outreach materials.
**Strategic Initiatives**

**Water and Resource Conservation:** As groundwater declines in the Southern High Plains, a primary focus of CASNR is conservation of water and water-based resources. The CASNR Water Center is a platform for communicating information and opportunities for cooperation focusing on water-resource activities. These and other research groups strive to conserve and efficiently use limited environmental resources while strengthening rural agricultural economies.

**Institute for Genomics of Crop Abiotic Stress Tolerance:** IGCAST is a new institute at Texas Tech University that will focus on using state of the art functional genomics to study processes involved in the tolerance to different types of abiotic stress (drought, salinity, heat, cold and low nutrient availability) and in the use of synthetic biology for the improvement of crop abiotic stress tolerance.

**Fiber and Biopolymer Research Institute:** The Fiber and Biopolymer Research Institute is committed to serving the research needs of manufacturers, cotton breeders and public agencies. Academic programs, in conjunction with other colleges at Texas Tech, are continually seeking collaborations. Research done at the Fiber and Biopolymer Research Institute is changing the way the world talks about Fiber Quality. The FBRI hosts the Texas International Cotton School, which is uniquely structured, to provide an integrated understanding of the Texas cotton industry and how it interacts with the global cotton/textile complex.

**Quail-Tech Alliance:** The Quail-Tech Alliance strives to increase the population of quail in the Texas Rolling Plains by collaborating with conservation-minded individuals to expand sustainable populations through increased knowledge, understanding and research. Their goal is to reverse the decline of quail in Texas and stretches across 38 counties and 22 million acres in the Rolling Plains of Texas, representing areas populous in quail and those where quail populations have declined. Backed by their anchor ranches, they are conducting one of the largest quail data collection efforts to learn how to best protect quail populations and habitat.

**International Center for Food Industry Excellence:** The International Center for Food Industry Excellence (ICFIE) provides innovation, research, and technology transfer across the four pillars of food security. Focus areas of the Center include food access, availability, stability and utilization both domestically and internationally. We are working to address the need of feeding a growing worldwide population in a climate of shrinking resources, political unrest and increasing input costs. Through research, education and outreach, we will identify and implement the methods that will allow us to feed the world, now and in the future.

**Llano Estacado Big Data for Decision Making and Landscape Visualization:** The Llano Estacado big data project integrates thousands of data sets necessary for innovative research, visualization (AR, VR, xR), and decision making in the High Plains regional landscape. The Department of Landscape Architecture investigates and develops new data resources to aid understanding, management, planning and design of agricultural, rural, and urbanizing landscapes of the Llano Estacado. The ambition is to create a digital twin of this globally important agricultural region to test alternative futures vital to adaptability and resiliency of the regional: economy, natural beauty, playa lake ecosystems, aquifer resources and recharge, and biodiversity functions critical to migratory birds and invertebrate species, as well as crops and livestock. Ultimately, these data are catalysts to research questions, funding and publications critical to this semi-arid region’s adaptability and resiliency within a rapidly changing world with over 9B people in the next 20 years.
## Enable Innovative Research and Creative Activities

<table>
<thead>
<tr>
<th>College of Agricultural Sciences &amp; Natural Resources</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2020 Target</th>
<th>2025 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total grant submissions $M</td>
<td>35.47</td>
<td>37.96</td>
<td>44.73</td>
<td>45.0</td>
<td>53.0</td>
</tr>
<tr>
<td>Total awards $M</td>
<td>7.01</td>
<td>7.32</td>
<td>7.92</td>
<td>8.7</td>
<td>10.9</td>
</tr>
<tr>
<td>Total research expenditures $M</td>
<td>19.61</td>
<td>21.90</td>
<td>23.86</td>
<td>25.1</td>
<td>28.4</td>
</tr>
<tr>
<td>Federal research expenditures $M</td>
<td>3.26</td>
<td>3.44</td>
<td>3.31</td>
<td>3.48</td>
<td>3.90</td>
</tr>
<tr>
<td>Research presentations ICD#</td>
<td></td>
<td></td>
<td></td>
<td>285</td>
<td>350</td>
</tr>
<tr>
<td>Refereed journal articles ICD#</td>
<td></td>
<td></td>
<td></td>
<td>236</td>
<td>260</td>
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<tr>
<td>Books/Book Chapters (refereed) ICD#</td>
<td></td>
<td></td>
<td></td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Editorial Boards ICD#</td>
<td></td>
<td></td>
<td></td>
<td>27</td>
<td>33</td>
</tr>
</tbody>
</table>

TTU Metrics for Colleges and Departments:

Digital Measures

# ICD Incomplete Data
Transform Lives and Communities through Strategic Outreach and Engaged Scholarship

**Goal 1:** Instill a culture that recognizes outreach and engaged scholarship as an essential component of the college’s activity.

**Goal 2:** Achieve sustainable outreach and engaged scholarship programs through diverse funding streams and long-term campus community partnerships.

**Goal 3:** Enhance recognition of faculty and staff who contribute to outreach and engaged scholarship activities that impact local, state, national, and global communities.

**Goal 4:** Increase and strengthen collaborative, mutually beneficial community partnerships that stimulate creativity, innovation, and social and economic development.

**Strategies**

- Value engaged faculty, staff, and student scholarship.
- Grow college-wide and college-community partnerships.
- Focus on engagement while developing local, state, national, and global external collaborations and funding opportunities.
- Continue the youth development and leadership programs.
- Enhance recognition of faculty and staff who contribute to outreach and engaged scholarship activities that impact local, state, national, and global communities.
- Enhance engaged scholarship in the classroom and through service learning opportunities.
- Encourage collaboration with industry and community partners.
- Expand the CASNR communication footprint through proactive media relations.

**Strategic Initiatives**

**CASNR Water Center:** The College of Agricultural Science and Natural Resources (CASNR) Water Center provides a platform for communicating information and opportunities for cooperation focusing on water-resource activities. This platform recognizes the key role of water in sustaining the livelihood of humanity and the health of natural resources in the semiarid region of West Texas and the world. The CASNR Water Center consists of faculty whose research, education, and engagement activities address a wide spectrum of water issues pertaining to agriculture and the environment. Such activities include water use and conservation in crop, soil, and animal sciences, native wildlife and rangeland ecology, horticulture, and urban land use. Water Center activities impact decisions made by landowners, business managers, and policy-makers that lead to sustainable supplies and quality of water.
Texas Alliance for Water Conservation (TAWC): Unique to the TAWC project is a partnership of area producers, data collection technologies, and collaborating partners that include: industries, universities, and government agencies. The project uses on-farm demonstrations of cropping and livestock systems to compare the production practices, technologies, and systems that can maintain individual farm profitability while improving water use efficiency with a goal of extending the life of the Ogallala Aquifer while maintaining the viability of local farms and communities.

TTU Equestrian Center: “The Center” is the 100-acre home of the Texas Tech Equestrian Team, Horse Judging Team, Ranch Horse Team, Rodeo Team and Therapeutic Riding & Therapy Center. It is the mission of the Texas Tech Equine programs to provide students with educational and leadership opportunities through extensive study, research, and hands on experiences in all aspects of the equine industry. With courses and teams focusing on management, reproduction, horsemanship, evaluation, ranching, rodeo, therapy, and safety; we strive to enrich the future of the equine industry by producing industry leaders.

Texas Tech Therapeutic Riding and Therapy Center: The mission of the Texas Tech Therapeutic Riding and Therapy Center (TTRC) is to provide the highest quality of equine-assisted therapy to individuals with disabilities in the South Plains. Through a collaborative effort of medical and university professionals, the goal of TTRC is to enhance the quality of life of each person participating in hippotherapy and therapeutic riding, and equine-assisted counseling. It is further a mission of the program to train students in all aspects of equine-assisted therapy and to contribute to the scientific knowledge in this area through innovative research.

International Center for Agricultural Competitiveness: The International Center for Agricultural Competitiveness (ICAC) is dedicated to the creation and dissemination of knowledge related to the competitiveness of U.S. and global agriculture. A core focus of the Center is on both domestic and international policy. But, other relevant research areas are in technology adoption, product development, resource management, trade, and international development. The Center promotes graduate education and research as well as undergraduate student experiences to help achieve its mission of a broader understanding of competitiveness.

Thornton Agricultural Finance Institute: The primary mission of the Thornton Agricultural Finance Institute is to focus faculty research on important topics in agricultural finance; providing support for courses and research in agricultural finance and related areas; and assisting with conferences, workshops and other public service functions related to agricultural finance and banking. The Thornton Agricultural Finance Institute co-sponsors the annual Bankers Agricultural Credit Conference. The conference program each year address issues and topics related to agricultural lending, the agricultural economy, legal and regulatory issues, commodity outlook and other issues of interest to rural bankers and lenders. The conference is directed by a board of directors made up of representatives from area banks. The Thornton Agricultural Finance Institute provides a focus for research on important topics in agricultural finance. Agricultural finance is a broad area that relates to many of the research projects within the Department of Agricultural and Applied Economics. The Institute provides resources to assist in several research areas.

Youth Outreach: CASNR provides showmanship clinics, livestock events, judging workshops, and judging contests to youth throughout Texas in 4-H, FFA, and other groups to prepare the next generation of agricultural leaders.

Center for AgriScience Communications at Texas Tech: The Center for Agriscience Communications was established at Texas Tech University in 1990 with the purpose of enhancing the transfer of agricultural information to agricultural and non-agricultural audiences throughout the West Texas region. In 2014, the program expanded to further meet the service related needs of the area. CATT has the following objectives: train agricultural scientists in various forms of communications-interpersonal, media, online, and others; enhance students’ communications skills through Picador Creative, a communications-service center, and other endeavors; and conduct research in effective science communications, involving message testing, message presentation, risk and crisis communications, and public opinion.
**Agricultural Certification at Texas Tech:** Teacher Certification is designed for those students who want to teach high school or college-level agriculture. Students take a variety of classes in the College of Agricultural Sciences and Natural Resources as well as in the College of Education. This track provides a hands-on approach to learning to prepare tomorrow’s top agriculture teachers.

**CASNR Research Centers:** Texas Tech is home to a network of farms and other research facilities that support faculty, graduate students, and other members of the scientific community as they focus on crop, animal, and natural resource management in the Texas High Plains. Equipped with cutting edge irrigation systems and other precision production facilities, the farms strive to meet the needs of a growing region, combining research in genetics, agronomics, and resource conservation. The farm system consists of a combined plant and animal science research facility in New Deal, Texas, a 100-acre irrigation research farm and a natural resource facility near campus, and a research and production farm next to the Fiber and Biopolymer Research Institute in East Lubbock.

**Communications:** The agriculture communications program at Texas Tech acts as a hub that connects departments and programs throughout CASNR, as well as connecting CASNR and Texas Tech with the world. Through print and online versions of *The Agriculturalist*, students, faculty, and alumni have a voice in modern agriculture and natural resources management.
## Outreach and Engaged Scholarship Targets

<table>
<thead>
<tr>
<th>College of Agricultural Sciences &amp; Natural Resources</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2020 Target</th>
<th>2025 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of projects, programs, classes and events provided for/in partnership with the community</td>
<td>27</td>
<td>23</td>
<td>106</td>
<td>30</td>
<td>35</td>
</tr>
<tr>
<td>Number of non-TTU attendees and participants in TTU OES activities</td>
<td>37,009</td>
<td>70,336</td>
<td>80,776</td>
<td>85,000</td>
<td>95,000</td>
</tr>
<tr>
<td>Number of K-12 students and teachers participating in CASNR OES activities</td>
<td>6,450</td>
<td>ICD#</td>
<td>6,744</td>
<td>7,000</td>
<td>7,500</td>
</tr>
<tr>
<td>Faculty hours</td>
<td>7,352</td>
<td>5,128</td>
<td>17,897</td>
<td>19,000</td>
<td>22,000</td>
</tr>
<tr>
<td>Staff hours</td>
<td>8,592</td>
<td>13,134</td>
<td>19,159</td>
<td>23,000</td>
<td>25,000</td>
</tr>
<tr>
<td>Student hours</td>
<td>12,504</td>
<td>11,889</td>
<td>57,112</td>
<td>60,000</td>
<td>62,000</td>
</tr>
<tr>
<td>Student participants</td>
<td>ICD#</td>
<td>ICD#</td>
<td>1,130</td>
<td>1,200</td>
<td>1,250</td>
</tr>
<tr>
<td>Number of external awards received for excellence in outreach and engaged scholarship</td>
<td>ICD#</td>
<td>61</td>
<td>54</td>
<td>65</td>
<td>70</td>
</tr>
<tr>
<td>Number of service learning courses offered</td>
<td>6</td>
<td>8</td>
<td>6</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Number of study abroad courses offered</td>
<td>7</td>
<td>15</td>
<td>20</td>
<td>22</td>
<td>25</td>
</tr>
<tr>
<td>Number of collaborative outreach and engaged partnerships</td>
<td>17</td>
<td>28</td>
<td>140</td>
<td>30</td>
<td>33</td>
</tr>
<tr>
<td>Total outreach and engaged scholarship external funding</td>
<td>$2.08M</td>
<td>$1.16M</td>
<td>$5.26M</td>
<td>$2.5M</td>
<td>$3.0M</td>
</tr>
</tbody>
</table>

#ICD: Incomplete Data

*Teaching, Learning, & Professional Development Center*  
*Raiders Engaged*  
*Office of Internal Affairs; courses offered/courses made*  
*Digital Measures*