

# College of Agricultural Sciences Strategic Plan (2018-2025)

The College of Agricultural Sciences (CAS) at Colorado State University (CSU) is well positioned to meet global challenges of a growing population that seeks food safety, food security and wellness through the sustainable use of natural resources. Our success requires a careful and comprehensive planning process that is aligned with the priorities of Colorado State University and the collective aspirations of staff, students and faculty in the College of Agricultural Sciences.

This strategic planning document is the culmination of engaged conversations with our internal and external stakeholders. It outlines the strategic direction and priorities for CAS over the next ten years. Our strategic direction is reflected in the vision and mission statements set forth in this document. These statements, in turn, are the primary consideration on which our goals and objectives are based.

Comments and inquiries about this strategic planning document should be directed to the Dean of the CAS.

## Vision

*Unquestioned global preeminence in Agri-tech and the Agribiome focusing on the safety, security and sustainability of food and resource systems contributing to our ongoing efforts to enhance the well-being of humans, plants and animals.*

## Mission

*The College of Agricultural Sciences engages its stakeholders by collaboratively identifying critical needs and co-creating knowledge to address key agricultural challenges. We actively engage in applying this knowledge and preparing our students to become successful global citizens.*

## Values

With ethics and citizenship as our foundation, and CSU's Principles of Community as our guidepost, we uphold a set of values that drive our decisions and actions:

- **Student-development:** First and foremost, our institution exists to develop students so they might become successful individuals and leading citizens in their communities and society.
- **Excellence:** We are a community of scholars and professionals. We will not compromise on our commitment to excellence and intellectual rigor.
- **Integrity:** We are accountable for our actions and will act ethically and honestly in all of our interactions and decisions.
- **Innovation:** We challenge ourselves to generate knowledge in novel ways to address the pressing needs of society. We apply these novel approaches with wisdom and integrity for the betterment of society.
- **Inclusion:** We create and nurture a diverse and inclusive environment by welcoming, valuing and respecting all members of our community, including their various identities, skills, ideas, talents, and contributions.
- **Fiscal Responsibility:** As a public institution, we have a primary responsibility to use our fiscal resources wisely with transparency and accountability.

## Planning Assumptions

Two categories of assumptions are the context for this plan: the changing stakeholder profile and fiscal shifts. These are explained below:

### Stakeholder profile assumptions:

- The growing worldwide population will demand knowledge in producing secure food supplies, providing safe and nutritious food, and enhancing food storage and distribution, while reducing food waste. Increasing international food demand and growing global incomes will spur cultural disruptions in food systems.
- Colorado's growing and increasingly urbanized population seeks knowledge, training and education on how to balance the needs of agriculture and local food production with the stewardship of natural resources and the environment. The demand for knowledge encourages research at the intersection of natural resources, agriculture, the design of the built environment and outdoor recreation.

- Undergraduate and graduate students in agricultural sciences will increasingly come from populations that do not have substantial prior experience in agriculture. Younger students are motivated differently and seek different learning modalities compared to prior generations. Inclusion and innovation will be increasingly important in teaching and learning.
- Technology and agricultural data analytics will be a source of innovation in agriculture. Stakeholders will seek new tools and training for these tools when meeting the needs of a growing population.

#### **Fiscal Shifts:**

We are focused on a sustainable financial resource base for CAS by improving cost efficiency, growing our operational revenues and increasing fiscal responsibility. The realization of a sustainable resource base is influenced by the following assumptions:

- Diminishing federal and state funds will incentivize the College of Agricultural Sciences to grow existing programs and develop new enterprise programs or entities creating additional revenue streams to attract and retain high quality faculty and students.
- Budget reallocation exercises at the University level will place increasing stress on the College's operating budgets.
- The University will increasingly provide smaller start-up funds, fringe benefit funding and special base budget appointments.
- Sources of state or federal financial aid for students will likely decrease, while the students' share of the cost of education will increase. This will require the College to increase its fundraising efforts to support student scholarships and fellowships.
- College and university development efforts will play a more central and pivotal role in securing philanthropic gifts to provide resources necessary for strategic and operational priorities.

#### **Key Academic Priorities for the College of Agricultural Sciences**

Consistent with our vision and mission, CAS students are thoroughly versed in the fundamentals of agricultural systems and receive state-of-the-art theoretical and practical training within their chosen field. A community of learning and excellent teaching is a fundamental hallmark of our college. Recognizing the changing demographics of our students and society, we strive/endeavor to advance agricultural literacy through experiential learning experiences in hands-on settings. Our graduates work collaboratively to identify and creatively solve problems, utilize technology appropriately and communicate effectively.

We strive for global preeminence in knowledge and discovery as it impacts agricultural sciences. The process of discovery is best facilitated through team collaborations that nimbly leverage our collective knowledge and resources. We strive to be at the vanguard of cutting-edge technology and innovative processes in our research specialties. Our discovery process begins by engaging with our stakeholders, seeking to answer fundamental questions and translating this knowledge into day-to-day decision making.

*Unquestioned global preeminence in Agri-tech and the Agribiome focusing on the safety, security and sustainability of food and resource systems contributing to our ongoing efforts to enhance the well-being of humans, plants and animals.*

- **Agri-tech**, refers to the application of knowledge, technology, innovation, analytics, and data collection for plant, animal and human wellbeing. CAS orients its agri-tech innovations and applications to decision processes supporting agricultural producers, agribusinesses, scientists and consumers.
- **Agribiome** refers to the collective interaction of living organisms with the environment from a very small scale to very large landscapes as found in agricultural systems. CAS applies biological experimentation, informatics and decision science in a systems approach to improve understanding of the agribiome. Understanding the agribiome is a key component in meeting stakeholder concerns of food security, food safety and the sustainability of food systems.

Our approach is grounded in the sustainable use of our land, water and energy resources consistent with the stewardship upon which agricultural sciences and the agricultural industry has a deep and abiding heritage.

#### **Stakeholders**

The College of Agricultural Sciences is committed to meeting global needs for food safety, food security and wellness through the sustainable stewardship of resources. We prioritize activities that fit within the broad scope of agricultural sciences and are of particular benefit to the citizens of Colorado.

The College of Agricultural Sciences recognizes and invests in its internal stakeholders: the students, employees, staff and faculty. CAS strives for an inclusive environment of respect and excellence in which we can find professional and personal development opportunities.

## Overarching Strategic Goals for the College of Agricultural Sciences

The College will achieve its vision of unquestioned global preeminence through a focus on two overarching strategic goals – **Student Success and Research & Engagement Excellence**. These overarching goals are supported by: **sustainable financial resources, operational efficiencies, and a culture of inclusive excellence.**

This strategic plan contains a series of goals, objectives, and strategies to serve as indicators for achieving the vision and fulfilling the mission of the College of Agricultural Sciences. We will achieve our goals of student success and Research and Engagement Excellence by implementing strategies that promote a strong financial resource base, efficient operational execution, and a culture of inclusive excellence.

**OVERARCHING GOAL 1: Student Success:** A first priority for CAS is the development of students into lifelong learners and contributing global citizens. Key student learning & success outcomes include the following:

1. Students will be proficient in the technical competencies of their program of study.
2. Our students will demonstrate competence in key aspects of agricultural literacy as defined by our learning community in CAS.
3. Students will have critical thinking skills that include defining a problem, evaluating resources with which to address the problem, choosing and implementing an appropriate methodology, and communicating the results.
4. Students will develop leadership skills including teamwork and professional development with hands-on experiences in service learning and extracurricular activities.
5. Students will engage in thoughtful, intentional and professionally written, visual, verbal and non-verbal communication.
6. Experiential learning is a platform by which the aforementioned outcomes may be attained. CAS will develop an international reputation in developing, delivering and measuring the outcomes of experiential learning as it is applied to agricultural outcomes.

### Objectives:

1. CAS will become the school of choice for agricultural sciences among high school graduates in the West. CAS will place half of its PhD students as tenure track faculty within peer institutions.
2. Increase the College of Agricultural Sciences undergraduate 3rd semester to 5th semester student persistence rate from 75% to 85% by 2025.
3. Improve the five-year graduation rate for undergraduates from 61% to 85% of the population by 2025.
4. Improve the placement rate at 6 months after graduation from 88% to 95% of the graduating seniors each term by 2025.
5. Increase the number of CAS faculty from 126 to 136 by FY 2021.
6. Increase the proportion of self-reported ethnic minority faculty in the College of Agricultural Sciences from 4% to 15% of the total faculty by FY 2020.
7. Increase the proportion of underrepresented minority students in CAS programs to 20% of all CAS students by FY 2022.

**OVERARCHING GOAL 2: Research and Engagement Excellence:** CAS will be known as a global leader in safety, security and sustainability of food and resource systems.

1. CAS will be known for providing unbiased scientific information on key agricultural policy issues of our time.
2. The CAS programs of study will be known for their excellence in content and delivery among peers as recognized by national awards from professional societies and organizations, such as the Association of Public and Land Grant Universities.
3. CAS will be ranked in the top 15 in QS rankings for agriculture and forestry among institutions in North America by 2022.
4. CAS departments will be considered in the top tier for teaching and research among their peers.
5. CAS will be home to at least one member of the National Academies of Science and the American Academy of Arts and Sciences by 2025
6. CAS will be the home of at least three university distinguished professors and two university distinguished teaching scholars at CSU by 2025.
7. CAS will have three programs of research and scholarly excellence at CSU by 2022.

### Objectives:

The short and medium term impacts of CAS research can be found by examining the citations of CAS published works; documenting

invitations for presentations/workshops/demonstrations at national/international meetings; external funding for research/outreach directed at the CAS goals; the adoption of CAS research products such as design frameworks, pedagogical innovation, patents, crop varieties/germplasm, livestock breeds; and the adoption of best practices in management of business and agricultural policies. Specific objectives include the following:

1. Increase the annually measured citation counts for CAS publications by a total of 25% by 2022.
2. Increase the average dollar value of extramural research grants expenditures by CAS faculty to \$35 million per year by 2022.
3. Benchmark and then increase patent disclosures from research conducted at CAS supported research labs.
4. Support 5 new start-ups emanating from research conducted at CAS by 2021.

**SUPPORT GOAL 1: Operational and Financial:** to increase enrollment, retention, graduation, and placement rates while streamlining internal processes and remaining fiscally responsible by increasing revenue and decreasing expenditures

**Objectives:**

1. Increase total CAS budget from \$45 million to \$61 million (inflation adjusted for all projections) by FY'2025
2. Increase operational efficiencies by at least 30% within CAS systems and across CAS units by 2022
3. Increase annual private cash gift revenues to CAS from \$3.5 million to \$8.0 million by FY'2025
4. Increase the share the CAS base budget makes of total cash expenditures so that it comprises 60% of total expenditures from 40% of total expenditures by FY'2020.

**Support Goal 2: Culture of Inclusive Excellence:**

1. To promote an educational and professional environment where faculty, staff, and students are welcomed, valued, and affirmed.
2. To enhance the success of diverse students and create an inclusive academic environment.
3. To increase the recruitment, retention, graduation, and placement of qualified, ethnically diverse students who represent the population demographics in the State of Colorado, while also eliminating opportunity gaps based on first generation, underrepresented, Pell grant eligible, residency, and/or gender status.

We will achieve our goal by strategically focusing on four areas:

1. Embrace an environment of shared **Inclusive Excellence** through processes, policies and training
2. Cultivate an enriching and inclusive **Culture and Climate** by developing cultural competency of all members of the College of Agricultural Sciences
3. Develop a thriving **Diverse and Inclusive Community** of scholars and learners through recruitment, retention and progression of all members of the College of Agricultural Sciences
4. Establish and Implement **Transparent and Objective Accomplishment Metrics**

*What we need to do all of the time* - Communicate with transparency the progress toward success metrics for each of our goals within CAS, across CSU campus and with external partners.

**Objectives:**

1. **Inclusive Excellence:**
  - i. The College of Agricultural Sciences will develop a shared definition, with dimensions and metrics, of Inclusive Excellence to be utilized across all academic and administrative units by summer of 2018.
  - ii. Each academic and administrative unit within the College of Agricultural Sciences will have the shared definition, dimensions and metrics of Inclusive Excellence approved as part of the unit's governance and performance evaluation process by December 2018
2. **Culture and Climate:**
  - i. Ninety-Five percent of **Students** within the College of Agricultural Sciences will identify the College Learning Environment as inclusive by the year 2024

- ii. Ninety-Five percent of **Faculty** within the College of Agricultural Sciences will identify the College Environment as inclusive by the year 2024
  - iii. Ninety Five percent of **Staff** within the College of Agricultural Sciences will identify the College Learning Environment as inclusive by the year 2024
3. **Diverse Community:**
- i. Increase the number of underrepresented minority students in the College of Agricultural Sciences programs to 20% of the student population by the year 2022
  - ii. Increase the number of students from rural communities from 37% to 50% by the year 2022
  - iii. Increase the number of ethnic minority students to represent 20% of the graduating undergraduate class by the year 2022
  - iv. Increase the number of underrepresented and traditionally marginalized students to represent at least 30% of each graduate research programs within the CAS by the year 2022
  - v. Increase the number of international student enrollment in the undergraduate and graduate programs to 10% of total enrollment in Fall 2022
  - vi. Increase the number of marginalized and traditionally excluded faculty in the CAS to 15% of total by the year 2025
  - vii. Increase the number of women faculty in tenured/tenure-track positions within the CAS to 45% of the total by the year 2025
  - viii. Eliminate opportunity gaps across all underrepresented student groups by 2025
4. **Transparent Accountability/Accomplishment Metrics:**
- i. The College will develop and implement specific dimensions-based metrics to evaluate individual contributions to Inclusive Excellence by December 2018
  - ii. The College will design and launch a public dashboard to communicate unit-level progress on Inclusive Excellence dimensions by Spring 2019
  - iii. The College will include Inclusive Excellence dimensions and metrics in performance evaluations of academic faculty and staff beginning 2020
  - iv. The College of Agricultural Sciences will eliminate all differences in climate perceptions by gender and ethnicity as measured by nationally recognized assessment tools and metrics by the year 2025.