

BE WHAT THE WORLD NEEDS



College of Agriculture and Bioresources


**The Campaign for the
University of Saskatchewan**



UNIVERSITY OF SASKATCHEWAN

College of Medicine

MEDICINE.USASK.CA



"What I like about my research is that it is helping to solve a real-life problem that threatens agricultural sustainability. With funding in the forms of stipends and scholarships, I can spend more time on my research without being distracted by financial issues."

STEPHEN AWODELE, a USask Master of Science in plant sciences student

**WITH YOUR
SUPPORT,
AGBIO
GRADUATES
WILL CHANGE
OUR WORLD**

From the Dean



The fundamental connection between land, water and agriculture inspires our vision for the College of Agriculture and Bioresources as we boldly enter a new decade - a new decade that will test our resolve, our spirit of stewardship and innovation; a new decade in which we will look beyond uncertainty and choose optimism; a new decade in which we will overcome fear and embrace collaboration.

As we chart our future, the fundamental connection between land, water and agriculture inspires our vision. We know that the challenges before us may test our resolve, but we will look beyond the uncertainty and choose optimism. We will overcome our doubts and embrace collaboration as we nurture our spirit of stewardship and innovation.

The students entering our doors today – in-person or virtually – are the leaders, thinkers, entrepreneurs and problem solvers of tomorrow. We are committed to providing the learning opportunities and the vital skills and training they will need to embrace their future roles.

Pervasive global challenges like food security, water security, climate change, and growing populations define our world today and will continue to do so through this decade. More than ever, collaboration, leadership and innovation are crucial to us, as a society, in tackling these challenges. The College of Agriculture and Bioresources can promote the resilience the world needs to address environmental and social change, and ensure food security, water security and soil security at local, national and global scales.

In this changing environment, the only strategy for success is to adapt our thinking, our teaching and our research to this new reality. We will develop new approaches to understanding our physical world and to providing knowledge, products and human capacity. We will advance the responsible use of land, water and bioresources to provide products and services that enhance the quality of life for people in Saskatchewan and around the world.

We also need to ensure we have superior, cutting-edge facilities to carry out the research the world needs. Not just the physical infrastructure, but also the supports to translate our innovations into industry-ready solutions, because the burgeoning ag-tech sector is creating an abundance of new opportunities.

Addressing complex challenges requires a new generation of leaders. From producers to policy-makers, these leaders need to be technologically adept and highly adaptable. With our strong tradition of excellence in research, teaching and outreach, AgBio will lead USask in building the necessary training ecosystem for the bio-economy of the future. We will build on our collaborative partnerships forged through shared research and common fundamental values, like sustainability and innovation. And we will ensure that our students are aware of the opportunities in the agri-food industry and have both the technical and human skills they need to participate in this fast-paced, data-driven, interdisciplinary environment.

Be What the World Needs is not only the university's new motto, but the outcome we desire for our students and the challenge we set for ourselves today. It is our calling. Be What the World Needs inspires our campaign, inviting you to join us in our mission.

A handwritten signature in black ink, reading "Angela K. Bedard-Haughn".

Angela K. Bedard-Haughn
Dean, College of Agriculture and Bioresources



BE WHAT THE WORLD NEEDS

Campaign priorities:

- **Lead Critical Research**
Confront humanity's greatest challenges and opportunities through research and engage with communities to find solutions.
- **Support Indigenous Achievement**
Work with and for Indigenous communities to enact our firm commitment to mutual learning, Indigenization and Reconciliation.
- **Inspire Students to Succeed**
Respond to current student need and attract future learners.
- **Design Visionary Spaces**
Create gathering places for people to collectively address the challenges of the future.

USASK CAMPAIGN AT-A-GLANCE

OUR USASK

\$500M

**to be the university
the world needs.**

BE WHAT THE WORLD NEEDS

Donor Opportunities in the College of Agriculture and Bioresources

With alumni, donors and community partners like you, we will impact our students and our industry, through the University of Saskatchewan's Be What the World Needs campaign priority areas. Give to the area that is meaningful to you. All donations make a powerful difference in the lives of our students, researchers, and community members. Together we will address the important issues of our world.



LEAD CRITICAL RESEARCH

Achieving sustainability and resiliency through digital agriculture — **\$3 million**

Creation of an AgriTech Teaching Cluster — **\$15 million**

Living Lab Field Station - Expanding our research lands — **\$15 million**

SUPPORT INDIGENOUS ACHIEVEMENT

kihci-okāwimāw askiy Knowledge Centre — **\$6 million**

kanawayihetaytan askiy Bursary Fund — **\$1 million**

Indigenous Engagement Fund — **\$1 million**

New pathways for Indigenous education — **\$1 million**

DESIGN VISIONARY SPACES

The Crop Development Centre Enhanced Breeding Facility — **\$7 million**

Soil Science Field Facility — **\$2 million**

INSPIRE STUDENTS TO SUCCEED

Boosting skills through micro-credentialling — **\$1 million**

Student scholarships and bursaries — **\$1 million**

Parental leave for graduate students — **\$1 million**

Rethinking the traditional classroom — **\$1 million**

Lead Critical Research

GROUND-BREAKING RESEARCH TO ADDRESS HUMANITY'S GREATEST CHALLENGES

AgBio is the most research-intensive college at the University of Saskatchewan aiming to find solutions to humanity's greatest challenges, like food security and climate change.

By investing in research, you are investing in a more sustainable future.

Achieving sustainability and resiliency through digital agriculture — \$3 million

Digital agriculture has emerged as a critical frontier because of its potential to transform the efficiency, precision, and sustainability of our food production systems. Modern field equipment, satellites, and drones can gather enormous amounts of information pertinent to crop production. The innovation comes from assimilating this data and converting it into practical guidance to optimize crop production.

Digital agriculture seeks ways to be much more targeted and efficient with land use decisions and crop inputs (fuel, fertilizer, and pesticides), which reduces costs to producers while abating incidental impacts on the environment.

Support our digital agriculture initiatives through:

- Investment in course development
- New scholarships
- Equipment funding
- Direct research support

Creation of an AgriTech Teaching Cluster — \$15 million

As the pressures rise on the agriculture sector to do more with minimal detrimental impacts, so does the need

to incorporate cutting edge agricultural technologies (AgriTech) into our academic programs. We envision three new hires in Soil, Plant and Business AgriTech.

This team hire approach will build-in collaboration across fields of academic expertise and encourage challenges to be tackled from multiple perspectives. The cluster will also augment our capacity to leverage campus-wide technological expertise in engineering and computer science, and beyond.

Chair in Soil AgriTech – specializing in soil applications of AgriTech, such as proximal and/or remote sensing, predictive soil mapping, and big data applications for quantifying carbon stock changes.

Chair in Plant AgriTech – specializing in digital agriculture as it relates to big data and genomics, integrating current pockets of expertise in genomics and phenomics using technology to advance crop breeding and agronomy.

Chair in AgriTech Business – agribusiness increasingly requires an advanced understanding of AgriTech to discern which technologies will make a real difference and which aren't worth the investment. This position will be essential to fully assess new technologies and would also ensure our grads have the skills they need for future success in a world where advanced technologies and agriculture converge.

Lead Critical Research (continued)



Living Lab Field Station - Expanding our research lands — \$15 million

Crop research and variety development have been central research areas since the college's early days. Furthermore, since the Crop Development Centre was established in 1972, more than 500 commercial crop varieties have been released. With changing climate, shifting disease and insect risks, and demands to produce higher yields with fewer inputs—the need for varietal improvement is growing exponentially.

At the same time, we are embarking on emerging areas of research such as our move into a new digital agriculture frontier, supporting the expansion of the provincial irrigated acreage, and the in-depth and long-term studies of soil health and sustainable production.

To support all of these areas of research the college seeks to expand its research-land base.

Donors may support our land intensive research programs through the AgBio Land Development Fund.

Support Indigenous Achievement

INDIGENIZATION AND RECONCILIATION

First Nations communities face many complex land management challenges including land use planning, legal issues such as the duty to consult, reserve land transactions, community-based land transactions, natural resource transactions, environmental management and compliance in addition to other issues. AgBio is committed to working with communities to provide training and support from the kanawayihetaytan askiy program, which includes certificate and diploma offerings, and through collaborative activities of the kihci-okâwîmâw askiy Knowledge Centre, which serves as a portal for community engagement on all manner of issues related to land management. These programs and services require a commitment to faculty and staff who can build and maintain meaningful relationships with communities and provide the necessary programs and support. Investing in our activities in this area will support Indigenous communities, including the current students who will eventually be providing in-community leadership.

kihci-okâwîmâw askiy Knowledge Centre — \$6 million

The kihci-okâwîmâw askiy (Great Mother Earth) Knowledge Centre is founded on the principle that the land is our first teacher and of central importance to Indigenous peoples. The centre will serve as a resource for Indigenous communities and organizations seeking information, training, and research partnerships. We endeavor to build an endowment to fund the centre's core staffing requirements to enable the long-term planning, relationship development and programming that is essential for success.

kanawayihetaytan askiy Bursary Fund — \$1 million

Funds to help support students pursuing in the kanawayihetaytan askiy certificates and diplomas, as well as those interested in laddering into degree programs who may have additional costs associated with living away from home.

Indigenous Engagement Fund — \$1 million

Engagement with our Indigenous stakeholders is critical to building understanding and trust as we embark on expanding our program offerings and critical new research partnerships. This fund will support the numerous incidental expenses associated with this ground-breaking work. Smaller gifts will help cover costs of travel to engage with communities and to support the Elder-in-Residence program.



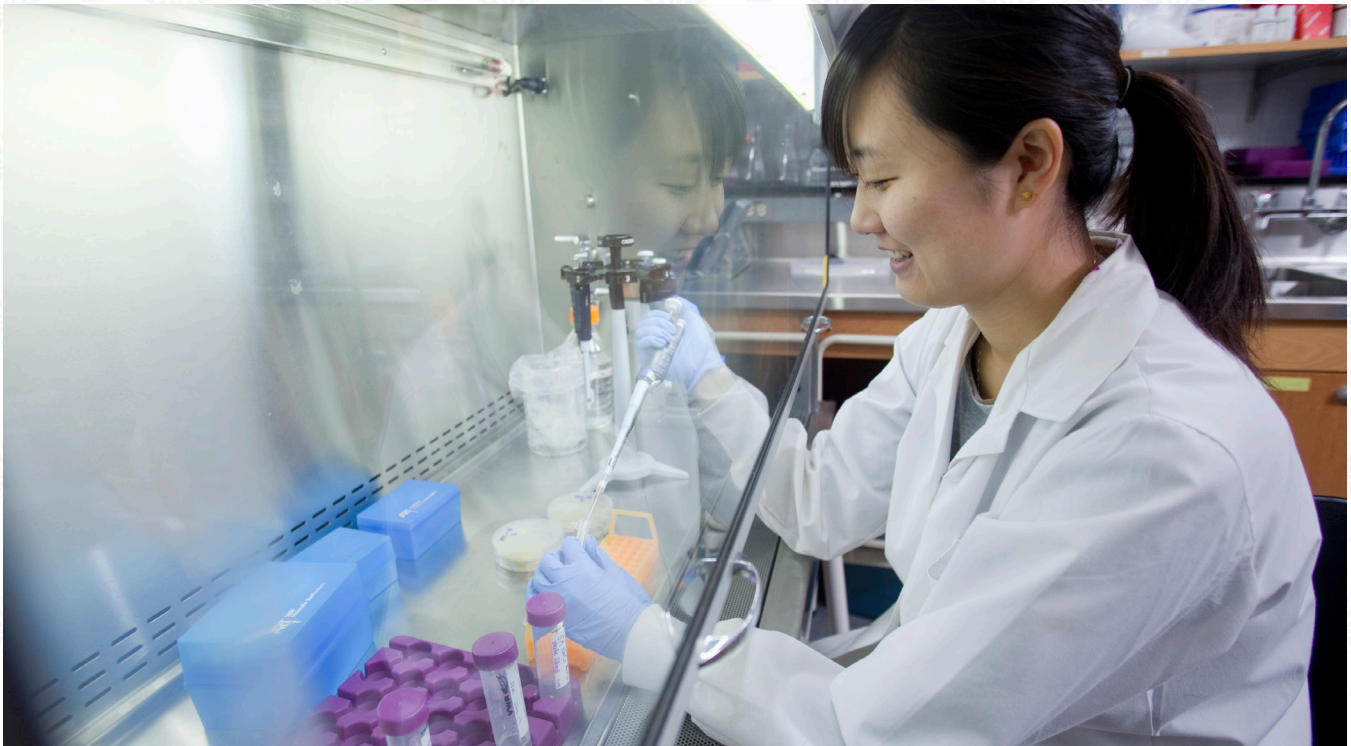
New pathways for Indigenous education — \$1 million

Through specialized scholarships and bursaries, we wish to encourage and support Indigenous students on their journey for an AgBio education. These may include scholarships for Indigenous students entering AgBio programs, targeted funds for students taking first year courses while still in high school, funds for program enhancement to assist students moving from high school to our kanawayihetaytan askiy certificate program as well as those carrying on to other AgBio degree programs. We also endeavour to support Indigenous students in remote communities with online and course offerings at the Prince Albert USask campus.

Design Visionary Spaces

SPACES THAT ADDRESS THE CHALLENGES OF THE FUTURE

To achieve our ambitious research objectives for a sustainable bio-economy requires vigorous research programs which, in turn, depend on our facilities. Crop research and variety development have been central research areas since the college's inception. With changing climate, shifting disease and insect risks, and demands to produce higher yields with fewer inputs, the need for varietal improvement is growing exponentially. We are also embarking on emerging areas of research such as our move into a new digital agriculture frontier, supporting the expansion of the provincial irrigated acreage, and the in-depth and long-term studies of soil health and sustainable production. To support these areas of research the college is challenged to expand its research facilities.



The Crop Development Centre Enhanced Breeding Facility — \$7 million

Indoor plant growth environments allow breeding programs to accelerate the development of new crop varieties. However, the Crop Development Centre's (CDC) breeding program needs have exceeded the college's controlled-environment growth chamber capacity. This lack of capacity is a significant bottleneck to early-generation breeding selection thereby delaying further field-testing on promising lines – ultimately slowing the release of new varieties.

The CDC Enhanced Breeding Facility and field laboratory upgrade will provide a new foundation expanded plant breeding research. Leveraging commitments from producer associations and industry partners, we are seeking to develop the new CDC Enhanced Breeding Facility and upgrade our existing crop research facilities with the support of additional donors.

Contributions to the CDC Enhanced Breeding Facility development plan will support the realization of this essential facility and ensure that western Canada's largest plant-breeding centre continues its leadership in crop development research.

Design Visionary Spaces (continued)



Soil Science Field Facility — \$2 million

How we manage our land is critically important to the future of agriculture. With growing demands for production efficiency as well as pressures to manage greenhouse gas outputs and expand Saskatchewan's irrigated acreage, the need for strong soils and crop production focussed research programs has never been more pressing.

The Department of Soil Science field operations are currently supported by several disconnected and aging buildings used for soil and plant sample processing and storage, as well as for shop space and equipment storage. To meet the growing needs of our field research programs, the Department of Soil Science will upgrade the existing equipment storage and combine the disconnected sites in a single modern facility.

The new facility provides capacity for our emergent research needs in critical areas such as plant nutrition, soil health, ag-resilience to climate change, the adoption of expanded irrigated acreage, and sustainable crop production.





Inspire Students to Succeed

SUPPORTS FOR CURRENT AND FUTURE LEARNERS

To prepare our students to *Be What the World Needs*, scholarships and bursaries are more critical now than ever before. We need to increase student support so our brightest minds, regardless of financial means, can thrive as AgBio students and become the leaders, thinkers, entrepreneurs, and problem solvers of tomorrow.

As student enrollment continues to grow, so too has the demand for financial aid. With a current enrollment of over 1,700, and 88 per cent of AgBio students receiving neither scholarship nor bursary awards, many students work part-time or incur significant student-debt to pursue their education. This can be stressful, distracting and act as a headwind to their success.

With donor support, scholarships and bursaries help students by easing the financial pressures so they can focus on their education rather than funding it. What is not so obvious is the transformative power of student awards and how they can change the course of a student's life through emotional support.

Inspire Students to Succeed (continued)



Boosting skills through micro-credentialling — \$1 million

Our current students, alumni and other industry participants are seeking opportunities to further enhance their credentials and expand their knowledge related to sustainable agriculture. Our solution is to provide bite-size learning opportunities packed with the cutting-edge knowhow necessary to remain competitive in today's career environment. This new format programming will enable students to earn micro-credentials while zeroing in on specific skills and subjects that are critically linked to sustainable production (such as digital agriculture and plant breeding).

An investment in our micro-credential initiatives could be directed to support the development of the micro-credential courses as well as the program delivery platform to establish a new School of Continuing Education.

Student scholarships and bursaries — \$1 million

Student awards have many benefits – whether an award is to provide financial assistance or to recognize academic achievement, community volunteerism or some other extracurricular activity – the downstream effects are often unexpected and inspirational. One AgBio student with a permanent disability and chronic pain referred to her student bursary as a “lifeline.”

“Having the reassurance of the bursary made it easier for me to afford my medical expenses and, even, to continue caring for my senior dog who was diagnosed with liver disease and is on continuous medication. This bursary relieved me of significant financial stress, allowing me to stay focused. Additionally, the financial security granted by bursaries resulted in extra mental space and energy that I invested in an important cause. I was able to initiate a support group with the Student Union's Women's Centre for students struggling with the condition I live with, endometriosis. The USask Endometriosis Support Network officially became part of the USSU as of fall of 2020.”

GLORIA HOOSHMAND, 2019-2020 recipient of the Joseph Alexander Buchan Family Award in Agriculture

Inspire Students to Succeed (continued)

Graduate scholarships and bursaries

The contributions of our graduate students are extremely important for the work we do in the college. Building upon the research of our faculty members and their discoveries, our graduate students are conducting innovative research making them an invaluable asset to our research portfolio. Increased student support will attract top talent to the college and graduate student awards will enhance and support the academic goals of students pursuing a MSc, or PhD level programs.

Undergraduate scholarships and bursaries

Undergraduate bursaries and scholarships provide direct support to students by alleviating some of the financial barriers to funding an education. Undergraduate scholarships and bursaries help create a path to academic excellence, by providing students the opportunity to focus on their studies.

International student awards

Due to selective eligibility criteria, international students tend to be under supported from awards compared to their domestic counterparts. These students also pay higher tuition costs and often face additional financial burdens associated with maintaining connections to their home countries. Bringing international perspectives and alternative worldviews, they enhance the student experience for all and contribute to the fabric of the college in countless ways. Donors are encouraged to consider and support these essential members of our student family.

Parental leave for graduate students — \$1 million

Recognizing a growing need, the College of AgBio now offers a new paid parental leave program to support graduate students who become parents. Starting a family often coincides with registration in a graduate program and this new funding aims to ensure students' academic pursuits are not derailed right from the start.

The parental leave program aims to ease the balancing act of caring for a new child while enrolled in a graduate program. Until now, while graduate students could be granted a parental leave from their program at USask, in most cases, stipends, scholarships or bursaries were not available to help cover fees and rising living expenses. AgBio's initiative supports those students whose funding has been discontinued while on an approved parental leave and, thus, allows families to experience all the benefits of parental leave.



Rethinking the traditional classroom — \$1 million

The COVID-19 pandemic made us rethink our class delivery methods. While many students still prefer in-class learning, the pandemic has proven the need to invest in a more robust virtual campus. As we emerge from the pandemic, student preferences strongly indicate online, and hybrid learning options are here to stay. To meet this need, we must invest in virtual infrastructure to increase the quality and selection of online courses. Building our virtual college allows us to expand our course offerings outside of our physical campus, making education more accessible to students in our province and beyond.

Serving the central and northern regions of the province, AgBio offers limited first-year classes at the Prince Albert USask campus, where students have access to the same high level of instruction and programing that we're known for throughout Saskatchewan and beyond. We understand that access to higher education can be challenging for many students due to family responsibilities, financial limitations, and other factors. To minimize these challenges, AgBio will invest in expanding course offerings beyond first-year classes. Increasing course capacity, the Prince Albert USask campus will create opportunities for students experiencing accessibility challenges and will increase enrolment by non-traditional students.



Together, let's

BE WHAT THE WORLD NEEDS

Now, more than ever, agriculture and resource management are at a crossroads, where true sustainability will require the ability for all peoples to listen and take a systems-level, stewardship approach. We need to blend modern tools and technologies with deep knowledge and relationship with the land to adapt to our changing environment and co-create management systems that can sustain production – and civilization – for generations to come.

We are excited about our future and committed to responsibly caring for the environment while finding solutions to meet the demands of a hungry and growing world; to be the college – and the university – that the world needs.

Thank you for taking the time to learn where we're heading and how you might join us on this journey. With your support we will be what the world needs.

Will you join us?

In our next chapter, we will transform Saskatchewan and the world by addressing those things you care most about: your world now and the world that generations will inherit.

With your support, vision and spirit, the University of Saskatchewan will bridge our deep roots with a bright future.

With your support, we will be what the world needs.



UNIVERSITY OF
SASKATCHEWAN

give.usask.ca

Donation inquiries:

(306) 966-5186 Toll-free: 1-800-699-1907

giving@usask.ca