

UF/IFAS ANNUAL REPORT FY2022

# *Cultivating* **FLORIDA'S FUTURE**

**UF|IFAS**  
UNIVERSITY of FLORIDA



# BEST WAY TO PREDICT THE FUTURE?

## Create it.

**A**rtificial intelligence is going to revolutionize agriculture and UF/IFAS will be at the forefront of change.

With 15 new AI faculty, UF's HiPerGator supercomputer, and the infusion of AI into the College of Agricultural and Life Sciences curriculum, we are the artificial intelligence land-grant university. No one in public higher education has made an investment quite like the commitment from UF and IFAS.

We'll use AI to create superior plant varieties, quantify ecosystem services delivered from working lands and increase agricultural productivity in an environmentally friendly way.

We're also ramping up our very human efforts to make greater international impact, foster a more diverse and inclusive organization and reach new audiences with science-based solutions.

UF/IFAS is already the nation's leading university for research expenditures in agriculture, natural resources and conservation, and for national teaching awards. Our faculty show us time and again, when we give them the tools, they change the world.

UF/IFAS is about to get a new blueberry lab on the Gainesville campus to further develop what has become a multimillion-dollar industry for the state. We have plans for a Center for Applied AI in

Agriculture that will serve as a hub to unlock the potential of this transformational technology for our state's producers and land managers.

UF/IFAS Extension and UF Health are partnering to bring health services to rural counties, expanding local services and support for which Extension has long been known and trusted.

It's an exciting time to be at UF/IFAS. This report documents an impressive year in review, but the best is yet to come.

Sincerely,  
*J. Scott Angle*

J. Scott Angle  
Senior Vice President for  
Agriculture  
and Natural Resources



**On the cover:** Kale grows in an indoor agriculture facility at the UF/IFAS North Florida Research and Education Center-Suwannee Valley.

# CURIOSITY Drives Discovery

In 2021-2022, UF/IFAS spent **\$278 million** in research, shattering our spending record and making UF/IFAS the **second highest contributor** to UF's first-ever \$1 billion-plus year for research expenditures.

**A**RTIFICIAL INTELLIGENCE (AI): UF/IFAS researchers continue to develop AI technologies for agriculture as part of UF's major investment in AI across the university and partnership with NVIDIA. This initiative focuses on research, teaching, workforce readiness, equity and inclusion, and uses the world's fastest AI supercomputer in higher education. UF/IFAS researchers, including 15 new faculty members, will focus on accelerated precision plant breeding, robotics, precision agriculture, food system resilience, environmental systems, human health, invasion science, education, communication and more.

Expenditures signal the effort toward discovery and innovation to deliver solutions to Florida's challenges. For the fourth consecutive year, our #1 national ranking from the National Science Foundation (NSF) in ag, natural resources and conservation research expenditures is a metric that shows UF/IFAS is working hard for the benefit of our state.



UF/IFAS scientists were the first to grow plants in soil from the Moon. Photo by Tyler Jones.

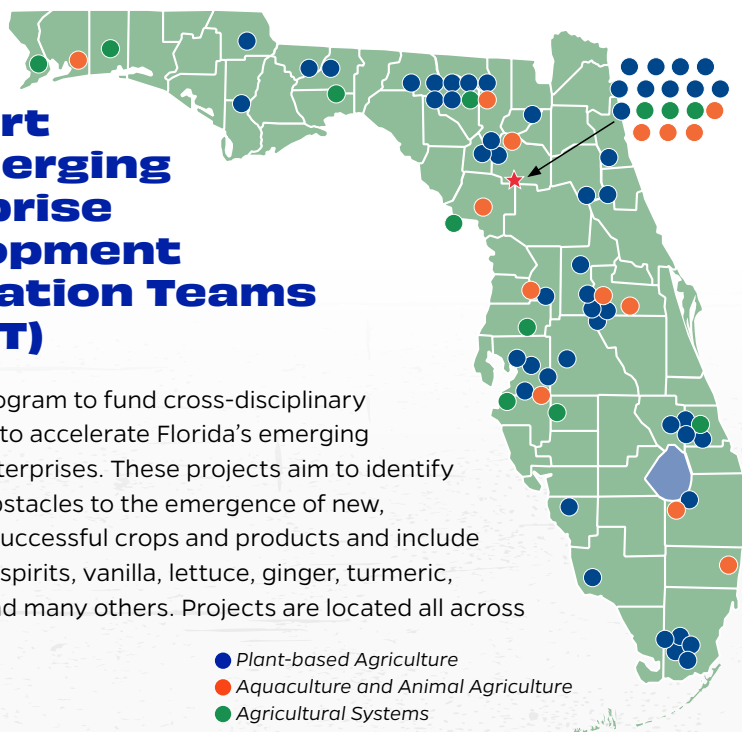
## A national leader in turning curiosity into commerce

UF/IFAS will advance the industry via the Center for Applied Artificial Intelligence in Agriculture, which will serve as a world-class research, Extension and development facility. The proposed 19,000-square-foot hub at the Gulf Coast Research and Education Center (GCREC) in Balm will focus on leveraging AI to speed up agricultural technology innovation.

## Support for Emerging Enterprise Development Integration Teams (SEEDIT)

**SEEDIT** is a program to fund cross-disciplinary collaborations to accelerate Florida's emerging agricultural enterprises. These projects aim to identify and remove obstacles to the emergence of new, economically successful crops and products and include craft beer and spirits, vanilla, lettuce, ginger, turmeric, camellia tea and many others. Projects are located all across the state.

- Plant-based Agriculture
- Aquaculture and Animal Agriculture
- Agricultural Systems



## Recognition in the scientific community

In 2022, **five** faculty members were inducted as **American Association for the Advancement of Science (AAAS) Honorary Fellows**, bringing the number of UF/IFAS faculty members earning this distinction to **28**.



# CULTIVATING Excellence



UF/IFAS continues to gain recognition for excellence in teaching and is committed to expanding opportunities for students. U.S. News and World Report, which includes a research metric in its ranking system, ranks agricultural sciences at UF as **No. 4** in the U.S. and **No. 14** in the world. Our graduates will change the world, and they start right here at home: **73%** of CALS bachelor's graduates are living and working in Florida.



CALS is home to one of the **world's top** plant breeding programs, with the largest faculty team in the nation and **\$16 million** in royalty revenue. UF/IFAS plant breeding has launched a dedicated Ph.D. program, and the seven students in the inaugural cohort are working with faculty in labs across the state.

Other powerful validation comes from USDA, which has bestowed **more teaching awards** for CALS faculty than any other university in the nation.



Innovation and a passion for beyond-the-classroom teaching earned **Jamie Loizzo**, Department

of Agricultural Education and Communication, recognition with a national USDA-NIFA Early Career Teacher Award. Loizzo's students take part in Streaming Science, a program that connects public audiences to scientists through videos, podcasts and live electronic field trips.

## The North American Colleges and Teachers of Agriculture (NACTA) recognized nine outstanding educators in 2022, including two top awards:



**Amr Abd-Elrahman**, of the School of Forest, Fisheries, and Geomatics Sciences, was awarded the Teaching Scholar Award — only 1%

of NACTA members are so honored.



**Wagner Vendrame**, Department of Environmental Horticulture, was awarded the Excellence in Teaching and Learning with Technology Award

— only one is given annually.

**11:1**  
Student-to-faculty ratio

**50+**  
Areas of specialization for undergraduate majors

**\$1M+**  
Awarded in college and department undergraduate scholarships

## STUDENT SPOTLIGHT Hope Hersh

Hope Hersh, a **plant molecular and cellular biology** doctoral student in UF/IFAS CALS, has her sights set on something out of this world — freshly baked bread for astronauts. For the Deep Space Food Challenge, hosted by NASA and the Canadian Space Agency, Hersh led “Team Space Bread,” devising a way to bake bread in space using minimal resources, yield minimal waste, and produce a safe and nutritious food. Team Space Bread’s success moved them on to Phase II of the competition, with \$25,000 to continue their work.





# DRIVEN By People

More than **800,000** times, someone in Florida called, emailed or visited their local Extension office to ask questions and get help.

**What**  
is this bug?

**Why**  
is my tree not  
producing fruit?

**How**  
can I enroll my  
youngster in 4-H?

Agents answered, researched, visited and consulted to solve problems in their communities, one person at a time.

**UF/IFAS Extension and UF Health** have teamed up to bring vaccinations, health screenings and more to farm workers, residents in rural areas and other underserved communities in Florida. Through programs like **OUR COMMUNITY**, **OUR HEALTH**, **FLORIDA VIP** and **CAFÉ LATINO**, Extension agents and offices have the potential to become a hub for better health. Sparked by the pandemic, these efforts are expanding to reduce risk for other diseases and health challenges.



At **UF/IFAS Extension Florida Sea Grant**, every day is a beach day. Our agents focus on projects along our beautiful shores to learn more about these delicate ecosystems and reduce human impacts. Numerous citizen science projects allow Floridians to help in these efforts by scallop sitting, counting horseshoe crabs, hosting cleanup efforts and helping to build living shorelines.



In 2021 UF/IFAS welcomed **Andra Johnson** as Florida's new dean of Extension and director of the Florida Cooperative Extension Service. He leads more than 600 agents who support citizens across the state with boots-on-the-ground delivery of science-based solutions. Extension in every county means all Floridians have access to UF research, knowledge and expertise right in their backyards.

## BY THE NUMBERS



**141,000**  
youth in 4-H

**369**  
new and revised  
Ask IFAS publications

**4,200**  
Master Gardener  
Volunteers

**1 million+**  
participants in Extension  
workshops and courses

**28,176**  
consultation visits  
to farms and  
other sites



# OUR SUPPORTERS

## Make the Difference

The generosity of UF/IFAS donors allows us to reach ever higher in our efforts to provide the best in education, research and Extension for Florida. UF/IFAS is proud to announce that we have exceeded our goals for the University of Florida Go Greater Campaign. Over the last seven years of UF's Go Greater Campaign, UF/IFAS met and surpassed its goal of **\$200M**, and UF raised more than **\$4B** in private support.



### New ways to give



**Doug Archer** was a beloved mentor, professor and friend. His 28 years with UF included seven years as chair of the UF/IFAS Department of Food Science and Human Nutrition (FSHN). After his passing, the Dr. Douglas Archer Emergency Financial Assistance Fund was created to support FSHN students in need, continuing his legacy.

**Maker space for innovators:** Our top-ranked Department of Agricultural and Biological Engineering, celebrating its centennial in 2023, has a \$2 million goal to build a **state-of-the-art maker space** for students to explore design and applications engineering — electrical, mechanical, hydrologic — and develop employability skills such as teamwork and project management. As we prepare our students with the best education, we need top facilities to compete with peer institutions.

Sources of Private Support	
Alumni	Parents
<b>\$5,206,928</b>	<b>\$127,117</b>
<b>21%</b>	<b>1%</b>
Foundations	Corporations
<b>\$5,698,133</b>	<b>\$5,044,010</b>
<b>23%</b>	<b>20%</b>
Other Organizations	Other Individuals
<b>\$5,325,263</b>	<b>\$3,458,192</b>
<b>21%</b>	<b>14%</b>
<b>Total Gifts and Pledges to UF/IFAS</b>	
<b>\$24,859,643</b>	
Charitable gifts and pledges received for the benefit of UF/IFAS between July 1, 2021 and June 30, 2022. For more information or to make a gift, reach out to 352-392-1975 or <a href="mailto:advancement@ifas.ufl.edu">advancement@ifas.ufl.edu</a> .	

### UF/IFAS gives back, too!

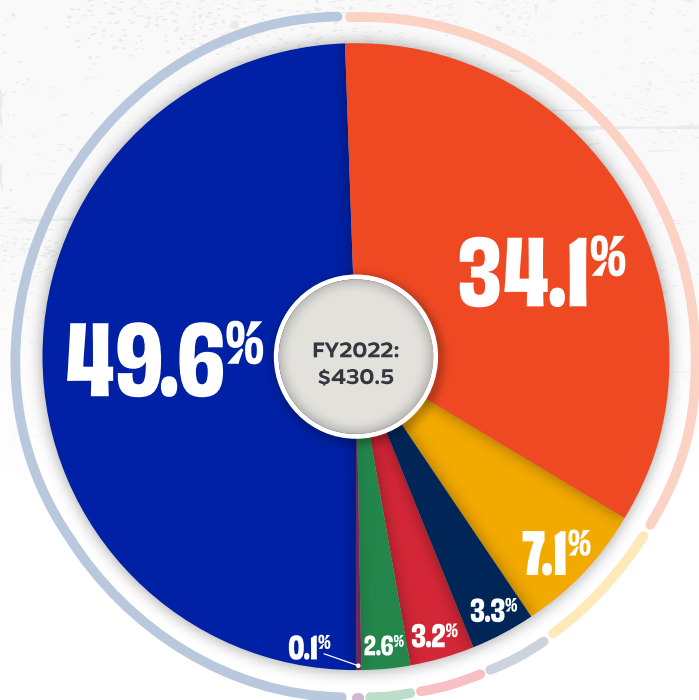


Our **12** Research and Education Centers (REC) around the state and our Field & Fork Farm and Gardens produce fruits and vegetables as part of their work. So, where does all that good food go? A great deal is donated to local food pantries, including the **ALAN AND CATHY HITCHCOCK FIELD AND FORK PANTRY** on campus. We estimate over **670,000 lbs** of watermelon, citrus, grapes, potatoes, lettuce, greens, strawberries, cabbage, tomatoes and more was given back to our communities in FY2022.



# FISCAL YEAR 2022...

## Operating Revenues (\$ in Millions)



**State appropriations**

**Contracts and grants revenue**

### Tuition and fees

**Sales and services**

**Royalty proceeds**

**Donor income received**

**Other operating revenue**

## Operating Expenses (\$ in Millions)



Revenue and operating expenses represent a consolidated net position and exclude transfers between internal units.

For more information, please contact [IFAS-IFA@ifas.ufl.edu](mailto:IFAS-IFA@ifas.ufl.edu).





# UF/IFAS MOVES *Florida Forward*

**AGRICULTURE, NATURAL RESOURCES AND FOOD INDUSTRIES** not only feed our growing population, but also add value to Florida's other major industries, including tourism.

- 1.** Agriculture is the state's 2nd largest industry, bringing Florida **\$270.07 billion** in sales revenue.
- 2. UF/IFAS LEADS THE UNIVERSITY IN INNOVATION:** our technology developments account for **97%** of the royalties returned to UF.
- 3. FLORIDA-FRIENDLY LANDSCAPING™** practices and programs saved more than **359 million** gallons of water statewide. That's **\$1.5 million** in utility bill savings and enough to supply **4,085** homes with water for one year.
- 4. UF/IFAS LAND HOLDINGS** across the state cover **53,893** acres and include **1,287** buildings, **23% of ALL UF** state-owned inventory.
- 5. UF/IFAS-OWNED FACILITIES** are **25%** of ALL UF inventory.
- 6.** As the University of Florida is once again ranked as a **top-five** public university, UF/IFAS is a world leader known for excellence in the agricultural and natural resources sciences.
- 7.** U.S. News and World Report ranks agricultural sciences at UF as **No. 4** in the U.S. and **No. 14** in the world.
- 8.** Shanghai Ranking places UF/IFAS in the **No. 8** spot globally and **No. 2** in the U.S. compared to other international agricultural universities.
- 9.** UF/IFAS is ranked **No. 1** in the U.S. for total and federally financed research and development expenditures in agricultural sciences and natural resources and conservation, according to NSF's most recent Higher Education Research and Development Survey.  
<https://nces.nsf.gov/pubs/nsf22311/>
- 10.** U.S. News and World Report ranks the UF/IFAS Department of Agricultural and Biological Engineering graduate program **No. 5** in the U.S.
- 11.** Agriculture and natural resources industries support more than **2,000,000** jobs in Florida.

**UF/IFAS**  
UNIVERSITY of FLORIDA

**Institute of Food and Agricultural Sciences**  
**ifas.ufl.edu**

An Equal Opportunity Institution.