

AGNR

FIVE STRATEGIC INITIATIVES

Advance Innovative, Profitable, and Sustainable Agricultural Production Systems



- **Increase plant and animal productivity.**
- **Improve and conserve soil health and water quality.**
- **Contribute to the success of agricultural businesses.**
- **Prepare the next generation for careers in agriculture.**

BACKGROUND: WHERE ARE WE NOW?

Maryland agriculture is diversified and includes a variety of crops and livestock on 2 million acres and 12,300 farms. The market value in 2012 exceeded \$2.2 billion and agriculture has remained Maryland's number one industry. The University of Maryland College Park (UMCP), College of Agriculture and Natural Resources (AGNR) will advance innovative, profitable, and sustainable agriculture production systems through integrated teaching, research, and extension. AGNR education and outreach will increase the productivity of plant and animal systems while improving soil health and water quality. Programs will launch students into successful careers in agriculture, expand the boundaries of agricultural science, and empower agricultural businesses to apply the latest research to improve not only their bottom line but also their community well-being and environmental stewardship.

AREAS OF FOCUS

This strategic initiative reflects the heart of AGNR: our agriculture production programs that support Maryland. There is a strong traditional agriculture base with grain crops, dairy, and poultry while vegetables, fruits, aquaculture, urban agriculture, and the green industry have added to the economy. AGNR programs in cover crops, nutrient management, poultry and animal nutrition and health, IPM, and aquaculture are highly regarded nationally. This team will focus on teaching, research, and extension in the areas of production agriculture with an emphasis on soil health and water quality. Business success, profitability, and training the next generation of farmers, researchers and agricultural professionals are also key areas of focus. AGNR programs in formal and non-formal education will provide youth, students, entrepreneurs and beginning farmers with opportunities, skills, and network development.



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GOALS FOR THE FUTURE

The team will create two virtual centers:

1. Center for Excellence in Crop and Animal Production (CECAP) to address plant and animal productivity and improve and conserve soil health and water quality.
2. Agriculture Careers and Entrepreneurship (ACE) to prepare the next generation for careers in agriculture and contribute to the success of agricultural businesses.

TAKING ACTION

The Center for Excellence in Crop and Animal Production (CECAP) will provide a platform to inform, teach, and showcase research and extension programs while increasing accessibility of information and providing a means to capture needs and priorities of Maryland's agricultural stakeholders. CECAP will be a virtual center that is hosted by AGNR and connects to all departments in order to create teams and present issue-based information. CECAP will use existing and new content in a platform that will create connections, provide education and increase visibility of AGNR activities. Activities of the initiative will focus on finding and implementing solutions to the pressures facing agricultural industries in the areas of water quality, nutrient management, and crop and animal production.

Agriculture Careers and Entrepreneurship (ACE) will create, develop, and guide those with agricultural career aspirations. Through academics, ACE will provide students with basic and applied science, agricultural, and economic knowledge to earn degrees for entry into a competitive workforce. In the research area, participants will acquire a strong foundation of scientific research in many areas of agricultural production as well as support graduate students, many of whom will pursue research and teaching careers. Off campus, members of the general public with farming aspirations will gain knowledge and training to start and operate successful farming operations. The 4-H Youth Development program will provide activities in STEM related to experiential learning and will be key to the increase in agricultural careers. Activities of ACE will include the creation of an inventory of agricultural career opportunities, collaboration within and beyond AGNR to leverage activities and programs already in place, and enhancement of current efforts by identifying gaps, career training, and other opportunities.

The team will carry out development in two major areas. First, we will document published research through the inclusion of partners and highlighting current activities within the industry. From this, we will create a guiding document and white paper to properly focus the activities of the centers that will be developed. Standard communication procedures will be created to ensure that both internal and external networks are given wide distribution for review and comment by our stakeholders. Previous feedback in the development of our project will be enhanced to ensure the broad scale support of members of our network, faculty, staff, and stakeholders. This will create an ongoing partnership to develop world-class programs for delivery to our constituents for the enhancement and long-term profitability of Maryland agriculture.