



COMMISSION FOR AGRICULTURE EDUCATION **EXCELLENCE**

ANNUAL REPORT

NON-DISCRIMINATION POLICY

Pennsylvania Department of Agriculture (PDA) and the Pennsylvania Department of Education (PDE) do not discriminate in their educational programs, activities, or employment practices, based on race, color, national origin, sex, gender, sexual orientation, disability, age, religion, ancestry, union membership, gender identity or expression, AIDS or HIV status, or any other legally protected category. Announcement of this policy is in accordance with State Law including the Pennsylvania Human Relations Act and with Federal law, including Title VI and Title VII of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination in Employment Act of 1967, and the Americans with Disabilities Act of 1990

The following persons have been designated to handle inquiries regarding the Pennsylvania Department of Education & Agriculture nondiscrimination policies:

For Inquiries Concerning Nondiscrimination in Employment:

Bureau of Human Resources

Equal Employment Opportunity Representative Voice Telephone: (717) 783-5446

If you have any questions about this publication or for additional copies, contact:

Pennsylvania Department of Agriculture

2301 N. Cameron Street, 2nd Floor, Harrisburg, PA 17110 Voice: (717) 787-4737 www.agriculture.pa.gov

> All Media Requests/Inquiries: Contact the Office of Press & Communications below at: Pennsylvania Department of Agriculture: (717) 787-5085 Pennsylvania Department of Education: (717) 783-9802

TABLE OF CONTENTS

01

Welcome from Executive Director

02 Welcome from the Secretaries

03 Act 55 of 2017 - Ag Ed Commission Legislation

04 Commission Members & Staff

05 Ag Ed Work-plan Objectives

06 CTE, PA Ag Education Data (Teachers, Students, Programs) **07** Agriculture Youth Development Organizations (FFA, SAE, 4-H, MANRRS) **08** Ag Ed DEIA Plan

09 Workforce Development

10 Trends & Needs

11 2022-2023 Ag Ed Budget Plan

12 Recommendations to General Assembly and Legislation

EXECUTIVE SUMMARY

Conversations come in many different forms. They are powerful engines that can transform one thought or question into action and progressive change. The consistent dialogue for the Commission for Agriculture Education Excellence this year was/is, how can we do better at telling the story of Pennsylvania's agriculture education system. What makes our industry different than any other, is that we thrive off sharing our stories and the experiential learning opportunities we offer are boundless.

With over 12 million residents within the Commonwealth and over 500,000 across the agriculture industry, we must identify a way to connect not only with future generations, but our present generations. While Pennsylvania has adopted rigorous state academic standards establishing expectations for what students should know and be able to do at key points in their education, the Commonwealth also has a strong tradition of local control guiding K-12 public education, including agriculture education programs. This means that each local education agency (LEA) has the authority to tailor program offerings, aligned to standards and regulations, to the unique needs of their students and communities.

In 2022-2023, there were 167 PDE-approved agriculture education programs offered in nine categories (Ag General, Ag Mechanics, Ag Production, Ag Food Products, Applied Horticulture, Animal Sciences, Ag Operations, Natural Resources, and Forest Technology) in high schools and career & technology centers (CTCs) across the Commonwealth. Pennsylvania saw an increase of 50 agriculture educators in just a year.

Through support of the commission and stakeholder organizations like PDA/PDE, PA FFA Association & Foundation, Pennsylvania Association of Agriculture Educators, Penn State University College of Agriculture Sciences, PSU Center for Professional & Personnel Development there has been an investment of over 3.6 million over the last 3 years to support pre-service/in-service teachers, professional development, grants for capacity & program building, youth development organizations (FFA, MANRRS, 4-H), apprenticeship & pre-apprenticeships, workforce development, and trainings for Pennsylvania's agriculture education system.

MESSAGE FROM THE EXECUTIVE DIRECTOR

On behalf of the Agriculture Education Excellence Commission, I want to personally thank you for taking the time to read our 2023 Annual Report. The awareness and advocacy for ag education within the commonwealth has been surging and we thank each and every commission member, teacher, student, community, stakeholder, industry and organization for your continued commitment to the future of Pennsylvania Agriculture Education system. Now entering year three of serving as the leader of this commission, we remain committed to engaging those within the ag ed system in formal and non-formal education opportunities to increase their leadership opportunities, personal growth & success, and career readiness through a total program of agricultural literacy, experiential learning and community involvement.

With the challenges of advancing agriculture education to sustain the workforce being felt across the country, we remain optimistic and dedicated to ensuring that Pennsylvania remains a leader in the pursuit of advancing our efforts. I look forward to continuing to engage with all of our agriculture education stakeholders in the years to come.



Stephon Fitzpatrick, ABD Executive Director Agriculture Education Excellence Commission

WELCOME FROM THE SECRETARIES

Agriculture education has changed tremendously over the past few decades, by expanding to incorporate new disciplines fit for an increasingly technological workforce. During this time of transformation, we are at a critical moment here in the Commonwealth of Pennsylvania and across the nation, as we continually acknowledge the importance of the agriculture industry and how we can prepare today's learners for tomorrow's agricultural careers.

Working in tandem with our colleagues at the Pennsylvania Department of Agriculture (PDA), the Pennsylvania Department of Education (PDE) supports and champions the multifaceted learning opportunities in agricultural education. Our joint Commission for Agricultural Education Excellence is charged with developing a statewide plan for agriculture education and implementing related programming in our schools—a responsibility of paramount importance.

This annual Agricultural Education Report outlines the work accomplished to date, and future aspirations, as we plant the seeds to grow our future ag industry in the Commonwealth of Pennsylvania. Our accomplishments and goals have been and will continue to be informed by a robust partnership with industry leaders, experts, and school practitioners.

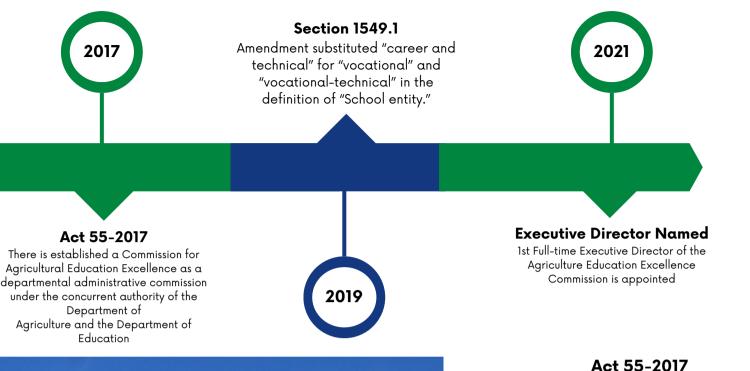
These efforts will be implemented with fidelity, and we look forward to continuing this important work with our sister agencies and vested partners in the years to come.



Dr. Khalid N. Mumin Secretary, PDE



Russell Redding Secretary, PDA





Agriculture is a \$132.5 billion industry facing an aging workforce. Attrition, growing demand for certain products, and advancing technologies will result in a workforce deficit in a number of career paths over the next decade. Of those anticipated vacancies, the department has identified the 25 most in-demand occupations, which span sectors like production agriculture; animal health and veterinary services; landscaping; food manufacturing, forestry, lumber and wood products; and conservation and natural resources.

In recognition of future workforce needs, the Pennsylvania Departments of Agriculture (PDA) and Education (PDE) have produced a comprehensive agricultural education report for schools across the commonwealth and have created a 15-member Commission for Agricultural Education Excellence. The commission will operate under the concurrent authority of PDA and PDE, and is charged with assisting in the development of a statewide plan for agricultural education and coordinating the implementation of related programming with both departments.

As part of PDA's workforce development plan, the Department is working to identify gaps in education and training for those in-demand career paths; focus on work-based learning, including micro-credentials and apprenticeships; and help Pennsylvanians obtain meaningful careers on the way to finding solutions to the shortage of talent in the near and long-term.

COMMISSION MEMBERS

The **Commission for Agriculture Education Excellence** is comprised of a 15 member board comprised of stakeholders representing various facets of the agriculture education industry to **assist the Executive Director in the development of a statewide agriculture education plan**

Stephon Fitzpatrick Executive Director

Sarah Meiss Agriculture Science (Non-PSU)

Clifford Wallacee Crop Farmer, Retired Ag Teacher

Michelle Meyers Community College Representative with Knowledge of Agriculture Education

Vacant School District Administrator where Agriculture Education is Conducted Secretary Russell Redding PDA, Chair

Senator Judy Schwank PA State System of Higher Education

Raechel Sattazahn Ag Processing/ Marketing

Robert Hess Business Community Member with Knowledge of Agriculture Education

Representative Barbara Gleim School District OAC Member Secretary Dr. Khalid Mumin PDE, Chair

Gary Swan Business Community Member with Knowledge of Agriculture Education

Anthony Honeycutt Vocational Ag Teacher

Dr. Tiffany Turrentine Vocational Agriculture Teacher from Career & Technical Education

Dr. Kevin Curry Agriculture Science -PSU Agriculture Science Faculty Member

WHO WE ARE?

In recognition of future workforce needs, the Pennsylvania Departments of Agriculture (PDA) and Education (PDE) have produced a comprehensive agricultural education report for schools across the commonwealth and have created a Commission for Education 15-member Agricultural Excellence. The commission will operate under the concurrent authority of PDA and PDE and is charged with assisting in the development of a statewide plan for agricultural education and coordinating the implementation of related programming with both departments.

As part of PDA's workforce development plan, the Department is working to identify gaps in education and training for those indemand career paths; focus on work-based learning, including micro-credentials and apprenticeships; and help Pennsylvanians obtain meaningful careers on the way to finding solutions to the shortage of talent in the near and long-term.

This report highlights key objectives that the commission is charged to support and raise awareness for in the advancement of agriculture education throughout Pennsylvania:

- Outline agricultural education programs and achievements.
- Assess the trends and needs in secondary and both formal and informal postsecondary agricultural education and training.
- Investigate and assess work force trends of the agriculture and food industry.
- Assess and make programming recommendations for meeting the training needs for individuals not pursuing formal postsecondary education.
- Consider the manner in which funds are used to support agricultural education activities.
- Make recommendations to the Governor and the General Assembly regarding legislative or regulatory changes to improve agricultural education.









2023-2027 Work-Plan Objectives

In consultation between the Department of Agriculture & Department of Education, please see the following objectives in this work-plan according to Act 2017-55 (H.B. 178). Any proposed update to the objective shall be developed in consultation with the commission.

01. Benchmark Key Variables

02. Increase Diversity of the Agriculture Education System

03. Identify Support Strategies for the Agricultural Related Career Pathways



04. Strengthen Agriculture Literacy for Traditional & Non-Traditional Students



05. Empower Agriculture Education Industry Stakeholders

01. Benchmarked Key Variables

Use a set of benchmarked key variables to monitor progress in reaching Commission goals

- Percentage increase or decrease in the number of FFA chapters and students
- Ratio of participants to completers in secondary level, approved ag programs
- Percentage of students involved in Supervised Agricultural Experiences (SAEs)
- Economic impact of Supervised Agricultural Experiences (SAEs)
- Teacher recruitment, retention, and turnover data
- Number of industry certifications earned by students in the system
- Percentage increase or decrease in the number of MANRRS chapters and students
- Percentage of agriculture education programs by CIP code

02. Increase Diversity of the Agriculture Education System

Identify and explore opportunities to increase diversity of the Agriculture Education system and the various programs and opportunities within it.

- Continue to monitor the agriculture education system to determine who is being served
 - Identify groups/individuals not being engaged in the ag ed system
- Provide opportunities for continued education focused on diversity and inclusion best practices
 - Create resource guide for teachers and administrators that may need guidance on issues related to diversity
- Explore ways in which FFA & 4-H can continue reaching underrepresented students
- Explore ways in which the PA agriculture education system can support MANRRS (Minorities in Agriculture, Natural Resources, and Related Sciences) in reaching students typically under-represented students in agriculture programs.
- Explore urban agriculture opportunities and how these opportunities may allow the commission to reach a more diverse audience.
 - Increase focus on urban agriculture and identify opportunities to build or expand current programs
- Collaborate with Workforce and Other state programs that focus on serving under-represented populations

03. Identify Support Strategies for the Agriculture Related Career Pathways

Identify and support strategies to align the agriculture education system with the agriculture and food industry

- Use a thorough understanding of the career pathways that the industry uses for occupational advancement to map places for education and training interventions through formal and informal systems. Identify groups/individuals not being engaged in the ag ed system
 - Gather information on the Food Manufacturing, Forestry, Conservation & Natural Resources, Animal Science/Health Services, Farming and Agricultural Mechanics, Production & Operations and Horticulture Career Pathways.
 - Share this information with other government partners as appropriate
- Use industry feedback to identify gaps that may exist in curriculum, particularly caused by technology advancement
 - Solicit input from members of Occupational Advisory Committees regarding gaps in curriculum that they identify during their consultation with local programs.
 - Crosswalk industry input to similar Task Lists that are used in career and technical education.
- Propose and implement ways to fill the identified gaps through curriculum development and teacher training or retraining as needed
- Explore and advocate for changes that may need to be made in the Agriculture, Food, and Natural Resources (AFNR) standards that relate to the gaps that are being identified in school-based agriculture education programming.

04. Strengthen Agriculture Literacy for Traditional & Non-Traditional Students

Engage students earlier and more completely in agriculture literacy and education during their academic careers

- Reach out to the parents of K-8 students as well as the students themselves with information about agriculture and food careers.
- Work with the PA Department of Education to establish a place for ag and food curricula on the Standards Aligned System (SAS)
 - Create an Agriculture learning community on SAS to provide a platform for communications among formal and informal educators and interested parties.
- Continue to support the Supervised Agriculture Experience (SAE) as one of the three primary parts of agriculture education
 - Continue to support technical assistance on SAE improvement through the SAE Specialist position
- Explore the interface of agriculture and science and the availability of content in that space
- Continue to provide information on ag and food careers to high school and adult students
- Continue to work with Workforce Development Specialist to explore additional ways to connect with Labor & Industry and the agriculture workforce development system in PA.

05. Empower Agriculture Education Industry Stakeholders

Empower local agriculture education teachers, administrators, and other leaders in providing agriculture education programs that meet the needs of the industry for workers, the community for future leaders, and citizens who understand the role of agriculture in the food systems

- Increase funding support structures for the ag education commission
- Explore how local systems may be preventing participants in agriculture programs from becoming program completers.
- Explore the ways local school districts use the funding that comes from the state for agriculture education program, particularly how much is used directly for ag ed and how much goes into other programs
- Study why some districts use other funding streams (such as Perkins) and others don't apply for any funding.
- Explore the recent shortage of school-based agriculture education teachers and the future prospects for increasing those numbers
- Utilize expertise of Commission members to elevate recommendations and needs to strengthen and support agriculture education and agriculture workforce
- Present recommendations from Commission and stakeholders to the General Assembly

2023 AGRICULTURE EDUCATION EXCELLENCE ACCOMPLISHMENTS

- In partnership with the National MANRRS (Minorities in Agriculture, Natural Resources & Related Sciences) Organization launched two new Junior MANRRS Chapters at The Fox Chase Farm & Milton Hershey School
- Pennsylvania was one of nine states that participated in the inaugural National FFA State Equity, Diversity, and Inclusion Collaborative. This group of state leaders met for a year to discuss and strategize on how to grow a more equitable, diverse, and inclusive FFA.
 - Awarded \$5,000 EDI implementation grant.
- Distributed over \$35,000 to support the PA FFA Foundation Learning by Doing initiative.
- Assisted PAAE in purchasing 10 Briggs & Stratton Engines for their Small Engine BriefCASE for 10 educators.
- Launched the Diesel Mechanics Level II Training for 10 agriculture mechanics teachers in partnership with Northeast Equipment Dealers and Thaddeus Stevens College of Technology
- Relaunched the PA Team Ag Ed Network this group is comprised of educators and members of ag ed stakeholder organizations that serve as the boots on the ground voice for the needs of school-based agriculture education programs.
- In partnership with Hardwoods Council and Project Learning Tree, provided this group with S5,000 to support their marketing campaign to provide counselors, educators, and administrators in urban areas literacy around forestry career pathways.
- Maintained an active presence at core ag ed stakeholder organization meetings (FFA, PAAE, PSU/CPPD, Advisory Council of Enivronmental Educators, Longwood Gardens Engagement and Learning Committee)
- Continue to visit traditional/non-traditional agriculture education programs across the state to ensure the voice of all stakeholders are embedded in advocacy efforts

INVESTMENT INTO PENNSYVLANIA'S AGRICULTURE EDUCATION SYSTEM

Since taking over the commission as the 1st full-time executive director in 2021, Stephon Fitzpatrick, commission members, and stakeholder agencies & organizations have been working diligently to streamline funding and investments made into Pennsylvania's agriculture education system.

Agriculture Education Excellence Commission

- \$750,000 (Since 2021)
 - Salary + Benefits Package for Executive Director
 - Learning by Doing Grants through PA FFA Foundation
 - Workforce Development/Industry Engagement workshops and trainings
 - Professional development opportunities for agriculture educators
 - Support for PA Agriculture Youth Development Organizations (FFA & MANRRS)

Bureau of Career & Technical Education (PDE): Average Daily Member Reimbursement (Agriculture Only)

- \$4,111,801 (2022)
 - Funds from the Bureau of CTE are given to schools as a reimbursement for students Involved In career and technical programming.

Pennsylvania FFA Association/Foundation

- \$1,250,000+ (Since 2021)
 - has been Invested to support state FFA officer team, career and leadership events, fundraising, scholarships, and professional development.

The Penn State University Center for Professional & Personnel Development

- \$1,280,196 (Since 2021)
 - Invested in pre-service and in-service teacher education.

Pennsylvania Association of Agriculture Educators

- \$400,000 (Since 2021)
 - Support for ag teachers, students, and ag education programs. scholarships, professional development, CDE sponsorship, FFA sponsorships, and support for national and regional teacher conferences.

STATE LEGISLATIVE AGRICULTURE EDUCATION INVESTMENTS BEING MADE ACROSS THE COUNTRY

Illinois



- **SB 2975 2016:** created an agriculture education teacher grant program to fund personal services costs for agriculture education teachers in school districts.
 - Provides that a school district may apply for a grant to fund 50% of the personal services cost for an agriculture education teacher.
 - A school district that is creating a new agriculture education program may apply for a grant to fund 100% of an agriculture teacher's personal services cost in the first and second year of the new agriculture education program and 80% of an agriculture teacher's personal services cost in the third and fourth years of the new agriculture education program.
 - Allows a school district to apply for a grant for more than one teacher.
 - Investment: \$9,320,228 (Annual ag education line item)

Oregon



 HB244-2019 - created to increase student achievement and to improve graduation rates, college preparation and career placement for students enrolled in secondary agricultural education courses, the Department of Education coordinated with Oregon FFA to cover statewide membership of all FFA members, financial support for leadership development training, and administered a grant program for extended duty contracts in school districts to allow school district personnel to manage approved programs of study in ag ed during summer months
Investment: \$2,030,000

AGRICULTURE EDUCATION INVESTMENTS BEING MADE ACROSS THE COUNTRY



• **SB 330 - 2018:** Each year the General Assembly allocates funding earmarked specifically for 5 portions of the agricultural education programs in Georgia:

Georgia

- Extended day pay for teachers.
- Extended year pay for teachers.
- Young Farmers (adult education)
- Area Teachers (staff positions in each region of the state)
- Youth camps
 - Investment: \$13 million (Annually)
- Through the Georgia State Finance & Investment Commission GSFIC, Governor's Office of Planning & Budget (OPB) and the General Assembly, there are funds allocated each year for new schools, agriculture structures and equipment for local programs and facilities at GA's two FFA camps.

California

- Agriculture Vocational Education Incentive Grant **Program** - Improve the quality of agriculture vocational education programs.
 - Investment: \$4,000,000 (Annually)
- Agriculture Career Technical Education Grant -Provides local educational agencies funds to improve quality of their agriculture CTE programs.
 - Investment: \$6,134,000 (Annually)



AGRICULTURE EDUCATOR & PROGRAM DATA

ASE

CASE

CAS

CASE

e

CASE

MESSAGE FROM BUREAU OF CAREER & TECHNICAL EDUCATION

Agriculture programs in Pennsylvania's schools have a rich tradition of serving their communities, often teaching generations of learners. This proud legacy promises a bright future for students, as the number of agricultural education programs has seen continuous growth. This, however, poses new challenges: as more programs are instituted and the size of programs grows, schools are faced with the need for more educators and resources.

Moreover, school administrators must stay apprised of legislation for program approval, an important step to ensure that those resources are available to schools. And schools increasingly have a greater need for interactions with business and industry. Students who gain experience working with local agriculture industries find greater success after graduation.

The Bureau of Career and Technical Education (BCTE) has been working to ensure that students are receiving the very best educational opportunities. BCTE's Program Standards and Quality Assurance division has focused on outreach, meeting teachers face to face, listening to their concerns, delivering opportunities for professional development, and providing technical assistance to meet new and evolving challenges. Governor Shapiro's administration has expressed strong support for career and technical education and has committed more resources to expanding it. BCTE is also supporting the reboot of PA Team Ag Ed, where members of the FFA, the Center for Personal and Professional Development, the Pennsylvania Department of Agriculture, and the Pennsylvania Department of Education meet to pool resources, capitalize on strengths, and create better opportunities for students.

The Commonwealth recognizes that agriculture education is vital to schools and communities, and to the economic health of the state. BCTE is committed to working with its partner organizations to build on its agricultural heritage, to innovate and lead in the years to come.

Christopher Davis Specialized Career and Technical Education Advisor, <u>Agriculture</u> <u>Education</u> PDE, Bureau of Career & Technical Education



AGGRICULTURIndicator2018-2019Indicator2018-2019Number of FFA144Chapters7,096Number of7,096Agriculture9.79%Education students9.79%% of completers9.79%% of completers9.79%mong participants9.79%in secondary level,9.79%among participants7,096% of completers9.79%% of completers9.79%<	2018-2019 2018-2019 7,096 9.79% 695 63%		2020-2021 147 7,417 8.97% 8.97% 6.65 6.65 6.9%	2021-2022 152 7,436 10.80% 10.80% 803 803 53%	154 154 8,382 10.52% 8,382 8,382 8,382 8,382 8,382 8,382 8,382 8,382 51%	EDUCATION INDICATORS -2020 -2021 - 2021 - 2022 - 2023 - 2018 - 2028 - 2018 - 2028 - 2028 -46 147 152 154 6% -46 7,417 7,436 8,382 18% 948 7,417 7,436 8,382 18% 948 7,417 7,436 8,382 18% 948 7,417 7,436 8,382 18% 948 7,417 7,436 8,382 18% 948 7,417 7,436 8,382 18% 948 7,417 7,436 8,382 18% 948 7,417 7,436 8,382 18% 948 7,417 7,436 8,382 18% 948 7,417 7,436 8,382 18% 948 7,417 7,436 8,382 18% 948 7,417 7,436 8,382 18% 948 7,417 7,436 8,382 27% 948 5,738 7,027 6,776 9% 9% 69% 53% </th
Economic impact of SAEs Open Positions	\$4,485,717 4	\$4,339,540 10	\$4,472,306 4	\$5,311,043 14	\$4,890,714 6	9% 50%
Filled positions Number of ag and food industry certifications earned by students in the system	4 1,277	960	10 1,658	14 1,923	26 2,938	550% 130.07%

AGRICULTURE RELATED PROGRAMS AT HIGH SCHOOL LEVEL

CIP / General Program Title	Total Students	Male	Female
Agriculture	2090	1012	1078
Agriculture Mechanization	699	642	57
Agriculture Production	2270	1234	1036
Agriculture Food Processing Applied Horticulture	141	61	80
Operations	816	419	397
Animal Sciences	335	75	260
Veterinary/Animal Health	725	108	617
Agricultural/Animal/Plant Environmental/Natural	244	133	111
Resources	89	55	34
Forestry Technology	27	27	*
	7436	3766	3670

Note: Of the total students 388 identify as Black or African American, 434 Hispanic, 132 multi-racial, 1, 595 with an IEP. 2,847 are classified as economically disadvantaged.

Below are examples of approved agricultural programs:

- Middle School-Very few middle school programs are out there.
 - **Rural-Athens- Athens, PA**-Northern, along the NY line: Mid-sized program that has a strong connection to forestry/maple syruping.
 - **Suburban- Cumberland Valley, Mechanicsburg, PA, South Central**: CASE centric high school program, Middle school focuses on agriculture literacy to help better prepare students to be successful in the high school.
 - **Urban** No approved programs present.

AGRICULTURE RELATED PROGRAMS AT MIDDLE & HIGH SCHOOL LEVELS

Below are examples of approved agricultural programs:

Middle School-Very few middle school programs are out there.

- **Rural-Athens- Athens, PA-Northern**, along the NY line: Mid-sized program that has a strong connection to forestry/maple syruping.
- Suburban- Cumberland Valley, Mechanicsburg, PA, South Central: CASE centric high school program, Middle school focuses on agriculture literacy to help better prepare students to be successful in the high school.
- Urban- No approved programs present.

High School Programs:

- **Urban-W.B. Saul- Philadelphia, PA**: Most recognized urban agriculture school. A fully comprehensive school that continues to adapt to ensure students are meeting the needs of the local industry.
- **Suburban-Pequea Valley**: Program that continues to grow with extremely strong and selfless educators that ensure rigor and is shown through the success for their students.
- Suburban- Derry Area: A long running community supported program. So strong the community facilitated the purchase of a S50,000 tractor. They have their ownbuilding on campus that has commercial greenhouses. Has two educators one newer to the profession and one at the end, bringing in the rich past and bright future. Also focuses on helping students succeed and host workshops for surrounding area students as well, bridging gaps.
- **Rural- Albion, Albion, PA**: In the northwest corner next to Erie. Large enrollment for the local population, excels at involving community and exposing agriculture to all levels of education. This includes students working with elementary students on a consistent basis. The high schoolers help introduce agriculture literacy with the students.
- **Rural- Central Columbia, Bloomsburg, PA:** Central/Central East A program that fully embraces the APTE process to ensure the betterment of their students. Extremely community minded and continuously advocating for the program n all aspects. Instructor, Doug Brown, was the 21-22 golden owl recipient, which recognizes the full commitment of the educators to their students. This is seen by this school having a state officer (Rebekah Lehman) and the success of his students and weekly blasts of how his students are in the community.

AGRICULTURE EDUCATORS

Agricultural educators play a key role in schools, community, the agricultural industry, and society. Becoming an agricultural educator means to engage students in leadership opportunities, personal growth & success, and career readiness through a total program of agricultural education and community involvement. **The demand for agricultural teachers is higher than the current supply.** Additionally, agricultural educators are often on extended contracts, meaning they get paid during the summer months and could earn a higher salary than other teachers.

Not one day is the same as an agriculture teacher! Some days may include:

- Serving as an advisor for FFA students engaged in leadership.
- Evaluating students' wide variety of Supervised Agricultural Experiences.
- Connecting with the community through service.
- Fostering a classroom environment which allows students to explore the agricultural industry and related careers.

Agricultural education is a diverse field that welcomes new perspectives and experiences. Whether you are transferring from industry, alternatively certified, recently graduated, or just looking for a unique job.

The below figure reflects the number of approved agriculture programs and agriculture teachers across the four regions of Pennsylvania's Ag Ed System.

Western 34 Schools/47 Teachers

Northern 36 Schools/49 Teachers



South Central 45 Schools/75 Teachers Eastern 52 Schools/95 Teachers

AGRICULTURE EDUCATOR DEMOGRAPHICS

266 Total Number of Ag Teachers

167

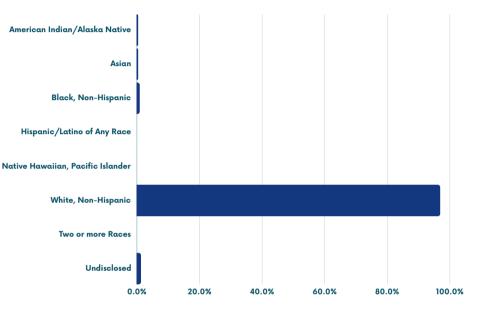
Total Number of Schools with an Ag Program/Ag Teacher

163

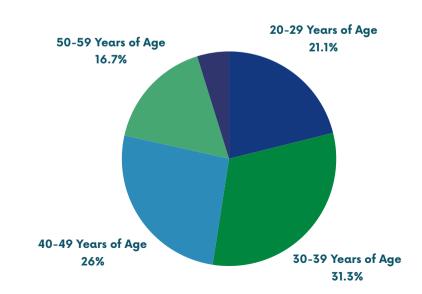
Female Ag teachers

103 Male teachers

Race/Ethnicity of PA Ag Educators



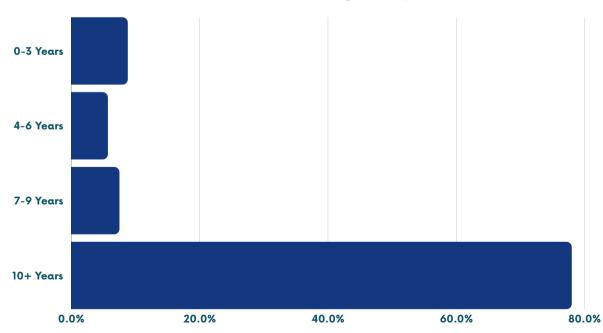
Age Range of PA Ag Educators



AGRICULTURE EDUCATOR DEMOGRAPHICS



Retirement Eligibility



SCHOOL BASED AGRICULTURE EDUCATION (SBAE)

School-based agricultural education (SBAE) programs have become more diverse with the ever changing and growing agriculture industry. Agricultural education teachers are challenged with expanding their knowledge and competencies to effectively teach and design successful SBAE programs. Needs assessments aid in providing guidance for professional development to better equip teachers with adequate knowledge, experiences, resources and materials.

Total PA SBAE positions in the last 3 years:

83 fulltime SBAE positions (this excludes long-term subs, parttime positions or those without a fulltime SBAE focus)

FISCAL YEAR	FULL TIME SBAE POSITIONS	SBAE POSITIONS THAT WENT UNFILLED
2020-2021	19	1
2021-2022	39	1
2022-2023	26	6



The following information is a detailed break down of how these positions were filled during during the past three (3) years:

- Penn State graduates filled 43 of the 83 fulltime PA SBAE position openings over the last three years.
- 9 of the positions were filled by graduates of another university.
- 5 of the positions were filled by professionals from industry.
- 18 positions were hired by individuals where their status is unknown.
- 8 positions were unfilled.

Graduates in an ag education degree program

• 38 of the 43 Penn State graduates completed the traditional 4-year Agricultural & Extension Education Program

Nontraditional licensed teachers in ag ed

• 5 of the 43 Penn State graduates were nontraditionally certified (i.e. post baccalaureate program or instructional intern program)

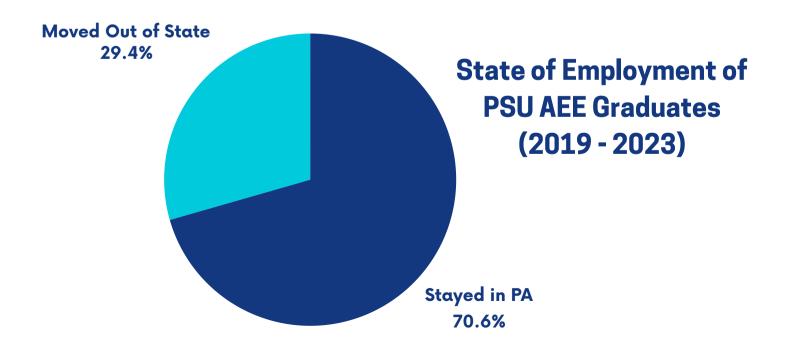
PSU Teach Ag has graduated 51 candidates during the five-year period from 2019-2023 (~10 per year)

- 73% have entered the classroom at some point after graduation.
- 70% stayed in PA; 30% were employed out of state

PENN STATE AEE (AGRICULTURAL & EXTENSION EDUCATION GRADUATE DATA

Current Employment of PSU AEE Graduates (2019-2023)

Current Employment of PSU AEE			
Graduates (2019-2023)		# of Graduates	%
SBAE Teacher		36	70.59%
Teaching (Other Subject)		3	5.88%
Ag Industry		4	7.84%
Administration		2	3.92%
Higher Education		3	5.88%
Military		1	1.96%
Extension/Community			
Development		1	1.96%
Other (Not Specified)		1	1.97%
	Total	51	100.00%





STAR Program:

Pennsylvania currently participates in the National Association of Agriculture Educators State Teach Ag Results Program (NAAE STAR) for recruitment and retention of agriculture teachers. Our team is comprised of AEE faculty members from both Penn State and Delaware Valley Universities, current PA agriculture teachers, and representatives from the Center for Professional Personnel Development, PAAE Leadership, and PA FFA Foundation representation. The funding that is received for this program is utilized in statewide recruitment efforts, pre-service teacher retention (NAAE Conference and AgI2), and in-service teacher retention (New and Beginning Teacher Program and the AgI2).

Retention Activities for Current Teachers:

A yearlong thematic professional development series comprised of in-person hands-on workshops and virtual webinars.

New and Beginning Ag Teacher program for teachers in their first 3 years of teaching agriculture in PA.

Agriscience Inquiry Institute (AgI2) – This annual event is held in partnership with the Center for Professional Personnel Development (CPPD), PAAE, and the PA STAR program and is targeted at both pre-service and in-service teachers.

Professional Development Scholarships (award amounts of S500, S1,000, and S1,500) available from the Pennsylvania Association of Agricultural Educators

PAAE Curriculum Library - shared digital library of unit plans, lesson plans, activities, and resources developed by PA ag teachers for PA ag teachers.

Fill the Cup Social Media Campaign - organized by PAAE Teacher, Recruitment, Retention, and Recognition Committee to challenge teachers to spend time investing in themselves for career sustainability

PAAE Annual Conference - annual meeting and professional development provided by Pennsylvania Association of Agricultural Educators in July Free first-year teacher membership in PAAE (cost covered by PAAE)



Retention for College Pre-Service Teachers

Opportunity to attend NAAE Convention

Agriscience Inquiry Institute (AgI2) – This annual event is held in partnership with the Center for Professional Personnel Development (CPPD), PAAE, and the PA STAR program and is targeted at both pre-service and in-service teachers.

Student Teaching Scholarships (S1000 award amount) from PAAE

Center for Professional Personnel Development - Teach Ag Avengers. Student employment opportunity for agricultural and extension education students that allows them to interact with teachers throughout PA by facilitating workshops and recruit prospective students into the PSU ag ed program.

PSU FFA Alumni and Supporters Club - way for FFA alumni and ag education students to connect and serve Penn State/Ag Ed community

Alpha Tau Alpha Conclave - opportunity for members of PSU FFA Alumni and Supporters Club to compete in events such as ag ed quiz bowl, debate, parliamentary procedure, essay competition, and more.

PAAE Annual Conference - annual meeting and professional development provided by Pennsylvania Association of Agricultural Educators in July

Free student membership in PAAE (cost covered by PAAE)











The Global Teach Ag Network is led by two co-founders, Daniel Foster and Melanie Miller Foster and is comprised of a team of staff, affiliate faculty, graduate associates, and undergraduate interns. In addition to leading the organization as cofounders, Daniel Foster serves as the innovation specialist and Melanie Miller Foster serves as the global learning specialist.



Dr. Daniiel Foster Co-Founder Agricultural Teacher Education / Innovation Specialist



Dr. Melanie Miller Foster Co-Founder International Development / Global Learning Specialist

Overview of Program

The Global Teach Ag Network, housed within Penn State's Center for Professional Personnel Development, is a network of educators, professionals, and institutions focused on empowering educators to connect their learners to global agriculture and global issues. This is done through a variety of programs, including a digital community of practice, hybrid professional development programs for in-service and pre-service teachers, international immersion experiences, research, serving as a connector between teachers and industry, and more. These experiences are possible due to the support of our global learning partners.

To learn more – please visit our website at globalteachagnetwork.psu.edu





Key Outcomes

Launch of new community platform

Continuation of World Food Prize Foundation Global Guides program

2023 marked the first year of programming for the Global Teach Ag Network on the platform – Mighty Networks. This platform is available for any educator across the world to join and currently is comprised of over 1,000 educators representing over 40 countries. Within this community there are networking opportunities, live professional development events, asynchronous courses, and more.

This hybrid professional development program, funded by the World Food Prize Foundation provides in-service educators with a week of food security education training at the Borlaug Dialogues in Des Moines, Iowa, virtual professional development sessions, and coaching on development of a reusable learning artifact (RLA) project to be shared with other educators for their use and development.

Launch of Global Orientation to Agricultural Learning (GOALs) program

Funded by a USDA-NIFA grant, cohorts 1 and 2 of this program featured professional development experiences for pre-service candidates from Penn State and the University of Idaho. These students engaged in the Borlaug Dialogues in Des Moines, Iowa, underwent training relating to global citizenship and food security education, traveled to a different state to teach about global agriculture for a week, and completed two university courses. Cohort 3 – funded by a USDA-NIFA HEC grant, expanded the program to include pre-service teacher candidates from 1890s institutions and an international immersion experience to Belize.



Key Outcomes

Teach Ag Uganda

USDE Fulbright-Hays experience in partnership with Field of Hope – in July 2023, 12 US educators traveled to Ugandan to work with 5 secondary schools and their teacher teams to develop student agricultural projects. This work resulted in four poultry projects and one aquaculture project being developed and continually growing in student impact and learning.

Growers of Today and Tomorrow

As part of a a USDA-NIFA grant led by the University of Tennessee-Martin, the Global Teach Ag Network led in the facilitation of the Growers of Today and Tomorrow internship program. This program connects high school agriculture programs with local vegetable producers for secondary student interns to complete a 3-week sustainable agriculture internship. In 2023, this included two placements of Millville Area High School and Brian Campbell Farms and Southern Huntingdon County High School and New Morning Farm. This program will have internship opportunities in 2024 and 2025.

Teach Ag Nepal

Four of our team members ventured to Nepal in May 2022 to explore their agriculture and science education system in partnership with the Rebuild Nepal Education Foundation. Our team has taken data from this experience and translated it into research relating to identification of resources available for Nepal science educators.





Indicator	2021	2022	2023
Global Learning in Agriculture			
Conference			
Participants	973	1,167*	1,078
US Territories Represented	51	51	49
Countries Represented	40	46	45
Global Guides Cohorts			
• Educators	25	23	24
• States Represented	18	14	17
• Territories	-	1	1
• Countries	-	5	3
Global Orientation to Agricultural Learning (GOALs) Program			
• Students	12	18	18

Highlights of three-year update of participants in program

- 2021 Participants Week long virtual conference
- 2022 Participants Reflection of first year of long programming
- GOALs Students from 2021-2023 have participated from Penn State, University of Idaho, Tuskegee University, University of Maryland Eastern Shore, North Carolina A&T University, & Kentucky State University

AGRICULTURE YOUTH DEVELOPMENT ORGANIZATIONS

PENNSYLVANIA FFA

FFA membership is an investment in a student's future. Participation can be an uplifting and community-building experience that contributes positively to personal growth, including mental and emotional well-being.

In addition to personal gains, FFA membership also builds career skills and professional success for students as they network with industry professionals; explore options for careers; and develop essential skills like public speaking, interviewing, and networking.

FFA also makes a positive difference in communities. Strong chapters are built by strong members, and strong members who come together can have a greater impact on their school and community than they could ever have had independently. These are the primary returns on investing in FFA members -- premier leadership, personal growth, and career success. Join your local chapter to reap the full benefits of our wonderful organization!

The Value of Leadership in FFA

There are many positive aspects of FFA membership. Ask any former member what they remember most about their time in the FFA, and you will likely get a different answer inspired by their unique experiences. FFA members take ownership in their experiences -- all of which develop leadership and teamwork skills. Competitive events, such as public speaking, parliamentary procedure, and agricultural issues, give members a voice in discussing important topics with their local chapter or the agricultural industry. These experiences give members confidence in handling real-world situations by sharing opinions, analyzing problems, or working with a team to make decisions.



2023 Pennsylvania FFA Membership

13,567 PA FFA MEMBERS FY 2021 (UP 4%)

14,319

PA FFA MEMBERS FY 2022 (UP 6%)

15,182

PA FFA MEMBERS FY 2023 (UP 6%)



RACE/ETHNICITY

0%

0%

Asian Black, Non-Hispanic Hispanic/Latino of Any Race Native Hawaiian, Pacific Islander White, Non-Hispanic Two or more Races Undisclosed

American Indian/Alaska Native

PENNSYLVANIA FFA

CHAPTER INFORMATION 2022-2023

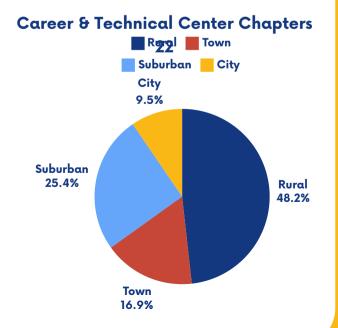
FFA CHAPTERS (158)

NEW CHARTERS

Avon Grove Warrior Run Lebanon County CTC Lankenau Environmental Center

Middle School Chapters 3

High School Chapters (Includes 2 private and 1 charter school) 129



The Association is lead by a team of seven State Officers. These seven are elected by their peers to serve the organization for one year. They defer college/careers (take a gap year). They travel over 100,000 miles visiting schools, teaching classes, conducting workshops, conferences, conventions, etc. They are the students voice on the PA FFA Board of Directors. They also serve as state delegates at the business sessions of the National FFA Convention held in Indianapolis, IN.

Training starts immediately after being elected in June and continues all year. This year's group of seven were selected from a pool of candidates of 33 students. State Officers must be high school graduates.

This year, Pennsylvania is honored to have Jessica Herr serving as the National FFA Secretary. Jessica is the first female from Pennsylvania to be elected to national office. She is also the first to serve from the state, in 22 years. There have been 12 National Officers from Pennsylvania since 1929.

The PA FFA Association is staffed by one full-time employee. There are many teachers who volunteer their time and talent to help support FFA programming from Career and Leadership Development (CDE & LDE) events, to working committees, we would not be able to do what we do without their volunteer efforts.

However, as a result of the volunteer overutilization of our teachers, there has been an increased need for capacity building to ensure programs and events are properly staffed.

PENNSYLVANIA FFA

ATTENDANCE & PARTICIPATION AT STATE LEVEL ACTIVITIES:

State Level Career and Leadership Development Events (CDE & LDE) (Contests) (32) Advance to the National level, Indianapolis, IN (26)

Advance to the Regional level (Eastern States Expo in Springfield, MA) (22)

ATTENDANCE AT STATE LEVEL EVENTS

PA FFA State Convention –Penn State University Park (1624)

ACES Leadership Conference -Harrisburg Hershey Sheraton (1964)

State Legislative Leadership Conference – Harrisburg Hershey Sheraton (612)

Fall Leadership Conference – Blair County Convention Center - (511)

Mid-Winter Convention – Attended by over (8,000) students, teachers, parents, guests – PA Farm Show Complex during the PA Farm Show

> Photos courtesy of the PA FFA Association



SUPERVISED AGRICULTURE EXPERIENCE (SAE)

6,776 2023 Students w/ SAE Records

> **51%** 2023 % with SAE

\$2,211,125

2023 Direct Investment

\$4,890,714

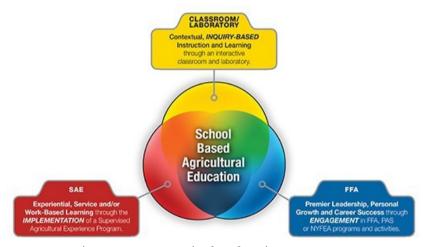
2023 Economic Impact

Student SAE Engagement

39% Entrepreneurship SAEs 49% Placement SAEs 11% Research SAES

Projects by Pathway

6% Ag. Lead./Ed./Comm 3% Agribusiness Systems 46% Animal Systems 0% Biotechnology System 1% Environmental Service 2% Natural Resources 8% Food Products and Processing 9% Plant Systems 7% Power, Structure, and Technical The Supervised Agricultural Experience (SAE) program involves practical agricultural activities performed by students outside of scheduled classroom and laboratory time. SAEs provide a method in agricultural education for students to receive real-world career experiences in an area of agriculture that they are most interested in. Supervised Agricultural Experiences are an important component of agricultural education and are required element of all Agriculture, Food and Natural Resources (AFNR) courses



Students may apply for funding to support their SAE project through the Learning by Doing Grant offered by the Pennsylvania Foundation. The agriculture education commission since 2018 has provided over S120,000 in support of this grant program.

Data made available by Carole Fay the Pennsylvania SAE Specialist

PENNSYLVANIA 4-H PROGRAM

"Empowering youth to be the leaders of tomorrow is one of the most crucial responsibilities that we have as adults.

The youth who are participants in the Pennsylvania 4-H program truly embody the spirit of leadership that is needed in the world today. The positive, youthdevelopment experiences that the 4-H program provides to youth through the work of 4-H educators and dedicated volunteers are helping to shape the world that we live in.

Participation in 4-H is an opportunity for youth to develop critical thinking, teamwork and leadership skills. 4-H focuses on growing the whole person through hands-on learning opportunities that develop the head, heart, hands and health of participants. Your support will help to give future leaders the tools they need to make their communities stronger.

Because of the support the 4-H program receives from community leaders like you, we are able to offer new and innovative opportunities "

> Joshua E. Rice, Ph.D. Assistant Director, 4-H Youth Development



2022 PA 4-H Membership Enrollment

4,084

12,534 TOTAL MEMEBRS BETWEEN THE AGES OF 5-18 (INCREASE OF 17.21%)

77,597 YOUTH REACHED THROUGH

SCHOOL ENRICHMENT PROGRAMS AND OTHER NON TRADITIONAL 4-H PROGRAMS AND EXPEREINCES

1,612

ACTIVE 4-H CLUBS

1,911 CLASSROOM VISITS

MANRRS MINORITIES IN AGRICULTURE, NATURAL RESROUCES & RELATED SCIENCES

2023 PA MANRRS Membership **400**

TOTAL MEMBERS (BETWEEN HS & COLLEGIATE



PA JUNIOR MANRRS CHAPTERS (9-12TH GRADE) WB SAUL AGRICULTURE HS

LANKENAU ENVIRONMENTAL SCIENCE HIGH SCHOOL THE U SCHOOL



PA COLLEGIATE MANRRS CHAPTERS THE PENNSYLVANIA STATE UNIVERSITY DELAWARE VALLEY UNIVERSITY



CHAPTERS NATIONWIDE



MANRRS (Minorities in Agriculture, Natural Resources and Related Sciences) is a national society that welcomes membership of people of all racial and ethnic group participation in agricultural and related science careers. MANRRS members are encouraged to be full participants in other professional societies for their basic disciplinary and career interests. However, MANRRS attempts to provide networks to support professional development of minorities. It is a springboard for their entry into and advancement in careers where they otherwise could be lost in the sheer number and established connections of mainstream participants. For student members, MANRRS provides role models and networking opportunities.

MANRRS also offers students opportunities to enhance leadership and organizational and public speaking skills, and to experience professional critique of scholarly work in a "user friendly" environment. MANRRS professional members are often the only, or one of few, minority participants in their basic disciplinary societies or at their career locations. MANRRS provides them a network of counterparts from similar backgrounds with related interests and goals. More experienced members serve as mentors for newer graduates. The historical roots of traditionally formed networks within professions will prevent their replacement by MANRRS or any other alliance. However, MANRRS provides its members a similar inner circle of relationships to circumvent some of the exclusionary impacts of established professional lines of communication. Finally, MANRRS also serves employers in the broader agricultural sector. It provides them a platform to identify prospective well-qualified employees who are members of ethnic groups, which, when combined, are projected to be the new majority in the workforce in the not too distant future.

MANRRS

MINORITIES IN AGRICULTURE, NATURAL RESROUCES & RELATED SCIENCES



MEMBERSHIP LEVELS JUNIOR COLLEGIATE COLLEGIATE PROFESSIONAL HIGHSCHOOL UNDERGRADUATE GRADUATE **BEYOND COLLEGE** National Urban League Leadership Development Pre-college Assistance Leadership Development • Leadership Development Professional Professional • Career awareness & Professional Development Development readiness Development JAG Mentorship Social Skill Development • Scholarships Career Coaching Jobs Opportunities Priority Consideration Internship and Jobs • Internship and Jobs • Networking Internships Career awareness and Career awareness and readiness Mentorship with local Community Impact readiness University Networking Cultural Competencies Networking Secondary Partners Contextual Learning Community Impact • Community Impact Community Impact Cultural Competencies

INDUSTRY AND GOVERNMENT SPONSORS Internships • Development • Access

MANRRS



AG ED DIVERSITY, EQUITY, INCLUSION & ACCESSIBILITY PLAN

DEIA MISSION

- Foster a culture that promotes opportunity and access to agricultural education and/or agricultural training opportunities for all diverse people across differences of race, age, color, ethnicity, gender, sexual orientation, gender identity, gender expression, religion, national origin, migratory status, disability/abilities, political affiliation, veteran status and socioeconomic background.
- **Create** an equitable and sustainable climate where, justice, fairness and mutual respect are intrinsic, success-oriented, cooperative and supportive of the ag ed industry where we recruit and retain people and partners who feel comfortable contributing their unique wisdom, perspectives and experiences.
- **Establish** an inclusive agricultural education system that aims to ensure that every member of our ag education family feel valued, supported through education and outreach campaigns that reach more people.
- **Provide** continued education to agricultural teachers, employers and more on issues of diversity, equity, inclusion and accessibility.

5 Principles



DEFINING DEIA

DIVERSITY

Existense of individual and social differences that contribute to identity: Cultural, Racial, Religious, Age, Sex /Gender, Sexual orientation, and Disability

EQUITY

Grounded in the principles of fairness, creating opportunities, and ensuring each individual has the tools and support they need to achieve their individual success

INCLUSION

Intentionally fostering an environment in which each individual is valued and respected for their diversity, is empowered to engage and contribute, and is provided access to resources and opportunities

ACCESSIBILITY

Accessibility means making sure that people of all abilities can fully engage with every aspect of your organization, whether they're employees, vendors, customers, or partners.

DEIA STRATEGIC GOALS

DEIA Infrastructure and System Alignment

The Commission will help strengthen the DEIA infrastructure by ensuring alignment between other state agencies and working groups focused on DEIA in their perspective areas. The Commission will ensure that DEIA is woven throughout the work of the Commission through all of its projects and initiatives and embedded in the Commission's annual work plan.

02 Foster a Diverse Agriculture Education System

01

Foster a culture that promotes opportunity and access to agricultural education and/or agricultural training opportunities for all diverse people across differences of race, age, color, ethnicity, gender, sexual orientation, gender identity, gender expression, religion, national origin, migratory status, disability/abilities, political affiliation, veteran status and socioeconomic background.

Create an equitable and sustainable climate where, justice, fairness and mutual respect are intrinsic, success-oriented, cooperative and supportive of the ag ed industry where we recruit and retain people and partners who feel comfortable contributing their unique wisdom, perspectives and experiences.

Establish an inclusive agricultural education system that aims to ensure that every member of our ag education family feel valued, supported through education and outreach campaigns that reach more people.

Provide continued education to agricultural teachers, employers and more on issues of diversity, equity, inclusion and accessibility.

DEIA STRATEGIC GOALS

03

Recruitment, Talent Development, and Advancement Procedures

Successful recruitment and talent development strategies are key to securing future agricultural workers and engaging students in ag related training programs. Ensuring that these strategies for recruitment and development are welcoming and inclusive to all is critical in securing diverse talent from all backgrounds.

The Commission will review and assess current recruitment methods within the Ag Ed system focusing on the recruitment and advancement of educators and leaders as well as the engagement of students. The Ag Ed system within the state should have hiring processes, job descriptions, recruitment strategies and interview and evaluation processes that are diverse, equitable and accessible to all.

04 Learning and Training Processes

Continued education is a critical component for educators in any discipline. Ensuring educators, administrators, Ag Ed Commissioners and other leaders within the Ag Ed System have access to quality trainings and educational programming focused on DEIA issues will give them the tools to maintain a culture of diversity, equity, inclusion and accessibility.

The Commission will work with the PA Department of Education (PDE) to create and offer training and continued education opportunities for teachers, administrators and other leaders within the Ag Ed System that focuses on DEIA. These opportunities will be widely available and will ensure that educators have the tools necessary to provide a learning environment inclusive of all students and backgrounds.

DEIA STRATEGIC GOALS

05 Branding, Marketing, Digital Strategy

The Commission and Ag Ed System rely on branding and other outreach strategies to teach students and the general public about agriculture and the various careers that exist within the industry. These communications provide an opportunity to reach individuals typically underserved by the Ag Ed System.

The Commission will review past, current and future outreach campaigns to determine how they can be more inclusive. They will also study appropriate research to establish and develop a compelling story that raises awareness and reputation to drive recruitment of diverse representation. The desk-audit portion of the previously mentioned assessment shows an opportunity to improve upon current marketing tools and campaigns.

The Commission will involve industry representatives to provide feedback and insight on these strategies and share stories of diverse individuals within the field to give students and parents the opportunity to see people with similar backgrounds in agriculture.

WORKFORCE DEVELOPMENT

0

NIX

-

OGA

Sowin

0

0

1

RENE LICENERS

63:

8E

WORKFORCE DEVELOPMENT

Workforce gaps and labor shortages have been a challenge within the agricultural industry for many years. Addressing these needs and filling these gaps is crucial to ensuring the success of Agriculture in the state.

The 2021 Economic Impact Study shows the major impact that the industry has on the state's economy. According to the study Pennsylvania's agriculture industry has a S132.5 billion annual economic impact and supports more than 590,000 jobs, paying nearly S33 billion in wages annually. As technology changes and older workers retire there is a continued need to develop the next generation of agricultural workers and upskill current workers to prepare for changing technology. There is a need for workers across the various subsectors within agriculture, with the PA Department of Labor and Industry (L&I) reporting openings in more than 30 different in demand ag occupations including Butchers, Loggers, Farmworkers, Heavy and Tractor-Trailer Truck Drivers, Veterinary Technicians and more.

Over the last year the Department has worked closely with industry to determine the specific needs and opportunities available, hosting listening sessions with small to mid-sized meat processors, Ag Equipment dealers and more. This industry input will help to guide the Department's ongoing workforce initiatives and programming.

The Department has increased collaboration and connections with the Workforce Development system and L&I, hosting professional development events for Workforce staff, leading a new agricultural committee for the State's Workforce Development Board, and engaging with local Workforce Development Boards across the state. These strategies and initiatives have helped the Department raise awareness of the career opportunities within agriculture and to ensure that the industry and employers have a seat at the table in workforce discussions. More and more people are learning about agriculture careers and workforce needs as we help prepare the next generation of agricultural workers.

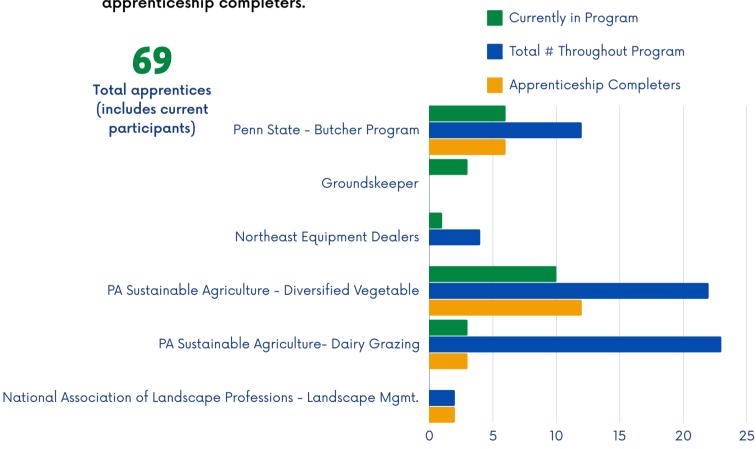


Sara Gligora Special Assistant Workforce Development PDA

APPRENTICESHIPS & PRE-APPRENTICESHIPS

The Department has been working hard to address these needs and identify solutions to the growing labor shortages. The department has focused on expanding and developing on the job training programs such as apprenticeship and pre-apprenticeship, increasing outreach and awareness of the various opportunities within agriculture and ensuring access to migrant labor.

APPRENTICESHIPS BY THE NUMBERS



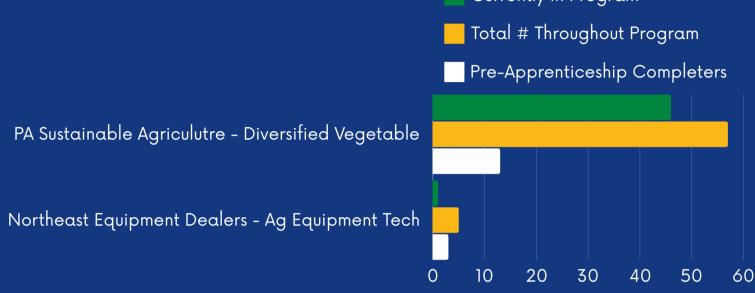
The following chart reflects the statewide current, total, and apprenticeship completers.

Highlight

 Penn State Butcher Program - 3 completers now own their own businesses.

APPRENTICESHIPS & PRE-APPRENTICESHIPS

PRE-APPRENTICESHIPS BY THE NUMBERS



Highlights:

- Northeast Equipment Dealers Ag Equipment Tech 2 pre-apprentices were hired directly by employer, 1 transitioned into full apprenticeship
- A new apprenticeship is in development with the Center for Dairy Excellence

Programming Recommendations for Meeting the Training Needs for Individuals Not Pursuing Formal Post-Secondary Education

Continue to explore interfaces with the growing registered apprenticeship system in the United States, negotiating articulations where possible with a broad understanding of career pathways and how they work:

- Encourage every agriculture-related registered apprenticeship to develop a pre-apprenticeship that reaches into not only the K-12 system but also into other manpower pools (veterans, ex-offenders, unemployed workers).
- Assist apprenticeship planners in understanding gaps in using agriculture educators as teachers in apprenticeship and plan together to acquire the needed knowledge and skills.
- Support all apprenticeship/pre-apprenticeship programs equally

Work with industry (public/private) to identify career pipeline opportunities to help sustain the agriculture workforce

2022-2023 COMMISSION EXPENDITURE PLAN

- Small Gas Engine BriefCASE \$13,000. PAAE hosted a Small Gas Engines BriefCASE on Thursday, July 13 – Saturday, July 15, 2023 (directly following their PAAE Conference) at Cumberland Valley High School. The BriefCASE consisted of 18 hours of professional development that leads participants through 12 weeks of curriculum, suitable for students in grades 10th through 12th grade. The curriculum included units on Safety and Expectations, Engines, and Diagnostics.
 - Funds were allocated to PAAE for the following:
 - Purchased 10 new Briggs & Stratton Engines were provided to Pennsylvania teachers upon completion of the training (\$4000)
 - Covered registration for 10 teachers from Pennsylvania (\$9,000)
- Hydraulics Training for 10 Educator (Northeast Equipment Dealers/Thaddeus Stevens) - \$10,000. Thaddeus Stevens College of Technology, in partnership with The Northeast Equipment Dealers Association, and The Pennsylvania State University's Center for Professional Development collaborated to deliver innovative professional development training session on agriculture & diesel mechanics. The commission provided support for 10 educators to register for this training.
- Hardwoods Council (Project Learning Tree Materials) \$5,000. Funds were distributed to the Hardwoods Council to purchase ag literacy booklets from Project Learning Tree and the Sustainable Forest Initiative to provide to guidance counselors a resource to advocate for forest careers and increase awareness for opportunities in the agriculture industry.
- **Statewide AET Support \$17,000.** The AET system is designed for students to track their experiences in agricultural education and includes national and state educational content standards, teacher grading tools and students developing career portfolios. This line item helped to pay 50% of the annual subscription costs for all FFA programs in the commonwealth.
- PA FFA Association Support (State Officers) \$15,000. The PA FFA Association is the leading agriculture youth organization that promotes leadership, personal growth and career success through agricultural education. Our FFA State officers are vital to ensuring students across the commonwealth are engaged in agriculture education programming. This funding helped support our state officers in ensuring they can meet their financial obligations to ensure they can continue to service our next gen agriculture leaders.

2022-2023 COMMISSION EXPENDITURE PLAN

- **SAE Specialist Contract \$10,000**: This was used to support the SAE Specialist who is responsible for the support and increase the number of Supervised Agriculture Experiences (SAE) within the Commonwealth continues to be a priority to support the advancement of agriculture education programming.
- Philadelphia Junior MANRRS Coalition Program Support \$15,000. A key objective of the agriculture education commission is to aid in Identifying, supporting and exploring opportunities to increase diversity of the Agriculture Education system and the various programs and opportunities within it is a critical charge of the ag education commission. This funding was used to support high school MANRRS (Minorities in Agriculture, Natural Resources and Related Sciences) chapters that serve underrepresented students by providing them opportunities to attend statewide agricultural events and learning activities. The following schools are included in this coalition:
 - WB Saul Agriculture School,
 - Lankenau Environmental Science Charter School,
 - The U School
- Industry Engagement \$9,200. These funds were allocated to Sara Gligora in her role as the Workforce Development Specialist as she worked to help create and expand new and current agricultural industry partnerships. These funds helped develop new partnerships across the state and gave partnership conveners the ability to engage stakeholders in their region including employers and educational institutions.
- Learning by Doing Grants \$35,000. This funding was distributed to the FFA Foundation to replicate its Learning by Doing grants process that has been done over the last two years. 1,000 grants for teachers, \$1,000 grants for FFA chapters, and \$350-\$500 grants for student SAE project.

RECOMMENDATIONS TO THE GOVERNOR AND GENERAL ASSEMBLY TO STRENGTHEN AGRICULTURE EDUCATION IN PENNSYLVANIA

- Existing funding for the Commission has been provided by the Department of Agriculture at a level of \$250,000 annually. To fully implement the Action Plan created by the Commission it is recommended to increase the appropriation to a minimum of \$500,000.
- Capacity building to-date remains the number one priority for stakeholders that support the growth of agriculture education. As our agriculture education system has seen exponential growth, we have to ensure we have the people power to support the growth ag ed programming across the commonwealth.
- Introduce legislation that will boost resources for agriculture programs at community and technical colleges. Funds will help to establish workforce training, education, research, and outreach programs in agriculture.
- Allocated funding each year for non-traditional agriculture schools/programs. Agriculture shows up different across the state and to ensure the now-generation is empowered to help fill our workforce gaps, we must be intentional with providing funds to support the growth of agriculture education especially in our urban/metro areas.
- Invest funds to support the growth of apprenticeships and pre-apprenticeships across the diverse agriculture disciplines.

RECOMMENDATIONS TO THE COMMISSION FOR AGRICULTURE EDUCATION EXCELLENCE TO STRENGTHEN AGRICULTURE EDUCATION IN PENNSYLVANIA

- Develop framework for statewide agriculture education plan.
- Provide financial support for leadership development and training through multiple programs, including but not limited to: FFA & MANRRS local, regional and national leadership trainings and conferences.
- Assemble a group of private sector agricultural employers who could send representatives to public schools and introduce students to career paths in all aspects of agriculture.
- Increase agriculture education advocacy and engagement in community colleges.
- Develop an annual scholarship for students pursuing a degree in agriculture education.
- Agriculture Education Advocacy Tours a key recommendation from the PAAE summer conference was to hold Ag Education Advocacy Days during CTE Month (February).
 - Invite PDA & PDE Secretaries, local politicians and state FFA officers to visit to 3-4 programs a day for just an hour, depending on program and availability. This could take place twice a year, as schedules allow, and be rotated through different regions each time.
- Support the development of an urban agriculture CIP code & preapprenticeship/apprenticeship program.
- Establish an incentive grant program for agriculture educators that meet program standards.
- Develop an agriculture fellowship for collegiate students interested in agriculture education policy advocacy.
- Support to increase agriculture education presence in community colleges.
- Develop an ag ed marketing and branding campaign around advocacy of agricultural related career pathways.
- Work with PDAs workforce development specialist and Department of Labor & Industry to ensure industry is engaged with educators and ag ed programs to support the transition of students into the agriculture workforce.
- Establish tracking system for ag ed post graduate employment.
- Develop professional development trainings for district administrators. on the importance and benefits of an agriculture education program.
- Identify strategic ways to increase K-8 engagement in the ag education system.











The Pennsylvania Department of Agriculture encourages, protects and promotes agriculture and related industries throughout the commonwealth while providing consumer protection through inspection services that impact the health and financial security of Pennsylvania's citizens. Secretary: Russell Redding

The Pennsylvania Department of Education (PDE) oversees 500 public school districts, more than 170 public charter schools, public cyber charter schools, Career and Technology Centers/Vocational Technical schools, public Intermediate Units, the education of youth in State Juvenile Correctional Institutions, Head Starts and publicly funded preschools, and community colleges. Secretary: Dr. Khalid Mumin

The Pennsylvania Association of Agriculture Educators supports agriculture education by recruiting and retaining agricultural educators through professional, social and recreational programs. This grassroots organizations promotes agricultural education and the professional aspects of teaching agriculture as well as plan for the future of agricultural education by working closely with the postsecondary systems in articulating courses in agriculture and maintaining worthwhile relationships with other professional organizations and agencies. **President: Sherisa Nailor**

The Pennsylvania FFA Association is a student-led organization whose mission is to make a positive difference in the lives of students by developing their potential for premier leadership, personal growth, and career success through agricultural education.

President: Crystal Bomgardner

The Pennsylvania FFA Foundation cultivates partnerships and secures resources to enhance Agricultural Education and FFA. The Pennsylvania FFA Foundation is affiliated with The National FFA Organization. **Executive Director: Sarah Sparks**



The Global Teach Ag Network's Team is composed of faculty, staff, graduate students, undergraduate students, and volunteers committed to collaboration around empowering educators through qauality professional development in global agriculture and food security.

Co-Founder: Dr. Daniel Foster

MANRRS (Minorities in Agriculture, Natural Resources and Related Sciences) attempts to provide networks to support the professional and leadership development of minorities in agricultural related spaces. It is a springboard for their entry into and advancement in careers where they otherwise could be lost in the sheer number and established connections of mainstream participants. National President: Dr. Derris Burnett

Penn State TEACH

ANRRS

The center is committed to the operation of a comprehensive program of professional personnel development for career and technical education. The Center for Professional Personnel Development is one of three centers recognized by the Pennsylvania Department of Education and the Bureau of Center and Technical Education (PDE/CBTE). At Penn State, the Center is housed in the College of Education and the College of Agricultural Science.



The mission of Pennsylvania 4-H is to help young people reach their full potential through learning, leadership, service, and friendship, 4-H members work with dedicated, caring adults to complete challenging, rewarding projects that develop real-world skills that will serve them for life.



CONTACT

For more information on agricultural educations resources and opportunities see the contact information below:



Stephon D. Fitzpatrick Executive Director Agriculture Education Excellence Commission Email: stfitzpatrepa.gov Website: <u>www.agriculture.pa.gov</u>