Pennsylvania Agriculture Education

June 2017

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF EDUCATION
333 Market Street
Harrisburg, PA 17126-0333
www.education.pa.gov

Commonwealth of Pennsylvania
Tom Wolf, Governor

Department of Education
Pedro A. Rivera, Secretary

Office of Elementary and Secondary Education
Matthew S. Stem, Deputy Secretary

Bureau of Career and Technical Education
Lee Burket, Director

Division of Data Analysis, Assessment and Contracts
Monique R. Williams, Chief

The Pennsylvania Department of Education (PDE) does not discriminate in its 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's nondiscrimination policies:

For Inquiries Concerning Nondiscrimination in Employment:
Pennsylvania Department of Education
Equal Employment Opportunity Representative
Bureau of Human Resources
333 Market Street, 11th Floor, Harrisburg, PA 17126-0333
Voice Telephone: (717) 787-4417, Fax: (717) 783-9348

For Inquiries Concerning Nondiscrimination in All Other Pennsylvania Department of Education Programs and Activities:
Pennsylvania Department of Education
School Services Unit Director
333 Market Street, 5th Floor, Harrisburg, PA 17126-0333
Voice Telephone: (717) 783-3750, Fax: (717) 783-6802

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

Pennsylvania Department of Education
Bureau of Career and Technical Education
333 Market Street, 11th Floor, Harrisburg, PA 17126-0333
Voice: (717) 783-6957, Fax: (717) 783-6672
www.education.pa.gov

All Media Requests/Inquiries: Contact the Office of Press & Communications at (717) 783-9802

Table of Contents

Introduction 1

Agriculture Education Program Areas 2

Table 1: 2015-16 School Year Agriculture Education Program Numbers and Student Enrollments 2

Table 2: Status of 2014-15 Concentrators Who Exited CTE Programs 3

Table 3: Annual High Priority Occupations Openings for Agriculture Education Clusters 4

Table 4: 2015-16 Active Agriculture Teacher Certifications 5

Appendix A 6

List of Secondary Schools with Approved Agriculture Education Programs 6

Appendix B 8

Agricultural Industry Certifications by CIP Code and Title 8

Introduction

Pennsylvania Public School Code of 1949 §15-1549 requires an annual report be prepared for the Governor and General Assembly on the status of agricultural education in the commonwealth. This report provides various data on Pennsylvania Department of Education (PDE)-approved secondary agriculture education programs offered in Pennsylvania during the 2015-16 school year.

Agriculture Education Program Areas

The following tables provide details on the nine agriculture education programs offered in Pennsylvania secondary schools.

Table 1: 2015-16 School Year Agriculture Education Program Numbers and Student Enrollments

CIP Code	CIP Title	Total Number of Career and Technical Education (CTE) Programs	Number of Career and Technical Centers (CTC) Programs	Number of High Schools Programs	Number of CTE Students	CTE Students Enrolled in CTC	CTE Students Enrolled in High School	Total Number of CTE Completers	Number of Industry Certifications Earned	Percent of Student Graduates Gainfully Placed[1]
1.0000	Ag General	33	2	31	1,969	40	1,929	153	332	94.3%
1.0201	Ag Mechanics	20	2	18	687	26	661	46	109	88.9%
1.0301	Ag Production	48	5	43	2,740	136	2,604	372	665	91.3%
1.0401	Ag Food Products	1	1	0	58	58	0	17	47	100.0%
1.0601	Applied Horticulture	36	26	10	1,098	756	342	217	202	77.8%
1.0901	Animal Sciences	7	4	3	303	262	41	98	116	83.3%
1.9999	Ag Operations	5	0	5	186	0	186	20	41	100.0%
3.0299	Natural Resources	2	2	0	91	91	0	35	60	66.7%
3.0511	Forest Technology	1	1	0	22	22	0	8	17	50.0%
	Ag Program	**153**	**43**	**110**	**7,154**	**1,391**	**5,763**	**966**	**1,589**	**88.7%**

During the 2015-16 school year, 153 agriculture education programs enrolled a total of 7,154 students in 122 different schools (see Appendix A), and the majority of students enrolled participated in high school programs. General agriculture, agriculture production and applied horticulture programs had the highest enrollment.

The 7,154 students enrolled in agriculture education reflect 0.013 percent of the 546,617 students enrolled in grades 9-12 in 2015-16.

[1] Number of respondents to follow-up surveys whose data reflect the students were reported as employed, pursuing additional education or advanced training, and/or in the military.

Each of the PDE-approved programs is aligned to industry standards and provides students the opportunity to earn industry credentials. An industry-recognized credential validates that a student successfully demonstrated skills or competencies in a core set of content and performance standards in a specific set of work-related tasks. Schools use the PDE Industry-Recognized Credentials for Career and Technical Education Programs resource guide to identify credentials that count toward this measure. See Appendix B for a list of industry certifications students can earn in agriculture education programs.

Table 2 shows the results of the follow-up survey of students who exited the CTE programs after having successfully completed at least 50 percent of the technical instructional hours. These data are submitted during the 2015-16 data collection period and reflect the graduates of the previous year. Approximately 89 percent of the agriculture education students were gainfully placed after leaving the programs in the 2014-15 school year. Many of these students are employed in agriculture education-related positions or are pursuing higher education. A few programs have small numbers of students with correspondingly low response rates.

Table 2: Status of 2014-15 Concentrators Who Exited CTE Programs

CIP Code	CIP Title	Total Surveyed	Total Response	Total Response	Employed (Related)	Employed (Unrelated)	Military	Pursuing Education	Total Gainfully Placed	Unemployed, Looking	Unemployed, Not Looking
01.0000	Agriculture General	198	70	35.35%	10.00%	20.00%	2.86%	61.43%	94.29%	4.29%	1.43%
01.0201	Ag Mechanization General	83	9	10.84%	22.22%	44.44%	0.00%	22.22%	88.89%	11.11%	0.00%
01.0301	Agricultural Production Operations, General	378	80	21.16%	28.75%	11.25%	1.25%	50.00%	91.25%	2.50%	6.25%
01.0401	Ag/Food Prod Processing	22	4	18.18%	0.00%	0.00%	0.00%	100.00%	100.00%	0.00%	0.00%
01.0601	Applied Horticulture/ Horticultural Operations, General	255	45	17.65%	26.67%	15.56%	4.44%	31.11%	77.78%	17.78%	4.44%
01.0901	Animal Sciences General	86	12	13.95%	25.00%	16.67%	0.00%	41.67%	83.33%	16.67%	0.00%
01.9999	Agriculture, Agriculture Operations and Related Sciences, Other	27	5	18.52%	20.00%	20.00%	0.00%	60.00%	100.00%	0.00%	0.00%
03.0299	Natural Resources Management and Policy, Other	16	3	18.75%	0.00%	0.00%	0.00%	66.67%	66.67%	0.00%	33.33%
03.0511	Forestry Technology	11	2	18.18%	50.00%	0.00%	0.00%	0.00%	50.00%	50.00%	0.00%
			230						88.70%		

Pennsylvania continues to focus on the occupations that offer a family-sustaining wage and provide sufficient employment opportunities for graduates of Pennsylvania CTE programs. Pennsylvania labels these occupations High Priority Occupations (HPO). PDE collaborates with the Pennsylvania Department of Labor and Industry to align each approved program to HPOs. Table 3 demonstrates that each of the agriculture education programs is aligned to occupations found in the Standard Occupational Classifications (SOC) system and that the majority of the SOCs are HPO.

Table 3: Annual High Priority Occupations Openings for Agriculture Education Clusters

Statewide Annual Openings

CIP Code	CIP Title	For all aligned SOCs	For aligned HPOs	Percentage aligned to HPO
01.0000	Agriculture, General	1,645	1,407	85.5%
01.0201	Agricultural Mechanization, General	2,785	2,774	99.6%
01.0301	Agricultural Production Operations, General	1,407	1,407	100.0%
01.0401	Agricultural & Food Products Processing	197	135	68.5%
01.0601	Applied Horticulture/Horticultural Operations, General	2,590	1,407	54.3%
01.0901	Animal Sciences, General	831	724	87.1%
01.9999	Agriculture, Agriculture Operations & Related Sciences, Other	1,591	1,407	88.4%
03.0299	Natural Resources Management & Policy, Other	132	48	36.4%

Table 4: 2014-15 Active Agriculture Teacher Certifications

Table 4 demonstrates that 24 individuals applied for agriculture education instructional certification during the 2015-16 school year.

Certification	Subject Area	Applicants
Add-On Instructional I	Agriculture PK-12 (1200)	10
Add-On Instructional II	Agriculture PK-12 (1200)	5
In-State Emergency Permit: LT Sub with Educational Obligation	Agriculture PK-12 (1200)	1
In-State Emergency Permit: LT Sub with No Educational Obligation	Agriculture PK-12 (1200)	2
In-State Instructional I	Agriculture PK-12 (1200)	15
In-State Instructional II	Agriculture PK-12 (1200)	19
Out-of-State Instructional I	Agriculture PK-12 (1200)	0
Total Active Agriculture Certificates		**52**

The following numbers of agriculture education instructional certificate holders exist in Pennsylvania:

1. 944 professionals hold an Instructional I in Agriculture. They may be active, inactive, retired, deceased and may also hold a level II.
2. 942 professionals hold an Instructional II in Agriculture. The number of certificate holders may also be included in the Instructional I category.
3. 358 applications were approved for an Instructional I in Agriculture since June 2000.
4. 215 applications were approved for an Instructional II in Agriculture since June 2000.

Appendix A

List of Secondary Schools with Approved Agriculture Education Programs

Athens Area HS
Bald Eagle Area JSHS
Beaver County CTC
Bedford County Technical Center
Bellefonte Area HS
Bellwood-Antis HS
Benton Area MSHS
Berks CTC-East Campus
Berlin Brothersvalley SHS
Bermudian Springs HS
Big Spring HS
Blackhawk HS
Brockway Area JSHS
Bucks County Technical High School
Canton JSHS
Central Columbia SHS
Waynesburg Central HS
Central Montco Technical High School
Central PA Institute of Science & Technology
Central Westmoreland CTC
Chester County Tech. College High School,
Chester County Tech, College High School,
Chester County Tech. College High School,
Chestnut Ridge SHS
Clarion-Limestone Area JSHS
Columbia-Montour AVTS
Conneaut Area Senior High
Cedar Crest HS
Coudersport Area JSHS
Crawford County CTC
Cumberland Perry AVTS
Cumberland Valley HS
Danville Area SHS
Dauphin County Technical School
Derry Area SHS
Dover Area HS
Garden Spot SHS
Eastern Lebanon Co SHS
Elizabethtown Area SHS
Ephrata SHS
Central Career & Technical School
Fairfield Area HS
Littlestown SHS
Manheim Central SHS
Marion Center Area JR/SR HS
McGuffey HS
Meyersdale Area HS
Middle Bucks Institute of Technology
Midd-West HS
Mifflin County Academy of Science and Tech.
Mifflinburg Area SHS
Mifflin-Juniata CTC
Mohawk JSHS
Moniteau JSHS
Monroe Career & Tech Inst
Mount Union Area SHS
North Montco Tech Career Center
Northern Bedford Co MS/SHS
Northern Lebanon SHS
Northern Potter JSHS
Cowanesque Valley JSHS
Northern HS
Northwest Area HS
Northwestern SHS
Octorara Area JSHS
Oley Valley SHS
Penn Manor HS
Penns Manor Area JSHS
Pequea Valley HS
Lincoln HS
Saul W B Agricultural School
Reading Muhlenberg CTC
Red Lion Area SHS
Salisbury-Elk Lick JSHS
Schuylkill Technology Centers-South Campus
Selinsgrove Area HS
Solanco HS
Somerset Area Jr-Sr HS
Somerset County Technology Center
Kennard-Dale HS
Southern Huntingdon Co HS/MS
North Penn-Liberty JSHS
Central HS
State College Area HS

Fayette County Career & Technical Institute
Forbes Road CTC
Fort Cherry JSHS
Franklin County CTC
Fulton County AVTS
Gettysburg Area HS
Greenwood HS
Johnsonburg Area HS
East Juniata JSHS
Juniata SHS
Juniata Valley JSHS
Keystone Central CTC
Kutztown Area SHS
Lampeter-Strasburg SHS
Lancaster County CTC-Willow St Campus
Laurel JSHS
Lebanon County CTC
Lehigh Career & Technical Institute
Lenape Tech
Tri-Valley JSHS
Troy Area JSHS
Tulpehocken JSHS
Tunkhannock HS
Tyrone Area HS
United JSHS
Biglerville HS
Upper Bucks County Technical School
Upper Dauphin Area HS
Venango Technology Center
Wellsboro Area HS
West Greene HS
West Perry SHS
Western Montgomery CTC
Wilkes-Barre Area CTC
Williamsburg Community JSHS
Williamsport Area SHS
Wilmington Area HS
York Co School of Technology

Appendix B

Agricultural Industry Certifications by CIP Code and Title

01.0000 Agriculture, General

National Safe Tractor and Machinery Operator

OSHA Certification - Agriculture

Pennsylvania Beef Quality Assurance Certification

Pennsylvania Center for Dairy Excellence, Dairy Leaders of Tomorrow

Youth Pork Quality Assurance Program

Pennsylvania Pesticide Applicator Certification

Pennsylvania Landscape Technician (CLT)

Pennsylvania Certified Horticulturist (PCH)

Pennsylvania Environment Agricultural Conservation Certification of Excellence (PEACCE)

Pennsylvania Nutrient Management Certification

Equine Facility Manager Certification

Seasonal Equestrian Staff Certification

Trail Guide Certification

Disabilities Certification

01.0201 Agricultural Mechanization, General

National Safe Tractor and Machinery Operator

Outdoor Power Equipment Technician Certification

Pennsylvania Environment Agricultural Conservation Certification of Excellence (PEACCE)

OSHA Certification - Agriculture

Pennsylvania Pesticide Applicator Certification

Pennsylvania Nutrient Management Certification

01.0301 Agricultural Production Operations, General

AI Training

National Safe Tractor and Machinery Operator

OSHA Certification - Agriculture

Pennsylvania Beef Quality Assurance Certification

Pennsylvania Center for Dairy Excellence, Dairy Leaders of Tomorrow

Youth Pork Quality Assurance Program

Pennsylvania Pesticide Applicator Certification

Pennsylvania Landscape Technician (CLT)

Pennsylvania Certified Horticulturist (PCH)

Pennsylvania Environment Agricultural Conservation Certification of Excellence (PEACCE)

Pennsylvania Nutrient Management Certification

01.0401 Agricultural & Food Products Processing

ServSafe/Manager Food Safety Certification

Pennsylvania Pesticide Applicator Certification

National Safe Tractor and Machinery Operator

Youth Pork Quality Assurance Program

Pennsylvania Nutrient Management Certification

OSHA Certification - Agriculture

Pennsylvania Environment Agricultural Conservation Certification of Excellence (PEACCE)

01.0601 Applied Horticulture/Horticultural Operations, General

National Safe Tractor and Machinery Operator
OSHA Certification - Agriculture

Pennsylvania Pesticide Applicator Certification

Pennsylvania Landscape Technician (CLT)

Pennsylvania Certified Horticulturist (PCH)

Pennsylvania Nutrient Management Certification

Pennsylvania Environment Agricultural Conservation Certification of Excellence (PEACCE)

Worker Protection Standard Training

ISA Certified Tree Worker/Climber Specialist

01.0901 Animal Science, General

AI Training

Equine Facility Manager Certification

Seasonal Equestrian Staff Certification

Trail Guide Certification

Disabilities Certification

Pennsylvania Environment Agricultural Conservation Certification of Excellence (PEACCE)

National Safe Tractor and Machinery Operator

Pennsylvania Center for Dairy Excellence, Dairy Leaders of Tomorrow

OSHA Certification - Agriculture

01.9999 Agriculture, Agriculture Operations & Related Sciences, Others

AI Training

National Safe Tractor and Machinery Operator

OSHA Certification - Agriculture

Pennsylvania Beef Quality Assurance Certification

Pennsylvania Center for Dairy Excellence, Dairy Leaders of Tomorrow

Youth Pork Quality Assurance Program

Pennsylvania Environment Agricultural Conservation Certification of Excellence

(PEACCE)

Pennsylvania Nutrient Management Certification

Pennsylvania Pesticide Applicator Certification

Pennsylvania Landscape Technician (CLT)

Pennsylvania Certified Horticulturist (PCH)

03.0511 Forestry Technology/Technician

Basic Wildland Firefighter/PA-130

ISA Certified Tree Worker/Climber Specialists

National Safe Tractor and Machinery Operator

Pennsylvania Pesticide Applicator Certification

Pennsylvania Landscape Technician (CLT)

Pennsylvania Certified Horticulturist (PCH)

Pennsylvania Nutrient Management Certification

Pennsylvania Environment Agricultural Conservation Certification of Excellence (PEACCE)

OSHA Certification - Agriculture