

Pennsylvania Agriculture Education

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COMMONWEALTH OF PENNSYLVANIA
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Table of Contents

Introduction	1
Agriculture Education Fast Facts	1
Agriculture Education Program Areas	2
Table 1: 2014-15 School Year Agriculture Education Program Numbers and Student Enrollments	2
Table 2: Status of 2013-14 Concentrators Who Exited CTE Programs	3
Table 3: Annual High Priority Occupations Openings for Agriculture Education Clusters	4
Table 4: 2014-15 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-approved secondary agriculture education programs offered in Pennsylvania schools.

Agriculture Education Fast Facts

1. Two Agriculture Education teacher certification programs (Pennsylvania State University, Delaware Valley University)
2. 153 secondary Pennsylvania Department of Education agriculture education programs
3. 236 secondary agriculture education teachers
4. Five middle school agriculture education programs
5. Four private secondary agriculture education programs
6. 145 FFA Chapters
7. 12,753 FFA members
8. Four possible state degrees that can be earned (Keystone, Area, Chapter, Greenhand)
 - a. 387 students earned the state Keystone degree
9. One national degree that can be earned.
 - a. 70 Pennsylvania students earned the national degree
10. Proficiency awards based on the students' supervised agriculture experience
 - a. In 2014-15, 75 students received the state proficiency award
 - b. In 2014-15, 22 students received the national proficiency award
11. Agriculture Science research project award can be earned
 - a. 162 students earned the state agriculture science award
 - b. Eight students earned the national agriculture science award
12. Career development events engaged students on an annual basis
 - a. 1,100 students participated in state career development events
 - b. 88 students participated in national career development events
 - c. 85 students participate in the Big-E
13. 15 adult agriculture education programs served 980 students
14. 1,231 students participated in the previous year's FFA Week Conference held in State College, Pennsylvania
15. Leadership development workshops provided to 1,325 students participating in Agricultural Cooperation Establishes Success workshop
16. 412 students participated in the State Legislative Leadership Conference
17. 60 students received the Range Resources Scholarship for a total scholarship award of \$30,000
18. 10 students received Farm Show Foundation Scholarships for a total scholarship award of \$35,000
19. 48 students received a National FFA Scholarship for a total scholarship award of \$55,500

Agriculture Education Program Areas

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

Table 1: 2014-15 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
1.0000	Ag General	29	2	27	1,806	38	1768	120	353	93.0%
1.0201	Ag Mechanics	21	4	17	578	74	504	31	47	95.8%
1.0301	Ag Production	49	5	44	2,818	182	2636	267	288	91.5%
1.0401	Ag Food Products	1	1	0	57	0	57	0	57	*0.0%
1.0601	Applied Horticulture	37	27	10	1,110	766	344	182	205	90.4%
1.0901	Animal Sciences	8	4	4	305	262	43	58	49	66.7%
1.9999	Ag Operations	5	0	5	197	0	197	24	48	83.3%
3.0299	Natural Resources	2	2	0	108	108	0	10	12	100.0%
3.0511	Forest Technology	1	1	0	27	27	0	11	34	*0.0%
	Ag Program	153	46	107	7,006	1,457	5,549	703	1,093	90.6%

Note: *No student responses.

During the 2014-15 school year, 153 agriculture education programs enrolled a total of 7,006 students in 125 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 7,006 students enrolled in agriculture education reflect 0.013 of the 546,960 students enrolled in grades 9-12 in 2014-15.

Each of the Pennsylvania Department of Education-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 skill competencies in a core set of content and performance standards in a specific set of work-related tasks. Schools use the PDE [Industry-Recognized Certifications 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. Approximately 90 percent of the agriculture education students were gainfully placed after leaving the programs in the 2013-14 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 2013-14 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	208	71	34.13%	12.68%	15.49%	2.82%	61.97%	92.96%	4.23%	2.82%
01.0201	Ag Mechanization General	102	24	23.53%	12.50%	25.00%	8.33%	50.00%	95.83%	0.00%	4.17%
01.0301	Agricultural Production Operations, General	378	82	21.69%	21.95%	19.51%	1.22%	48.78%	91.46%	6.10%	2.44%
01.0401	Ag/Food Prod Processing	15	0	0.00%							
01.0601	Applied Horticulture/ Horticultural Operations, General	252	52	20.63%	32.69%	9.62%	1.92%	46.15%	90.38%	9.62%	0.00%
01.0901	Animal Sciences General	79	12	15.19%	16.67%	8.33%	8.33%	33.33%	66.67%	33.33%	0.00%
01.9999	Agriculture, Agriculture Operations and Related Sciences, Other	32	12	37.50%	8.33%	25.00%	0.00%	50.00%	83.33%	8.33%	8.33%
03.0299	Natural Resources Management and Policy, Other	32	1	3.13%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%
03.0511	Forestry Technology	2	0	0.00%							
			254						90.55%		

Pennsylvania continues to focus on the occupations that provide a family sustaining wage and that provide sufficient employment opportunities for graduates of Pennsylvania CTE programs. Pennsylvania labels these these occupations High Priority Occupations (HPO). The Pennsylvania Department of Education 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	1,392	1,068	77%
01.0201	Agricultural Mechanization, General	3,215	3,153	98%
01.0301	Agricultural Production Operations, General	1,112	1,068	96%
01.0401	Agricultural & Food Products Processing	249	187	75%
01.0601	Applied Horticulture/Horticultural Operations, General	2,669	1,068	40%
01.0901	Animal Sciences, General	286	105	37%
01.9999	Agriculture, Agriculture Operations & Related Sciences, Other	1,326	1,068	81%
03.0299	Natural Resources Management & Policy, Other	106	51	48%

Table 4: 2014-15 Active Agriculture Teacher Certifications

Table 4 demonstrates that 24 individuals applied for agriculture education instructional certification during the 2014-15 school year.

Certification	Subject Area	Applicants
Add-On Instructional I	Agriculture PK-12 (1200)	1
Add-On Instructional II	Agriculture PK-12 (1200)	4
In-State Emergency Permit: LT Sub with Educational Obligation	Agriculture PK-12 (1200)	3
In-State Emergency Permit: LT Sub with No Educational Obligation	Agriculture PK-12 (1200)	3
In-State Instructional I	Agriculture PK-12 (1200)	4
In-State Instructional II	Agriculture PK-12 (1200)	8
Out-of-State Instructional I	Agriculture PK-12 (1200)	1
Total Active Agriculture Certificates		24

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

1. 922 professionals hold an Instructional I in Agriculture. They may be active, inactive, retired, deceased and may also hold a level II.
2. 919 professionals hold an Instructional II in Agriculture. The number of certificate holders may also be included in the Instructional I category.
3. 337 applications were approved for an Instructional I in Agriculture since June 2000.
4. 195 applications were approved for an Instructional II in Agriculture since June 2000.

Appendix A

List of Secondary Schools with Approved Agriculture Education Programs

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

Ephrata SHS
Central Career & Technical School
Fairfield Area HS
Fayette County Career & Technical Institute
Forbes Road CTC
Fort Cherry JSHS
Franklin County CTC
Fulton County AVTS
Gettysburg Area HS
Greenwood HS
Huntingdon County CTC
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

North Penn-Liberty JSHS
Central HS
State College Area HS
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

[AI Training](#)

[National Safe Tractor and Machinery Operator](#)

[OSHA](#)

[Pennsylvania Beef Quality Assurance Certification](#)

[Pennsylvania Center for Dairy Excellence, Dairy Leaders of Tomorrow](#)

[Youth Pork Quality Assurance Program](#)

01.0201 Agricultural Mechanization, General

[National Safe Tractor and Machinery Operator](#)

[OSHA](#)

[Outdoor Power Equipment Technician Certification](#)

01.0301 Agricultural Production Operations, General

[AI Training](#)

[National Safe Tractor and Machinery Operator](#)

[OSHA](#)

[Pennsylvania Beef Quality Assurance Certification](#)

[Pennsylvania Center for Dairy Excellence, Dairy Leaders of Tomorrow](#)

[Pennsylvania Pesticide Applicator Certification](#)

[Youth Pork Quality Assurance Program](#)

01.0401 Agricultural & Food Products Processing

[ServSafe/Manager Food Safety Certification](#)

01.0601 Applied Horticulture/Horticultural Operations, General

[National Safe Tractor and Machinery Operator](#)

[OSHA](#)

[Pennsylvania Certified Horticulturists \(PLNA\)](#)

[Pennsylvania Pesticide Applicator Certification](#)

01.0901 Animal Science, General

[AI Training](#)

[Animal Care](#)

[Certified Horsemanship](#)

[Pennsylvania Beef Quality Assurance Certification](#)

[Pennsylvania Center for Dairy Excellence, Dairy Leaders of Tomorrow](#)

[Youth Pork Quality Assurance Program](#)

01.9999 Agriculture, Agriculture Operations & Related Sciences, Others

[AI Training](#)

[National Safe Tractor and Machinery Operator](#)

[OSHA](#)

[Pennsylvania Beef Quality Assurance Certification](#)

[Pennsylvania Center for Dairy Excellence, Dairy Leaders of Tomorrow](#)

[Youth Pork Quality Assurance Program](#)

03.0511 Forestry Technology/Technician

[Basic Wildland Firefighter/PA-130](#)

[ISA Certified Tree Worker/Climber Specialists](#)