

# Pennsylvania Agriculture Education

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**COMMONWEALTH OF PENNSYLVANIA**  
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## **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 <sup>1</sup>
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%
	<b>Ag Program</b>	<b>153</b>	<b>43</b>	<b>110</b>	<b>7,154</b>	<b>1,391</b>	<b>5,763</b>	<b>966</b>	<b>1,589</b>	<b>88.7%</b>

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.

<sup>1</sup> 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.  
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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**

<b>CIP Code</b>	<b>CIP Title</b>	<b>For all aligned SOCs</b>	<b>For aligned HPOs</b>	<b>Percentage aligned to HPO</b>
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.

<b>Certification</b>	<b>Subject Area</b>	<b>Applicants</b>
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
<b>Total Active Agriculture Certificates</b>		<b>52</b>

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	Littlestown 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
Bellwood-Antis HS	Middle Bucks Institute of Technology
Benton Area MSHS	Midd-West HS
Berks CTC-East Campus	Mifflin County Academy of Science and Tech.
Berlin Brothersvalley SHS	Mifflinburg Area SHS
Bermudian Springs HS	Mifflin-Juniata CTC
Big Spring HS	Mohawk JSHS
Blackhawk HS	Moniteau JSHS
Brockway Area JSHS	Monroe Career & Tech Inst
Bucks County Technical High School	Mount Union Area SHS
Canton JSHS	North Montco Tech Career Center
Central Columbia SHS	Northern Bedford Co MS/SHS
Waynesburg Central HS	Northern Lebanon SHS
Central Montco Technical High School	Northern Potter JSHS
Central PA Institute of Science & Technology	Cowanesque Valley JSHS
Central Westmoreland CTC	Northern HS
Chester County Tech. College High School,	Northwest Area HS
Chester County Tech, College High School,	Northwestern SHS
Chester County Tech. College High School,	Octorara Area JSHS
Chestnut Ridge SHS	Oley Valley SHS
Clarion-Limestone Area JSHS	Penn Manor HS
Columbia-Montour AVTS	Penns Manor Area JSHS
Conneaut Area Senior High	Pequea Valley HS
Cedar Crest HS	Lincoln HS
Coudersport Area JSHS	Saul W B Agricultural School
Crawford County CTC	Reading Muhlenberg CTC
Cumberland Perry AVTS	Red Lion Area SHS
Cumberland Valley HS	Salisbury-Elk Lick JSHS
Danville Area SHS	Schuylkill Technology Centers-South Campus
Dauphin County Technical School	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	North Penn-Liberty JSHS
Central Career & Technical School	Central HS
Fairfield Area 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  
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[OSHA Certification - Agriculture](#)