



pennsylvania
DEPARTMENT OF AGRICULTURE

**Pennsylvania Department of Agriculture
Bureau of Plant Industry
2018 Fiscal Year Seed Report
Pennsylvania Seed Act**

January 2020

Overview

The Pennsylvania Department of Agriculture Bureau of Plant Industry Seed Division performs analyses on seed samples drawn under the authority of the Pennsylvania Seed Act (amended 2005). The act provides consumers with truthful and accurate information to help make seed purchasing decisions.

The division is responsible for (1) administration and enforcement of the Pennsylvania Seed Act; (2) administration of the Seed Certification Act; (3) operation of the State Seed Laboratory; and (4) maintenance of the seed herbarium.

This report is a summary of official seed inspection and laboratory analyses performed by the seed division from July 1, 2018 to June 30, 2019.

Regulatory Requirements

The Seed act, from which the division derives its authority, requires proper labeling for all seeds distributed in Pennsylvania. Information must appear on a tag or label attached in a conspicuous place on the exterior of the seed container. Seed not properly labeled are subject to a "Stop Sale" order, which prohibits their sale/distribution until relabeled to be in compliance with the law. Additionally, the person whose name appears on the seed analysis label must obtain an annual seed license at a cost of \$25.

During the fiscal year of 2018 there were **491** licensed Seed Dealers. The Department collected a total of **\$12,275.00** for Seed Dealers license fees.

The Pennsylvania Code Chapter 111 lists additional requirements for labeling seeds, including:

- Labeling of flower seed mixtures
- Labeling of lawn seed mixtures
- Labeling of treated seeds
- Labeling of seeds for sprouting
- Germination standards for vegetable and flower seeds
- List of prohibited noxious weed seeds
- List of restricted noxious weed seeds including undesirable grass seed in lawn and turf seeds

Seed Certification

Seed certification helps maintain, and make available to the public, sources of high quality seeds and propagating materials of superior varieties grown and distributed to ensure genetic identity. Only after passing rigid field and seed standards can seed be labeled as a class of certified seed. For a summary of crop, variety and acres inspected see Table V.

During the reporting period the Department collected, **\$17,995.74** in fees for field inspection, tags, labels and other services.

The Pennsylvania Department of Agriculture is an active member of the Association of Official Seed Certifying Agencies.

Seed Laboratory

The Seed Laboratory provides technical information and performs a range of tests and analyses on seed samples from various sources. All seed samples are prepared and tested according to the “Rules for Testing Seeds” as approved and published by the Association of Official Seed Analysts (AOSA).

During the reporting period, the laboratory received **6,625** samples that required **8,566** separate tests (See Table I). Plant Industry Inspectors submitted **2,353** regulatory seed samples for enforcement of the Seed Act, and **24** regulatory samples to test for viable weed seed to aid in the enforcement of the PA Feed Act. In addition, Plant Industry Inspectors issued **38** Seed Stop Sale Notices for labeling violations directly at retail and wholesale locations representing **1361** containers.

Farmers, wholesale seedsmen and retail outlets submitted **4,024** service samples for labeling purposes and guidance in planting. The seed certification program and various other state agencies submitted **225** samples to determine if the seed met their standards or specifications. The Department collected a total of **\$90,856.10** in fees for these services.

The Pennsylvania Seed Act provides the Department the authority to fix, adjust, assess and collect fees for the certification inspection services and requested seed tests. The fees shall be enough to meet reasonable expenses incurred by the Department in making such inspections for certification and conducting seed tests. The current fee structure for seed service samples and certification services are available on the Department website at www.agriculture.pa.gov. The Secretary may adjust the fees by sending notice to licensees and publishing a notice in the Pennsylvania Bulletin. The fees, derived from these services and seed dealer licensing fees, help support the Seed Program.

The Seed Analysts also identifies and tests seeds for the Pennsylvania Department of Transportation, other various State agencies, the State Police Crime Laboratory and the public.

The Seed Laboratory is an active member of AOSA and cooperates in work of various committees. Staff members attend the annual meeting of AOSA to vote on rule changes, discuss other items of business and attend committee meetings. Currently, Seed Program Supervisor Johnny Zook is a member of the AOSA executive board. Staff members also attended seed training schools; notably the USDA Seed Regulation and Testing Division Federal Seed School. Two staff members were certified by AOSA in Germination Testing.

The department is also an active member of the Association of American Seed Control Officials (AASCO). Seed Program Supervisor Johnny Zook is a member of the AASCO executive board and attends the annual meeting and represents the Association at affiliate meetings. Johnny Zook also represents AASCO on the Policy and Procedures Advisory Board (PPAB) to the National Seed Health System (NSHS).

Each year the Seed Analysts assist the small grain judge at the Pennsylvania Farm Show by examining each individual exhibit for noxious and common weed seeds, other crop seeds and foreign material.

Table I

Classification of samples by kind and numbers of tests involved.

Number of Samples	Kinds	Purity	Noxious Weed Examinations	Germinations*
2,941	Vegetable	8	2	2,961
2,389	Agricultural	550	781	2,258
833	Flower	0	0	855
4	Tree	0	0	0
24	Feed	0	24	1
2	Health Food	0	0	2
90	Pasture Mix	6	15	65
1	Flower Mix	0	0	0
5	Vegetable Mix	1	0	3
81	Conservation Mix	4	4	16
2	Vegetable Kit	0	0	0
252	Lawn Mix	131	154	123
1	Unidentified	0	0	0
6,625	Totals	700	980	6,284

Other Tests	
Treated Germination Test	0
Cold Test	91
Sand Test	10
Roundup® Ready Test	3
Tetrazolium Test	14
Endophyte Test	0
Ryegrass Fluorescence Test	222
Oats Fluorescence Test	73
Identification Test	1
400 Seed Count Test	105
Miscellaneous Test	20
Canada Noxious Weed Test	53
Seed Count Test	10
Total Tests	8,566

* Includes preliminary and final seedling counts.

SEED ACT ENFORCEMENT

In the enforcement of the Seed Act, Plant Industry Inspectors visit wholesale and retail firms to inspect seed labeling and obtain samples for testing. The inspectors collected 2,353 seed samples. A total of 244 lots or 10.37 % of these samples were found to be in violation of the Act, of which 206 (6,043 containers) were placed under 'Stop Sale' at 49 locations. These 'Stop Sales' are released when the owner or custodian of the seed follows the recommended procedure to have it relabeled in compliance with the law or otherwise disposed.

The tables on the following pages summarize the Seed Act Activities.

Table II is a comparison of the percentage of all violations for the past three years for all classes of seeds.

Table III summarizes the kinds of agriculture, vegetable and flower seeds tested with the number and percentage violation of each.

Table IV summarizes the inspection record of individual wholesale distributors giving total samples and number correctly labeled or in violation.

Table V represents a summary of crops, varieties and acres inspected by the seed certification program.

Table II

A comparison of violations of seed samples taken by seed inspectors.

Kinds	Number of Samples*	% Violations		
		7/1/2018 - 6/30/2019	7/1/2017 - 6/30/2018	7/1/2016 - 6/30/2017
Vegetable	1,262	5.47 %	3.42 %	2.17 %
Agricultural	440	16.82 %	4.91 %	12.60 %
Flower	419	13.84 %	2.95 %	4.20 %
Health Food	2	0.00 %	0.00 %	33.33 %
Pasture Mix	29	37.93 %	40.54 %	20.00 %
Flower Mix	1	100.00 %	20.00 %	0.00 %
Vegetable Mix	3	66.67 %	5.56 %	8.33 %
Conservation Mix	6	66.67 %	28.00 %	66.67 %
Vegetable Kit	2	50.00 %	0.00 %	0.00 %
Lawn Mix	189	12.70 %	12.80 %	46.15 %
Unidentified	0	0.00 %	0.00 %	0.00 %
Totals	2,353	10.37 %	5.47 %	5.39 %

* Samples collected by seed inspectors 7/1/2018 - 6/30/2019

Explanation of abbreviations used in tables.

- CL – Correctly labeled.
- SV – Serious violation, discrepancy exceeds double the tolerance.
- MV – Minor violation, discrepancy exceeds regular tolerance.
- TV – Technical violation, label does not bear all required information.
- #VIOL – Number of violations.
- %VIOL – Percentage of violations.

Table III

Total of each kind tested, number and percentage of violations.

Seed Kind Tested	Vegetable Seeds						
	Total	CL	SV	TV	MV	#VIOL	%VIOL
Alfalfa	1	1	0	0	0	0	0.00 %
Alyssum, Sweet	1	1	0	0	0	0	0.00 %
Artichoke	2	2	0	0	0	0	0.00 %
Arugula	9	8	1	0	0	1	11.11 %
Asparagus	3	3	0	0	0	0	0.00 %
Asparagus Bean (Yardlong)	2	2	0	0	0	0	0.00 %
Basil	29	24	5	0	0	5	17.24 %
Bean, Dry	3	2	1	0	0	1	33.33 %
Bean, Garden	47	43	4	0	0	4	8.51 %
Bean, Red Kidney	1	1	0	0	0	0	0.00 %
Bean, Snap	1	1	0	0	0	0	0.00 %
Beet	24	23	1	0	0	1	4.17 %
Borage, Common	3	3	0	0	0	0	0.00 %
Broccoli	20	20	0	0	0	0	0.00 %
Broccoli Raab (Turnip Broccoli)	2	2	0	0	0	0	0.00 %
Brokali	1	1	0	0	0	0	0.00 %
Brussels-Sprouts	9	8	1	0	0	1	11.11 %
Cabbage	17	17	0	0	0	0	0.00 %
Cabbage	1	1	0	0	0	0	0.00 %
Cabbage, Chinese	2	2	0	0	0	0	0.00 %
Cactus	1	1	0	0	0	0	0.00 %
Calendula	2	2	0	0	0	0	0.00 %
Cantaloupe	11	11	0	0	0	0	0.00 %
Carrot	38	37	1	0	0	1	2.63 %
Catnip	3	3	0	0	0	0	0.00 %
Cauliflower	13	12	1	0	0	1	7.69 %
Celeriac	1	1	0	0	0	0	0.00 %
Celery	4	4	0	0	0	0	0.00 %
Chamomile, Annual	1	1	0	0	0	0	0.00 %
Chamomile, Roman	1	1	0	0	0	0	0.00 %
Chervil	1	0	1	0	0	1	100.00 %

Seed Kind Tested	Vegetable Seeds						
	Total	CL	SV	TV	MV	#VIOL	%VIOL
Chia	1	1	0	0	0	0	0.00 %
Chives	4	4	0	0	0	0	0.00 %
Chives, Garlic	4	3	1	0	0	1	25.00 %
Cilantro	9	8	1	0	0	1	11.11 %
Clover, Crimson	1	1	0	0	0	0	0.00 %
Collards	5	4	1	0	0	1	20.00 %
Coneflower, Dwarf Red	1	1	0	0	0	0	0.00 %
Coreopsis, Dwarf Plains	1	1	0	0	0	0	0.00 %
Corn, Hybrid Sweet	3	3	0	0	0	0	0.00 %
Corn, Sweet	19	18	1	0	0	1	5.26 %
Cornsalad	2	2	0	0	0	0	0.00 %
Cosmos	1	1	0	0	0	0	0.00 %
Cowpea	2	2	0	0	0	0	0.00 %
Cress	2	1	1	0	0	1	50.00 %
Cress, Upland	1	0	1	0	0	1	100.00 %
Cucumber	52	49	3	0	0	3	5.77 %
Dill	9	9	0	0	0	0	0.00 %
Eggplant	18	17	1	0	0	1	5.56 %
Endive	3	2	1	0	0	1	33.33 %
Escarole	1	1	0	0	0	0	0.00 %
Eucalyptus,Foliage	1	0	1	0	0	1	100.00 %
Fennel	2	2	0	0	0	0	0.00 %
Fennel, Florence(Sweet)	1	0	1	0	0	1	100.00 %
Forget-Me-Not	1	1	0	0	0	0	0.00 %
Four O'clock	1	1	0	0	0	0	0.00 %
Garden Bean	8	8	0	0	0	0	0.00 %
Gomphrena	1	1	0	0	0	0	0.00 %
Gourd, Small-Seeded	2	2	0	0	0	0	0.00 %
Gourds, Large-Seeded	5	5	0	0	0	0	0.00 %
Honey Dew	5	5	0	0	0	0	0.00 %
Kale	19	18	1	0	0	1	5.26 %
Kohlrabi	8	8	0	0	0	0	0.00 %
Lavender	2	2	0	0	0	0	0.00 %
Leek	4	2	2	0	0	2	50.00 %
Lemon Balm	2	1	1	0	0	1	50.00 %
lemongrass	2	2	0	0	0	0	0.00 %
Lettuce	71	64	7	0	0	7	9.86 %
Lima Bean	9	5	4	0	0	4	44.44 %
Lunaria	1	0	1	0	0	1	100.00 %
Maltese Cross	1	1	0	0	0	0	0.00 %
Marjoram	2	1	1	0	0	1	50.00 %

Seed Kind Tested	Vegetable Seeds						
	Total	CL	SV	TV	MV	#VIOL	%VIOL
Melampodium	1	1	0	0	0	0	0.00 %
Melons	15	14	1	0	0	1	6.67 %
Mesclun	7	7	0	0	0	0	0.00 %
Muskmelon	4	4	0	0	0	0	0.00 %
Mustard	10	9	1	0	0	1	10.00 %
Nasturtium	1	1	0	0	0	0	0.00 %
Oat	1	1	0	0	0	0	0.00 %
Okra	8	8	0	0	0	0	0.00 %
Onion	19	17	2	0	0	2	10.53 %
Oregano	6	3	3	0	0	3	50.00 %
Pakchoi	3	3	0	0	0	0	0.00 %
Parsley	16	14	2	0	0	2	12.50 %
Parsnip	2	2	0	0	0	0	0.00 %
Pea, Garden	55	54	1	0	0	1	1.82 %
Peanut	2	2	0	0	0	0	0.00 %
Pepper	57	56	1	0	0	1	1.75 %
Pepper, Hot	35	35	0	0	0	0	0.00 %
Petunias	4	4	0	0	0	0	0.00 %
Phlox, Annual	1	1	0	0	0	0	0.00 %
Phlox, Drummond	3	3	0	0	0	0	0.00 %
Pole Bean	20	20	0	0	0	0	0.00 %
Popcorn	2	2	0	0	0	0	0.00 %
Popcorn, Hybrid	1	1	0	0	0	0	0.00 %
Poppy, Corn	1	1	0	0	0	0	0.00 %
Pumpkin	26	26	0	0	0	0	0.00 %
Radicchio	3	3	0	0	0	0	0.00 %
Radish	44	43	1	0	0	1	2.27 %
Rosemary	4	4	0	0	0	0	0.00 %
Rutabaga	2	2	0	0	0	0	0.00 %
Rye	1	0	0	1	0	1	100.00 %
Sage	3	2	1	0	0	1	33.33 %
Sage, Scarlet	1	1	0	0	0	0	0.00 %
Salad Greens	1	1	0	0	0	0	0.00 %
Salsify	1	1	0	0	0	0	0.00 %
Salvia	3	3	0	0	0	0	0.00 %
Savory, Summer	1	0	1	0	0	1	100.00 %
Scarlet Flax	1	1	0	0	0	0	0.00 %
Scarlet Runner Bean	1	1	0	0	0	0	0.00 %
Senposai	1	1	0	0	0	0	0.00 %
Sesame	1	1	0	0	0	0	0.00 %
Shallot	2	2	0	0	0	0	0.00 %

Seed Kind Tested	Vegetable Seeds						
	Total	CL	SV	TV	MV	#VIOL	%VIOL
Soybean	2	2	0	0	0	0	0.00 %
Spearmint	1	1	0	0	0	0	0.00 %
Spinach	19	18	1	0	0	1	5.26 %
Squash	39	37	1	1	0	2	5.13 %
Squash, Autum-Winter	12	12	0	0	0	0	0.00 %
Stevia	1	1	0	0	0	0	0.00 %
Strawberry	1	1	0	0	0	0	0.00 %
Strawflower	1	1	0	0	0	0	0.00 %
Sunflower	17	16	1	0	0	1	5.88 %
Sweet Corn	31	30	1	0	0	1	3.23 %
Sweet Pea, annual	1	1	0	0	0	0	0.00 %
Swiss Chard	11	11	0	0	0	0	0.00 %
Tall Fescue	6	6	0	0	0	0	0.00 %
Tarragon	1	1	0	0	0	0	0.00 %
Thyme	5	5	0	0	0	0	0.00 %
Tomatillo	4	4	0	0	0	0	0.00 %
Tomato	170	169	1	0	0	1	0.59 %
Turnip	7	7	0	0	0	0	0.00 %
Wallflower Siberian	1	1	0	0	0	0	0.00 %
Watermelon	22	21	1	0	0	1	4.55 %
Wheat	2	1	1	0	0	1	50.00 %
Zinnia	12	12	0	0	0	0	0.00 %
Total	1,277	1,208	67	2	0	69	5.40 %

Seed Kind Tested	Agricultural Seeds						
	Total	CL	SV	TV	MV	#VIOL	%VIOL
Alfalfa	21	18	3	0	0	3	14.29 %
Alkaligrass, Weeping	1	1	0	0	0	0	0.00 %
Barley	6	6	0	0	0	0	0.00 %
Beet	1	1	0	0	0	0	0.00 %
Birdsfoot Trefoil	5	5	0	0	0	0	0.00 %
Bluegrass, Rough	1	0	1	0	0	1	100.00 %
Brome, Meadow	2	0	2	0	0	2	100.00 %
Brome, Smooth	1	1	0	0	0	0	0.00 %
Buckwheat	2	2	0	0	0	0	0.00 %
Chewings Fescue	5	5	0	0	0	0	0.00 %
Clover, Balansa	1	0	0	0	1	1	100.00 %
Clover, Crimson	4	2	1	0	1	2	50.00 %
Clover, Ladino White	3	2	1	0	0	1	33.33 %

Seed Kind Tested	Agricultural Seeds						
	Total	CL	SV	TV	MV	#VIOL	%VIOL
Clover, Red	6	6	0	0	0	0	0.00 %
Clover, Sweet Yellow	1	1	0	0	0	0	0.00 %
Clover, White	6	5	1	0	0	1	16.67 %
Corn, Hybrid Field	26	17	3	6	0	9	34.62 %
Crownvetch	1	1	0	0	0	0	0.00 %
Festulolium	2	2	0	0	0	0	0.00 %
Hard Fescue	13	13	0	0	0	0	0.00 %
Japanese Millet	1	1	0	0	0	0	0.00 %
Kentucky Bluegrass	38	31	4	0	3	7	18.42 %
Lettuce	2	1	1	0	0	1	50.00 %
Meadow Fescue	1	0	1	0	0	1	100.00 %
Oat	7	6	1	0	0	1	14.29 %
Onion	3	0	3	0	0	3	100.00 %
Orchardgrass	14	13	1	0	0	1	7.14 %
Partridge Pea	1	0	1	0	0	1	100.00 %
Pea, Field	2	1	1	0	0	1	50.00 %
Pepper	5	1	4	0	0	4	80.00 %
Pepper, Habanero	2	0	2	0	0	2	100.00 %
Peppermint	1	1	0	0	0	0	0.00 %
Radish	2	1	0	1	0	1	50.00 %
Rape, Annual	3	3	0	0	0	0	0.00 %
Red Fescue	22	21	1	0	0	1	4.55 %
Redtop	4	4	0	0	0	0	0.00 %
Rye	15	13	2	0	0	2	13.33 %
Ryegrass	1	0	1	0	0	1	100.00 %
Ryegrass, Annual	45	37	6	2	0	8	17.78 %
Ryegrass, Intermediate	3	2	0	1	0	1	33.33 %
Ryegrass, Perennial	60	51	9	0	0	9	15.00 %
Sorghum	2	2	0	0	0	0	0.00 %
Sorghum-Sudangrass Hybrid	5	5	0	0	0	0	0.00 %
Soybean	10	9	1	0	0	1	10.00 %
Squash	3	0	3	0	0	3	100.00 %
Sunflower	2	1	1	0	0	1	50.00 %
Sunflower, Ox-Eye	1	1	0	0	0	0	0.00 %
Switchgrass	1	1	0	0	0	0	0.00 %
Tall Fescue	56	53	3	0	0	3	5.36 %
Timothy	21	19	2	0	0	2	9.52 %
Tomato	1	1	0	0	0	0	0.00 %
Triticale	7	5	2	0	0	2	28.57 %
Turnip	1	1	0	0	0	0	0.00 %

Seed Kind Tested	Agricultural Seeds						
	Total	CL	SV	TV	MV	#VIOL	%VIOL
Wheat	17	15	0	2	0	2	11.76 %
Total	467	388	62	12	5	79	16.92 %

Seed Kind Tested	Flower Seeds						
	Total	CL	SV	TV	MV	#VIOL	%VIOL
Agastache	1	1	0	0	0	0	0.00 %
Agastache – Giant Hyssop	1	1	0	0	0	0	0.00 %
Alyssum montanum	2	2	0	0	0	0	0.00 %
Alyssum, golden-tuft	1	1	0	0	0	0	0.00 %
Alyssum, Sweet	9	8	1	0	0	1	11.11 %
Amaranthus	5	4	1	0	0	1	20.00 %
Asclepias (Butterfly Weed)	2	2	0	0	0	0	0.00 %
Asclepias (Milkweed)	1	1	0	0	0	0	0.00 %
Aster, New England	1	1	0	0	0	0	0.00 %
Asters	6	5	1	0	0	1	16.67 %
Baby's Breath	1	1	0	0	0	0	0.00 %
Baby's Breath, Annual	2	1	0	1	0	1	50.00 %
Baby's-Breath, perennial	1	1	0	0	0	0	0.00 %
Bachelor's Button	2	2	0	0	0	0	0.00 %
Barley	1	1	0	0	0	0	0.00 %
Basil	1	0	0	1	0	1	100.00 %
Begonia	1	1	0	0	0	0	0.00 %
Bells of Ireland	2	1	1	0	0	1	50.00 %
Bergamot	1	0	0	1	0	1	100.00 %
Bergamot, Wild	1	1	0	0	0	0	0.00 %
Bidens	1	1	0	0	0	0	0.00 %
Black-Eye Susan Vine	1	1	0	0	0	0	0.00 %
Black-Eyed Susan	2	1	0	1	0	1	50.00 %
Blanket Flower	1	1	0	0	0	0	0.00 %
Bupleurum (Thoroughwax)	2	2	0	0	0	0	0.00 %
Butterfly-Bush	1	1	0	0	0	0	0.00 %
Calendula	5	5	0	0	0	0	0.00 %
Campanula	1	1	0	0	0	0	0.00 %
Candytuft, globe	1	1	0	0	0	0	0.00 %
Carnation	1	1	0	0	0	0	0.00 %
Celosia	4	4	0	0	0	0	0.00 %
Celosia	11	10	1	0	0	1	9.09 %

Seed Kind Tested	Flower Seeds						
	Total	CL	SV	TV	MV	#VIOL	%VIOL
Centaurea	4	4	0	0	0	0	0.00 %
Cheiranthus(Wallflower)	4	4	0	0	0	0	0.00 %
China Aster	1	1	0	0	0	0	0.00 %
Chinese House	2	2	0	0	0	0	0.00 %
Chinese Lanterns	1	0	1	0	0	1	100.00 %
Chrysanthemum	6	5	1	0	0	1	16.67 %
Cineraria	1	0	1	0	0	1	100.00 %
Cleome	3	1	2	0	0	2	66.67 %
Coleus	7	6	1	0	0	1	14.29 %
Color Grass	1	0	1	0	0	1	100.00 %
Columbine	5	3	2	0	0	2	40.00 %
Coreopsis, Dwarf Plains	2	2	0	0	0	0	0.00 %
Coreopsis, Lance-Leaf	2	2	0	0	0	0	0.00 %
Coreopsis, Tall Plains	2	2	0	0	0	0	0.00 %
Corn, Ornamental	2	2	0	0	0	0	0.00 %
Cornflower	2	2	0	0	0	0	0.00 %
Cornflower, Tall	1	1	0	0	0	0	0.00 %
Cosmidium burridgeanum	1	1	0	0	0	0	0.00 %
Cosmos	22	19	3	0	0	3	13.64 %
Craspedia	1	1	0	0	0	0	0.00 %
Creeping Zinnia	1	1	0	0	0	0	0.00 %
Cucumber	3	3	0	0	0	0	0.00 %
Cup & Saucer Vine	1	1	0	0	0	0	0.00 %
Cynoglossum	4	4	0	0	0	0	0.00 %
Cypress Vine	3	3	0	0	0	0	0.00 %
Dahlia	3	3	0	0	0	0	0.00 %
Daisy, Blue-Eyed	1	0	1	0	0	1	100.00 %
Daisy, Gloriosa	1	0	1	0	0	1	100.00 %
Daisy, Painted	1	0	1	0	0	1	100.00 %
Daisy, Shasta	4	3	0	1	0	1	25.00 %
Delphinium (Pacific Giants)	3	2	1	0	0	1	33.33 %
Dianthus	8	8	0	0	0	0	0.00 %
Digitalis	1	1	0	0	0	0	0.00 %
Dusty Miller	2	1	1	0	0	1	50.00 %
Echinacea	4	4	0	0	0	0	0.00 %
Echium (Vipers Bugloss)	1	1	0	0	0	0	0.00 %
Eschscholtzia	3	3	0	0	0	0	0.00 %
False Queen Anne's Lace	1	1	0	0	0	0	0.00 %
Field Larkspur	1	1	0	0	0	0	0.00 %
Flowering Cabbage	1	1	0	0	0	0	0.00 %
Flowering Tobacco	1	1	0	0	0	0	0.00 %

Seed Kind Tested	Flower Seeds						
	Total	CL	SV	TV	MV	#VIOL	%VIOL
Forget-Me-Not	1	1	0	0	0	0	0.00 %
Four O'clock	5	4	0	1	0	1	20.00 %
Foxglove	3	2	0	1	0	1	33.33 %
Gaillardia (Annual)	1	1	0	0	0	0	0.00 %
Gaillardia (Perennial)	3	3	0	0	0	0	0.00 %
Gazania	2	1	1	0	0	1	50.00 %
Geranium	1	1	0	0	0	0	0.00 %
Gerbera (Transvaal Daisy)	1	1	0	0	0	0	0.00 %
Gilia, globe	1	1	0	0	0	0	0.00 %
Gomphrena	4	4	0	0	0	0	0.00 %
Gourd, Mixed	3	3	0	0	0	0	0.00 %
Gourd, Small-Seeded	1	1	0	0	0	0	0.00 %
Gypsophila	4	4	0	0	0	0	0.00 %
Hollyhock	1	1	0	0	0	0	0.00 %
Iberis	2	2	0	0	0	0	0.00 %
Ice Plant	1	1	0	0	0	0	0.00 %
Impatiens	4	4	0	0	0	0	0.00 %
Ipomopsis (Scarlet Gilia)	1	1	0	0	0	0	0.00 %
Kale, Ornamental	1	1	0	0	0	0	0.00 %
Larkspur	5	1	4	0	0	4	80.00 %
Larkspur, Rocket (annual)	2	1	0	1	0	1	50.00 %
Lavender	3	2	1	0	0	1	33.33 %
Lewisia	1	1	0	0	0	0	0.00 %
Linum	2	2	0	0	0	0	0.00 %
Linum Grandiflorum	4	4	0	0	0	0	0.00 %
Lobelia	4	3	1	0	0	1	25.00 %
Love-Lies-Bleeding	3	2	1	0	0	1	33.33 %
Lunaria	1	1	0	0	0	0	0.00 %
Lupine, Perennial	2	1	0	1	0	1	50.00 %
Lupinus	3	3	0	0	0	0	0.00 %
Malabar Spinach	2	2	0	0	0	0	0.00 %
Malope (Malvaceae)	3	3	0	0	0	0	0.00 %
Marigold, African	2	2	0	0	0	0	0.00 %
Marigold, French	1	0	0	1	0	1	100.00 %
Marigold, Sweet	1	1	0	0	0	0	0.00 %
Marigolds	28	23	5	0	0	5	17.86 %
Marjoram	1	1	0	0	0	0	0.00 %
Melons	2	2	0	0	0	0	0.00 %
Moonflower	1	1	0	0	0	0	0.00 %
Morning Glory	12	10	2	0	0	2	16.67 %
Nasturtium	19	19	0	0	0	0	0.00 %

Seed Kind Tested	Flower Seeds						
	Total	CL	SV	TV	MV	#VIOL	%VIOL
Nemophila	1	1	0	0	0	0	0.00 %
Nicotiana	1	0	1	0	0	1	100.00 %
Nierembergia (Cupflower)	1	0	1	0	0	1	100.00 %
Nigella	2	2	0	0	0	0	0.00 %
Pansy, Common	2	2	0	0	0	0	0.00 %
Papaver rhoeas	1	1	0	0	0	0	0.00 %
Penstemon	2	2	0	0	0	0	0.00 %
Pentas	2	1	1	0	0	1	50.00 %
Pentas (Egyptian Starflower)	1	1	0	0	0	0	0.00 %
Petunias	7	7	0	0	0	0	0.00 %
Phacelia	1	1	0	0	0	0	0.00 %
Phlox	1	1	0	0	0	0	0.00 %
Poppy, California	4	2	1	1	0	2	50.00 %
Poppy, Corn	2	2	0	0	0	0	0.00 %
Poppy, Hungarian breadseed	1	1	0	0	0	0	0.00 %
Poppy, Oriental	3	3	0	0	0	0	0.00 %
Portulaca	4	2	2	0	0	2	50.00 %
Rudbeckia	6	6	0	0	0	0	0.00 %
Sage, Scarlet	2	2	0	0	0	0	0.00 %
Salad Burnet	1	1	0	0	0	0	0.00 %
Salvia	4	1	3	0	0	3	75.00 %
Salvia	1	1	0	0	0	0	0.00 %
Scabiosa (annual) /Mourning-bride	1	1	0	0	0	0	0.00 %
Silene	1	1	0	0	0	0	0.00 %
Snapdragon	11	9	2	0	0	2	18.18 %
Spilanthes	1	1	0	0	0	0	0.00 %
Squash	2	2	0	0	0	0	0.00 %
Statice	2	1	1	0	0	1	50.00 %
Stevia	1	1	0	0	0	0	0.00 %
Stock	2	2	0	0	0	0	0.00 %
Strawflower	1	1	0	0	0	0	0.00 %
Sunflower	22	22	0	0	0	0	0.00 %
Sunflower	6	6	0	0	0	0	0.00 %
Sweet Alyssum	1	0	0	1	0	1	100.00 %
Sweet Pea, annual	4	4	0	0	0	0	0.00 %
Thunbergia	1	1	0	0	0	0	0.00 %
Tithonia	1	1	0	0	0	0	0.00 %
Torenia (Wishbone Flower)	1	1	0	0	0	0	0.00 %
Tritoma	1	1	0	0	0	0	0.00 %
Verbascum	2	2	0	0	0	0	0.00 %
Verbena	2	0	2	0	0	2	100.00 %

Seed Kind Tested	Flower Seeds						
	Total	CL	SV	TV	MV	#VIOL	%VIOL
Verbena	1	1	0	0	0	0	0.00 %
Verbena, Rigid	1	1	0	0	0	0	0.00 %
Vinca	8	6	2	0	0	2	25.00 %
Viola	4	4	0	0	0	0	0.00 %
Wallflower	1	1	0	0	0	0	0.00 %
Watermelon	1	1	0	0	0	0	0.00 %
Yarrow	1	0	0	1	0	1	100.00 %
Zinnia	39	36	3	0	0	3	7.69 %
Total	502	433	56	13	0	69	13.75 %

Seed Kind Tested	Feed						
	Total	CL	SV	TV	MV	#VIOL	%VIOL
Feed	24	24	0	0	0	0	0.00 %

Seed Kind Tested	Pasture Mix						
	Total	CL	SV	TV	MV	#VIOL	%VIOL
Pasture Mix	29	18	6	3	2	11	37.93 %

Seed Kind Tested	Flower Mix						
	Total	CL	SV	TV	MV	#VIOL	%VIOL
Flower Mix	1	0	0	1	0	1	100.00 %

Seed Kind Tested	Vegetable Kit						
	Total	CL	SV	TV	MV	#VIOL	%VIOL
Vegetable Kit	2	1	0	1	0	1	50.00 %

Seed Kind Tested	Lawn Mix						
	Total	CL	SV	TV	MV	#VIOL	%VIOL
Lawn Mix	189	165	21	3	0	24	12.70 %

Table IV

Vegetable Seeds Wholesale Distributors			Vegetable Seeds			
			CL	SV	TV	MV
AMERICAN SEED CO INC	SPRING GROVE	PA	3	1	0	0
BILL'S ACE HARDWARE	COVINGTON TWP	PA	1	0	0	0
BOTANICAL INTERESTS INC	BROOMFIELD	CO	2	0	0	0
BURPEE GARDEN PRODUCTS	WARMINSTER	PA	943	29	1	0
FISHERS GREENHOUSE	STRASBURG	PA	3	0	0	0
GARDEN AMERICA INC.	MOUNT HOREB	WI	0	3	0	0
HAKES FARM & SEED SERVICE	RED LION	PA	8	0	0	0
HENRY F MICHELL, CO.	KING OF PRUSSIA	PA	14	27	0	0
HILLSIDE GARDEN CENTER	GAP	PA	3	0	0	0
LAKE VALLEY SEED COMPANY, INC.	BOULDER	CO	6	0	0	0
MARTINS PRODUCE SUPPLIES	SHIPPENSBURG	PA	5	0	0	0
NOLTS PRODUCE SUPPLIES, LLC	LEOLA	PA	8	2	1	0
NORTHAMPTON COUNTY SEED, CO.	NAZARETH	PA	1	0	0	0
P L ROHRER & BRO, INC.	SMOKETOWN	PA	82	2	0	0
PLANTATION PRODUCTS, LLC	NORTON	MA	16	2	0	0
SEEDS OF CHANGE	COMPTON	CA	1	0	0	0
SEEDS OF CHANGE	COMPTON	CA	2	0	0	0
SEEDWAY LLC	ELIZABETHTOWN	PA	54	0	0	0
SEEDWAY, LLC	HALL	NY	29	1	0	0
SEETON TURF WAREHOUSE, LLC	MOUNT LAUREL	NJ	1	0	0	0
SHIRK'S ANIMAL HEALTH SUPPLY, LLC	NARVON	PA	10	0	0	0
THE CHARLES C HART SEED CO	WETHERSFIELD	CT	1	0	0	0
		Total	1,193	67	2	0

Agricultural Seeds Wholesale Distributors			Agricultural Seeds			
			CL	SV	TV	MV
ALLIANCE SEED INC	BROOKLYN	NY	8	1	0	0
AMERICAN SEED CO INC	SPRING GROVE	PA	1	0	0	0
AUGUSTA SEED	VERONA	VA	1	0	1	0
BARENBRUG USA	TANGENT	OR	8	4	0	0
BFG SUPPLY DBA WETSEL	CHESWICK	PA	69	7	0	3
BOTANICAL INTERESTS INC	BROOMFIELD	CO	1	0	0	0
BURPEE GARDEN PRODUCTS	WARMINSTER	PA	2	0	0	0
BYRON SEEDS LLC	ROCKVILLE	IN	1	2	0	0
CENTRAL FARM AND GARDEN	WOOSTER	OH	1	0	0	0
CENTRAL TURF & IRRIGATION SUPPLY	ELMSFORD	NY	1	0	0	0
CHAMPAIGN COUNTY SEED CO, LLC	SAINT JOSEPH	IL	1	0	0	0
CHEMGRO SEEDS	EAST PETERSBURG	PA	9	1	0	0
DAIRYLAND SEED	WOODLAND	CA	1	1	0	0
DLF PICKSEED	HALSEY	OR	6	2	0	0

Agricultural Seeds Wholesale Distributors			Agricultural Seeds			
			CL	SV	TV	MV
EAGLE SEED CO	WEINER	AR	0	1	0	0
EDDIE MERCER AGRI SERVICES INC	FREDERICK	MD	3	0	0	0
ERNST CONSERVATION SEED	MEADVILLE	PA	7	1	0	0
F S SEEDS	YORK	PA	1	0	0	0
FISHER & SON COMPANY, INC.	EXTON	PA	1	0	0	0
FM BROWN'S SONS, INC.	SINKING SPRING	PA	15	0	0	0
GROWMARK FS LLC	MILFORD	DE	4	0	0	0
GROWMARK FS LLC	YORK	PA	26	1	0	0
GROWMARK FS, LLC	MILFORD	DE	14	0	4	0
HADLEY SEED FARM	HADLEY	PA	0	2	0	0
HAKES FARM & SEED SERVICE	RED LION	PA	0	1	0	0
HENRY F MICHELL, CO.	KING OF PRUSSIA	PA	1	13	0	0
HISTANDS SUPPLY	WYCOMBE	PA	5	2	0	0
JMD COMPANY	BETHEL PARK	PA	5	0	0	0
KING'S AGRI SEEDS, INC.	LANCASTER	PA	12	4	1	1
LA CROSSE SEED, LLC	LA CROSSE	WI	2	0	0	0
LEABROOK AG	LANCASTER	PA	4	1	0	0
LEABROOK AG LLC	LANCASTER	PA	3	0	0	0
LEBANON SEABOARD CORP	LEBANON	PA	1	0	0	0
LEBANON SEABOARD CORP	LEBANON	PA	1	0	0	0
LIFETIME SEED, CO.	EAST PEORIA	IL	1	0	0	0
LOCAL SEED COMPANY, LLC.	MEMPHIS	TN	3	0	0	0
MID-ATLANTIC SEEDS, INC.	YORK	PA	13	6	1	0
MONSANTO COMPANY	ST LOUIS	MO	5	0	0	0
NORM'S FARM STORE	WATSONTOWN	PA	2	0	0	0
NORTHAMPTON COUNTY SEED, CO.	NAZARETH	PA	10	0	0	1
P L ROHRER & BRO, INC.	SMOKETOWN	PA	16	3	2	0
PENNINGTON SEED	LEBANON	OR	14	2	0	0
PLANTATION PRODUCTS, LLC	NORTON	MA	3	0	0	0
PREFERRED SEED COMPANY, INC.	BUFFALO	NY	4	0	0	0
RURAL KING	MATTOON	IL	1	0	0	0
SCHLESSMAN SEED CO.	MILAN	OH	2	0	0	0
SEEDWAY, LLC	HALL	NY	64	3	0	0
SOUTHERN STATES COOP, INC.	RICHMOND	VA	2	0	0	0
THE CISCO COMPANIES	INDIANAPOLIS	IN	1	1	0	0
W I MILLER & SONS	FARMDALE	OH	5	0	0	0
W-L RESEARCH	NAMPA	ID	2	0	0	0
WALKER SUPPLY INC	CORAOPOLIS	PA	0	1	0	0
WINFIELD SOLUTIONS, LLC	SAINT PAUL	MN	3	0	0	0
		Total	366	60	9	5

Flower Seeds Wholesale Distributors			Flower Seeds			
			CL	SV	TV	MV
BURPEE GARDEN PRODUCTS	WARMINSTER	PA	219	13	0	0
ENCAP, LLC	GREEN BAY	WI	0	0	1	0
HENRY F MICHELL, CO.	KING OF PRUSSIA	PA	19	41	0	0
P L ROHRER & BRO, INC.	SMOKETOWN	PA	23	2	0	0
PLANTATION PRODUCTS, LLC	NORTON	MA	8	1	0	0
SEEDWAY LLC	ELIZABETHTOWN	PA	21	0	0	0
W ATLEE BURPEE, CO.	WARMINSTER	PA	71	0	0	0
		Total	361	57	1	0

Feed Wholesale Distributors			Feed			
			CL	SV	TV	MV
BEDFORD FARM BUREAU CO-OP ASSOC	CURRYVILLE	PA	1	0	0	0
BRANDTS FARM SUPPLY	ELIZABETHTOWN	PA	1	0	0	0
CENTRE HALL FARM STORE	CENTRE HALL	PA	1	0	0	0
EAST GATE FEED & GRAIN, LLC	REEDSVILLE	PA	2	0	0	0
GOLDENFEAST INC	PHOENIXVILLE	PA	1	0	0	0
GOODS FEED MILL	EAST EARL	PA	1	0	0	0
GREENDALE FARMS, LLC	KANE	PA	1	0	0	0
HAAG'S FEED STORE & MILLING, LLC	TROUTVILLE	PA	1	0	0	0
HADLEY SEED FARM	HADLEY	PA	1	0	0	0
HANSEN MUELLER CO	OMAHA	NE	1	0	0	0
HOKE MILLS, INC.	ABBOTTSTOWN	PA	1	0	0	0
HOKE MILLS, INC.	YORK	PA	3	0	0	0
HOOBER INC, JOHN J DBA HOOBER FEEDS	GORDONVILLE	PA	1	0	0	0
JOHN M HERRS SONS	GRANTVILLE	PA	2	0	0	0
MAPLETON FARM AND GARDEN, LLC	MAPLETON DEPOT	PA	2	0	0	0
NORTH STAR FARM & AG	SHIPPENVILLE	PA	2	0	0	0
PURINA ANIMAL NUTRITION, LLC	LANCASTER	PA	1	0	0	0
WINDY SPRINGS FARM	QUAKERTOWN	PA	1	0	0	0
		Total	24	0	0	0

Health Food Wholesale Distributors			Health Food			
			CL	SV	TV	MV
BURPEE GARDEN PRODUCTS	WARMINSTER	PA	2	0	0	0
		Total	2	0	0	0

Pasture Mix Wholesale Distributors			Pasture Mix			
			CL	SV	TV	MV
BARENBRUG USA	TANGENT	OR	0	0	0	1

Pasture Mix Wholesale Distributors			Pasture Mix			
			CL	SV	TV	MV
BFG SUPPLY DBA WETSEL	CHESWICK	PA	1	0	0	1
CENTRAL FARM AND GARDEN	WOOSTER	OH	0	1	0	0
CENTRE SEEDS	REBERSBURG	PA	1	0	0	0
EAGLE SEED CO	WEINER	AR	1	0	0	0
GROWMARK FS LLC	YORK	PA	2	0	2	0
KING'S AGRI SEEDS, INC.	LANCASTER	PA	8	4	1	0
LOCAL SEED COMPANY, LLC.	MEMPHIS	TN	1	0	0	0
P L ROHRER & BRO, INC.	SMOKETOWN	PA	2	1	0	0
SEEDWAY, LLC	HALL	NY	2	0	0	0
		Total	18	6	3	2

Flower Mix Wholesale Distributors			Flower Mix			
			CL	SV	TV	MV
PENNINGTON SEED INC	MADISON	GA	0	0	1	0
		Total	0	0	1	0

Vegetable Mix Wholesale Distributors			Vegetable Mix			
			CL	SV	TV	MV
BURPEE GARDEN PRODUCTS	WARMINSTER	PA	1	0	0	0
PLANTATION PRODUCTS, LLC	NORTON	MA	0	1	0	0
SEEDS OF CHANGE	COMPTON	CA	0	1	0	0
		Total	1	2	0	0

Conservation Mix Wholesale Distributors			Conservation Mix			
			CL	SV	TV	MV
BARENBRUG USA	TANGENT	OR	1	0	0	0
BFG SUPPLY DBA WETSEL	CHESWICK	PA	0	1	0	0
GROWMARK FS LLC	YORK	PA	0	1	0	0
JMD COMPANY	TYRONE	PA	0	1	0	0
JMD COMPANY	BETHEL PARK	PA	0	1	0	0
KING'S AGRI SEEDS, INC.	LANCASTER	PA	1	0	0	0
		Total	2	4	0	0

Vegetable Kit Wholesale Distributors			Vegetable Kit			
			CL	SV	TV	MV
BACK TO THE ROOTS, INC.	OAKLAND	CA	1	0	1	0
		Total	1	0	1	0

Lawn Mix Wholesale Distributors			Lawn Mix			
			CL	SV	TV	MV
AMERICAN SEED CO INC	SPRING GROVE	PA	1	2	0	0
BARENBRUG USA	TANGENT	OR	5	2	0	0
BFG SUPPLY DBA WETSEL	CHESWICK	PA	3	0	0	0
BONIDE PRODUCTS INC.	ORISKANY	NY	1	0	0	0
CDI LAWN EQUIPMENT	COLLEGEVILLE	PA	2	0	0	0
CENTRAL TURF & IRRIGATION SUPPLY	ELMSFORD	NY	3	1	0	0
CHEMGRO SEEDS	EAST PETERSBURG	PA	1	1	1	0
CONSERVATION RESOURCES, LLC	PIPERSVILLE	PA	6	0	0	0
DEER CREEK SEED, INC.	ASHLAND	WI	0	2	0	0
DLF PICKSEED	HALSEY	OR	4	1	0	0
ERNST CONSERVATION SEED	MEADVILLE	PA	1	0	0	0
FISHER & SON COMPANY, INC.	EXTON	PA	2	0	0	0
GREENLEAF TURF SOLUTIONS, INC.	WEST CHESTER	PA	2	0	0	0
GROWMARK FS LLC	YORK	PA	4	0	1	0
HILLTOP DISTRIBUTORS CO. INC.	MEDIA	PA	3	0	0	0
HISTANDS SUPPLY	WYCOMBE	PA	5	1	0	0
JERSEY SEED INC.	NEW BRUNSWICK	NJ	3	1	0	0
JMD COMPANY	BETHEL PARK	PA	1	0	0	0
JONATHAN GREEN, INC.	FARMINGDALE	NJ	3	1	0	0
KING'S AGRI SEEDS, INC.	LANCASTER	PA	1	0	0	0
LA CROSSE SEED, LLC	LA CROSSE	WI	1	1	0	0
LEBANON SEABOARD CORP	LEBANON	PA	12	0	0	0
LEBANON SEABOARD CORP	LEBANON	PA	2	0	0	0
LESCO, INC.	CLEVELAND	OH	21	2	0	0
MID-ATLANTIC SEEDS, INC.	YORK	PA	3	1	0	0
MT. VIEW SEEDS LTD	SALEM	OR	2	0	0	0
NORTHAMPTON COUNTY SEED, CO.	NAZARETH	PA	1	0	0	0
P L ROHRER & BRO, INC.	SMOKETOWN	PA	5	1	0	0
PENNINGTON SEED	LAUREL	MD	1	0	0	0
PENNINGTON SEED	LEBANON	OR	7	0	0	0
PENNINGTON SEED	EASTON	PA	6	0	0	0
PENNINGTON SEED, INC.	GREENFIELD	MO	5	0	1	0
REED & PERRINE	TENNENT	NJ	3	0	0	0
SEEDWAY, LLC	HALL	NY	21	1	0	0
SEETON TURF WAREHOUSE, LLC	MOUNT LAUREL	NJ	0	1	0	0
SOUTHERN STATES COOP, INC.	RICHMOND	VA	2	0	0	0
SOUTHERN STATES-WESTFIELD	WESTFIELD	MA	6	0	0	0
SYNATEK, LP	SOUDERTON	PA	1	0	0	0
THE SCOTTS CO.	MARYSVILLE	OH	1	0	0	0
THE SCOTTS COMPANY	MARYSVILLE	OH	3	0	0	0
THOMAS FEED MILL	HOLLSOPPLE	PA	1	0	0	0
TRACTOR SUPPLY COMPANY	BRENTWOOD	TN	1	0	0	0

Lawn Mix Wholesale Distributors			Lawn Mix			
			CL	SV	TV	MV
WALKER SUPPLY INC	CORAOPOLIS	PA	8	2	0	0
WINFIELD SOLUTIONS, LLC	SAINT PAUL	MN	1	0	0	0
		Total	165	21	3	0

SEED CERTIFICATION
TABLE V
SUMMARY OF FIELD INSPECTIONS FOR 2018
(JULY 1, 2018- JUNE 30, 2019)

CROP	VARIETY	FOUNDATION	REGISTERED	CERTIFIED	Q/A
Barley, Winter	Dan	----	----	----	55.20
Oats, Spring	Armor	----	----	174.60	----
	Corral	----	----	13.50	----
	Cosaque	----	----	18.00	----
	Hayden	----	38.85	----	----
	Kara	----	----	----	192.11
Potatoes	Atlantic	----	----	13.23	----
	Chieftain	----	----	5.18	----
	Eva	----	----	8.55	----
	LaChipper	----	----	52.62	----
	Lamoka	----	----	24.57	----
	NY 141	----	----	0.25	----
	Red Lasoda	----	----	191.71	----
	Red Maria	----	----	6.38	----
	Snowden	----	----	20.66	----
	Waneta	----	----	28.98	----
Triticale	Fredro	----	5.00	76.00	----
	HyOctane	----	----	----	499.20
	Short Beard Thunder	----	----	286.50	----
	Traction	----	----	----	181.12
	Trical 336	----	----	----	235.29
Wheat, Winter	FS840	----	----	----	114.50
	FS860	----	----	----	248.84
	SW46SR	----	----	----	199.67
	SW49SR	----	----	----	425.38
	SW52	----	----	----	512.70
	SW64SR	----	----	----	231.00
	SW67	----	----	----	30.00
	SW70SR	----	----	----	71.70
	SW550	----	----	----	353.98
TOTAL ACRES		----	43.85	920.73	3350.69

The above acreage was applied for certification. Seed from acreage that has passed field inspection must also meet mechanical standards in the Seed Lab to complete certification.

Number of Samples per fiscal Year

(July 1st - June 30th)

