



# 2010 SEED REPORT

Commonwealth of Pennsylvania  
Department of Agriculture

Edward G. Rendell, Governor  
Commonwealth of Pennsylvania

Russell C. Redding, Secretary  
Department Of Agriculture

## Overview

The Bureau of Plant Industry, within the Pennsylvania Department of Agriculture, is home to the Agronomic and Regional Services Division, which administers the feed, fertilizer, seed, soil/plant amendment and lime programs to protect the natural resources and agronomic products produced and used across the state. Also included within this division is the regulation of pet food and animal feed mill inspections, as are consumer complaint investigations and seed certifications.

The division is responsible for the administration and enforcement of the Pennsylvania Seed Act, the administration of the Seed Certification Act, the operation of the State Seed Laboratory and the maintenance of the seed herbarium.

This report, as called for through the Pennsylvania Seed Act (Act 164), will provide an overview of official seed inspection activities and laboratory analyses performed on official samples drawn under the authority of Act 164. The Seed Act in effect today is a consolidated bill combining the Seed Act and Seed Certification Act under Title 3 of the Pennsylvania Consolidated Statutes, Chapter 71. The Seed Act was signed into law in 2004 and amended in January 2005.

The department's seed program and related activities help producers and growers by providing seed regulation and seed testing. These activities protect the industry and consumers through professional inspection and analysis of seed products in the marketplace to determine the quality of the seed and ensure genetic purity.

The programs and services managed by the department, with regards to seed testing and regulation, are important to Pennsylvania – including the more than 63,000 farms that rely on quality seed products to produce food and fiber for our 12.5 million citizens and the other millions who rely on the end products coming from the Keystone State.

It should be noted that the seed products coming from and moving into Pennsylvania cover a larger spectrum than crop production, encompassing a variety of seeds used in the state's extensive horticulture and landscape industry as well as those purchased by homeowners and gardeners for recreational and hobby use.

## The Pennsylvania Seed Act

The Seed Act requires that all seeds be properly labeled before being offered for sale in Pennsylvania. The purpose of the act is to ensure that consumers are provided with truthful information in order to make an informed, intelligent purchase. The specified information is required to be listed on a tag or label attached in a purposefully conspicuous place on the exterior of the container in which the seed is sold or offered for sale. Seeds not properly labeled are subject to a "stop sale" order which would prohibit the sale of such seed until the package/seed in question is relabeled to be in compliance with the law.

In the 2005 amendment to the Pennsylvania Seed Act, a change was made to require all those whose name appears on the seed analysis to obtain an annual seed license. The cost of this license is \$25. Applications are available through the Pennsylvania Department of Agriculture.

Additional requirements for labeling seeds can be found in the Pennsylvania Code Chapter 111. These requirements include:

- 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; and
- List of restricted noxious weed seeds including undesirable grass seed in lawn and turf seeds.

As a part of the department's outreach efforts to help educate consumers and seed companies about the requirements of the Seed Act, a number of pamphlets and brochures are available. Copies can be secured by calling the department or visiting the agency's Website at [www.agriculture.state.pa.us](http://www.agriculture.state.pa.us).

### **Seed Certification**

The purpose of certifying seed in Pennsylvania is to ensure only high quality seeds and propagating materials of superior varieties are grown and distributed, thereby ensuring genetic identity. Rigid field and seed standards must be passed before seed can be classified and labeled in Pennsylvania.

A summary of crop, variety and acres inspected are included in Table VI. Additional information can be obtained by contacting the department.

The department has the ability to collect fees for the field inspections, tags, labels and other services provided to the industry. In 2009-10, a total of \$14,653.16 was charged.

To ensure that Pennsylvania's actions are tracking with the work being done elsewhere across the nation, the department is an active member of the Association of Official Seed Certification Agencies.

### **Pennsylvania Seed Laboratory**

The department operates the Pennsylvania Seed Laboratory that provides technical information and performs various test and analyses on seed samples from numerous sources. All seed samples are prepared and tested according to the rules published by the Association of Official Seed Analysts (AOSA), which includes the department as a partnering member.

While the bulk of the department's seed analysis efforts are related to the production agriculture and horticulture sectors, a variety of work is done for state

sister agencies including the Departments of Transportation, Environmental Protection, Conservation and Natural Resources, the State Police Crime Laboratory and the agriculture department’s Bureau of Animal Health and Diagnostic Services.

Seed analysts with the department also provide unique case-by-case assistance for contemporary issues.

During the 2009-10 fiscal year, the laboratory received a total of 5,925 samples which required 9,088 separate tests (see Table I).

A breakdown of sample numbers is:

<b>Number of Samples</b>	<b>Origin of Sample</b>
1,516	PDA Inspectors
4,164	Service Samples
245	Seed Certification Program/State Agencies
<b>5,925</b>	<b>TOTAL SAMPLES</b>

The PDA-submitted samples (1,516) are a part of the agency’s Seed Act enforcement activities. Service samples (4,164) are submitted by farmers and wholesale and retail seed outlets for analysis to assist with labeling purposes and guidance in planting. The remaining samples (245) were submitted through the seed certification and various other programs to determine if the seed met program standards/specifications.

A total of \$67,629.76 in fees was charged for the above sampling services.

The fees charged for sampling and seed certification are provided for under the Pennsylvania Seed Act. The legislation provides the department with the authority to fix, adjust, assess and collect fees for these services that are enough to “meet reasonable expenses incurred” by the agency. The fees collected are used to offset the costs involved in inspection, sampling and certifying seed.

The current fee structure for seed service samples and certification services are available on the department’s website, [www.agriculture.state.pa.us](http://www.agriculture.state.pa.us).

### **Summary**

Pennsylvania is fortunate to have a premier seed testing and certification program. The efforts of this division impact everyone from home gardeners to full-time farmers. Ensuring that seeds packaged and sold in Pennsylvania meet specific quality standards is a vital service to the production agriculture sector and provides consumer protection to those who may unknowingly purchase low-quality or mislabeled product.

# **2010 Seed Report**

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## **Appendices**

**Table I**

Classification of samples by kind and numbers of tests involved.

<b>Number of Samples</b>	<b>Kinds</b>	<b>Purity</b>	<b>Noxious Weed Examinations</b>	<b>Germinations*</b>
2,313	Vegetable	65	11	2,366
2,436	Agricultural	781	1,067	2,338
549	Flower	0	0	605
4	Tree	0	0	1
9	Feed	0	9	1
0	HealthFood	0	0	0
138	Pasture Mix	25	25	140
8	Flower Mix	0	0	8
23	Vegetable Mix	10	3	25
93	Conservation Mix	11	11	24
0	Vegetable Kit	0	0	0
352	Lawn Mix	176	176	286
0	Unidentified	0	0	0
<b>5,925</b>	<b>Totals</b>	<b>1,068</b>	<b>1,302</b>	<b>5,794</b>

<b>Other Tests</b>	
Interstate Noxious Weed Test	20
Cold Test	86
Sand Test	16
Roundup Ready Test	88
Tetrazolium Test	10
Endophyte Test	0
Ryegrass Fluorescence Test	338
Oats Fluorescence Test	96
Identification Test	0
400 Seed Count Test	190
Miscellaneous Test	21
Canada Noxious Weed Test	59
<b>Total Tests</b>	<b>9,088</b>

\* 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 1,516 seed samples. A total of 245 or 16.16 % of these samples were found to be in violation of the Act. The inspectors also placed 163 lots of seed (3,353 containers) under 'Stop Sale' at 63 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 represents a summary of the kinds of agriculture, vegetable and flower seeds tested with the number and percentage violation of each.

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

Table V represents a summary of the number of violations and reason for the discrepancy.

Table VI 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		
		7/1/2009 - 6/30/2010	7/1/2008 - 6/30/2009	7/1/2007 - 6/30/2008
Vegetable	572	8.92 %	8.39 %	6.84 %
Agricultural	424	15.33 %	11.94 %	12.02 %
Flower	287	20.21 %	15.55 %	9.19 %
Tree	1	0.00 %	100.00 %	100.00 %
Feed	9	0.00 %	0.00 %	3.57 %
HealthFood	0	0.00 %	77.78 %	81.82 %
Pasture Mix	15	20.00 %	54.55 %	65.22 %
Flower Mix	1	0.00 %	36.84 %	43.18 %
Vegetable Mix	18	27.78 %	42.86 %	26.92 %
Conservation Mix	10	40.00 %	25.00 %	54.55 %
Vegetable Kit	0	0.00 %	66.67 %	50.00 %
Lawn Mix	179	32.96 %	51.09 %	33.43 %
Unidentified	0	0.00 %	0.00 %	0.00 %
<b>Totals</b>	<b>1,516</b>	<b>16.16 %</b>	<b>17.02 %</b>	<b>15.04 %</b>

\* Samples collected by seed inspectors 7/1/2009 - 6/30/2010

**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
Adzuki Bean	1	1	0	0	0	0	0.00 %
Alfalfa	1	1	0	0	0	0	0.00 %
Anise	1	1	0	0	0	0	0.00 %
Arugula	3	3	0	0	0	0	0.00 %
Asparagus Bean (Yardlong)	2	2	0	0	0	0	0.00 %
Balloon Vine (Love-In-A-Puff)	1	1	0	0	0	0	0.00 %
Basil	6	6	0	0	0	0	0.00 %
Bean, Dry	1	1	0	0	0	0	0.00 %
Bean, Garden	33	22	11	0	0	11	33.33 %
Bean, Snap	3	3	0	0	0	0	0.00 %
Beets	20	20	0	0	0	0	0.00 %
Broccoli	7	7	0	0	0	0	0.00 %
Brussels-Sprouts	3	3	0	0	0	0	0.00 %
Cabbage	12	12	0	0	0	0	0.00 %
Cabbage, Chinese	3	3	0	0	0	0	0.00 %
California Poppy	1	1	0	0	0	0	0.00 %
Cantaloupe	7	7	0	0	0	0	0.00 %
Carrot	41	41	0	0	0	0	0.00 %
Catnip	1	1	0	0	0	0	0.00 %
Cauliflower	7	5	2	0	0	2	28.57 %
Celeriac	1	1	0	0	0	0	0.00 %
Celery	2	2	0	0	0	0	0.00 %
Chenopodium spp.	1	1	0	0	0	0	0.00 %
Chervil	1	1	0	0	0	0	0.00 %
Chives	1	1	0	0	0	0	0.00 %
Chives, Garlic	1	1	0	0	0	0	0.00 %
Cilantro	5	4	1	0	0	1	20.00 %
Collards	7	5	2	0	0	2	28.57 %
Corn, Ornamental	1	1	0	0	0	0	0.00 %
Corn, Sweet	22	22	0	0	0	0	0.00 %
Cucumber	24	24	0	0	0	0	0.00 %

Seed Kind Tested	Vegetable Seeds						
	Total	CL	SV	TV	MV	#VIOL	%VIOL
Dill	9	9	0	0	0	0	0.00 %
Eggplant	6	3	3	0	0	3	50.00 %
Endive	4	3	1	0	0	1	25.00 %
Escarole	1	1	0	0	0	0	0.00 %
Garden Bean	4	4	0	0	0	0	0.00 %
German Chamomile	2	2	0	0	0	0	0.00 %
Gourd, Mixed	2	2	0	0	0	0	0.00 %
Honey Dew	5	5	0	0	0	0	0.00 %
Hyssop	1	1	0	0	0	0	0.00 %
Kale	6	5	1	0	0	1	16.67 %
Kohlrabi	4	4	0	0	0	0	0.00 %
Lavender	2	2	0	0	0	0	0.00 %
Leek	2	2	0	0	0	0	0.00 %
Lettuce	52	40	12	0	0	12	23.08 %
Lima Bean	7	5	2	0	0	2	28.57 %
Marjoram	1	1	0	0	0	0	0.00 %
Melons	3	3	0	0	0	0	0.00 %
Mung Bean	1	1	0	0	0	0	0.00 %
Mustard	5	5	0	0	0	0	0.00 %
Mustard, Spinach	1	1	0	0	0	0	0.00 %
Okra	2	2	0	0	0	0	0.00 %
Onion	14	10	4	0	0	4	28.57 %
Oregano	4	4	0	0	0	0	0.00 %
Pakchoi	3	3	0	0	0	0	0.00 %
Parsley	10	8	2	0	0	2	20.00 %
Parsnip	2	2	0	0	0	0	0.00 %
Pea, Garden	24	23	1	0	0	1	4.17 %
Peanut	1	0	1	0	0	1	100.00 %
Pepper	26	21	5	0	0	5	19.23 %
Pepper, Hot	1	1	0	0	0	0	0.00 %
Popcorn	1	1	0	0	0	0	0.00 %
Pumpkin	7	7	0	0	0	0	0.00 %
Radish	18	18	0	0	0	0	0.00 %
Rape	1	1	0	0	0	0	0.00 %
Red Clover	1	0	1	0	0	1	100.00 %
Rocket Herb	1	1	0	0	0	0	0.00 %
Rosemary	1	0	1	0	0	1	100.00 %
Rutabaga	2	2	0	0	0	0	0.00 %
Sage	1	1	0	0	0	0	0.00 %
Soybean	1	1	0	0	0	0	0.00 %
Spinach	7	7	0	0	0	0	0.00 %

Seed Kind Tested	Vegetable Seeds						
	Total	CL	SV	TV	MV	#VIOL	%VIOL
Squash	23	23	0	0	0	0	0.00 %
Sweet Basil	10	10	0	0	0	0	0.00 %
Sweet Corn	11	11	0	0	0	0	0.00 %
Sweet Marjoram	1	1	0	0	0	0	0.00 %
Swiss Chard	9	9	0	0	0	0	0.00 %
Thyme	3	3	0	0	0	0	0.00 %
Tomatillo	1	1	0	0	0	0	0.00 %
Tomato	28	28	0	0	0	0	0.00 %
Turnip	10	10	0	0	0	0	0.00 %
Watermelon	8	8	0	0	0	0	0.00 %
Wheat	2	1	0	1	0	1	50.00 %
<b>Total</b>	<b>572</b>	<b>521</b>	<b>50</b>	<b>1</b>	<b>0</b>	<b>51</b>	<b>8.92 %</b>

Seed Kind Tested	Agricultural Seeds						
	Total	CL	SV	TV	MV	#VIOL	%VIOL
Alfalfa	6	4	2	0	0	2	33.33 %
Alkaligrass, Weeping	1	1	0	0	0	0	0.00 %
Alsike Clover	1	0	0	0	1	1	100.00 %
Barley	14	13	1	0	0	1	7.14 %
Birdsfoot Trefoil	10	6	2	0	2	4	40.00 %
Brome, Alaska	1	0	1	0	0	1	100.00 %
Buckwheat	1	1	0	0	0	0	0.00 %
Chewings Fescue	6	5	0	0	1	1	16.67 %
Clover	1	1	0	0	0	0	0.00 %
Corn, Hybrid Field	2	2	0	0	0	0	0.00 %
Crimson Clover	1	1	0	0	0	0	0.00 %
Crownvetch	5	4	0	0	1	1	20.00 %
Festulolium	1	1	0	0	0	0	0.00 %
Fowl Bluegrass	1	0	0	0	1	1	100.00 %
Hairy Vetch	1	0	1	0	0	1	100.00 %
Hard Fescue	10	10	0	0	0	0	0.00 %
Kentucky Bluegrass	60	53	0	0	7	7	11.67 %
Ladino Clover	3	3	0	0	0	0	0.00 %
Oat	9	8	1	0	0	1	11.11 %
Orchardgrass	8	7	1	0	0	1	12.50 %
Radish	1	1	0	0	0	0	0.00 %
Red Clover	6	5	0	0	1	1	16.67 %
Red Fescue	24	23	0	0	1	1	4.17 %
Redtop	6	6	0	0	0	0	0.00 %

Seed Kind Tested	Agricultural Seeds						
	Total	CL	SV	TV	MV	#VIOL	%VIOL
Riverbank Wild-Rye	1	0	1	0	0	1	100.00 %
Rye	21	17	4	0	0	4	19.05 %
Ryegrass, Annual	28	22	0	0	6	6	21.43 %
Ryegrass, Intermediate	2	2	0	0	0	0	0.00 %
Ryegrass, Perennial	53	37	7	0	9	16	30.19 %
Sorghum-Sudangrass Hybrid	1	1	0	0	0	0	0.00 %
Soybean	8	7	0	0	1	1	12.50 %
Soybean	2	2	0	0	0	0	0.00 %
Spelt	2	2	0	0	0	0	0.00 %
Switchgrass	1	1	0	0	0	0	0.00 %
Tall Fescue	40	33	1	2	4	7	17.50 %
Timothy	16	13	3	0	0	3	18.75 %
Triticale	3	3	0	0	0	0	0.00 %
Turnip	1	1	0	0	0	0	0.00 %
Wheat	40	37	3	0	0	3	7.50 %
White Clover	2	2	0	0	0	0	0.00 %
<b>Total</b>	<b>400</b>	<b>335</b>	<b>28</b>	<b>2</b>	<b>35</b>	<b>65</b>	<b>16.25 %</b>

Seed Kind Tested	Flower Seeds						
	Total	CL	SV	TV	MV	#VIOL	%VIOL
Achillea	2	1	1	0	0	1	50.00 %
Ageratum	1	1	0	0	0	0	0.00 %
Alyssum (regular)	8	5	3	0	0	3	37.50 %
Alyssum, golden-tuft	1	1	0	0	0	0	0.00 %
Amaranthus	1	1	0	0	0	0	0.00 %
Asters	5	4	1	0	0	1	20.00 %
Baby's Breath, Annual	1	1	0	0	0	0	0.00 %
Babys-Breath, perennial	1	0	1	0	0	1	100.00 %
Bachelor's Button	5	4	1	0	0	1	20.00 %
Bells Of Ireland	1	1	0	0	0	0	0.00 %
Black-Eyed Susan	2	2	0	0	0	0	0.00 %
Calceolaria	1	0	1	0	0	1	100.00 %
Calendula	1	1	0	0	0	0	0.00 %
California Poppy	5	5	0	0	0	0	0.00 %
Candytuft	1	1	0	0	0	0	0.00 %
Canterberry Bells	1	1	0	0	0	0	0.00 %
Carnation	2	2	0	0	0	0	0.00 %
Celosia	6	6	0	0	0	0	0.00 %
Chrysanthemum	1	1	0	0	0	0	0.00 %

Seed Kind Tested	Flower Seeds						
	Total	CL	SV	TV	MV	#VIOL	%VIOL
Cleome	3	2	1	0	0	1	33.33 %
Coleus	1	0	1	0	0	1	100.00 %
Columbine (long spur)	1	1	0	0	0	0	0.00 %
Convolvulus	2	2	0	0	0	0	0.00 %
Coreopsis	3	3	0	0	0	0	0.00 %
Cornflower	1	1	0	0	0	0	0.00 %
Cornflower, Dwarf	1	1	0	0	0	0	0.00 %
Cosmos	15	8	7	0	0	7	46.67 %
Daisy, Painted	1	1	0	0	0	0	0.00 %
Daisy, Shasta	2	1	1	0	0	1	50.00 %
Delphinium (Pacific Giants)	2	1	1	0	0	1	50.00 %
Dianthus	1	0	1	0	0	1	100.00 %
Forget-Me-Not	2	1	1	0	0	1	50.00 %
Forget-Me-Not,Chinese	2	2	0	0	0	0	0.00 %
Four O'clock	5	3	2	0	0	2	40.00 %
Foxglove	4	4	0	0	0	0	0.00 %
Gaillardia (Annual)	1	1	0	0	0	0	0.00 %
Gazania	1	1	0	0	0	0	0.00 %
Geranium	3	3	0	0	0	0	0.00 %
Gomphrena	1	1	0	0	0	0	0.00 %
Gypsophila	1	1	0	0	0	0	0.00 %
Helichrysum	2	2	0	0	0	0	0.00 %
Hesperis (Dames Rocket)	1	0	1	0	0	1	100.00 %
Hollyhock	1	1	0	0	0	0	0.00 %
Ice Plant (Mesembryanthemum)	1	1	0	0	0	0	0.00 %
Impatiens	6	5	1	0	0	1	16.67 %
Ipomoea	1	1	0	0	0	0	0.00 %
Ipomopsis (Scarlet Gilia)	1	0	1	0	0	1	100.00 %
Johnny Jump Up	1	1	0	0	0	0	0.00 %
Kale	1	1	0	0	0	0	0.00 %
Larkspur	3	1	2	0	0	2	66.67 %
Larkspur, Rocket (annual)	2	2	0	0	0	0	0.00 %
Lobelia	1	1	0	0	0	0	0.00 %
Lupine, Perennial	1	1	0	0	0	0	0.00 %
Lupine, Russell	1	1	0	0	0	0	0.00 %
Marigolds	24	18	6	0	0	6	25.00 %
Mexican Hat (Prarie Coneflower)	1	0	1	0	0	1	100.00 %
Mexican Sunflower	1	1	0	0	0	0	0.00 %
Moneyplant	1	0	1	0	0	1	100.00 %
Moonflower	1	1	0	0	0	0	0.00 %
Morning Glory	11	10	1	0	0	1	9.09 %

Seed Kind Tested	Flower Seeds						
	Total	CL	SV	TV	MV	#VIOL	%VIOL
Moss Rose	1	1	0	0	0	0	0.00 %
Nasturtium	9	9	0	0	0	0	0.00 %
Nigella	1	1	0	0	0	0	0.00 %
Pakchoi	1	1	0	0	0	0	0.00 %
Pansy, Common	6	6	0	0	0	0	0.00 %
Penny Black	1	1	0	0	0	0	0.00 %
Petunias	1	0	1	0	0	1	100.00 %
Phlox	1	0	1	0	0	1	100.00 %
Poppy	2	2	0	0	0	0	0.00 %
Poppy, Oriental	2	1	1	0	0	1	50.00 %
Poppy, Shirley	2	2	0	0	0	0	0.00 %
Portulaca	2	2	0	0	0	0	0.00 %
Queen Anne's Lace	1	1	0	0	0	0	0.00 %
Salvia	4	4	0	0	0	0	0.00 %
Snapdragon	6	5	1	0	0	1	16.67 %
Spanish Flag	1	0	1	0	0	1	100.00 %
Statice	1	1	0	0	0	0	0.00 %
Strawflower	1	1	0	0	0	0	0.00 %
Sunflower	12	11	1	0	0	1	8.33 %
Sweet Alyssum	1	1	0	0	0	0	0.00 %
Sweet William	6	4	2	0	0	2	33.33 %
Sweetpea, annual	12	10	2	0	0	2	16.67 %
Texas Bluebonnet	1	1	0	0	0	0	0.00 %
Vinca	2	2	0	0	0	0	0.00 %
Viola	2	2	0	0	0	0	0.00 %
Yarrow	1	1	0	0	0	0	0.00 %
Zinnia	46	35	11	0	0	11	23.91 %
<b>Total</b>	<b>287</b>	<b>229</b>	<b>58</b>	<b>0</b>	<b>0</b>	<b>58</b>	<b>20.21 %</b>

Seed Kind Tested	Tree Seeds						
	Total	CL	SV	TV	MV	#VIOL	%VIOL
Spruce	1	1	0	0	0	0	0.00 %
<b>Total</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.00 %</b>

Seed Kind Tested	Feed						
	Total	CL	SV	TV	MV	#VIOL	%VIOL
Feed	9	9	0	0	0	0	0.00 %

Seed Kind Tested	Pasture Mix						
	Total	CL	SV	TV	MV	#VIOL	%VIOL
Pasture Mix	11	8	2	0	1	3	27.27 %

Seed Kind Tested	Lawn Mix						
	Total	CL	SV	TV	MV	#VIOL	%VIOL
Lawn Mix	140	81	19	5	35	59	42.14 %

Table IV

Vegetable Seeds Wholesale Distributors			Vegetable Seeds			
			CL	SV	TV	MV
ABBOTT & COBB INC	TREVOSE	PA	39	3	0	0
BOTANICAL INTERESTS INC	BROOMFIELD	CO	1	0	0	0
D LANDRETH SEED CO	NEW FREEDOM	PA	29	20	0	0
FERRY MORSE SEED COMPANY	FULTON	KY	45	1	0	0
FRANCHI SEMENTI	WINCHESTER	MA	2	0	0	0
FRANKFERD FARMS FOOD INC	SAXONBURG	PA	1	1	0	0
LIVINGSTON SEED INC	COLUMBUS	OH	2	0	0	0
MICHELL CO, HENRY F	KING OF PRUSSIA	PA	38	2	0	0
P L ROHRER & BRO INC	SMOKETOWN	PA	67	1	0	0
PLANTATION PRODUCTS	NORTON	MA	4	0	0	0
SEEDS OF CHANGE	SANTE FE	NM	1	0	0	0
SEEDWAY LLC	HALL	NY	53	1	0	0
THE COOKS GARDEN	WARMINSTER	PA	1	0	0	0
THE PAGE SEED COMPANY	GREENE	NY	3	0	0	0
THOMPSON & MORGAN SEEDSMEN	LAWRENCEBURG	IN	2	0	1	0
W ATLEE BURPEE CO	WARMINSTER	PA	232	21	0	0
		<b>Total</b>	<b>520</b>	<b>50</b>	<b>1</b>	<b>0</b>

Agricultural Seeds Wholesale Distributors			Agricultural Seeds			
			CL	SV	TV	MV
AG SEED CLEANING INC	MYERSTOWN	PA	0	1	0	0
AGRICULVER SEEDS	TRUMANSBURG	NY	2	0	0	0
ALLIANCE SEEDS INC	FLEMINGTON	NJ	2	0	0	0
AMERICAN SEED CO INC	SPRING GROVE	PA	8	1	0	6
ANDRE & SON INC	MONTROSE	PA	6	1	0	1
ARKANSAS COUNTY SEED CO	ROLAND	AR	1	0	0	0
BARENBRUG USA	TANGENT	OR	2	1	0	0
BOYLE BROS INC	QUEEN ANNE	MD	3	0	0	0
CENTRAL FARM AND GARDEN	WOOSTER	OH	4	1	0	1
CHANNEL	HUXLEY	IA	0	2	0	0
CHEMGRO SEEDS	REEDSVILLE	PA	3	0	0	0
CHEMGRO SEEDS	EAST PETERSBURG	PA	8	0	0	1
CLYDE H KREIDER	LANCASTER	PA	1	0	0	0
DISCOUNT SEEDS INC	WATERTOWN	SD	2	0	0	0
EDDIE MERCER AGRI SERVICES INC	FREDERICK	MD	2	0	0	0
ERNST CONSERVATION SEED	MEADVILLE	PA	3	4	0	1
F M BROWNS SONS INC	SINKING SPRINGS	PA	7	0	0	0

Agricultural Seeds Wholesale Distributors			Agricultural Seeds			
			CL	SV	TV	MV
F S SEEDS	YORK	PA	1	0	0	0
FERRY MORSE SEED COMPANY	FULTON	KY	2	0	1	3
FISHER & SON COMPANY INC	EXTON	PA	1	0	0	0
GREENSBORO SUPPLY INC	GREENSBORO	MD	0	1	0	0
GRIES SEED FARMS INC	FREMONT	OH	1	0	0	0
GROMARK FS	BELLEFONTE	PA	1	0	0	0
GROMARK FS LLC	YORK	PA	5	0	0	0
GROWMARK FS LLC	YORK	PA	6	0	0	0
HADLEY SEED FARM	HADLEY	PA	5	2	0	0
HISTANDS SUPPLY	WYCOMBE	PA	1	1	0	0
JOHN DEERE LANDSCAPE/LESCO INC	CLEVELAND	OH	1	0	0	0
JOHN DEERE LANDSCAPES #443	PITTSBURGH	PA	0	0	1	0
KING'S AGRI SEEDS INC	RONKS	PA	6	1	0	0
LESCO C/O JOHN DEERE LANDSCAPES	CLEVELAND	OH	1	0	0	0
LOVELAND PRODUCTS INC	GREELEY	CO	5	1	0	0
MARSHALL PET PRODUCTS	WOLCOTT	NY	0	1	0	0
MID-ATLANTIC SEEDS INC	YORK	PA	4	0	0	0
MONSANTO CO	ST LOUIS	MO	1	0	0	0
NORTHAMPTON COUNTY SEED CO	NAZARETH	PA	6	0	0	1
PENN STATE SEED	DALLAS	PA	17	0	0	2
PENNINGTON SEED INC-MISSOURI DIV	GREENFIELD	MO	1	0	0	0
PIONEER HI-BRED INT'L INC	JOHNSTON	IA	8	0	0	0
SEEDWAY INC	YORK	PA	4	0	0	0
SEEDWAY LLC	HALL	NY	120	5	0	9
SOUTH TEXAS BOTANICALS	BEEVILLE	TX	1	0	0	0
SOUTHERN STATES COOP INC	RICHMOND	VA	9	2	0	0
SYNGENTA SEEDS INC	MINNEAPOLIS	MN	3	0	0	1
T A SEEDS LLC	AVIS	PA	1	0	0	0
THE SCOTTS COMPANY	MARYSVILLE	OH	2	0	0	0
TPC	NEW CITY	NY	0	1	0	0
W I MILLER & SONS	FARMDALE	OH	7	0	0	0
W-L RESEARCH	NAMPA	ID	3	0	0	0
WETSEL INC	KITTANNING	PA	47	2	0	8
WETSEL INC	HARRISONBURG	VA	6	0	0	1
WILKEN SEEDS GRAINS INC	PONTIAC	IL	1	0	0	0
WIMBERLY FARMS INC	PRINCESS ANNE	MD	1	0	0	0
		<b>Total</b>	<b>332</b>	<b>28</b>	<b>2</b>	<b>35</b>

Flower Seeds Wholesale Distributors			Flower Seeds			
			CL	SV	TV	MV
AUNT STELLAS GARDENS	EIGHTY FOUR	PA	1	0	0	0
BOTANICAL INTERESTS INC	BROOMFIELD	CO	1	0	0	0
D LANDRETH SEED CO	NEW FREEDOM	PA	22	23	0	0
FERRY MORSE SEED COMPANY	FULTON	KY	12	0	0	0
FRANCHI SEMENTI	WINCHESTER	MA	0	1	0	0
LAKE VALLEY SEED COMPANY INC	BOULDER	CO	6	0	0	0
LIVINGSTON SEED INC	COLUMBUS	OH	1	1	0	0
MICHELL CO, HENRY F	KING OF PRUSSIA	PA	20	0	0	0
P L ROHRER & BRO INC	SMOKETOWN	PA	23	0	0	0
PLANTATION PRODUCTS	NORTON	MA	4	2	0	0
SEEDWAY LLC	HALL	NY	21	0	0	0
W ATLEE BURPEE CO	WARMINSTER	PA	118	31	0	0
		<b>Total</b>	<b>229</b>	<b>58</b>	<b>0</b>	<b>0</b>

Tree Seeds Wholesale Distributors			Tree Seeds			
			CL	SV	TV	MV
BUZZY INC	TYRONE	GA	1	0	0	0
		<b>Total</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>

Feed Wholesale Distributors			Feed			
			CL	SV	TV	MV
CHATHAM RUN FEED MILL INC	LOCK HAVEN	PA	1	0	0	0
GRAINLAND INC	HEGINS	PA	1	0	0	0
H ROCKWELL & SON INC DBA ROCKWELL'S FEED FARM PET	WELLSBORO	PA	1	0	0	0
LEBANON SEABOARD CORP	LEBANON	PA	3	0	0	0
NEW PARK FEED & SEED CO	NEW PARK	PA	1	0	0	0
TRACTOR SUPPLY CO C/O SIMMONS PET FOOD	BRENTWOOD	TN	2	0	0	0
		<b>Total</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>

Pasture Mix Wholesale Distributors			Pasture Mix			
			CL	SV	TV	MV
CHEMGRO SEEDS	EAST PETERSBURG	PA	1	0	0	0
D&S HANSEN FARMS	HEMINGFORD	NE	0	1	0	0

Pasture Mix Wholesale Distributors			Pasture Mix			
			CL	SV	TV	MV
JMD COMPANY	BETHEL PARK	PA	0	1	0	1
KING'S AGRI SEEDS INC	RONKS	PA	5	0	0	0
SEEDWAY LLC	HALL	NY	2	0	0	0
		<b>Total</b>	<b>8</b>	<b>2</b>	<b>0</b>	<b>1</b>

Vegetable Mix Wholesale Distributors			Vegetable Mix			
			CL	SV	TV	MV
BOTANICAL INTERESTS INC	BROOMFIELD	CO	1	0	0	0
FERRY MORSE SEED COMPANY	FULTON	KY	1	0	0	0
HANDY PANTRY SPROUTING	SPRINGVILLE	UT	0	3	0	0
W ATLEE BURPEE CO	WARMINSTER	PA	11	2	0	0
		<b>Total</b>	<b>13</b>	<b>5</b>	<b>0</b>	<b>0</b>

Conservation Mix Wholesale Distributors			Conservation Mix			
			CL	SV	TV	MV
BARENBRUG USA	TANGENT	OR	1	0	0	0
ERNST CONSERVATION SEED	MEADVILLE	PA	1	0	0	1
RAGAN & MASSEY, INC.	PONCHATOULA	LA	0	1	0	0
WETSEL INC	KITTANNING	PA	1	0	0	2
WHITETAIL INSTITUTE OF NORTH AMERICA	PINTLALA	AL	1	0	0	0
WILDGAME INNOVATIONS	BROUSSARD	LA	1	0	0	0
		<b>Total</b>	<b>5</b>	<b>1</b>	<b>0</b>	<b>3</b>

Lawn Mix Wholesale Distributors			Lawn Mix			
			CL	SV	TV	MV
AGRIUM ADVANCED TECHNOLOGIES US INC	BUTLER	PA	1	0	0	0
ALLEGHENY LAWN & GOLF	CRANBERRY TWP	PA	1	0	0	1
AMTURF ENTERPRISES LLC	CROWN POINT	IN	0	1	3	3
BARENBRUG USA	TANGENT	OR	9	1	0	4
CENTRAL FARM AND GARDEN	WOOSTER	OH	1	0	0	0
CHEMGRO SEEDS	EAST PETERSBURG	PA	0	1	0	0
CONSERVATION RESOURCES LLC	PIPERSVILLE	PA	1	0	0	1
D LANDRETH SEED CO	NEW FREEDOM	PA	2	0	0	0
E H GRIFFITH INC	PITTSBURGH	PA	2	0	0	1
ENCAP LLC	GREEN BAY	WI	2	0	0	0

Lawn Mix Wholesale Distributors			Lawn Mix			
			CL	SV	TV	MV
FERRY MORSE SEED COMPANY	FULTON	KY	1	1	0	2
FISHER & SON COMPANY INC	EXTON	PA	5	0	0	2
HARRELL'S	YORK	PA	0	1	0	0
HARRELL'S LLC	LAKELAND	FL	1	0	0	0
HARRELLS LLC	BUTLER	PA	1	0	0	0
JOHN DEERE LANDSCAPES #443	PITTSBURGH	PA	2	1	0	0
JONATHAN GREEN, INC.	FARMINGDALE	NJ	3	0	0	2
LEBANON SEABOARD CORP	DENVER	PA	2	2	0	2
LESCO C/O JOHN DEERE LANDSCAPES	CLEVELAND	OH	10	1	0	1
LOVELAND PRODUCTS INC	GREELEY	CO	2	0	0	0
MID-ATLANTIC SEEDS INC	YORK	PA	0	0	0	1
MILLER'S COUNTRY STORE	CLARKS SUMMIT	PA	0	0	0	1
NATIONAL SEED	NEW BRUNSWICK	NJ	2	0	0	1
NORTHAMPTON COUNTY SEED CO	NAZARETH	PA	2	0	0	0
PENN STATE SEED	DALLAS	PA	3	0	0	4
PENNINGTON SEED INC	MADISON	GA	3	0	0	2
PENNINGTON SEED INC-MISSOURI DIV	GREENFIELD	MO	2	1	0	2
PENNINGTON SEED-OREGON DIV	LEBANON	OR	4	3	0	2
PLANTATION PRODUCTS	NORTON	MA	2	0	0	0
SEEDWAY LLC	HALL	NY	6	1	0	2
SOUTHERN STATES COOP INC	RICHMOND	VA	1	0	0	1
SOUTHERN STATES-WESTFIELD	WESTFIELD	MA	4	2	0	0
SYNATEK	SOUDERTON	PA	0	1	0	0
THE SCOTTS COMPANY	MARYSVILLE	OH	2	1	0	0
TRI STATE TURF SUPPLY	WARMINSTER	PA	0	1	1	0
WETSEL INC	KITTANNING	PA	1	0	1	0
WETSEL INC	HARRISONBURG	VA	1	0	0	0
WINFIELD SOLUTIONS LLC	YORK	PA	2	0	0	0
		<b>Total</b>	<b>81</b>	<b>19</b>	<b>5</b>	<b>35</b>

**SEED CERTIFICATION**  
**TABLE VI – SUMMARY OF FIELD INSPECTIONS FOR 2010**

<b>CROP</b>	<b>VARIETY</b>	<b>FOUNDATION</b>	<b>REGISTERED</b>	<b>CERTIFIED</b>	<b>Q/A</b>
*Crownvetch	Penngift	22	----	110	
Barley, Winter	Eve	----	6	27	
	Dan	----	5	36	100
	Pennco	----	----	75	
	SB151	----	----	----	118
Oats, Spring	Armor	----	19	308	
	Hercules	----	18	182	
	Jerry	----	----	150	
	Rodeo	----	----	84	
	Vista	----	----	48	
Potatoes	Chieftain	----	----	4	
	Eva	----	----	22	
	LaChipper	----	----	38	
	Reba	----	----	26	
	Red La Soda	----	----	140	
	Snowden	----	----	36	
	Red Maria	----	----	4	
Wheat, Winter					
	Branson	----	----	82	
	Bravo	----	----	110	
	Freedom	----	----	37	
	Hopewell	----	----	55	
	8302	----	----	----	143
	SS-8309	----	----	----	192
	SS-MPV-57	----	----	----	178
	SW20	----	----	----	251
	SW27	----	----	----	181
	SW50	----	----	----	476
	SW52	----	----	----	200
	SW55	----	----	----	388
	SW85	----	----	----	68
Rye, Winter	Aroostook	----	23	104	----
Triticale	Trical 336	----	----	95	----
<b>TOTAL ACRES</b>		22	71	1773	2295

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.

\* These established stands are not field inspected. Cleaned seed is officially sampled by an inspector.