

**Office of Indiana
State Chemist &
Seed Commissioner
Annual Seed
Regulatory Report**

2011

175 South University Street, Purdue University, West Lafayette, IN 47907-2063

Inspection &
Testing
Summary



2011 Indiana Seed Regulatory Program Annual Report



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INDIANA SEED CONTROL 2011 ANNUAL REPORT

Allow me to present this 2011 annual report of the Office of Indiana State Seed Commissioner. It represents a summary of official inspectional activities relating to seed control in Indiana, as well as laboratory analyses performed on official samples collected under the authority of the Indiana Seed Law for agricultural and vegetable seeds distributed in Indiana.



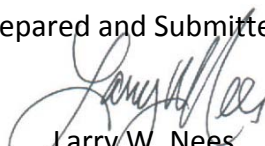
The activities of our seed regulatory program revolve around our mission statement:
“Provide education and service to consumers of seed and the seed industry and assure a quality product is available in the marketplace and truthfully represented.”

The Indiana Seed Law is a “truth-in-labeling” law requiring basic quality factors be expressed to represent a level of quality to potential purchasers and consumers. The purpose of the law is to provide the consumer with adequate information, through fair and consistent labeling, to make intelligent purchases of agricultural and vegetable seed products.

The inspection staff of the Indiana State Chemist and Seed Commissioner provides market place surveillance throughout the state through inspectional visits to all retail sales outlets offering seed products for sale. These products routinely consist of various agricultural crop seeds, forage seeds, lawn and turf seeds, and vegetable seed kinds. Samples are obtained through official sampling methods and are analyzed in the state seed laboratory to determine compliance with labeled guarantees.

Our office is a charter member of the Association of American Seed Control Officials (AASCO) and the Association of Official Seed Analysts (AOSA) and we abide by the rules and protocols established by those associations. This report accurately reflects the dedication to our statutory responsibilities to enforce the Indiana Seed Law and provide consumer protection to Indiana farmers and seedsmen.

Prepared and Submitted By:



Larry W. Nees
Seed Administrator



Office of
Indiana State Chemist & Seed Commissioner

OUR PRESENCE IN INDIANA ...

The Indiana Seed Commissioner was established in 1921 with the passage of House Bill No. 99 which was signed into law on February 24, 1921 to create the Indiana Seed Law, a “truth-in-labeling” law.



State Seed Laboratory, 1921

Seed testing facilities were established at Purdue University following passage of that first law to provide support to enforcement activities conducted under the authority of the law. Testing services were also provided for residents and consumers of the state to assess seed quality on seed purchased and grown by farmers.



State Seed Laboratory, Today

The Office of Indiana State Chemist and Seed Commissioner (OISC) is located on the campus of Purdue University and housed in the Biochemistry Building in the College of Agriculture. This proximity to faculty, researchers and extension staff in the various agricultural sciences is beneficial in providing information on new technologies constantly emerging in the regulated industries OISC comes in contact with.



*Biochemistry Building
175 S. University Street, Purdue University
West Lafayette, IN 47907*

THE INDIANA SEED INDUSTRY

Indiana Seed Permit* holders number 299

(Both in-state and out-of-state distributors)

(* distributors marketing seed under their private label)

SEED DISTRIBUTION IN INDIANA

Table 1 below illustrates a breakdown of reported pounds of agricultural and vegetable seeds distributed in Indiana on which inspection fees were paid during the calendar years of 2010 and 2011. These figures and categories reported represent those specified on the quarterly reports submitted from all permit holders licensed to do business in Indiana, as required by the Indiana Seed Law.

The law requires all distributors who cause seed to be distributed in the state to report total sales made. Inspection fees are assessed based on the kind and amount of seed sold. Current fees assessed on total distribution are 30 cents/100 pounds sold for alfalfas, clovers, grasses and vegetables, and 15 cents/100 pounds sold for all other seeds.

Table 1. Kind of Seed	2010 Distribution	2011 Distribution
Alfalfas	1,503,000 lbs	1,299,500 lbs
Clovers	556,200 lbs	671,100 lbs
Vegetables	741,700 lbs	673,100 lbs
Grasses	9,937,500 lbs	10,095,000 lbs
Corn	116,644,100 lbs	112,816,900 lbs
Soybeans	379,302,100 lbs	304,384,800 lbs
Wheat	41,342,800 lbs	32,746,100 lbs
Oats	2,632,600 lbs	2,400,700 lbs
Miscellaneous	19,610,000 lbs	16,206,000 lbs

PROFESSIONAL AFFILIATIONS ...

The Office of the Indiana Seed Commissioner maintains membership in national seed organizations and associations and agreements with federal agencies.

AASCO (Association of American Seed Control Officials) The Seed Commissioner's office participates as an active member of AASCO. The Association of American Seed Control Officials is an organization of seed regulatory officials from the United States and Canada. The Association was organized in 1949, from an outgrowth of regional meetings held in various parts of the United States. The members meet annually to discuss mutual concerns of seed law enforcement, to be updated on new developments in the seed industry, and to update the Recommended Uniform State Seed Law (RUSSEL) which the organization developed and maintains as a "model" law for states and federal programs.

AOSA (Association of Official Seed Analysts, Inc.) The State Seed Laboratory is a member of the Association of Official Seed Analysts, Inc., (AOSA) a national body responsible for development of uniform testing rules utilized in the U.S. and Canada and recognized internationally. AOSA was formed in 1908 in response to initial attempts by individual states to develop seed laws. This was the beginning of regulated seed commerce in the United States. Initial priorities included, as was defined in the constitution, an attempt to seek uniformity and accuracy in methods, results, and reports. It set as its objective an effort to perfect and make publicly known, through publication, uniform rules for seed testing. Primary functions include:

- Establish the AOSA Rules for Testing Seeds which are generally adopted by most states as the rules for testing seeds in their respective states
- Contribute to the refinement and modification of the rules and procedures for seed testing
- Ensure that testing procedures are standardized between analysts and between laboratories
- Influence and assist in enforcement of appropriate seed legislation at state and federal levels

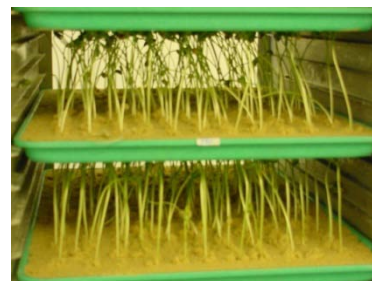
USDA Seed Regulatory & Testing Branch - The Indiana Seed Commissioner's Office maintains Cooperative Agreement #12-25-A-3330 with the USDA Seed Regulatory and Testing Branch for mutual assistance and cooperation in regulatory matters pertaining to seed shipped into the state from out-of-state vendors. The federal agency authorizes the State Seed Commissioner to sample seed and inspect records pertaining to seed shipments made into Indiana subject to the Federal Seed Act. The Federal Seed Act, by virtue of its basic similarity to the Indiana Seed Law, supplements the State Law.

ANALYSIS & TESTING ACTIVITIES

The Indiana State Seed Laboratory is an active member of the Association of Official Seed Analysts (AOSA) and the methods used for sample preparation and analysis are those approved by the Association. Under such “Rules for Testing Seeds” a standard



analysis has been developed in conjunction with the enforcement of labeling laws that furnishes information as to the composition of the seed sample and the ability of the seed to produce plants. The rules, which are routinely followed, summarize and make available the accumulated experience of seed analysts.



The laboratory also offers a service testing program available to the general public. Individuals and/or companies requesting analysis information may submit samples to the laboratory for testing and specify the type of test or tests desired (purity, germination, noxious weed seed exam). Testing fees are \$6 per sample for individual purity, germination and/or identification tests, and \$10 per sample for complete tests (purity, germination, noxious weed exam). Detailed reports of analysis are furnished to the sender at the completion of the testing.

2011 SAMPLE COLLECTION AND ANALYSIS

	<u>Total</u>	<u>Passed</u>	<u>% Passed</u>
Total Official Samples* Tested:	2,309	2,197	95.2%
Total Service Samples** Tested:	1,492		
(Includes Bird Seed Samples)	(53)		
Total Samples Tested in 2011:	3,801		

* Samples obtained by state inspectors for regulatory enforcement program

** Samples submitted by farmers/consumers for testing

GENETIC TRAIT TESTING MONITORING PROGRAM

Soybean and corn samples were again monitored in 2011 for trait purity of genetically modified (GM) traits and low level contamination of conventional lines and trait purity of GM lines. A combination of bioassay tests and immunoassay tests were utilized to screen seed lots for low-level contamination and bioassay tests were used to monitor trait purity levels of GM traits

<u>Crop Kind</u>	<u>Trait Tested</u>	<u>Type of Test</u>	<u># Tests</u>	<u># Testing Positive</u>
Soybeans	Roundup in “non-RR”	Immunoassay	21	4 (range: 0.39-0.72%)
Soybeans	Roundup (trait verified)	Bioassay	97	1 showing non-RR
Corn	Roundup in “non-RR”	Immunoassay	74	3 (range:1.5% -3.2%)
Corn	Liberty Link in “non-LL”	Immunoassay	74	0
Corn	Bt (Cry3Bb, 1Ab, Cry34,MCry3A, Cry1F)	Immunoassay	74	10 (range: 0.25% - 0.77%)
Corn	Roundup (trait verified)	Bioassay	59	2 showing non-RR

SEED COUNT MONITORING AND TESTING

Emphasis was again placed on “seed count” labeling claims for corn, soybeans and wheat seed marketed in Indiana during the 2011 season. Seed count tests were performed on random samples

Crop: SOYBEAN	98.00 % Pure Seed
Variety: S070157	0.01 % Crop Seed
Lot No.: LWI-MK864	1.98 % Inert
Tested: JANUARY 2009	0.01 % Weeds
Seed Per Pound: 2800	-0- Nox. Wd. Sds./Lb.
Grown In: INDIANA (907KG)	2000 Lbs. Net Wt.

collected during the course of routine sampling throughout the state. The testing protocol used was developed and adopted by the Association of Official Seed Analysts as a part of their “Rules for Testing Seeds”. Specific tolerances included in that official protocol were used to determine if statistical differences occurred between

label claims and test results. Current tolerances for seed count testing are 2% for corn, 3% for wheat, and 4% for soybeans. The following is a summary of test results during the 2011 season:

	<u>Crop: CORN</u>	<u>Crop: SOYBEANS</u>	<u>Crop: WHEAT</u>
# Companies Sampled:	19	13	6
# Samples Tested:	45	18	7
# Samples Out of Tolerance	1 (2%)	0 (0%)	0 (0%)

INSPECTION & ENFORCEMENT

Seed Inspectional Visits Made in 2011	805		
Individual Labelers Sampled in 2011	303		
Total Official Samples Collected in 2011	2,309		
Official Samples Passing All Claims	2,197	95.2%	
Samples Deficient	106	4.6%	
* Minor Violations Based on Product Analysis <i>(* requiring relabeling of products)</i>	53	2.3%	1,798,100 lbs
Serious Violations Based on Product Analysis	53	2.3%	459,100 lbs
Inspector-Issued Stop Sale Orders	30		13,100 lbs
Total Pounds of Seed Under Stop Sale Order			472,200 lbs
Retail Dealers Sampled in 2011	431		
Label Claims Verified By Analysis	10,265		
Crop Kinds Tested in 2011	86		



The following Table 2 represents a general summary of control work for all seed samples examined. The inspectional record for all companies sampled is shown including overall sample totals, the number of samples passing and the specific violations noted for each company. "Serious" violations (shown) involved enforcement action requiring either relabeling or removal from sale.

Table 2. 2011 Inspection of Agricultural and Vegetable Seeds in Indiana

	<u>Total Samples</u>	<u>Total Passed</u>
1 st Choice Seeds, Milton, IN	11	11
Ace Hardware, Mentone, IN	2	2
Ace Hardware, Martinsville, IN	6	6
Ace Hardware, New Albany, IN	2	1
Tall fescue, Lot#BA-10-9109, Insp.#:111872	Germination Claim: 85%	Found: 64%
Ace Hardware, Warsaw, IN	3	2
Spinach, Lot#:4820-10, Insp.#: 111301	Germination Claim: 80%	Found: 69%
Advanced Turf Solutions, Fishers, IN	1	1
Ag Alumni Seed Improvement, Romney, IN	5	5
Ag Venture Inc, Kentland, IN	37	37
AgriGold Hybrids, St. Francesville, IL	1	1
Albert Lea Seed House, Albert Lea, MN	1	1
Aldi Inc., Batavia, IL	4	4
All Seasons Do It Best Home Center, Winamac, IN	3	3
Americas Alfalfa, Madison, WI	7	7
Amturf Enterprises LLC, Crown Point, IN	2	2
Ault Seed & Supply, Mike, Laporte, IN	7	7
Aurora Farm & Garden, Aurora, IN	3	3
	<u>Total Samples</u>	<u>Total Passed</u>
Bailey Classic Hardware Inc, Rochester, IN	2	2
Baker Creek Heirloom Seed, Mansfield, MO	5	5
Baker Seed Company, West Salem, IL	4	3
Barenbrug USA, Tangent, OR	21	18
Mixture, Lot#: 53047, Insp. #: 112043,	Pure Seed Claim Brassica: 59.83%, Found: 40.99%	
Mixture, Pasture, Lot #: 53031, Insp. #: 112312,	Germination Claim B. Trefoil: 85%, Found: 55%	
Bear Branch Supply, Dillsboro, IN	1	1
Beck's Superior Hybrids Inc, Atlanta, IN	54	48
Soybeans, Lot #N11258M, Insp.#: 110764	Germination Claim: 90%	Found: 75%
Corn, Lot #9181P, Insp.#: 110220	Germination Claim: 95%	Found: 65%
Becky's Market, Lebanon, IN	5	5
Behm & Hagemann Inc, Peoria, IL	8	8
Bennett's Greenhouses, Inc., Lafayette, IN	4	3
Crownvetch, Lot#: K-2033, Insp.#: 112013	Germination Claim: 70%	Found: 54%
Bentley Seed Inc, Cambridge, NY	9	9
Bierma Hardware Inc, Wheatfield, IN	2	2
Big Lots, Columbus, OH	1	1
Big Sky Whse Seeds, Shelby, MT	1	1
Bio Gene Seeds, Sardinia, OH	2	2
Bio-Town Seed, Reynolds, IN	4	4

Table 2. 2011 Inspection of Agricultural and Vegetable Seeds in Indiana

	<u>Total Samples</u>	<u>Total Passed</u>
Bobby's Greenhouse, Depauw, IN	2	2
Botanical Interests Inc, Broomfield, CO	15	15
Bremer's Lawn & Garden, New Haven, IN	3	2
Radish, Lot#: 10516, Insp.#: 111468	Germination Claim: 85%	Found: 55%
Brodbeck Seed Inc, Wabash, IN	40	40
Brown's Garden Shop, Rensselaer, IN	2	2
Brownstown Hardware Co, Brownstown, IN	2	2
Bunton Seed Co, Louisville, KY	11	11
Burpee, W Atlee, Warminster, PA	63	62
Lettuce, Lot # 1, Insp. # 112017	Germination Claim: 80%	Found: 14%
Burriss Seed Service, Huntington, IN	4	3
Byron Seeds LLC, Marshall, IN	32	27
Rye, Lot # OM102, Insp. # 112213	Noxious Weeds Found Wild garlic	
Tall fescue, Lot#: BA-10-7092, Insp.#:112219	Germination Claim: 85%	Found: 65%
	<u>Total Samples</u>	<u>Total Passed</u>
Cal/West Seeds, Woodland, CA	2	2
Caudill Seed Co, Louisville, KY	20	18
Kentucky bluegrass, Lot # L50-9-KBG422, Insp. # 111831	Germination Claim: 80%	Found: 57%
Spelt, Lot#: 9L2148, Insp.#:112195	Germination Claim: 85%	Found:28%
Central Farm Supply, Louisville, KY	1	1
Central Farm and Garden, Wooster, OH	3	3
Champion Seed Co., Woodburn, IN	11	11
Channel Bio Corp., Huxley, IA	35	34
Soybeans, Lot#: XFBO70B, Insp.#: 110282	Germination Claim: 90%	Found: 82%
Chas C Hart Seed Co, The, Wethersfield, CT	3	3
CISCO Companies, The, Indianapolis, IN	76	66
Creeping red fescue, Lot # RYBO1183Insp.#:112310	Pure Seed Claim: 94.57%	Found: 89.48%
Clayton Garden Center, North Webster, IN	1	1
Commerce Corp, Warrensville Hts, OH	1	1
Cook's Garden, Warminster, PA	5	5
Corn Genetics Inc, Rensselaer, IN	3	3
Country Boy Seeds, Bristol, VA	1	1
Country Corner Greenhouse, Marshall, IN	2	2
Country Folks Greenhouse, Bainbridge, IN	3	2
Parsnip, Lot#: NA, Insp.#: 112027	Germination Standard: 60%	Found: 5%
Country Garden Greenhouse, New Paris, IN	4	4
Country Gardens, Holton, IN	4	1
Beans, Lima, Lot#:11505501, Insp.#: 111981	Germination Claim: 89%	Found: 35%
Tomato, Lot#: 734191, Insp.#: 111983	Germination Claim: 90%	Found: 79%
Cabbage, Lot#: 404272, Insp.#: 111984	Germination Claim: 75%	Found: 53%
Country Gardens, South Bend, IN	3	3
Cox's Plant Farm, Clayton, IN	7	6
Cowpea Lot # N/A, Insp. # 111705	Germination Claim: 75%	Found: 46.00%
Lettuce, Lot #: N/A, Insp.#: 111707	Germination Claim: 80%	Found: 59%
Creekside Bookstore & Fabrics, Shipshewana, IN	3	3

Table 2. 2011 Inspection of Agricultural and Vegetable Seeds in Indiana

	<u>Total Samples</u>	<u>Total Passed</u>
Crookham Company, Caldwell, ID	1	1
Crop Tech Seeds, Vincennes, IN	7	7
Crossman Seed Corp, East Rochester, NY	4	4
	<u>Total Samples</u>	<u>Total Passed</u>
D & M Feed Service, Greencastle, IN	4	4
D & R Fruit and Meat Mkt, Logansport, IN	1	1
Dairyland Seed Co Inc, West Bend, WI	8	8
Dammann's Lawn & Garden Ctr, Indianapolis, IN	7	6
P. Ryegrass, Lot#: M100-10-722, Insp.#:111597	Pure Seed T.Fescue Claim: 0%	Found:46.69%
	Pure Seed Ky Bluegrass Claim: 0%	Found: 5.22%
Davidson Greenhouse & Nursery, Crawfordsville, IN	2	2
Davis Nursery & Country Market, Madison, IN	2	2
Davis Seed Farms Inc, Greens Fork, IN	1	1
Daylight Farm Supply, Evansville, IN	1	0
T. Fescue, Lot#: T-38338, Insp.#: 112224	Pure Seed Claim: 98.00%	Found: 95.19%
De Groot Inc., Coloma, MI	1	1
Debord Landscape Service, Princeton, IN	2	2
Deer Creek Seed Co., Ashland, WI	11	10
Devers Market, Indianapolis, IN	4	3
Beet, Lot #:N/A, Insp. #: 111641	Germination Claim: 65%	Found: 16%
Direct Enterprises, Westfield, IN	17	16
Bean, Garden, Lot #: OG0505, Insp. #: 110841	Germination Claim: 87%	Found: 70%
Discount Seeds Inc., Watertown, SD	2	2
Dow AgroSciences LLC, Indianapolis, IN	12	12
Dyna Gro Seed, Greeley, CO	2	2
	<u>Total Samples</u>	<u>Total Passed</u>
E & R Seed, Monroe, IN	18	14
Pumpkin, Lot#: 33471, Insp.#: 111018	Germination Claim: 85%	Found: 35%
Cantaloupe, Lot #: 32063, Insp.#: 111020	Germination Claim: 85%	Found: 55%
Watermelon, Lot #:C-6142, Insp.#: 111021	Germination Claim: 85%	Found: 64%
Cantaloupe, Lot #: 32063, Insp.#: 111952	Germination Claim: 85%	Found: 22%
Ebberts Field Seeds Inc, Covington, OH	13	13
Edgewood Feed & Seed, Indianapolis, IN	2	2
Federal Hybrids Inc., West Bend, IA	8	8
Felke Florist, Plymouth, IN	3	3
Ferguson Do It Best Hardware, Avon, IN	2	2
Ferguson Lumber, Veedersburg, IN	2	2
Ferry-Morse Seed Co, Fulton, KY	79	78
Bean, Garden, Lot#: K-1, Insp. #: 111050	Germination Claim: 75%	Found: 47%
Fielder's Choice Direct, Monticello, IN	3	3
Fishers Do It Center Hardware, Fishers, IN	1	1
Flinn Farms, Bedford, IN	2	2
Fosters Seed & Feed, Alberta, Canada	1	1

Table 2. 2011 Inspection of Agricultural and Vegetable Seeds in Indiana

	<u>Total Samples</u>	<u>Total Passed</u>
French's Hybrids, Inc., Wakeman, OH	1	1
Frontiersmen Inc, Kentland, IN	12	12
	<u>Total Samples</u>	<u>Total Passed</u>
G & M Pet & Garden Center, Muncie, IN	3	3
G & M Ace Hardware, Rockville, IN	4	4
Garden Center, The, Indianapolis, IN	3	2
Bean, Garden, Lot#: N/A, Insp.#: 111144	Germination Claim: 75%	Found: 47%
Garst Seed Co, Slater, IA	2	2
Gatewood Vegetable Farms, Noblesville, IN	4	4
Georgetown Feed & Seed, Georgetown, IN	2	2
Gimborn Pet Specialties, Atlanta, GA	2	1
Wheat, Lot# DB-2, Insp.#: 112054	Germination Claim: 85%	Found: 0%
Glenn's Valley Feed, Indianapolis, IN	2	2
Glick, Lynn, Trevor & Brett, Columbus, IN	6	5
Soybeans, Lot#: 24, Insp.#: 111661	Pure Seed Claim: 99.00%	Found: 97.06%
	Germination Claim: 90%	Found: 78%
Glick, Marvin H., Hartsville, IN	2	2
Glick Seed Service, Hartsville, IN	4	4
Graham Feed Company, Terre Haute, IN	4	4
Great Lakes Hybrids, Ovid, MI	8	8
Greathouse Hardware, North Vernon, IN	3	3
Green Seed Co., Inc., Springfield, MO	1	1
Gries Seed Farms, Inc., Fremont, OH	1	1
Grow Direct Inc., Monticello, IN	2	2
Gurney's Seed & Nursery Co., Greendale, IN	2	2
	<u>Total Samples</u>	<u>Total Passed</u>
Habig Garden Shops, Indianapolis, IN	1	1
Handy Pantry Distributors, Springville, UT	3	2
Harrells LLC, Lakeland, FL	2	2
Harvestland Cooperative, Inc., Bryant, IN	1	1
Heidenreich Greenhouses, Indianapolis, IN	2	2
Heller Garden Shop, Decatur, IN	2	2
Henry Fields Seed & Nursery, Aurora, IN	1	1
Heritage Seeds, Reynolds, IN	29	28
Hi Way 3 Pro Hardware, Hartford City, IN	4	4
Hilltop Greenhouse, Canaan, IN	2	2
Hoham, Smith and Co Inc, Auburn, IN	4	4
Hoosier Pride Genetics, Frankfort, IN	2	1
Hort Couture Plants, Litchfield, MI	5	5
Houck Seed Company, Monroeville, OH	1	1
Hubner Seed Co Inc, West Lebanon, IN	19	18
Hummert Seed, St. Joseph, MI	2	2

Table 2. 2011 Inspection of Agricultural and Vegetable Seeds in Indiana

	<u>Total Samples</u>	<u>Total Passed</u>
Idea Village Products Corp, Wayne, NJ	1	1
Illinois Foundation Seeds, Champaign, IL	1	1
Indiana Seed Solutions, Elwood, IN	1	0
Infinity Lawn & Garden, Salem, OR	1	1
	<u>Total Samples</u>	<u>Total Passed</u>
Janet's Garden Center, Bluffton, IN	2	2
JGL Inc., Plymouth, IN	1	1
Johnson Farm Produce, Hobart, IN	1	1
Jonathan Green Inc., Farmingdale, NJ	2	1
Lawn mix, Lot # FG-10-B, Insp. # 110038		Pure Seed Claim T. Fescue: 35.47% Found: 30.29% Germination Claim T. Fescue: 90% Found: 77%
	<u>Total Samples</u>	<u>Total Passed</u>
Kaiser Hardware, R E, West Harrison, IN	3	3
Kammans Greenhouse & Farm Market, Vallonia, IN	2	2
Kentucky-American Seeds, Hopkinsville, KY	1	1
Kewanna Pro Hardware, Kewanna, IN	2	2
Kingma Produce & Greenhouse, Demotte, IN	2	2
Kingman Hardware, Kingman, IN	6	6
Kitchen Seed Co., Inc., Arthur, IL	2	2
Kleine Seed Service, Cedar Lake, IN	2	1
Soybeans, Lot#: 2, Insp.#: 111855		Germination Claim: 90% Found: 61%
Koontz Hardware, Bremen, IN	2	2
	<u>Total Samples</u>	<u>Total Passed</u>
L G Seeds, Elmwood, IL	23	23
Lake Valley Seed, Boulder, CO	23	23
Land O'Lakes Inc, Fort Dodge, IA	43	42
Langdon Brothers Seed, Hartford City, IN	2	2
Laughery Valley Ag Coop, Osgood, IN	3	3
Leroy's Food Mart, Lexington, IN	2	2
Lesco Inc, Cleveland, OH	9	9
Lewis Hybrids, Ursa, IL	6	6
Lewis Seed Co Inc, Louisville, KY	13	12
Pasture Mix, Lot#: 9138, Insp.#: 110643		Germination T. Fescue Claim: 85% Found: 64%
Livingston Seed Co, The, Columbus, OH	81	81
Lord Seed Farms, Walton, IN	4	4
Loveland Products, Greely, CO	53	53
	<u>Total Samples</u>	<u>Total Passed</u>
Macs Market, Plymouth, IN	2	2
Marion Hardware, Indianapolis, IN	1	1
Martin Hardware, Nappanee, IN	2	2
Martin Seed & Supply, Ron, Elkhart, IN	4	4
Martin Seeds Inc, Williamsport, IN	7	7
Martin's Pet & Garden Ctr, Elkhart, IN	2	2

Table 2. 2011 Inspection of Agricultural and Vegetable Seeds in Indiana

	<u>Total Samples</u>	<u>Total Passed</u>
Masters Choice, Inc., Anna, IL	7	7
Matthys Farm Market, South Bend, IN	2	2
McIntosh Greenhouse & Garden Center, Goshen, IN	1	1
McKillip Seeds Inc, Wabash, IN	2	1
Miles Seed Co, Owensboro, KY	3	3
Miller Seed Farms, Attica, OH	2	2
Miller's Hardware & Garden Ctr, Salem, IN	2	2
Mister Hardware, Georgetown, IN	2	2
Monsanto Co, St Louis, MO	79	78
Moore Seed Farm, Elsie, MI	1	1
Mossy Oak Bio-Logic, West Point, MS	1	1
Mountain View Seeds LTD, Salem, OR	1	1
Mussall's Lawn & Garden, Monticello, IN	6	4
Kale, Lot#: N/A, Insp.#: 111329	Germination Claim: 75%	Found: 31%
Sweetcorn, Lot #: N/A, Insp.#: 111331	Germination Claim: 75%	Found: 46%
MWS Seeds, Ashkum, IL	2	2
Mycogen Seeds, Indianapolis, IN	18	13
	<u>Total Samples</u>	<u>Total Passed</u>
Nadine's Garden House & Floral, Booneville, IN	3	3
National Seed Co., Lisle, IL	1	1
Natures Crossroads, Bloomington, IN	7	7
New Paris Pro Hardware, New Paris, IN	2	2
New Ross Grain, New Ross, IN	1	1
Nextgene, Greensburg, IN	2	2
Niccum Seeds, Rushville, IN	9	9
Nobbe Seeds, Greensburg, IN	2	2
Northern Star, Okemos, MI	2	2
Northgate True Value Hardware, Anderson, IN	3	3
Now Foods, Bloomington, IL	1	1
Nu Tech Seed LLC, Leland, IA	1	1
	<u>Total Samples</u>	<u>Total Passed</u>
Olds Garden Seeds, Madison, WI	29	25
Plowdown Mix, Lot #:GM20, Insp. # 110508	Germination Claim Rye: 85%	Found: 46%34%
Radish, Lot#: B, Insp.#: 111489	Germination Claim: 75%	Found: 39%
Carrot, Lot #: A, Insp.# 111029	Germination Claim: 55%	Found: 39%
Parsley, Lot#: E, Insp.# 112028	Germination Claim: 60%	Found: 35%
Ors Hansen Farms, Inc., Hemingford, NE	1	1
Osborn Seed Co, Culver, IN	4	4
	<u>Total Samples</u>	<u>Total Passed</u>
Page Seed Co, The, Greene, NY	8	8
Parke Seeds Inc, Marshall, IN	17	17
Partner's Brand Seed, Howe, IN	1	1
Paul's Nursery, Indianapolis, IN	3	3
Pavlick Brothers Outdoors, Williamsport, IN	1	1

Table 2. 2011 Inspection of Agricultural and Vegetable Seeds in Indiana

	<u>Total Samples</u>	<u>Total Passed</u>
Peachtree Playthings, Atlanta, GA	1	1
Pennington Seed Co, Lebanon, OR	1	1
Pennington Seed Co, Greenfield, MO	8	8
Performance Seed, St Cloud, MN	1	1
Pioneer Hi Bred Interntl Inc, Johnston, IA	138	138
Plantation Products, Norton, MA	50	45
Cauliflower, Lot # R1, Insp. # 110081	Germination Claim: 75%	Found: 53%
Mixture, Lot # R1, Insp. # 110318	Pure Seed Arugula Claim: 5%	Found: 0%
	Pure Seed Chicory Claim: 5%	Found: 0%
	Pure Seed Endive Claim: 10%	Found: 0%
	Pure Seed Spinach Claim: 10%	Found: 0%
	Pure Seed Swiss Chard Claim: 5%	Found: 0%
Carrot, Lot # R1, Insp. # 110663	Germination Claim: 55%	Found: 36%
Endive, Lot # R1, Insp. # 110664	Germination Claim: 70%	Found: 40%
Point Hardware, Floyds Knobs, IN	2	2
Powell Seeds, Converse, IN	10	7
Soybeans, Lot#: R-94-P-BA, Insp.#: 111288	Germination Claim: 90%	Found: 59%
Soybeans, Lot#: R-94-P-BB, Insp.#: 111289	Germination Claim: 90%	Found: 41%
Soybeans, Lot#: R-94-P-BC, Insp.#: 111290	Germination Claim: 90%	Found: 65%
Power Seeds Inc., Pefferlaw, Ontario	1	1
Prible Ag Products, Poneto, IN	1	1
Prince Corp, Marshfield, WI	4	4
Producers Choice, Jordan, MN	2	2
	<u>Total Samples</u>	<u>Total Passed</u>
Ragan & Massey Inc., Ponchatoula, LA	8	6
Red Rosa Farm, Spencer, IN	1	1
Remus Farms, Hobart, IN	2	2
Renee's Garden, Felton, CA	2	2
Richmond's Feed Service, Wakarusa, IN	3	3
Roachdale Hardware, Roachdale, IN	2	2
Rosemeyer's Plants, West Harrison, IN	3	3
Rucker's Greenhouses, Indianapolis, IN	2	2
Ruhe Seeds, Ed, Brazil, IN	6	6
Rupp Seeds Inc., Wauseon, OH	3	3
Rural King, Frankfort,	1	0
Lawn Grass Mix, Lot# 07096, Insp.#: 110435	Pure Seed Bluegrass Claim: 17.95%	Found: 12.71%
Rural King Supply Inc, Mattoon, IL	7	6
	<u>Total Samples</u>	<u>Total Passed</u>
Sapper's Market & Greenhouse, Hobart, IN	3	3
SAS Group, Inc., Tarrytown, NY	1	1
Satterfield Lawn & Garden, Depauw, IN	1	1
Schillinger Genetics, Inc., West Des Moines, IA	1	1
Schultz Turf & Forage Seed, Dieterich, IL	2	2
Schumitsch Seeds, Antigo, WI	1	1
Schwartz Farms, Cortland, OH	1	0

Table 2. 2011 Inspection of Agricultural and Vegetable Seeds in Indiana

	<u>Total Samples</u>	<u>Total Passed</u>
Scotts Ace Hardware, Scottsburg, IN	2	2
Scotts Company, The, Marysville, OH	4	4
Seed Consultants Inc, Washington Cthse, OH Soybeans, Lot # 1237, Insp. # 111443	7	6
	Germination Claim: 90%	Found: 74%
Seeds of Change, Santa Fe, NM	4	4
Select Seed Hybrids, Camden, IN	10	10
Shockney Seed Service Inc, Farmland, IN	3	3
Siemer Enterprises Inc, Teutopolis, IL	4	4
Silver Lane Hybrids Inc, Remington, IN	26	26
Smith Farm Store, Knox, IN	1	1
Smiths Farm Store, Plymouth, IN	3	3
Southern States Cooprtv, Richmond, VA	7	7
Specialty Hybrids Inc, West Lafayette, IN	24	24
Stewart Seeds Inc, Greensburg, IN	38	36
Steyer Seeds, Tiffin, OH	31	28
Stine Seed Company, Adel, IA Soybeans, Lot#: LWIMK036, Insp.#: 111186	38	36
	Germination Claim: 90%	Found: 76%
Stone Seed Farms Inc., Pleasant Plains, IL	2	2
Sullivan Hardware & Garden, Indianapolis, IN	1	1
Summer Kitchen Greenhouse, Seymour, IN	3	3
Sunstar Hybrids, Culver, IN	30	29
Superior Ag Resources, Huntingburg, IN	2	2
Superior Ag Resources, Boonville, IN	1	1
Syngenta Seeds Inc, Minneapolis, MN	29	28
Syngenta Seeds Inc, Berthoud, CO	1	0
	<u>Total Samples</u>	<u>Total Passed</u>
Tenbarga Seed Co, Haubstadt, IN	7	6
Tennessee Farmers Cooperative, Lavergne, TN	1	1
The Hill Company, Erlanger, KY	1	1
Thompson & Morgan Seedsmen Inc, Jackson, NJ	6	6
Thompson & Morgan Seedsmen, Inc., Lawrenceburg, IN	6	6
Timmons Feed & Farm Supply, Lebanon, IN	3	3
Town & Country Ace Hardware, Shipshewana, IN	2	2
Tri-Star Seed Company, Inc., Spring Hill, KS	7	7
Turf Merchants Inc., Tangent, OR	1	1
Turner Seed Co Inc of KY, Winchester, KY	2	2
Turner Seed Inc, Lavergne, TN	15	14
Turner Seed Inc., Antioch, TN	8	8
	<u>Total Samples</u>	<u>Total Passed</u>
UAP Distribution Inc, Greeley, CO	4	4
Unity Seeds, Kentland, IN	27	27
	<u>Total Samples</u>	<u>Total Passed</u>
Versailles Farm & Garden, Versailles, IN	2	2

Table 2. 2011 Inspection of Agricultural and Vegetable Seeds in Indiana

	<u>Total Samples</u>	<u>Total Passed</u>
Vision Ag Inc., Rensselaer, IN	1	1
	<u>Total Samples</u>	<u>Total Passed</u>
Wabash Valley Hybrids, Marshall, IN	1	1
Weaver Popcorn Co Inc, Van Buren, IN	3	3
Weeks Seed Co Inc, Greenville, NC	21	21
Wehmeyer Seed Company, Mascoutah, IL	1	1
Westville Farm Supply, Westville, IN	1	1
Wetsel Seed Co, The, Harrisonburg, VA	2	2
What-A-Rack Wildlife Products, Greensburg, IN	2	1
Mixture, Lot#: CHS-111, Insp.#: 111230	Germination Claim Chicory: 83%	Found: 63%
White River Cooprtv, Bloomington, IN	6	5
Lettuce, Lot#: 12282, Insp.#: 111031	Germination Claim: 85%	Found: 18%
Whitetail Acres Inc., Brookville, IN	3	3
Whitetail Inst of North America, Pintlala, AL	1	0
Winfield Solutions LLC, St. Paul, MN	88	85
Orchardgrass, Lot#: 8121012, Insp.#: 111031	Noxious Weeds Found: Canada thistle	
Wischmeier Nursery, Inc., Columbus, IN	6	6
Wolf River Valley Seeds, Whitelake, WI	4	4
Wyatt Seed Co Inc, Petersburg, IN	17	16
Wyckoff Hybrids Inc, Valparaiso, IN	16	16
Wylie House Seeds, Bloomington, IN	1	1
X-Seed, Clearlake, MN	10	9
	<u>Total Samples</u>	<u>Total Passed</u>
Yerks Seed Inc, Woodburn, IN	5	5
Yoders Do It Best Hardware, Shipshewana, IN	3	3

2011 SAMPLE SUMMARY

	<u>Total</u>	<u>Passed</u>	<u>% Passed</u>
Official Samples Tested:	2,309	2,197	95.2%
Service Samples Tested:	1,492		
Total Samples Tested:	3,801		
Total Seedsmen Sampled:	303		
Total Indiana Seed Permit Holders:	299		

ENFORCEMENT OF FEDERAL LAW

OISC/USDA Cooperative Agreement

Appendix A. News Releases Summarizing USDA Federal Seed Act Cases in 2011 Settled With the Assistance of the Indiana Seed Control Program

Seed Regulatory and Testing Services

The Seed Regulatory and Testing Branch enforces interstate commerce provisions of the Federal Seed Act and provides seed testing service under the Agricultural Marketing Act.

Federal Seed Act

- The Federal Seed Act regulates the interstate shipment of agricultural and vegetable seeds.
- The FSA requires that seed shipped in interstate commerce be labeled with information that allows seed buyers to make informed choices.
- Seed labeling information and advertisements pertaining to the seed must be truthful.
- The FSA helps promote uniformity among State laws and fair competition within the seed trade.

Complaints Under the Federal Seed Act

Complaints involving mislabeled seed are submitted to the Branch for investigation. Most complaints are submitted by State seed control officials through existing cooperative agreements. They may be submitted by anyone. Regulatory action is taken against the interstate shipper, when the violation is confirmed. State inspectors routinely inspect and sample seed shipments being marketed in their States.

Information on interstate shipments found to be mislabeled may be submitted to the Seed Regulatory and Testing Branch for action, such as:

- letter of warning for minor violations and technical violations
- monetary penalty for serious violations

USDA FEDERAL SEED ACT ENFORCEMENT

OISC submitted samples and supportive documentation collected on 4 cases of apparent violations of the Federal Seed Act to the USDA Seed Regulatory & Testing Branch during 2011. These cases represented shipments of seed made into Indiana by out-of-state shippers. Final settlement of cases was achieved during 2011 on seed lots with settlement fines totaling \$1,950 involving 1 interstate shipper.

Summary of Cases Involving Indiana Action

- AMS No. 254-11, Massachusetts Firm Pays \$1,950 to Settle Seed Case, Dec. 2, 2011

Massachusetts Firm Pays \$1,950 to Settle Seed Case

AMS No. 254-11

Nadine Wilkins (202)720-8998

Nadine.wilkins@ams.usda.gov

WASHINGTON, Dec. 2, 2011 – The U.S. Department of Agriculture’s (USDA) Agricultural Marketing Service (AMS) announced that Plantation Products Inc., a seed company operating out of Norton, Mass., has paid \$1,950 to settle alleged violations of the Federal Seed Act. The company settled the case in agreement with AMS officials. The company neither admitted nor denied the charges brought against them.

This settlement resolves four cases that involved multiple shipments—one shipment of onion to Utah and two shipments of lettuce to Indiana. The alleged violations, while not the same for all shipments, were as follows:

- false labeling as to germination rate; and
- false labeling as to kind.

AMS administers the Federal Seed Act with the assistance of state seed officials. The investigation was completed through the joint efforts of AMS and seed regulatory officials in Indiana and Utah. The Federal Seed Act is a truth-in-labeling law designed to protect farmers and consumers who buy seed.

OUR PEOPLE

INDIANA SEED REGULATORY PROGRAM STAFF

The success and effectiveness of our program is due to the dedication and support of our staff involved in laboratory testing and field inspection. The following individuals provide that support. Our laboratory program staff in chronological order of hire:



Minoo Faghihi, Laboratory Technician VI

Minoo was hired in February of 2005 as an analyst to specialize in seed purity testing in the laboratory and provides valuable assistance in leading our seed purity testing in the laboratory. She obtained her accreditation from AOSA as a Certified Seed Analyst in germination testing in April of 2012. In her present role as senior purity analyst, she focuses on seed purity testing, seed count testing and germination testing activities in the State Seed Laboratory.



Jodi Small, Laboratory Technician VI

Jodi was hired in March of 2005 as an analyst to specialize in germination testing for the laboratory. In her present role as senior germination analyst, her main focus is in viability testing of all species coming into the laboratory, conducting warm germination tests on both agricultural and vegetable crop kinds. Jodi obtained her accreditation from AOSA as a Certified Seed Analyst in germination testing in April of 2011. She is also involved in bioassay testing for varietal traits and tetrazolium testing.



Teresa Thompson, Seed Laboratory Assistant

Teresa began her Purdue career in 2004 working in the Department of Horticulture as a lab technician. She was hired by the Seed Laboratory in January 2011 as a secretary to the Seed Laboratory and Seed Administrator. In her role, she is responsible for data entry of all sample information that is submitted and for printing all analysis reports of samples tested in the laboratory. She assists with visitors who may stop or send in samples or phone in with questions. She also assists with germination testing and hiring student workers.



Ben Alkire – Laboratory Technician VI

Ben was hired in January of 2012 in the laboratory to specialize in seed purity testing. He holds BS and MS degrees in Horticulture. He has most recently worked as University Development Coordinator at Kabul University, Afghanistan, following work as Specialty Crops Research Associate at Purdue's Department of Horticulture and Landscape Architecture. He has an extensive knowledge of taxonomy and economic crops, horticultural and agronomic. He has received the Presidential Volunteer Service Award for his international volunteer service.

FIELD STAFF

Our inspectors serve as the field representative for our agency. As such, an inspector is charged with effectively communicating and enforcing laws, rules, and policies of the agency, inspecting facilities, reviewing records, collecting samples, collecting and documenting evidence, issuing regulatory orders, and completing necessary reports for the administrative and laboratory programs.

Brett Groves, Chief Inspector

Joyse Banister – Inspector, Southeast Sector

Joyse has been with the office since the Spring of 1995. She has a B.S. in Animal Sciences from Purdue University. Her district is the southeast part of Indiana, from Indianapolis to the Ohio River.

Vince Glose – Urban & Agricultural Products Inspector

Vince Glose is our small package inspector and covers the entire state. He visits mainly retail stores, takes small package samples of feed, seed and fertilizer products, check the labels, checks for registration and sends the samples to the lab for analysis. Vince graduated with a B.S. in Agriculture Economics with Distinction from Purdue University in 1969.



Ken Neuhoff – Inspector, Northwest Sector

Ken came to us from Pulaski Farm Bureau Co-op where he was a branch manager. Ken has a B. S. in Agriculture from Purdue. The area that Ken covers is the Northwest portion of the state.

Tom Smith – Inspector, West Central Sector

Tom started with this office in the summer of 1999. Tom received a B. S. in Agriculture Education at Purdue University and is a Certified Crop Advisor. Tom's area is the West Central part of the state.

Julie Stephens – Inspector, Southwest Sector

Julie covers the Southwest part of Indiana from Terre Haute to Evansville. Julie joined our staff in 1994. She has a B.S. degree in Animal Sciences from the University of Illinois. Before joining our staff, she was engaged in livestock and grain production on the family farm.

Charles Thomas – Inspector, Northeast Sector

Charles started out at Purdue in 1987 as a laboratory technician for the Animal Science Department. He joined OISC in 2000 as a chemist for the Pesticide Formulation Section and accepted his current role as inspector on July 1, 2005. He is a Purdue graduate with a M.S. in Animal Science. Charles covers the Northeast section of Indiana.

Bob Wakeman – Inspector, East Central Sector

Our inspector for the East-Central region of Indiana is Bob Wakeman. Bob started with the Office in January 2003. He is a Purdue graduate with a B.S. in Agriculture, Farm Business and Management.