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

2012

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

Inspection & Testing Summary



# 2012 Indiana Seed Regulatory Program Annual Report



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### **INDIANA SEED CONTROL 2012 ANNUAL REPORT**

Allow me to present this 2012 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 to 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:

Karry 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 275

(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 2011 and 2012. 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	2011 Distribution	2012 Distribution
Alfalfas	1,299,500 lbs	1,385,900 lbs
Clovers	671,100 lbs	954,400 lbs
Vegetables	673,100 lbs	737,500 lbs
Grasses	10,095,000 lbs	10,353,400 lbs
Corn	112,816,900 lbs	111,039,000 lbs
Soybeans	304,384,800 lbs	291,915,700 lbs
Wheat	32,746,100 lbs	48,204,100 lbs
Oats	2,400,700 lbs	3,893,300 lbs
Miscellaneous	16,206,000 lbs	18,781,100 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 (RUSSL) 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.

### 2012 SAMPLE COLLECTION AND ANALYSIS

	<u>Total</u>	<u>Passed</u>	% Passed
Total Official Samples* Tested:	2,261	2,174	96.2%
Total Service Samples** Tested:	1,893		
(Includes Bird Feed Samples)	(55)		
Total Samples Tested in 2012:	4,154		

<sup>\*</sup> Samples obtained by state inspectors for regulatory enforcement program

# **GENETIC TRAIT TESTING MONITORING PROGRAM**

Soybean varieties and corn hybrids were again monitored in 2012 to detect the possibility of low level contamination of conventional lines with genetically modified (GM) traits. Immunoassay tests were utilized to screen seed lots for low-level contamination of GM traits.

Crop Kind	Trait Tested	Type of Test	# Tests	# Testing Positive
Herbicide Resis	tance			
(Roundu	p Ready Corn	Immunoassay	36	12
Liberty L	ink Corn	Immunoassay	36	1
Roundur	Ready Soybeans)	Immunoassay	10	1
Bt Events				
(Cry 1Ab	, Cry3Bb, Cry1F, Cry34, MCry3A)	Immunoassay	36	11

<sup>\*\*</sup> Samples submitted by farmers/consumers for testing

### 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 2012 season. Seed count tests were performed on random samples

Pure Seed 99.00 Pct. Inert .95 Pct. Crop Seed .05 Pct. Weed Seed .00 Pct. Noxious Weed Seeds-NONE Germination 90.00 Pct. Tested 1/03 Origin IN Net Wt. 50 lbs. (22.68 kg.) Approx. 2992 seeds per lb. Approx. 149600 seeds per bag

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 2012 season:

	Crop: CORN	Crop: SOYBEANS	<b>Crop: WHEAT</b>
# Companies Sampled:	12	16	38
# Samples Tested:	14	26	57
# Samples Out of Tolerance	0 (0%)	1 (0.4%)	3 (0.5%)

# **INSPECTION & ENFORCEMENT**

Seed Inspectional Visits Made in 2012	585		
Individual Labelers Sampled in 2012	342		
Total Official Samples Collected in 2012	2,261		
Official Samples Passing All Claims	2,174	96.2%	
Samples Deficient	88	3.8%	1,084,700 lbs
* Minor Violations Based on Product Analysis	44	1.9%	913,000 lbs
(* requiring relabeling of products)			
Serious Violations Based on Product Analysis	44	1.9%	171,700 lbs
Inspector-Issued Stop Sale Orders	72		46,800 lbs
Total Pounds of Seed Under Stop Sale Order			218,500 lbs
Retail Dealers Sampled in 2012	456		
Label Claims Verified By Analysis	11,350		
Crop Kinds Tested in 2012	264		





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. 2012 Inspection of Agricultural and Vegetable Seeds in Indiana

-	Total Samples	<b>Total Passed</b>	
1 <sup>st</sup> Choice Seeds, Milton, IN	18	18	
5 Oaks Lawn & Garden, Batesville, IN	1	1	
Ace Hardware, New Albany, IN	3	2	
Lettuce, Lot# N/A, Insp.#:121502	Germination Claim: 80%	Found: 6%	
Ace Hardware, Warsaw, IN	2	2	
Adler's Feed Express, Kokomo, IN	2	2	
Advanta US Inc., Herford, TX	2	2	
Ag Alumni Seed Improvement, Romney, IN	4	4	
Ag Plus Turf Center, New Haven, IN	1	1	
Ag Venture Inc, Kentland, IN	57	56	
AgriGold Hybrids, St. Francesville, IL	3	3	
Akard True Value Hardware, Zionsville, IN	2	2	
Amturf Enterprises LLC, Crown Point, IN	4	3	
Lawn Mix, Lot #L152-09-1544-3, Insp.# 122238	Pure Seed/CR Fescue	Claim: 68.86%	Found: 64.9%
	Germination/CR Fescue	Claim: 85%	Found: 66%
Appleacres Inc., Bedford, IN	Germination/Poa Triv.	Claim: 85% 2	Found: 35%
••	2 1		
Armor Seed LLC, Waldenburg, AR		1 1	
Athens Seed Co., Watkinsville, GA 30677	1	_	
Ault Seed & Supply, Mike, Laporte, IN	12	12	
Aurora Farm & Garden, Aurora, IN	4	3	
Baker Creek Heirloom Seed, Mansfield, MO	9	9	
Baker Seed Company, West Salem, IL	4	4	
Barenbrug USA, Tangent, OR	28	28	
Batesville Farm & Tractor Supply, Batesville, IN	3	3	
Beck's Superior Hybrids Inc, Atlanta, IN	46	44	
Behm & Hagemann Inc, Peoria, IL	6	3	
Bluegrass, Ky, Lot #LFBL1211-41968, Insp.#121473	Pure Seed Claim: 9		
Mixture, Lot# L152-12-655, Insp.# 121857	Germination, S. Brome	Claim: 85%	Found: 11%
Bell Gardens & Greenhouses, Wolcottville, IN	2	2	
Bennett's Greenhouses, Inc., Lafayette, IN	5	5	
Bentley Seed Inc, Cambridge, NY	16	16	
Bertchs Hardware, Liberty, IN	3	3	
BFG Supply, Harrisonburg, VA	8	8	
Bierma Hardware Inc, Wheatfield, IN	1	1	
Bio Gene Seeds, Sardinia, OH	4	4	

Table 2. 2012 Inspection of Agricultural and Vegetable Seeds in Indiana

Table 2. 2012 hispection of Agricultural and Vege			Dassad
Die Terre Cood Dermolde IN	Total Samples	iotai	<u>Passed</u>
Bio-Town Seed, Reynolds, IN	7	d. Field Died	5
Rye, Lot #: 1219, Insp. #: 122136 Wheat, Lot # 1214BB, Insp. #: 122139	Noxious Weeds For Germination	ouna: Field Bind Claim: 90%	Found: 62%
Blooming Foods Market, Bloomington, IN	3	Claiiii. 5070	2
Bean, Garden, Lot #:28-B2, Insp.#: 121102	_	Claim: 85%	Found: 63%
Bonide Products, Inc., Oriskany, NY	6	Ciaiiii. 0570	6
Botanical Interests Inc, Broomfield, CO	19		19
Britton Elevator, Britton, MI	1		1
	49		
Brodbeck Seed Inc, Wabash, IN			49
Brownstown Hardware Co, Brownstown, IN	2		2
Buck Island Seed Company, Tunica, MS	1		1
Bullard Seed Co., Ashland, MO	1		1
Burch's Garden Center, Loogootee, IN	2		2
Burpee, W Atlee, Warminster, PA	55		55
Burtch Seed Company, Celina, OH	3		2
Wheat, Lot #: 6031121, Insp.#: 122097		Claim: 90%	Found: 44%
Buschkoetters Nursery, Jasper, IN	2		2
Byron Seeds LLC, Marshall, IN	24		22
Oats, Lot # O80ATB05, Insp. # 121418	Pure Seed Claim: 9	99.86% Found:	97.5%
Cal/West Seeds, Woodland, CA	1		1
Caudill Seed Co, Louisville, KY	11		9
Oats, Lot # 12831, Insp. # 121161	Noxious Weeds Fo		
Rye, Lot#: FGR1200, Insp.#:121960	Germination Clain	n: 85% Found:	
Caudill Seed Co., Morehead, KY	13		13
Central Farm Supply, Louisville, KY	2		2
Central Farm and Garden, Wooster, OH	1		1
Champion Seed Co., Woodburn, IN	6		6
Champion Seeds, Ellsworth, IA	3		3
Channel Bio LLC, St. Louis, MO	21		21
Channel Bio Corp., Huxley, IA	9		9
Chas C Hart Seed Co, The, Wethersfield, CT	3		3
CISCO Companies, The, Indianapolis, IN	82		72
Mixture, Lot # NCC-122901, Insp. #:121830 Pure Se	eed Crimson Clover (	Claim: 79.32%	Found: 57.31%
	eed Radish Claim: 19		Found: 42.45%
Clover, Alsike, Lot#: WGB11340, Insp.#: 122256	Noxious Weeds Fo		•
Clover, Red, Lot #: WGB08836, Insp.#: 122264	Pure Seed Claim: 9	99.65% Found:	
Clayton Garden Center, North Webster, IN	2		2
Clifty Garden Center, Madison, IN	2		2
Co Alliance LLP, Flora, IN	1		1
Colonial Classics Nursery, Newburgh, IN	1		0
Colonial Landscaping Garden Shop, Sullivan, IN	3		3
Commerce Corp, Grand Rapids, MI	3		3
Cook's Garden, Warminster, PA	7		7
Corn Genetics Inc, Rensselaer, IN	2		2

Table 2. 2012 Inspection of Agricultural and Vegetable Seeds in Indiana

rable 2. 2012 hispection of Agricultural and vege	lable Seeus III IIIulalla	<u></u>
	<b>Total Samples</b>	Total Passed
Country Corner Greenhouse, Marshall, IN	3	3
Country Folks Greenhouse, Bainbridge, IN	1	1
Country Garden Greenhouse, Westport, IN	2	2
Country Garden Greenhouse, New Paris, IN	3	1
Parsley, Lot #: N/A, Insp. #: 121668	Germination Claim: 60%	Found: 39%
Country Garden Landscape, South Bend, IN	1	1
Country Gardens, Holton, IN	2	2
Country Mart Cooprtv, Columbus, IN	1	1
Country Rodes Greehouses, Rochester, IN	2	2
Cover Crop Solutions LLC, Robesonia, PA	1	0
Mixture, Lot #: CCS-05105, Insp.#: 122155	Germination Oats Claim:	99.89% Found: 79%
Cox's Plant Farm, Clayton, IN	5	5
Creekside Bookstore & Fabrics, Shipshewana, IN	2	2
Crookham Company, Caldwell, ID	1	0
Crop Tech Seeds, Vincennes, IN	8	8
Crossman Seed Corp, East Rochester, NY	5	5
D & M Feed Service, Greencastle, IN	4	3
D & R Fruit and Meat Mkt, Logansport, IN	1	1
Dairyland Seed Co Inc, West Bend, WI	14	14
Dammann's Lawn & Garden Ctr, Indianapolis, IN	8	8
Davenport, LM, Gooding, ID	1	1
Davidson Greenhouse & Nursery, Crawfordsville, IN	J 2	2
Davis Nursery & Country Market, Madison, IN	2	2
Davis Nursery & Country Market, Jeffersonville, IN	2	2
Davis Seed Farms Inc, Greens Fork, IN	4	4
Deer Creek Seed Co., Ashland, WI	11	11
Devers Market, Indianapolis, IN	3	3
Direct Enterprises, Westfield, IN	17	16
Bean, Garden, Lot #: OG0152, Insp. #: 121076	Germination Claim: 92%	
Discount Seeds Inc., Watertown, SD	3	3
Dow AgroSciences LLC, Indianapolis, IN	12	12
Dow Agrosciences EEG, maidridpons, nv	12	12
E & R Seed, Monroe, IN	10	10
Ebberts Field Seeds Inc, Covington, OH	6	6
Edgewood Feed & Seed, Indianapolis, IN	2	2
Encap LLC, Green Bay, WI	1	1
	_	_
Family Roots Nursery, Dale, IN	2	2
Federal Hybrids Inc., West Bend, IA	3	3
Feed Store & Archery, Charlestown, IN	3	3
Felke Florist, Plymouth, IN	1	1
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Table 2. 2012 Inspection of Agricultural and Vegetable Seeds in Indiana

Table 2. 2012 inspection of Agricultural and Vege	<u>table Seeds in Indiana</u>	
	<b>Total Samples</b>	Total Passed
Ferry-Morse Seed Co, Fulton, KY	42	41
Lettuce, Lot#: F-1, Insp. #: 121085	Germination Claim: 80%	Found: 63%
Fielder's Choice Direct, Monticello, IN	1	1
Fishers Do It Center Hardware, Fishers, IN	1	1
French's Hybrids, Inc., Wakeman, OH	2	2
Frontiersmen Inc, Kentland, IN	8	8
G & M Pet & Garden Center, Muncie, IN	3	3
Garden Center, The, Indianapolis, IN	2	2
Garden Innovations, Cleveland, GA	1	1
Garden Park, The, Loogootee, IN	2	2
Gardens Alive Inc., Lawrenceburg, IN	3	3
Gatewood Vegetable Farms, Noblesville, IN	3	3
Gayland Ward Seed Co., Herford, TX	1	1
Ginger Valley, Granger, IN	1	1
Glenn's Valley Feed, Indianapolis, IN	2	2
Glick, Lynn, Trevor & Brett, Columbus, IN	5	5
Glick Farms, Hartsville, IN	1	1
Glick Seed Service, Hartsville, IN	3	3
Graham Feed Company, Terre Haute, IN	7	7
Granny's Market, North Judson, IN	2	2
Grazing Systems Supply, Greensburg, IN	2	1
Mixture, Lot #: PPM-123179, Insp.#: 121999	Pure Seed Festlolium Clair	
	Pure Seed Orchardgrass: 3	
Great Lakes Hybrids, Ovid, MI	5	5
Green Seed Co., Inc., Springfield, MO	1	1
Green Thumb Garden Center, Jasper, IN	2	2
Greenwell Hardware Co., Loogootee, IN	1	1
Greenwood and Co., Washington, IN	2	2
Gurney's Seed & Nursery Co., Greendale, IN	3	3
Haas Seed House, Albers, IL	1	1
Habig Garden Shops, Carmel, IN	2	2
Handy Pantry Distributors, Springville, UT	2	2
Hansen Farms, D & S, Hemingford, NE	1	1
Harrells LLC, Lakeland, FL	8	7
Lawn Mix, Lot#: L158-8-195, Insp.#: 121782	Germination CR Fescue Cl	
Heaven on Earth, Wabash, IN	2	2
Heidenreich Greenhouses, Indianapolis, IN	2	2
Heller Garden Shop, Decatur, IN	1	1
Henderson-Reed, Fort Wayne, IN	2	2
Henry Fields Seed & Nursery, Aurora, IN	3	3
Hi Way 3 Pro Hardware, Muncie, IN	1	1

Table 2. 2012 Inspection of Agricultural and Vegetable Seeds in Indiana

Table 2. 2012 inspection of Agricultural and Vege		
	Total Samples	<u>Total Passed</u>
High Mowing Organic Seeds, Wolcott, VT	3	3
Hilltop Greenhouse, Canaan, IN	2	1
Hoham, Smith and Co Inc, Auburn, IN	1	1
Hoppe Pro Hardware, North Judson, IN	1	1
Houck Seed Company, Monroeville, OH	1	0
Hubner Seed Co Inc, West Lebanon, IN	11	11
Hubner Industries, West Lebanon, IN	7	7
Hummert Seed, St. Joseph, MI	3	3
Hundley Seed Co., Champlain, VA	1	1
Huntington Nursery Inc., Huntington, IN	2	2
Infinity Fertilizers Inc., Milan, IL	4	4
Isch Seeds LLC, Bluffton, IN	1	1
J R Greathouse Sons, Inc., North Vernon, IN	2	2
Jansen's Fruit Market, Hobart, IN	1	1
Jenkins Greenhouse & Garden Center, Dale, IN	3	3
JGL Inc., Plymouth, IN	1	1
John Deere Landscapes, Alpharetta, GA	3	3
Johnson Farm Produce, Hobart, IN	2	2
Johnston Seed Co., Ashburn, GA	1	0
Jonathan Green Inc., Farmingdale, NJ	6	4
Lawn mix, Lot # FM-12-B, Insp. # 122219		Claim: 80% Found: 56%
Lawn Mix, Lot #:DS-11-B, Insp.#: 122244	Pure Seed T. fescueCla	
		escue: 80% Found: 30% escue: 80% Found: 41%
	Pure Seed P. Ryegrass	
	Germination Ky Bluegr	
Kaiser Hardware, R E, West Harrison, IN	4	4
Kammans Greenhouse & Farm Market, Vallonia, IN	2	2
Kingma Produce & Greenhouse, Demotte, IN	1	1
Kingsbury Elevator Inc., Kingsbury, IN	2	0
Rye, Lot #: 1-MN2012B, Insp.#: 122099	Noxious Weeds Found	: Quackgrass, Pennycress
Koontz Hardware, Bremen, IN	2	2
Kountry Greenhouse, Montgomery, IN	3	3
Kruse Farm Supply, Bristol, IN	2	2
LaCrosse Forage & Turf, Elwood, IN	19	19
LaCrosse Forage & Turf, LaCrosse, WI	37	35
Lake Station Ace Hardware, Lake Station, IN	1	1
Lake Valley Seed, Boulder, CO	17	17
Langdon Brothers Seed Co., Hartford City, IN	3	3
Laughery Valley Ag Coop, Osgood, IN	3	3

Table 2. 2012 Inspection of Agricultural and Vegetable Seeds in Indiana

Table 2. 2012 Inspection of Agricultural and Vege	table Seeds in Indiana	<u>l</u>
	<b>Total Samples</b>	<b>Total Passed</b>
Lehman Feed Mill, Inc., Berne, IN	1	1
Lesco Inc, Cleveland, OH	13	13
Lewis Hybrids, Ursa, IL	2	2
Lewis Seed Co Inc, Louisville, KY	8	5
Fescue, Tall, Lot #: M20M-11-1036 Insp.#: 121563	Germination Cla	
·	s Weeds Found: Wild garlic	
LG Seeds, Elmwood, IL	23	23
Livingston Seed Co, The, Columbus, OH	57	56
Lettuce, Lot #:RUNZ, Insp.#: 120101	Germination Claim: 80%	
Lord Seed Farms, Walton, IN	6	5
Loveland Products, Greely, CO  Lawn Mix, Lot #: COL-0-249, Insp.#: 121646	33 Germination CR Fescue C	32 laim: 85% Found:41%
Lawii Mix, Lot #. COL-0-249, IIISp.#. 121646	Germination Ky Bluegrass	
	Germination ky blacgras.	7 Cana. 3670
Macs Market, Plymouth, IN	1	1
Marien Hardware, Indianapolis, IN	2	2
Marions Greenhouse LLC, Deputy, IN	4	3
Markle Do It Best Hardware, Markle, IN	1	1
Martin Seed & Supply, Ron, Elkhart, IN	5	5
Martin Seeds Inc, Williamsport, IN	6	6
Martin's Pet & Garden Ctr, Elkhart, IN	3	3
Masters Choice, Inc., Anna, IL	2	2
May's Greenhouse, Bloomington, IN	1	1
McCoys Nursery, Charlestown, IN	2	2
McIntosh Greenhouse & Garden Center, Goshen, I		3
McKillip Seeds Inc, Wabash, IN	3	2
Mendenhall True Value Hardware, Richmond, IN	3	3
Meny's True Value Hardware, Jasper, IN	3	3
Merrilees Trustworthy Supply, Milan, IN	2	2
Miller Seed Farms, Attica, OH	1	<u>-</u> 1
Miller's Hardware & Garden Ctr, Salem, IN	4	4
Mister Hardware, Georgetown, IN	2	2
Mister Hardware, Hanover, IN	3	3
Monsanto Co, St Louis, MO	81	80
Moore Seed Farm, Elsie, MI	1	1
Mossy Oak Bio-Logic, West Point, MS	2	2
Mountain View Seeds LTD, Salem, OR	1	1
MSI-Pro Co., North Plains, OR	3	3
Mt. Vernon Flower Shop, Mt. Vernon, IN	2	2
Mt View Seeds, Salem, OR	2	1
Lawn Mix, Lot #:M6-12-WMSS-4, Insp.#:121665	Germination Chew.Fescu	=
Muller True Value Hardware, Ferdinand, IN	3	3
Mycogen Seeds, Indianapolis, IN	4	4

Table 2. 2012 Inspection of Agricultural and Vegetable Seeds in Indiana

Table 2. 2012 inspection of Agricultural and vege		=
	Total Samples	Total Passed
National Seed Co., Lisle, IL	2	2
Natures Crossroads, Bloomington, IN	8	8
New Ross Grain, New Ross, IN	1	1
New Washington Hardware, New Washington, IN	3	3
Nobbe Seeds, Greensburg, IN	3	3
Northend Greenhouse, Roann, IN	2	2
Northern Star, Okemos, MI	1	1
Northgate True Value Hardware, Anderson, IN	3	3
Now Foods, Bloomington, IL	1	1
Nu Tech Seed LLC, Leland, IA	1	1
Ohigro Inc., Waldo, OH	2	2
Olds Garden Seeds, Madison, WI	9	9
Osborn Seed Co, Culver, IN	8	7
Wheat, Lot#:620, Insp.#: 121903	Germination Claim: 90%	Found: 59%
Otwell Merchantile, Otwell, IN	1	1
Page Seed Co, The, Greene, NY	21	21
Parke Seeds Inc, Marshall, IN	28	28
Partner's Brand Seed, Howe, IN	10	10
Paul's Nursery, Indianapolis, IN	2	2
Pennington Seed Co, Lebanon, OR	1	1
Pennington Seed Co, Greenfield, MO	7	5
Lawn Mix, Lot #: 03SIGDSN13G, Insp.#: 121784	Germination fine fescue of	
Lawn Mix, Lot #: MB12WFK005, Insp.#:122225	Germination Ryegrass Cla	
Performance Seed, St Cloud, MN	5	5
Phillip's Produce, Indianapolis, IN	1	1
Pioneer Hi Bred Interntl Inc, Johnston, IA	125	125
Plantation Products, Norton, MA	43	41
Point Hardware, Floyds Knobs, IN	3	3
Posey County Farm Bureau Coop, Mt. Vernon, IN	2	2
Powell Seeds, Converse, IN	8	8
Prairie's Edge Inc., Rensselaer, IN	2	1
Mixture, Lot#:PCC111608, Insp.#: 121802	Germination Chicory Clair	m: 85% Found: 56%
Preferred Commerce Inc., West Palm Beach, FL	1	1
Pro Green Garden Center, Crawfordsville, IN	2	1
Garden Bean, Lot#:N/A, Insp.#: 121753	Germination Claim: 75%	_
Producers Choice, Jordan, MN	3	2
Proharvest Seeds, Ashkum, IL	2	2
Red Rosa Farm, Spencer, IN	3	2
Lettuce, Lot #: N/A, Insp. #: 122101	Germination Claim: 80%	
Reed's Do It Best Hardware, Bluffton, IN	1	1
Remus Farms, Hobart, IN	2	2

Table 2. 2012 Inspection of Agricultural and Vegetable Seeds in Indiana

Table 2. 2012 hispection of Agricultural and vege		<u> </u>
	Total Samples	Total Passed
Renee's Garden, Felton, CA	9	8
Richmond's Feed Service, Wakarusa, IN	2	2
Roachdale Hardware, Roachdale, IN	2	2
Robin's Nest, Boonville, IN	1	0
Lettuce, Lot #:12371, Insp.#: 121586	Germination Claim: 90%	Found: 30%
Rochester Outdoor Outfitters, Rochester, IN	3	3
Rozzi's Greenhouse, Logansport, IN	1	1
Rucker's Greenhouses, Indianapolis, IN	1	1
Rupp Seeds Inc., Wauseon, OH	3	2
Lettuce, Lot #: 12293, Insp.#: 121587	Germination Claim: 85%	Found: 38%
Rural King Supply, Evansville, IN	1	1
Rural King Supply, Monticello, IN	1	0
Rural King Supply Inc, Mattoon, IL	9	7
Tall fescue, Lot#: 11-25, Insp.#: 121587	Germination Claim:85%	Found: 55%
Company's Manufact & Company's area Halbant IN	4	1
Sapper's Market & Greenhouse, Hobart, IN	1	1
Schillinger Genetics, Inc., West Des Moines, IA	3	3
Schultz Turf & Forage Seed, Dieterich, IL	1	1
Scotts Ace Hardware, Scottsburg, IN	3	3
Scotts Company, The, Marysville, OH	9	8
Lawn Mix, Lot#: 93378, Insp.#: 120925	Germination T. fescue Claim:85% Found:75%	
Cood Consultants Inc. Washington Cthes. Oll	Germination Ky Bluegrass	
Seed Consultants Inc, Washington Cthse, OH	5	5
Seeds of Change, Santa Fe, NM	9	9
Seedway LLC, Hall, NY	16	15
Garden Bean, Lot #: 038-01-0005, Insp.#: 121385	Germination Claim: 75%	
Select Seed Hybrids, Camden, IN	11	11
Sexauer Discount Farm Service, Brookings, SD	1	1
Seymour Ace Hardware, Seymour, IN	1	1
Sharp Bros Seed Co., Healy, KS	1	1
Shockney Seed Service Inc, Farmland, IN	1	1
Siemer Enterprises Inc, Teutopolis, IL	6	4
Skiles Orchard & Farm Market, Rossville, IN	2	2
Slater Farms, Terre Haute, IN	2	2
South Side Gardens, Wabash, IN	2	2
Southern States Cooprtv, Richmond, VA	5	4
Specialty Hybrids Inc, West Lafayette, IN	18	18
Spring Gardens Greenhouse, Montgomery, IN	2	2
Springfield Seeds, Springfield, KY	1	1
Sproutman's Organic Sprouting Seeds, Summertow	/n, TN 1	1
Stewart Seeds Inc, Greensburg, IN	27	27
Steyer Seeds, Tiffin, OH	36	36
Stine Seed Company, Adel, IA	38	37

Table 2. 2012 Inspection of Agricultural and Vegetable Seeds in Indiana

Table 2. 2012 inspection of Agricultural and Vege		=
	Total Samples	Total Passed
Stoll's Greenhouse, Montgomery, IN	2	1
Spinach, Lot #:N/A, Insp. #: 121822	Germination Claim: 40%	Found: 17%
Stone Seed Farms Inc., Pleasant Plains, IL	1	1
Stop-N-Grow Feed & Seed, Mishawaka, IN	1	1
Sturgeon's County Garden, Washington, IN	2	2
Sun Rise Farms, Rushville, IN	4	4
Sunstar Hybrids, Culver, IN	28	28
Superior Ag Resources, Evansville, IN	1	1
Superior Ag Resources, Boonville, IN	1	0
CR Fescue, Lot #:MF11-013, Insp. #: 121590	Germination Claim: 85%	Found: 62%
Superior Seed Inc., Rushville, IN	2	2
Syngenta Seeds Inc, Minneapolis, MN	29	29
Syngenta Seeds Inc, Berthoud, CO	3	3
Sympetica Seeds may be throad, 65	J	J
Teghtmeyer Ace Hardware, Columbia City, IN	2	2
Tenbarge Seed Co, Haubstadt, IN	9	7
Tennessee Farmers Cooperative, Lavergne, TN	3	3
Tennessee Farmers Cooperative, Jackson, TN	2	2
Thompson & Morgan Seedsmen Inc, Jackson, NJ	6	6
Thompson & Morgan Seedsmen, Inc., Lawrencebu		12
Thompson Seed Farm, Delphos, OH	1	1
Town & Country Ace Hardware, Shipshewana, IN	2	2
Tri-Star Seed Company, Inc., Spring Hill, KS	6	5
True Value Hardware, Wabash, IN	2	2
TruPointe Cooperative Inc., Piqua, OH	1	1
Turner Seed Co Inc of KY, Winchester, KY	1	1
Turner Seed Inc, Lavergne, TN	15	14
Turner Seed Inc., Antioch, TN	3	3
Unity Seeds LLC, West Lafayette, IN	28	28
Versailles Farm & Garden, Versailles, IN	2	2
Village Pro Hardware, Dillsboro, IN	3	3
WL Research, Nampa, ID	1	1
W I Miller & Sons, Farmdale, OH	1	1
Wabash General Store, Wabash, IN	2	2
Wagler's Greenhouse, Odon, IN	3	2
Endive, Lot #: N/A, Insp.#: 121825	Germination Claim: 70%	Found: 0%
Walters Seed Company, Holland, MI	1	1
Warren's Turf Group, Anderson, IN	3	2
Lawn Mix, Lot#: ALM-123235, Insp. #: 122084	Prohibited Noxious Weed	
Weaver Popcorn Co Inc, Van Buren, IN	6	5
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Table 2. 2012 Inspection of Agricultural and Vegetable Seeds in Indiana

	<b>Total Samples</b>	<b>Total Passed</b>
Weber Greenhouse, Sunman, IN	4	3
Spinach, Lot #: R3215, Insp.#: 121319	Germination Claim: 90%	Found: 73%
Weber Seeds LTD, Marshall, MO	2	2
Weeks Seed Co Inc, Greenville, NC	20	20
Wellman Seeds Inc., Delphos, OH	1	1
White River Cooprtv, Mitchell, IN	2	2
White River Cooprtv, Bloomington, IN	5	5
Whitetail Acres Inc., Brookville, IN	4	4
Winamac Lumber Yard, Winamac, IN	1	1
Winfield Solutions LLC, St. Paul, MN	63	63
Wischmeier Nursery, Inc., Columbus, IN	2	2
Wolf River Valley Seeds, Whitelake, WI	2	2
Wyatt Seed Co Inc, Petersburg, IN	15	13
Wyckoff Hybrids Inc, Valparaiso, IN	17	17
X-Seed, Clearlake, MN	17	17
Yerks Seed Inc, Woodburn, IN	5	5
Yoders Do It Best Hardware, Shipshewana, IN	2	2

2012 SAMPLE SUMMARY				
	<u>Total</u>	<u>Passed</u>	% Passed	
Official Samples Tested:	2,261	2,174	96.2%	
Service Samples Tested:	1,893			
Total Samples Tested:	4,154			
Total Seedsmen Sampled:	342			
Total Indiana Seed Permit Holders:	275			

# ENFORCEMENT OF FEDERAL LAW OISC/USDA Cooperative Agreement

Appendix A. News Releases Summarizing USDA Federal Seed Act Cases in 2012 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 13 cases of apparent violations of the Federal Seed Act to the USDA Seed Regulatory & Testing Branch during 2012. These cases represented shipments of seed made into Indiana by out-of-state shippers. Final settlement was achieved during 2012 on one seed lot with settlement fines totaling \$2,600 involving 1 interstate shipper.

# **Summary of Cases Involving Indiana Action**

AMS No. 067-12, Idaho Firm Pays \$2600 to Settle Seed Case, Mar 1, 2012



United States Department of Agriculture Agricultural Marketing Service Livestock and Seed Program Seed Regulatory and Testing Division 801 Summit Crossing Place, Suite C Gastonia, NC 28054-2193 704-810-8871, FAX 704-852-4109 http://www.ams.usda.gov/Seed

MAR 0 8 2012

In reply refer to: FSA 10-0031 et al.

The Honorable Robert D. Waltz
Office of Indiana State Chemist and Seed Commissioner
Purdue University
175 South University Street
West Lafayette, Indiana 47907-2063

Dear Commissioner Waltz:

A Federal Seed Act (FSA) case against Allied Seed L.L.C. of Nampa, Idaho has been settled. Enclosed is the Program Announcement about the \$2,600 settlement.

Closing this case represents another successful FSA action resulting from official seed inspections accomplished by Mr. Larry Nees and members of his staff. We commend them for the professional manner and expert investigative techniques used in detecting the apparent violations. Successful accomplishment of the FSA's primary objective, to enforce compliance and foster fair competition within the seed trade, depends on the cooperative participation of State seed officials.

We trust that this action is effective in supporting your seed inspection program for the benefit of Indiana seed dealers and growers.

Sincerely,

Susan R. Maxon Acting Director

Enclosure

cc:

L. Nees

bcc:

L. Nees (IN Lab. No. 092500)

Lusan R. Maxon

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MAR 1 2 2012

INDIANA STATE CHEMIST

# **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, Seed Analyst



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 and her purity accreditation in February of 2013.. 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, Seed Analyst

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 2012. She is also involved in bioassay testing for varietal traits and tetrazolium testing.



# Teresa Thompson, Laboratory Technician VII

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 2012 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 supervising 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.



# Jessica Gray – Laboratory Technician VI

Jessica was hired in August of 2012 in the laboratory as a Seed Analyst/Feed Microscopist. She holds a BS in Interdisciplinary Biology with a minor in Forensic Science. Her role in the laboratory is to assist in both purity and germination testing and provide microscopic analysis on animal feed and bird feed products.

# **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**

# Trish Waller Dunn - Inspector, Southeast Sector

Trish started with OISC December of 2006 as an analytical chemist with the feed/fertilizer group. She accepted her current role as inspector in November of 2010. She has a B.S. in Animal Sciences from Purdue University. Trish covers the southeast region 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.