

Seed Germination and Purity Analysis

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Seed samples including 250 vegetable seeds, six lawn seeds, and five crop seeds were officially collected by inspectors from the Bureau of Regulation and Inspection of the Connecticut Department of Agriculture and delivered to the Connecticut Agricultural Experiment Station for testing in 2016. As the official seed testing laboratory, The Connecticut Agricultural Experiment Station performed germination and purity analyses of the seed samples for compliance with the Connecticut Seed Law Regulations and the Federal Seed Act. Germination standards were set by the Federal Seed Act or label claims.

The results of germination tests for 250 vegetable seed samples (Table 1) showed that 211 samples (84.4%) passed the test with the germination rates that equaled or exceeded label claims, 18 samples (7.2%) passed the test within allowable tolerance, and 21 samples (8.4%) did not meet their label claims for germination. Among 12 seed companies, one company had all vegetable seed samples pass germination tests, but the other 11 companies had one or more seed samples that did not meet claims of germination (Table 2). Seed samples that did not meet label claims of germination were distributed in 14 of 43 species of vegetables tested (Table 3). Seed samples were examined for prohibited noxious weed seeds and no vegetable samples contained noxious weed contaminants.

A total of six lawn grass seed mixture samples were tested for purity and germination. Since lawn seed samples were labeled with several varieties within a species or a genus, purity and germination results were analyzed as the sum of individuals in a genus. The label claim was met as long as this sum equals or exceeds the sum of the individual components for a genus listed on the label. The results (Table 4) showed that one of the six lawn seed samples met label claims for both purity and germination. The other five lawn seed samples tested contained at least one component which failed to meet the purity or/and germination claims. The three lawn grass seed mixtures that were failed purity tests were due to lower amount of perennial rye, tall fescue, and rough bluegrass, respectively (Table 4). Among three seed components that failed germination tests, two are Kentucky bluegrass, and the other one was creeping red fescue (Table 4). None of the lawn grass seed samples contained seeds of noxious weeds.

Five crop seed samples were tested for purity and germination. The results showed that all five samples met the label claims (Table 5). In the germination tests, three samples passed the standards, two met the label claims within tolerance, and one sample failed the germination test (Table 5). No noxious weeds were identified in the crop seed samples.

Pamela Sletten and Lindsay Patrick performed the seed testing by following the Association of Official Seed Analysts (AOSA) rules. Dr. Yonghao Li completed the analyses and reports. Wayne S. Nelson, Seed Control Official, collected the samples. The Seed Law is administered by the Seed Control Official for the Commissioner of the Department of Agriculture.

Table 1. Results of germination of vegetable seed samples with comparisons to the standards that are provided by the rules and regulations of the Federal Seed Act

Plant	Cultivar	Seed Company	Germination (%)	
			Standard	Found ^z
Bean	Blue Lake Bush	The Chas. C. Hart Seed Co.	70	35*
Bean	Kentucky White Wonder	The Chas. C. Hart Seed Co.	70	90
Bean	Henderson Lima	The Chas. C. Hart Seed Co.	70	80
Bean	Cherokee Wax	N.E. Seed	70	88
Bean	Pole Blue Lake	N.E. Seed	70	61+69H**
Bean	Fagiolo Nano	N.E. Seed La Semiorto Sementi	70	82
Bean	Blue Lake 274	Ferry-Morse	70	81+1H
Bean	Golden Butterwax	Agway	70	94
Bean	Burpee's Stringless Green Pod	Burpee	70	89+1H
Bean Lima	Fordhook 242	N.E. Seed	70	67**
Beet	Detroit Dark Red	The Chas. C. Hart Seed Co.	65	88
Beet	Early Wonder	The Chas. C. Hart Seed Co.	65	98
Beet	Detroit Dark Red	N.E. Seed	65	94
Beet	Cylindra	N.E. Seed	65	86
Beet	Egitto Migliarata	N.E. Seed La Semiorto Sementi	65	87
Beet	Detroit Dark Red	Livingston Seed	65	83
Beet	Detroit Dark Red	Ferry-Morse	65	87
Beet	Detroit Dark Red	American Seed	65	84
Beet	Ruby Queen	NK Lawn & Garden	65	83
Beet	Chioggia Guardsman	Agway	65	86
Beet	Early Wonder	Burpee	65	94
Broccoli	Calabrese Green Sprouting	The Chas. C. Hart Seed Co.	75	93
Broccoli	Waltham 29	N.E. Seed	75	93
Broccoli	Raab Early Pugliest	N.E. Seed	75	91
Broccoli	Di Cicco	Botanical Interests Inc.	75	83
Broccoli	Green Sprouting Calabrese	Livingston Seed	75	98
Broccoli	Waltham 29	NK Lawn & Garden	75	97
Broccoli	Calabrese Green	The Page Seed Co	75	85
Broccoli	Broccoli Blend	Agway	75	96
Broccoli	Early Green	Seeds of Change	75	94
Broccoli	DiCiccio	Burpee	75	85
Broccoli Raab	Spring Raab	The Chas. C. Hart Seed Co.	75	87
Broccoli Raab	Rapini	Botanical Interests Inc.	75	94
Brussels Sprouts	Long Island improved	The Chas. C. Hart Seed Co.	70	90
Brussels Sprouts	Long Island Improved	N.E. Seed	70	93
Brussels Sprouts	Long Island Improved	Livingston Seed	70	94
Brussels Sprouts	Catskill	Agway	70	90
Cabbage	Danish Ballhead	The Chas. C. Hart Seed Co.	75	88
Cabbage	Red Acre	The Chas. C. Hart Seed Co.	75	98

Cabbage	Danish Ball Head	N.E. Seed	75	33*
Cabbage	Chieftain	N.E. Seed	75	92
Cabbage	DiNapoli Precoce	N.E. Seed La Semiorto Sementi	75	85
Cabbage	Premium Flat Dutch Late	Livingston Seed	75	95
Cabbage	Early Golden Acre	American Seed	75	49*
Cabbage	Early Golden Acre	NK Lawn & Garden	75	95
Cabbage	Stonehead	Agway	75	93
Cabbage	Earliana	Burpee	75	93
Cabbage Chinese	Bok Choi	The Chas. C. Hart Seed Co.	75	97
Cabbage Chinese	Michihili	The Chas. C. Hart Seed Co.	75	98
Cabbage Chinese	Bok Choi	Agway	75	92
Carrot	Danvers	The Chas. C. Hart Seed Co.	55	83
Carrot	Danvers Half Long	N.E. Seed	55	85
Carrot	Little Finger	Botanical Interests Inc.	55	75
Carrot	Danvers Half Long	Livingston Seed	55	79
Carrot	Long Imperator #58	Ferry-Morse	55	47
Carrot	Chantenay	American Seed	55	71
Carrot	Scarlet Nantes	NK Lawn & Garden	55	59
Carrot	Nantes Coreless	The Page Seed Co	55	83
Carrot	Yellowstone	Agway	55	79
Carrot	Scarlet Nantes	Burpee	55	56
Cauliflower	Early Snowball	The Chas. C. Hart Seed Co.	75	90
Cauliflower	Early Snowball	N.E. Seed	75	87
Cauliflower	Romanesco Precoce	N.E. Seed La Semiorto Sementi	75	87
Cauliflower	Snowball	NK Lawn & Garden	75	84
Celery	Tall Utah	N.E. Seed	55	68
Celery	Utah	Botanical Interests Inc.	55	57
Chicory	Catalogna	N.E. Seed	65	89
Collards	Vates	The Chas. C. Hart Seed Co.	80	81
Collards	Georgia	N.E. Seed	80	92
Collards	Vates	NK Lawn & Garden	80	80
Collards	Vates	Agway	80	83
Collards	Georgia	Burpee	80	90
Corn Sweet	Silver Queen	The Chas. C. Hart Seed Co.	75	92
Corn Sweet	Sugar & Gold	The Chas. C. Hart Seed Co.	75	97
Corn Sweet	Butter & Sugar	The Chas. C. Hart Seed Co.	75	95
Corn Sweet	Kandy Korn	N.E. Seed	75	91
Corn Sweet	Butter & Sugar	N.E. Seed	75	95
Corn Sweet	Butter & Sugar	Agway	75	98
Corn Sweet	Bodacious	Agway	75	88
Corn Sweet	Golden Cross Bantam	Burpee	75	91
Cornsalad	Big Seeded	Botanical Interests Inc.	70	92
Cowpea	California Blackeye	NK Lawn & Garden	75	82

Cucumber	Early Spring Purple	The Chas. C. Hart Seed Co.	80	91
Cucumber	Boston Pickling	The Chas. C. Hart Seed Co.	80	77
Cucumber	Straight 8	The Chas. C. Hart Seed Co.	80	93
Cucumber	Boston Pickling	N.E. Seed	80	86
Cucumber	Marketmore 76	N.E. Seed	80	91
Cucumber	Chinese Slangen	N.E. Seed La Semiorto Sementi	80	92
Dill	Bouquet	The Chas. C. Hart Seed Co.	60	80
Dill	Bouquet	N.E. Seed	60	73
Dill	Bouquet	Botanical Interests Inc.	60	76
Dill	Mammoth	Livingston Seed	60	72
Dill	Bouquet	NK Lawn & Garden	60	69
Dill	Mammoth Long Island	The Page Seed Co	60	70
Dill	Dukat	Agway	60	82
Dill	Eneldo	Seeds of Change	60	58**
Eggplant	Black Beauty	The Chas. C. Hart Seed Co.	60	60
Eggplant	Rosa Bianca	The Chas. C. Hart Seed Co.	60	9*
Eggplant	Black Beauty	N.E. Seed	60	64
Eggplant	Violetta Lunga 2	N.E. Seed La Semiorto Sementi	60	65
Eggplant	Black Beauty	NK Lawn & Garden	60	66
Endive	Green Curled	The Chas. C. Hart Seed Co.	70	84
Endive	Batavian Full Heart	N.E. Seed	70	79
Endive	Green Curled	NK Lawn & Garden	70	69
Fennel	Capo Rizzuto	N.E. Seed La Semiorto Sementi	55	85
Kale	DWF Siberian	The Chas. C. Hart Seed Co.	75	47*
Kale	Vatos	N.E. Seed	75	96
Kale	Dwarf Blue Curled	Botanical Interests Inc.	75	94
Kale	Blue Scotch Curled	Livingston Seed	75	92
Kale	Blue Scotch	Agway	75	90
Kale	Dinosaur	Seeds of Change	75	81
Kohlrabi	White Vienna	N.E. Seed	75	74
Kohlrabi	Early White Vienna	Livingston Seed	75	77
Kohlrabi	Early White Vienna	NK Lawn & Garden	75	80
Kohlrabi	White Vienna	Agway	75	89
Leek	American Flag	The Chas. C. Hart Seed Co.	60	84
Leek	American Broad Flag	N.E. Seed	60	29*
Leek	King Richard	Botanical Interests Inc.	60	70
Leek	American Flag	Livingston Seed	60	75
Leek	Large American Flag	NK Lawn & Garden	60	85
Lettuce	Simpson Black Seeded	The Chas. C. Hart Seed Co.	80	99
Lettuce	Romaine	The Chas. C. Hart Seed Co.	80	95
Lettuce	Great Lakes	N.E. Seed	80	84
Lettuce	Big Boston	N.E. Seed	80	92
Lettuce	Red sails	N.E. Seed	80	96

Lettuce	Red Velvet	Botanical Interests Inc.	80	96
Lettuce	Parris Island Cos	Botanical Interests Inc.	80	56*
Lettuce	Freckles	Botanical Interests Inc.	80	94
Lettuce	Simpson Elite	Livingston Seed	80	88
Lettuce	Black Seeded Simpson	Ferry-Morse	80	81
Lettuce	Grand Rapids	American Seed	80	96
Lettuce	Iceberg	NK Lawn & Garden	80	96
Lettuce	Black Seeded Simpson	The Page Seed Co	80	96
Lettuce	Parris Island Cos	The Page Seed Co	80	95
Lettuce	Black Seeded Simpson	Agway	80	97
Lettuce	Prizehead	Agway	80	99
Lettuce	Redina	Seeds of Change	80	95
Lettuce	Green Towers	Seeds of Change	80	91
Lettuce	Black Seeded Simpson	Burpee	80	89
Lettuce	Burpee Bibb	Burpee	80	94
Muskmelon	Delicious 51	The Chas. C. Hart Seed Co.	75	76
Muskmelon	Hale's best Jumbo	N.E. Seed	85*	98
Muskmelon	Delicious 51	N.E. Seed	80*	78**
Mustard	Southern Giant Curled	The Chas. C. Hart Seed Co.	75	93
Mustard	Florida Broad Leaf	N.E. Seed	75	77
Mustard	Mizuna	Botanical Interests Inc.	75	80
Mustard	Red Giant	Seeds of Change	75	77
Okra	Long Green	The Chas. C. Hart Seed Co.	50	60
Okra	Clemson Spineless	N.E. Seed	50	47**
Onion	Evergreen Bunching	The Chas. C. Hart Seed Co.	70	49*
Onion	Yellow Spanish	The Chas. C. Hart Seed Co.	70	75
Onion	Sweet Spanish	N.E. Seed	70	79
Onion	White Bunching	N.E. Seed	70	74
Onion	White Hlson	Botanical Interests Inc.	70	69**
Onion	Evergreen Bunching	Livingston Seed	70	70
Onion	White Lisbon Bunching	Ferry-Morse	70	64**
Onion	Sweet Spanish	Agway	70	72
Onion	Evergreen Long White	Burpee	70	93
Parsley	Moss Curled	The Chas. C. Hart Seed Co.	60	82
Parsley	Flat Leaf Italian	The Chas. C. Hart Seed Co.	60	79
Parsley	Italian Plain Flat Leaf	N.E. Seed	60	65
Parsley	Italian Dark Green Flat	Botanical Interests Inc.	60	88
Parsley	Triple Curled	Livingston Seed	60	84
Parsley	Single Italian Flat	Ferry-Morse	60	72
Parsley	Dark Green Italian	The Page Seed Co	60	82
Parsley	Forest Green	Agway	60	84
Parsley	Italian Flat Leaf	Seeds of Change	60	60
Parsley	Single Italian Plain-Leafed	Burpee	60	59**

Parsnip	Hollow Crown	The Chas. C. Hart Seed Co.	60	64
Parsnip	All American	N.E. Seed	60	35*
Parsnip	Hollow Crown	Livingston Seed	60	31*
Parsnip	All American	Agway	60	35*
Parsnip	Hollow Crown	Burpee	60	52
Pea	Tall Telephone	The Chas. C. Hart Seed Co.	80	70*
Pea	Oregon Sugar Pod II	The Chas. C. Hart Seed Co.	80	92
Pea	Laxton's Progress	N.E. Seed	80	87
Pea	Sugar Daddy	N.E. Seed	80	96+1H
Pea	Little Marvel	Agway	80	89+2H
Pea	Wando	Agway	80	91+2H
Pea	Sugar Snap	Burpee	80	82
Pepper	California Wonder	The Chas. C. Hart Seed Co.	55	33*
Pepper	Cubanelle	The Chas. C. Hart Seed Co.	55	51**
Pepper	Habenero	The Chas. C. Hart Seed Co.	55	41*
Pepper	CA Wonder	N.E. Seed	55	71
Pepper	Early Jalapeno	N.E. Seed	55	80
Pepper	Early Jalapeno	Botanical Interests Inc.	55	63
Pepper	Sweet Banana	Agway	55	80
Pumpkin	Big Max	The Chas. C. Hart Seed Co.	75	33*
Pumpkin	Jack O'Lantern	The Chas. C. Hart Seed Co.	75	96
Pumpkin	Small Sugar	The Chas. C. Hart Seed Co.	75	96
Pumpkin	Connecticut Field	The Chas. C. Hart Seed Co.	75	98
Pumpkin	Dills Atlantic Giant	N.E. Seed	80	66*
Pumpkin	Early Scream	N.E. Seed	90	96
Pumpkin	Moonscape Hyb.	N.E. Seed	90	98
Pumpkin	First Prize	N.E. Seed	90	33*
Radish	Watermelon	N.E. Seed	75	76
Radish	Cherry Belle	Botanical Interests Inc.	75	87
Radish	French Breakfast	Livingston Seed	75	85
Radish	Champion	Ferry-Morse	75	96
Radish	Crimson Giant	American Seed	75	96
Radish	Champion	The Page Seed Co	75	94
Radish	Chinese White Winter	Agway	75	98
Radish	Cherry	Seeds of Change	75	95
Radish	Cherry Belle	Burpee	75	95
Rutabaga	American Purple Top	The Chas. C. Hart Seed Co.	75	93
Rutabaga	improved Purple Top	N.E. Seed	75	93
Sage	Broad Leaf	N.E. Seed	60	91
Sage	Broad Leaf	NK Lawn & Garden	60	82
Spinach	7-Green	N.E. Seed	60	79
Spinach	Bloomsdale	Botanical Interests Inc.	60	89
Spinach	Bloomsdale Long Standing	Livingston Seed	60	82

Spinach	Bloomsdale Long Standing	Ferry-Morse	60	87
Spinach	Bloomsdale Long Standing	The Page Seed Co	60	85
Spinach	Firebird F1	Seeds of Change	60	64
Spinach	Bloomsdale Long Standing	Burpee	60	93
Squash	Dark Green Zucchini	The Chas. C. Hart Seed Co.	75	52*
Squash	Yellow Straightneck	The Chas. C. Hart Seed Co.	75	100
Squash	Waltham Butternut	The Chas. C. Hart Seed Co.	75	73**
Squash	Blue Hubbard	The Chas. C. Hart Seed Co.	75	95
Squash	Crookneck	The Chas. C. Hart Seed Co.	75	92
Squash	Table Queen Acorn	The Chas. C. Hart Seed Co.	75	53*
Squash	Spaghetti	N.E. Seed	90*	98
Squash	Kabocha	N.E. Seed	92*	100
Squash	Early Prolific Straightneck	N.E. Seed	75	96
Squash	Blue Hubbard	N.E. Seed	90*	94
Squash	Black Beauty Zucchini	N.E. Seed	75	89
Squash	Burgess Buttercup	N.E. Seed	75	92
Squash	Early Prolific Straightneck	Agway	75	97
Squash	Black Beauty Zucchini	Agway	75	89
Swiss Chard	Giant lucullus	N.E. Seed	65	97
Swiss Chard	Ruby Red	Botanical Interests Inc.	65	79
Swiss Chard	Fordhook Giant	Livingston Seed	65	96
Swiss Chard	Fordhook Giant	Agway	65	99
Tomato	Large Red Cherry	The Chas. C. Hart Seed Co.	75	72**
Tomato	Marglobe	The Chas. C. Hart Seed Co.	75	90
Tomato	Brandy Wine	The Chas. C. Hart Seed Co.	75	77
Tomato	Mortgage Lifter	N.E. Seed	75	35*
Tomato	Cherokee Purple	N.E. Seed	85	82**
Tomato	Better Boy	N.E. Seed	80	73**
Tomato	San Marzano 2	N.E. Seed La Semiorto Sementi	75	81
Tomato	Roma	Burpee	75	87
Tomato Husk	Verde	N.E. Seed	50	84
Turnip	Purple Top White Globe	N.E. Seed	80	96
Turnip	Purple Top White Globe	Botanical Interests Inc.	80	76**
Turnip	Purple Top White Globe	Livingston Seed	80	92
Turnip	Seven Top	The Page Seed Co	80	97
Turnip	Purple Top White Globe	Agway	80	89
Turnip	Purple Top White Globe	Burpee	80	89
Watermelon	Jubilee	N.E. Seed	80	63*
Watermelon	Sugar Babe	N.E. Seed	90	95

²: H: Hard seeds; *: did not meet label claim and standard; **: did not meet standard, but passed test within acceptable tolerance

Table 2. Results of percentages of vegetable seed samples that met label claims of germination by companies

Company	Number of Samples	Meeting Claims (%)
Agway	26	96.2
American Seed	5	80.0
Botanical Interests Inc.	19	85.2
Burpee	18	89.9
Ferry-Morse	8	83.3
Livingston Seed	17	94.1
N.E. Seed	62	79.0
N.E. Seed La Semiorto Sementi	8	100.0
NK Lawn & Garden	14	92.9
Seeds of Change	9	89.9
The Chas. C. Hart Seed Co.	56	75.0
The Page Seed Co	9	89.9

Table 3. Results of average seed germination by vegetables with comparison to standard seed germination rates provided for by the rules and regulations of the Federal Seed Act and percent seed samples that met label claims in each crop

Plant	Number of Samples	Germination (%)		Meeting Claims (%)
		Standard	Average Found	
Bean	9	70	77.8	88.9
Bean Lima	1	70	67.0	100
Beet	11	65	88.2	100
Broccoli	10	75	91.5	100
Broccoli Raab	2	75	90.5	100
Brussels Sprouts	4	70	91.8	100
Cabbage	10	75	82.1	80.0
Cabbage Chinese	3	75	95.7	100
Carrot	10	55	71.7	100
Cauliflower	4	75	87.0	100
Celery	2	55	62.5	100
Chicory	1	65	89.0	100
Collards	5	80	85.2	100
Corn Sweet	8	75	93.4	100
Cornsalad	1	70	92.0	100
Cowpea	1	75	82.0	100
Cucumber	6	80	88.3	100
Dill	8	60	72.5	100
Eggplant	5	60	52.8	80.0
Endive	3	70	77.3	100
Fennel	1	55	85.0	100
Kale	6	75	83.3	83.3
Kohlrabi	4	75	80.0	100
Leek	5	60	68.8	80.0
Lettuce	20	80	91.4	95.0
Muskmelon	3	75	84.0	100
Mustard	4	75	81.8	100
Okra	2	50	63.5	100
Onion	9	70	71.7	88.9
Parsley	10	60	75.5	100
Parsnip	5	60	43.4	25.5
Pea	7	80	86.7	85.7
Pepper	7	55	59.9	71.4
Pumpkin	8	75	77.0	62.5
Radish	9	75	91.3	100
Rutabaga	2	75	93.0	100
Sage	2	60	86.5	100
Spinach	7	60	82.7	100
Squash	14	75	87.1	85.7
Swiss Chard	4	65	92.8	100
Tomato	8	75	74.6	87.5
Tomato Husk	1	50	84.0	100
Turnip	6	80	89.8	100
Watermelon	2	80	79.0	50.0

Table 4. Results of germination and purity of lawn seed samples with comparisons to label claims

Seed Mixture	Purity				Germination (%)	
	Claim	Found	Variance	Tolerance ^z	Claim	Found ^z
<i>Southern New England Pasture Mix</i>						
Power Tetraploid Perennial Ryegrass	39.58	28.70	-10.88	5.44*	90	97
Cimax Timothy	39.91	49.93	10.02	4.19	85	99
Orchardgrass	9.65	10.75	1.10	1.83	85	91
Medium Red Clover	3.95				90	89+6H**
Ladino Clover	5.98				90	89+6H**
total clover	9.93	10.11	0.18	1.88		
<i>Holdridge Custom Lawn Seed mixture</i>						
Kentucky Bluegrass	13.35	15.58	2.23	1.87	80	72**
Fiesta 4 Perennial Ryegrass	14.74				90	90
Express II Perennial Ryegrass	34.58				90	90
total ryegrass	49.32	50.50	1.18	4.17		
Creeping Red fescue	34.14	33.12	-1.02	3.30**	85	74*
<i>Holdridge Quick Gro Lawn Seed mixture</i>						
Perennial Ryegrass	49.18	58.34			90	91
Annual Ryegrass	39.48	30.11			90	91
total ryegrass	88.66	88.45	-0.21	2.20**		
Creeping Red fescue	9.81	10.05	0.24	1.70	85	92
<i>Landscapers Sun and Shade Mixture</i>						
Kentucky Bluegrass VNS	17.00	20.10	3.10	3.10	85	61*
Perennial Ryegrass VNS	58.20	56.12	-2.08	3.50**	90	91
Boreal Creeping Red Fescue	9.70				85	89
3-5 Chewings Fescue	9.70				85	89
total fine fescue	19.40	21.56	2.16	2.87		
<i>Wear Green Mixture</i>						
Kentucky Bluegrass VNS	4.82	6.29	1.47	0.85	85	85
ASP0112 Perennial Ryegrass	9.77	10.77	1.00	2.20	90	92
AST5112 Tall Fescue	39.64				85	92
Piedmont Tall Fescue	24.77				85	92
AST1001 Tall Fescue	19.75				85	92
total Tall Fescue	84.16	74.30	-9.86	2.41*		
<i>Blue Seal Horse Hay Mixture</i>						
Troy Kentucky Bluegrass	19.78	18.07	-1.21	2.35**	81	50*
Climax Timothy	74.83	77.55	2.72	2.52	91	96
White Clover	4.99	4.20	-0.79	1.28**	96	90+3H**
Chewings Fescue	19.87				85	77
Boreal Creeping Red Fescue	34.29				85	77
total fine fescue	54.16	54.93	0.77	3.83		
Rough Bluegrass	14.87	13.01	-1.86	1.66*	85	94

^z: H: hard seed, did not absorb water; *: did not meet label claim; **: did not meet claims, but passed with tolerances

Table 5. Results of seed germination and purity of crop samples

Seed Company	Seed	Purity (%)		Germination (%)	
		Claim	Found	Claim	Found ^z
New England Seed Co	<i>Common Fall Rye</i> Rye	99.88	99.98	85	85
Semican, Plessisville, QC	<i>Common Fall Rye</i> Rye	99.88	99.99	85	83**
Southern States Coop Inc.	<i>Fall Rye</i> Rye	99.88	99.98	85	74*
Seedway LLC	<i>Buckwheat VNS</i> Buckwheat	99.45	99.98	85	82**
Seedway LLC	<i>Cover Crop seed</i> Rye VNS	98.00	99.94	85	89

^z: ** indicates within tolerance; * indicates exceeds tolerance

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