

*The
Connecticut
Agricultural
Experiment
Station,
New Haven*

Seed Germination
and
Purity Analysis
2008

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*Bulletin 1016
June 2008*

SEED GERMINATION AND PURITY ANALYSIS 2008

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Official samples of 327 vegetable and 13 lawn seeds were collected by inspectors from the Bureau of Regulation and Inspection of the Connecticut Department of Agriculture for testing in 2008. As the official seed testing laboratory, The Connecticut Agricultural Experiment Station performed germination and purity analyses for compliance with the Connecticut Seed Law Regulations and the Federal Seed Act.

Table 1 shows the results of germination tests for individual vegetable seed samples from 15 companies. Results are presented by plant type, variety, germination found, germination standard, and compliance with the standard. Germination standards are set by the Federal Seed Act. The categories for label compliance are: 1) seeds meet label claims for germination and 2) seeds do not meet label claims for germination within allowable tolerance. Tests were replicated twice. In addition, seedlings must appear "normal," i.e., they have to be free from decay, have well-developed primary root systems, have well-developed and intact hypocotyls and/or epicotyls, and have healthy cotyledons. Of the 327 vegetable seed samples tested, two did not meet their label claims for germination. They were not retested because of insufficient numbers of seeds. Seed samples were examined for prohibited noxious weed seeds and no vegetable samples contained weed contaminants.

The total number of germination claims and the percentage of claims that met or failed label claims are summarized for each vegetable seed company in Table 2. Table 3 summarizes the total number of samples tested and the average germination for each type of vegetable.

Table 4 shows the results of purity and germination tests for individual lawn grass seed samples. These are presented by company, brand name and/or seed type or variety mixture. The categories for both purity and germination are as previously described for vegetable seeds. Lawn seed samples that were labeled with several varieties within a species or with several species within a genus were separated by genus. Purity and germination results are, therefore, reported as the sum for that genus. The label claim is met as long as this sum equals or exceeds the sum of the individual components for a genus listed on the label. Five of the 13 lawn seed samples tested met label claims for both purity and germination. Seven samples passed label claims for germination but did not meet claims for purity. One sample passed purity claims but failed germination claims.

Mary K. Inman and Dr. Sharon M. Douglas performed the analyses per Connecticut Regulations. Alton A. Blodgett, Seed Control Official, and Wayne S. Nelson collected the samples. The Seed Law is administered by the Seed Control Official for the Commissioner of the Department of Agriculture.

Sharon M. Douglas

Table 1. Germination of vegetable seeds. Standards are provided by the rules and regulations of the Federal Seed Act.

* = Does not meet label claim.

Plant	Variety	Seed Company	Standard	Germ. Found
Bean	Blue Lake Bush	Charles C. Hart Seed Company	70	73
Bean	Romano Pole	Charles C. Hart Seed Company	70	86
Bean	Golden Butterwax	Seedway Inc.	70	94
Bean	French's Horticultural	Seedway Inc.	70	83
Bean	Greenback	Agway Brand, Seedway, Inc.	70	91
Bean	Stringless Green Pod Bush	W. Atlee Burpee and Company	70	91
Bean	Kentucky Wonder Pole	Burpee Organic/W. Atlee Burpee & Co.	70	88
Bean	Burpee's Stringless Green Pod	Valley Greene/The Page Seed Company	70	93
Bean	Bush Trio Blend	Botanical Interests, Inc.	70	86
Bean	Kentucky Wonder Pole	Botanical Interests, Inc.	70	85
Bean	Gold Rush	Livingston Seed Company	70	86
Bean	Petite Filet	New England Seed Company	70	88
Bean	Kentucky Wonder Wax Pole	New England Seed Company	70	79
Bean	Blue Lake Bush 274	Ferry Morse Seed Company	70	68
Bean	Kentucky Wonder	Ferry Morse Seed Company	70	77
Bean, lima	Henderson Bush	Ferry Morse Seed Company	70	79
Bean, runner		Thompson and Morgan Seedsman, Inc.	75	70
Beet	Detroit Dark Red	Charles C. Hart Seed Company	65	87
Beet	Early Wonder	Agway Brand, Seedway, Inc.	65	89
Beet	Burpee's Golden	W. Atlee Burpee and Company	65	80
Beet	Detroit Dark Red	Burpee Organic/W. Atlee Burpee & Co.	65	87
Beet	Chioggia	Burpee Heirlooms/W. Atlee Burpee & Co.	65	84
Beet	Detroit Dark Red	Valley Greene/The Page Seed Company	65	94
Beet	Gourmet Blend	Botanical Interests, Inc.	65	85
Beet	Chioggia	Livingston Seed Company	65	81
Beet	Red Ace	New England Seed Company	65	98
Beet	Tall Top Early Wonder	Ferry Morse Seed Company	65	90
Beet	Tall Top Early Wonder	Ferry Morse Organic/Ferry Morse Seed Co.	65	76
Broccoli	Waltham	Charles C. Hart Seed Company	75	91
Broccoli	Broccoli Blend	Agway Brand, Seedway, Inc.	75	93
Broccoli	Green Goliath	W. Atlee Burpee and Company	75	89
Broccoli	Calabrese Green Sprouting	Burpee Organic/W. Atlee Burpee & Co.	75	96
Broccoli	DiCicco	Botanical Interests, Inc.	75	90
Broccoli	Calabrese Green Sprouting	Livingston Seed Company	75	95
Broccoli	Waltham 29	New England Seed Company	75	97
Broccoli	DeCicco	Ferry Morse Seed Company	75	91
Broccoli	Calabrese Green Sprouting	Ferry Morse Organic/Ferry Morse Seed Co.	75	98
Broccoli raab	Sessantina Riccia Di Sarno	LaSemiorio Sementi	80	96
Brussels sprouts	Catskill	Agway Brand, Seedway, Inc.	75	75
Brussels sprouts	Long Island Improved	New England Seed Company	75	79
Brussels sprouts	Catskill	Ferry Morse Seed Company	75	71
Cabbage	Copenhagen	Charles C. Hart Seed Company	75	94

Table 1 (continued). Germination of vegetable seeds. Standards are provided by the rules and regulations of the Federal Seed Act. * = Does not meet label claim.

Plant	Variety	Seed Company	Standard	Germ. Found	
Cabbage	Early Thunder	Agway Brand, Seedway, Inc.	75	94	
Cabbage	Copenhagen Market	Botanical Interests, Inc.	75	95	
Cabbage	Chieftain Savoy	New England Seed Company	75	93	
Cabbage	Copenhagen Early Market	Ferry Morse Seed Company	75	89	
Cantaloupe	Hales Best	Charles C. Hart Seed Company	75	95	
Cantaloupe	Hearts of Gold	W. Atlee Burpee and Company	75	97	
Cantaloupe	Honey Rock	Livingston Seed Company	75	98	
Cantaloupe	Delicious 51	New England Seed Company	75	91	
Cantaloupe	Sierra Gold	Ferry Morse Seed Company	75	93	
Carrot	Danvers Half Long	Charles C. Hart Seed Company	55	87	
Carrot	Royal Chantenay	Agway Brand, Seedway, Inc.	55	84	
Carrot	Touchon	W. Atlee Burpee and Company	55	83	
Carrot	Danvers 126	Burpee Organic/W. Atlee Burpee & Co.	55	86	
Carrot	Touchon	Burpee Heirlooms/W. Atlee Burpee & Co.	55	74	
Carrot	Nantes Coreless	Valley Greene/The Page Seed Company	55	86	
Carrot	Tonda di Parigi	Botanical Interests, Inc.	55	71	
Carrot	Chantenay Red Core	New England Seed Company	55	79	
Cauliflower	Early Snowball	Charles C. Hart Seed Company	75	80	
Cauliflower	Blend	Agway Brand, Seedway, Inc.	75	100	
Cauliflower	Chef's Choice Blend	Botanical Interests, Inc.	75	92	
Cauliflower	Early Snowball	New England Seed Company	75	86	
Cauliflower	Early Snowball A	Ferry Morse Seed Company	75	83	
Celery	Tall Utah 52/70 Improved	Botanical Interests, Inc.	55	87	
Celery	Utah	New England Seed Company	55	82	
Celery	Tall Utah 52/70 Improved	Ferry Morse Seed Company	55	83	
Chicory	Witloof	Charles C. Hart Seed Company	65	49	*
Chicory	Cicoria Catalogna	New England Seed Company	70	92	
Chinese cabbage	Michili	Charles C. Hart Seed Company	75	84	
Chinese cabbage	Jade Pagoda	Agway Brand, Seedway, Inc.	75	94	
Chinese cabbage	Bok Choy, White Stem	Botanical Interests, Inc.	75	95	
Chinese cabbage	Michili	New England Seed Company	75	95	
Collards	Georgia Green	Charles C. Hart Seed Company	80	77	
Collards	Vates	Agway Brand, Seedway, Inc.	80	61	*
Collards	Georgia Southern	Botanical Interests, Inc.	80	95	
Collards	Vates	Thompson and Morgan Seedsman, Inc.	80	85	
Collards	Georgia	New England Seed Company	80	90	
Collards	Georgia Southern	Ferry Morse Seed Company	80	96	
Corn	Sugar and Gold	Charles C. Hart Seed Company	75	99	
Corn	Bodacious	Charles C. Hart Seed Company	75	97	
Corn	Kandy Korn	Seedway Inc.	75	99	
Corn	Ecstase II	Seedway Inc.	75	99	

Table 1 (continued). Germination of vegetable seeds. Standards are provided by the rules and regulations of the Federal Seed Act. * = Does not meet label claim.

Plant	Variety	Seed Company	Standard	Germ. Found
Corn	Incredible	Agway Brand, Seedway, Inc.	75	96
Corn	Bi-Licious	W. Atlee Burpee and Company	75	90
Corn	Golden Bantam	Burpee Heirlooms/W. Atlee Burpee & Co.	75	96
Corn	Peaches and Cream	Livingston Seed Company	75	96
Corn	Early Sunglow	New England Seed Company	75	95
Corn	Quickie	New England Seed Company	75	96
Corn	Silver Queen	Ferry Morse Seed Company	75	96
Corn	Sugar Dots	Ferry Morse Seed Company	75	94
Corn, ornamental	Fiesta	Agway Brand, Seedway, Inc.	75	99
Cornsalad	Mache, Big Seeded	Botanical Interests, Inc.	70	86
Cowpea	Pink Eye Purple Hull	Ferry Morse Seed Company	75	92
Cress, Upland		Livingston Seed Company	60	99
Cucumber	Boston Pickling	Charles C. Hart Seed Company	80	92
Cucumber	Marketmore 86	Charles C. Hart Seed Company	80	99
Cucumber	Straight Eight	Agway Brand, Seedway, Inc.	80	98
Cucumber	Wisconsin SMR-58	Agway Brand, Seedway, Inc.	80	99
Cucumber	Straight Eight	W. Atlee Burpee and Company	80	100
Cucumber	Straight Eight	Burpee Organic/W. Atlee Burpee & Co.	80	99
Cucumber	Marketmore 76	Valley Greene/The Page Seed Company	80	98
Cucumber	Carosello Barese	LaSemiorto Sementi	80	77
Cucumber	Homemade Pickles	Botanical Interests, Inc.	80	88
Cucumber	Muncher	Livingston Seed Company	80	96
Cucumber	Pioneer	New England Seed Company	80	98
Cucumber	Straight Eight	New England Seed Company	80	98
Cucumber	Poinsett 76	Ferry Morse Seed Company	80	98
Cucumber	Straight Eight	Ferry Morse Organic/Ferry Morse Seed Co.	80	95
Dill	Bouquet	Charles C. Hart Seed Company	60	82
Dill	Dukat	Agway Brand, Seedway, Inc.	60	89
Dill	Mammoth	W. Atlee Burpee and Company	60	83
Dill	Bouquet	Burpee Organic/W. Atlee Burpee & Co.	60	94
Dill	Mammoth Long Island	Valley Greene/The Page Seed Company	60	84
Dill	Mammoth	Livingston Seed Company	60	79
Dill	Bouquet	New England Seed Company	60	81
Dill	Fernleaf	Ferry Morse Seed Company	60	93
Eggplant	Black Beauty	Charles C. Hart Seed Company	60	78
Eggplant	High Bush Select	Agway Brand, Seedway, Inc.	60	66
Eggplant	Burpee Hybrid	W. Atlee Burpee and Company	60	82
Eggplant	Black Beauty	Burpee Heirlooms/W. Atlee Burpee & Co.	60	72
Eggplant	Romanesca	LaSemiorto Sementi	60	81
Eggplant	Black Beauty	Botanical Interests, Inc.	60	82
Eggplant	Black Beauty	New England Seed Company	60	84
Eggplant	Black Beauty	Ferry Morse Seed Company	60	84

Table 1 (continued). Germination of vegetable seeds. Standards are provided by the rules and regulations of the Federal Seed Act. * = Does not meet label claim.

Plant	Variety	Seed Company	Standard	Germ. Found
Eggplant	Early Long Purple	Ferry Morse Organic/Ferry Morse Seed Co.	60	67
Endive	Green Curled	Charles C. Hart Seed Company	70	88
Endive	Full Heart	Agway Brand, Seedway, Inc.	70	70
Endive	Riccia Santantuono	LaSemiorto Sementi	70	76
Endive	Green Curled Ruffec	Botanical Interests, Inc.	70	93
Endive	Batavian Full Heart	New England Seed Company	70	73
Endive	Green Curled Ruffec	Ferry Morse Seed Company	70	84
Kale	Vates Dwarf Blue Curled	Charles C. Hart Seed Company	75	87
Kale	Blue Scotch	Agway Brand, Seedway, Inc.	75	93
Kale	Red Winter	Botanical Interests, Inc.	75	93
Kale	Vates Dwarf Blue Curled	New England Seed Company	75	89
Kohlrabi	White Vienna	Charles C. Hart Seed Company	75	90
Kohlrabi	Early Purple Vienna	Agway Brand, Seedway, Inc.	75	90
Kohlrabi	Chancellor	W. Atlee Burpee and Company	75	88
Kohlrabi	Purple and White Vienna Blend	Botanical Interests, Inc.	75	96
Kohlrabi	Early White Vienna	New England Seed Company	75	96
Kohlrabi	Early White Vienna	Ferry Morse Seed Company	75	93
Leek	American Flag	Charles C. Hart Seed Company	60	92
Leek	Arkansas	Agway Brand, Seedway, Inc.	60	90
Leek		Botanical Interests, Inc.	60	91
Leek	Musselburgh Improved	Thompson and Morgan Seedsman, Inc.	60	83
Leek	American Flag	Livingston Seed Company	60	89
Leek	American Broad Flag	New England Seed Company	60	86
Leek	American Flag	Ferry Morse Seed Company	60	94
Lettuce	Bibb	Charles C. Hart Seed Company	80	98
Lettuce	Black Seeded Simpson	Charles C. Hart Seed Company	80	99
Lettuce	Iceberg	Charles C. Hart Seed Company	80	97
Lettuce	Red Salad Bowl	Charles C. Hart Seed Company	80	96
Lettuce	Parris Island Romaine	Agway Brand, Seedway, Inc.	80	90
Lettuce	Prizehead	Agway Brand, Seedway, Inc.	80	98
Lettuce	Summertime	Agway Brand, Seedway, Inc.	80	100
Lettuce	Iceberg A	W. Atlee Burpee and Company	80	91
Lettuce	Lollo Rossa	W. Atlee Burpee and Company	80	97
Lettuce	Great Lakes 118	Burpee Organic/W. Atlee Burpee & Co.	80	98
Lettuce	Black Seeded Simpson	Burpee Organic/W. Atlee Burpee & Co.	80	96
Lettuce	Tom Thumb Butterhead	Burpee Heirlooms/W. Atlee Burpee & Co.	80	97
Lettuce	Four Seasons	Burpee Heirlooms/W. Atlee Burpee & Co.	80	98
Lettuce	Buttercrunch	Valley Greene/The Page Seed Company	80	98
Lettuce	Tom Thumb Butterhead	Botanical Interests, Inc.	80	97
Lettuce	Oakleaf	Botanical Interests, Inc.	80	95
Lettuce	All the Year Round	Thompson and Morgan Seedsman, Inc.	80	92
Lettuce	Crisp Mint	Thompson and Morgan Seedsman, Inc.	80	94
Lettuce	Royal Red	Livingston Seed Company	80	90
Lettuce	Simpson Elite	Livingston Seed Company	80	99

Table 1 (continued). Germination of vegetable seeds. Standards are provided by the rules and regulations of the Federal Seed Act. * = Does not meet label claim.

Plant	Variety	Seed Company	Standard	Germ. Found
Lettuce	Red Sails	New England Seed Company	80	97
Lettuce	Big Boston	New England Seed Company	80	98
Lettuce	Great Lakes	New England Seed Company	80	97
Lettuce	Romaine	New England Seed Company	80	94
Lettuce	Grand Rapids	Ferry Morse Seed Company	80	95
Lettuce	Great Lakes 118	Ferry Morse Seed Company	80	96
Lettuce	Bibb	Ferry Morse Organic/Ferry Morse Seed Co.	80	99
Mustard	Florida Broadleaf	Charles C. Hart Seed Company	75	90
Mustard	Green Wave	New England Seed Company	75	96
Mustard	Southern Giant Curled	Ferry Morse Seed Company	75	97
Mustard	Early Mazuna	Ferry Morse Organic/Ferry Morse Seed Co.	75	97
Okra	Clemson Spineless	Charles C. Hart Seed Company	50	95
Okra	Clemson Spineless	New England Seed Company	50	96
Okra	Emerald	Ferry Morse Seed Company	50	52
Onion	Long White Bunching	Agway Brand, Seedway, Inc.	70	89
Onion	Sweet Spanish	Agway Brand, Seedway, Inc.	70	82
Onion	Granex	W. Atlee Burpee and Company	70	93
Onion	Evergreen Bunching	Burpee Organic/W. Atlee Burpee & Co.	70	91
Onion	White Lisbon Bunching	Botanical Interests, Inc.	70	95
Onion	Walla Walla	Botanical Interests, Inc.	70	84
Onion	White Lisbon	Thompson and Morgan Seedsman, Inc.	70	82
Onion	Utah Spanish Yellow	New England Seed Company	70	92
Onion	Red Burgundy	Ferry Morse Seed Company	70	93
Onion	Cebolla	Lowe's Garden Club Select/Ferry Morse Seed	70	83
Parsley	Plain Leaf Italian	Charles C. Hart Seed Company	60	81
Parsley	Forest Green	Agway Brand, Seedway, Inc.	60	70
Parsley	Extra Curled Dwarf	W. Atlee Burpee and Company	60	73
Parsley	Plain Leaf Italian	Burpee Organic/W. Atlee Burpee & Co.	60	86
Parsley	Plain Leaf Italian	Valley Greene/The Page Seed Company	60	77
Parsley	Italian Single	Livingston Seed Company	60	81
Parsley	Moss Curled	New England Seed Company	60	83
Parsley	Moss Curled	Ferry Morse Organic/Ferry Morse Seed Co.	60	90
Parsnip	All American	Agway Brand, Seedway, Inc.	60	79
Parsnip	All American	New England Seed Company	60	50
Parsnip	Harris Model	Ferry Morse Seed Company	60	72
Pea	Lincoln	Charles C. Hart Seed Company	80	89
Pea	Sugar Bon Snap	Charles C. Hart Seed Company	80	87
Pea	Mr. Big	Seedway Inc.	80	87
Pea	Dwarf White Sugar	Agway Brand, Seedway, Inc.	80	92
Pea	Wanda	Agway Brand, Seedway, Inc.	80	86
Pea	Sugar Daddy	W. Atlee Burpee and Company	80	87
Pea	Dwarf Gray Sugar	W. Atlee Burpee and Company	80	99
Pea	Mammoth Melting Sugar	Burpee Heirlooms/W. Atlee Burpee & Co.	80	87

Table 1 (continued). Germination of vegetable seeds. Standards are provided by the rules and regulations of the Federal Seed Act. * = Does not meet label claim.

Plant	Variety	Seed Company	Standard	Germ. Found
Pea	Cascadia Snap	Botanical Interests, Inc.	80	77
Pea	Dwarf Gray Sugar	New England Seed Company	80	98
Pea	Tall Telephone	New England Seed Company	80	86
Pea	Alaska	Ferry Morse Seed Company	80	90
Pepper	California Wonder	Charles C. Hart Seed Company	55	56
Pepper	Large Red Cayenne	Charles C. Hart Seed Company	55	86
Pepper	Jalapeno	Charles C. Hart Seed Company	55	90
Pepper	Sweet Banana	Charles C. Hart Seed Company	55	91
Pepper	Ace	Agway Brand, Seedway, Inc.	55	92
Pepper	Early Sunsatation	Agway Brand, Seedway, Inc.	55	89
Pepper	Habanero	W. Atlee Burpee and Company	55	81
Pepper	Jalapeno Early	Burpee Organic/W. Atlee Burpee & Co.	55	93
Pepper	California Wonder	Burpee Organic/W. Atlee Burpee & Co.	55	90
Pepper	Chinese Giant	Burpee Heirlooms/W. Atlee Burpee & Co.	55	88
Pepper	Giappones	LaSemiorto Sementi	55	68
Pepper	Friariello	LaSemiorto Sementi	55	82
Pepper	Sweet Banana	Livingston Seed Company	55	86
Pepper	Long Red Cayenne	Livingston Seed Company	55	71
Pepper	Large Red Cayenne	New England Seed Company	55	82
Pepper	Red Cherry Hot	New England Seed Company	55	85
Pepper	Calwonder	New England Seed Company	55	69
Pepper	Anaheim Chili	Ferry Morse Seed Company	55	81
Pepper	Pimiento	Ferry Morse Seed Company	55	85
Pepper	Sweet Banana	Ferry Morse Seed Company	55	86
Pepper	Pimiento	Lowe's Garden Club Select/Ferry Morse Seed	55	78
Pepper	California Wonder 300 TMR	Ferry Morse Organic/Ferry Morse Seed Co.	55	73
Pumpkin	Jack O'Lantern	Charles C. Hart Seed Company	75	87
Pumpkin	Baby Bear	Charles C. Hart Seed Company	75	84
Pumpkin	Howden	New England Seed Company	75	82
Pumpkin	Small Sugar	New England Seed Company	75	85
Pumpkin	Connecticut Field	New England Seed Company	75	77
Radish	Cherry Belle	Charles C. Hart Seed Company	75	100
Radish	Champion	Agway Brand, Seedway, Inc.	75	97
Radish	All Season White	W. Atlee Burpee and Company	75	100
Radish	Cherry Belle	Burpee Organic/W. Atlee Burpee & Co.	75	95
Radish	French Breakfast	Burpee Heirlooms/W. Atlee Burpee & Co.	75	89
Radish	Champion	Valley Greene/The Page Seed Company	75	95
Radish	1/2 Lungo Rosso	LaSemiorto Sementi	75	79
Radish	Miyashige White Daikon	Botanical Interests, Inc.	75	99
Radish	Sparkler White Top	Livingston Seed Company	75	99
Radish	White Icicle	New England Seed Company	75	100
Radish	Champion	Ferry Morse Seed Company	75	95
Radish	Cherry Belle	Ferry Morse Organic/Ferry Morse Seed Co.	75	96
Rutabaga	American Purple Top	Charles C. Hart Seed Company	75	77
Rutabaga	American Purple Top	Agway Brand, Seedway, Inc.	75	69

Table 1 (continued). Germination of vegetable seeds. Standards are provided by the rules and regulations of the Federal Seed Act. * = Does not meet label claim.

Plant	Variety	Seed Company	Standard	Germ. Found
Rutabaga	Laurentian	New England Seed Company	75	97
Sage	Broadleaf	Agway Brand, Seedway, Inc.	60	63
Soybean	Edamame Green Butterbean	Botanical Interests, Inc.	75	77
Soybean		Livingston Seed Company	75	85
Spinach	Bloomsdale Long Standing	Charles C. Hart Seed Company	60	94
Spinach	Melody	Agway Brand, Seedway, Inc.	60	95
Spinach	Avon	W. Atlee Burpee and Company	60	93
Spinach	Bloomsdale Long Standing	Valley Greene/The Page Seed Company	60	86
Spinach	Correnta	Botanical Interests, Inc.	60	94
Spinach	Bloomsdale Long Standing	Livingston Seed Company	60	86
Spinach	Melody	New England Seed Company	60	87
Spinach	Teton	Ferry Morse Seed Company	60	93
Squash	Blue Hubbard	Charles C. Hart Seed Company	75	92
Squash	Butternut	Charles C. Hart Seed Company	75	95
Squash	Spaghetti	Charles C. Hart Seed Company	75	85
Squash	Early Crookneck	Charles C. Hart Seed Company	75	89
Squash	Summer Blend	Agway Brand, Seedway, Inc.	75	78
Squash	Table Queen	Agway Brand, Seedway, Inc.	75	97
Squash	Black Beauty	Agway Brand, Seedway, Inc.	75	87
Squash	Zucchini, Burpee's Hybrid	W. Atlee Burpee and Company	75	93
Squash	Spaghetti	W. Atlee Burpee and Company	75	92
Squash	Zuchino Di Faenza	LaSemiorto Sementi	75	95
Squash	Black Beauty Zucchini	Botanical Interests, Inc.	75	82
Squash	Summer of Squash Blend	Botanical Interests, Inc.	75	90
Squash	Zucchini, Dark	Livingston Seed Company	75	82
Squash	Early Crookneck	Livingston Seed Company	75	86
Squash	Black Beauty Zucchini	New England Seed Company	75	83
Squash	Spaghetti	New England Seed Company	75	74
Squash	Blue Hubbard	New England Seed Company	75	89
Squash	Turks Turban	New England Seed Company	75	63
Squash	Waltham Butternut	New England Seed Company	75	86
Squash	Patty Pan	New England Seed Company	75	79
Squash	Early Prolific Straightneck	New England Seed Company	75	96
Squash	Early White Bush Scallop	Ferry Morse Seed Company	75	90
Squash	Grey Zucchini	Ferry Morse Seed Company	75	95
Squash	Early Prolific Straightneck	Ferry Morse Organic/Ferry Morse Seed Co.	75	95
Swiss chard	Rhubarb	Charles C. Hart Seed Company	65	81
Swiss chard	Fordhook Giant	Agway Brand, Seedway, Inc.	65	87
Swiss chard	Burpee's Rhubarb	W. Atlee Burpee and Company	65	86
Swiss chard	Bright Lights	Botanical Interests, Inc.	65	95
Swiss chard	Fordhook Giant	Livingston Seed Company	65	93
Swiss chard	Large Ribbed Dark Green	Ferry Morse Seed Company	65	90
Swiss chard	Ruby	Ferry Morse Organic/Ferry Morse Seed Co.	65	84

Table 1 (continued). Germination of vegetable seeds. Standards are provided by the rules and regulations of the Federal Seed Act. * = Does not meet label claim.

Plant	Variety	Seed Company	Standard	Germ. Found
Tomatillo	Toma Verde	Botanical Interests, Inc.	50	76
Tomatillo	Mexican Husk	Ferry Morse Seed Company	50	61
Tomato	Marglobe	Charles C. Hart Seed Company	75	78
Tomato	Roma	Charles C. Hart Seed Company	75	96
Tomato	Large Red Cherry	Charles C. Hart Seed Company	75	94
Tomato	Big Beef Hybrid	Agway Brand, Seedway, Inc.	75	89
Tomato	Burpee's Supersteak	W. Atlee Burpee and Company	75	95
Tomato	Better Boy	W. Atlee Burpee and Company	75	100
Tomato	Roma	Burpee Organic/W. Atlee Burpee & Co.	75	76
Tomato	Rutgers	Burpee Heirlooms/W. Atlee Burpee & Co.	75	94
Tomato	Burpee's Jubilee	Burpee Heirlooms/W. Atlee Burpee & Co.	75	92
Tomato	San Marzano 2	Botanical Interests, Inc.	75	89
Tomato	Crimson Cushion Beefsteak	Livingston Seed Company	75	96
Tomato	Large Red Cherry	New England Seed Company	75	95
Tomato	Jubilee	Ferry Morse Seed Company	75	96
Tomato	Beefsteak	Ferry Morse Organic/Ferry Morse Seed Co.	75	86
Turnip	Seven Top	Charles C. Hart Seed Company	80	99
Turnip	Purple Top White Globe	Agway Brand, Seedway, Inc.	80	95
Turnip	Purple Top White Globe	W. Atlee Burpee and Company	80	95
Turnip	Purple Top White Globe	Valley Greene/The Page Seed Company	80	98
Turnip	Purple Top White Globe	Livingston Seed Company	80	98
Turnip	Purple Top White Globe	Ferry Morse Seed Company	80	98
Watermelon	Charleston Gray	Charles C. Hart Seed Company	70	86
Watermelon	Sugar Baby	Charles C. Hart Seed Company	70	97
Watermelon	Congo	W. Atlee Burpee and Company	70	95
Watermelon	Jubilee	Ferry Morse Seed Company	70	84

Table 2. Summary for each seed company of total number of germination claims and the percentage that met or failed label claims.

Seed Company	Total Number of Claims	% Meeting Claims	% Not Meeting Claims
Agway Brand, Seedway Inc.	40	97.5	2.5
Botanical Interests, Inc.	30	100	0
Burpee's Heirlooms/W. Atlee Burpee and Co.	11	100	0
Burpee's Organic/W. Atlee Burpee and Co.	14	100	0
Charles C. Hart Seed Company	50	98	2
Ferry Morse Organic/Ferry Morse Seed Co.	12	100	0
Ferry Morse Seed Co.	39	100	0
LaSemiorto Sementi	8	100	0
Livingston Seed Company	22	100	0
Lowes Garden Club Select/Ferry-Morse Seed	2	100	0
New England Seed Company	51	100	0
Seedway Inc.	5	100	0
Thompson and Morgan Seedsman, Inc.	6	100	0
Valley Greene/The Page Seed Company	10	100	0
W. Atlee Burpee and Company	26	100	0

Table 3. Summary by vegetable type of number of samples tested, average percent germination found, and germination standards. Standards are provided for by the rules and regulations of the Federal Seed Act.

Plant	Samples Tested	Standard	Average Germination
Bean	15	70	84
Bean, lima	1	70	79
Bean, runner	1	75	70
Beet	11	65	86
Broccoli	9	75	93
Broccoli raab	1	80	96
Brussels sprouts	3	75	75
Cabbage	5	75	93
Cantaloupe	5	75	95
Carrot	8	55	81
Cauliflower	5	75	88
Celery	3	55	84
Chicory	2	65	70
Chinese cabbage	4	75	92
Collards	6	80	84
Corn	12	75	96
Corn, ornamental	1	75	99
Cornsalad	1	70	86
Cowpea	1	75	92
Cress, Upland	1	60	99
Cucumber	14	80	95
Dill	8	60	86
Eggplant	9	60	77
Endive	6	70	81
Kale	4	75	90
Kohlrabi	6	75	92
Leek	7	60	89
Lettuce	27	80	96
Mustard	4	75	95
Okra	3	50	81
Onion	10	70	88
Parsley	8	60	80
Parsnip	3	60	67
Pea	12	80	89
Pepper	22	55	82
Pumpkin	5	75	83
Radish	12	75	95
Rutabaga	3	75	81
Sage	1	60	63
Soybean	2	75	81
Spinach	8	60	91
Squash	24	75	87
Swiss chard	7	65	88
Tomatillo	2	50	68
Tomato	14	75	91
Turnip	6	80	97
Watermelon	4	70	90

Table 4. Germination and purity of lawn seed. Results for purity and germination are for seeds separated by genus and not by species or variety are reported for that genus. Tolerance (Tol) is calculated according to the rules for seed testing published by the Association of Official Seed Analysts (AOSA). Variance (Var) is calculated as Purity Found (Pur F) minus Purity Claimed (Pur C). Germination Claimed (Germ C); Germination Found (Germ F). * = Does not meet label claim.

Seed Company	Seed Mixture	Pur C	Pur F	Var	Tol	Germ C	Germ F
Chemsico	<i>Expert Gardener Perfect Seed Premium Grass Mixture</i>						
	Baron Kentucky bluegrass	24.32	25.87	1.55	2.81	80	89
	Pinnacle II Perennial Ryegrass	14.41				85	92
	Barlennium Perennial Ryegrass	13.11				85	92
	Barclay Perennial RyeGrass	5.71				85	92
	total ryegrass	33.23	32.23	-1.00	4.88		
	Boreal Creeping Red Fescue	39.43	41.14	1.71	3.79	85	72 *
The Scotts Company	<i>Scotts Pure Premium Sun and Shade</i>						
	Abbey Kentucky Bluegrass	29.27	31.15	1.88	3.51	85	91
	Majesty Perennial Ryegrass	22.56				90	95
	Allaire II Perennial Ryegrass	21.34				90	95
	total ryegrass	43.90	42.81	-1.09	4.66		
	Aruba Creeping Red Fescue	24.52	23.84	-0.68	3.61	85	81
Pennington Seed Inc.	<i>Front Lawn Bare Spot Repair</i>						
	Kenblue Kentucky Bluegrass	9.00	13.78	4.78	1.47 *	80	90
	Jet Perennial Ryegrass	25.00				85	94
	Gulf Annual Ryegrass	53.00				85	94
	total ryegrass	78.00	79.64	1.64	2.44		
	Boreal Red Fescue	9.00	6.18	-2.82	1.85 *	80	95
Pennington Seed Inc.	<i>Master Turf Sun and Shade Northeast</i>						
	Blue Bonnet Kentucky Bluegrass	15.00	12.80	-2.20	1.68 *	80	86
	Pavillion Perennial Ryegrass	35.00				85	90
	Integra Perennial Ryegrass	24.00				85	90
	total ryegrass	59.00	54.16	-4.84	4.19 *		
	Oracle Red Fescue	23.00	31.53	8.53	3.12 *	80	86
Lesco, Inc.	<i>Lesco Premium Sun and Shade</i>						
	Corsair Kentucky Bluegrass	31.51	38.30	6.79	3.51 *	90	92
	LS 2000 Perennial Ryegrass	31.51	26.75	-4.76	4.88	90	96
	Shademark Red Fescue	17.70				90	92
	Brittany Chewings Fescue	17.66				92	92
	total fine fescue	35.36	33.98	-1.38	4.31		
Lesco, Inc.	<i>Lesco Double Eagle Blend</i>						
	Evening Shade Perennial Ryegrass	33.82				90	94
	Greenville Perennial Ryegrass	32.95				90	94
	LS 2000 Perennial Ryegrass	30.97				90	94
	total ryegrass	97.74	97.63	-0.11	1.07		
The Scotts Company	<i>Turf Builder Contractor's All Purpose Mixture</i>						
	Ginger Kentucky Bluegrass	14.77	17.30	2.53	2.07 *	82	87
	Gulf Annual Ryegrass	29.82				90	92
	Indy Perennial Ryegrass	14.52				90	92
	total ryegrass	44.34	44.85	0.51	4.17		
	Boreal Creeping Red Fescue	38.80	36.46	2.34	3.40	81	85

Table 4 (continued). Germination and purity of lawn seed. Results for purity and germination are for seeds separated by genus and not by species or variety are reported for that genus. Tolerance (Tol) is calculated according to the rules for seed testing published by the Association of Official Seed Analysts (AOSA). Variance (Var) is calculated as Purity Found (Pur F) minus Purity Claimed (Pur C). Germination Claimed (Germ C); Germination Found (Germ F). * = Does not meet label claim.

Seed Company	Seed Mixture	Pur C	Pur F	Var	Tol	Germ C	Germ F
The Scotts Company	<i>Turf Builder Sun and Shade Mixture</i>						
	Kenblue Kentucky Bluegrass	19.77	27.53	7.76	2.62 *	82	84
	Indy Perennial Ryegrass	43.18	39.39	-3.79	4.66	90	92
	Boreal Creeping Red Fescue	33.96	31.28	-2.68	3.78	81	82
Barenburg USA	<i>Vigoro Ultra Turf Sun-Shade Grass Seed Mixture</i>						
	Brooklawn Kentucky Bluegrass	19.44	19.63	0.19	2.24	85	91
	Premier II Perennial Ryegrass	14.38				85	92
	Barclay Perennial Ryegrass	9.63				85	92
	Barlennium Perennial Ryegrass	9.59				85	92
	Panterra Italian (Annual) Ryegrass	9.89				90	92
	total ryegrass	43.49	44.79	1.30	4.66		
	Corail Fine Fescue	34.11	33.22	-0.89	1.45	85	80
Barenburg USA	<i>Vigoro Ultra Turf Shady Lawn Grass Seed Mixture</i>						
	Baron Kentucky Bluegrass	9.66	9.99	0.66	1.33	85	92
	Premier II Perennial Ryegrass	14.58				85	90
	Barclay Perennial Ryegrass	9.47				85	90
	Panterra Italian (Annual) Ryegrass	9.78				90	90
	total ryegrass	33.83	33.37	-0.46	4.31		
	Boreal Creeping Red Fescue	53.32	55.19	1.87	3.48	85	93
Southern States Cooperative	<i>Agway Sunny Green</i>						
	Blue Chip Kentucky Bluegrass	24.65	24.14	-0.51	2.90	85	91
	ASP6005 Perennial Ryegrass	59.36	61.04	1.68	3.94	90	94
	Silver Lawn Creeping Red Fescue	14.58	13.96	0.62	2.51	85	79
The Charles C. Hart Seed Co.	<i>Hart's Northeastern Lawn Seed Mixture</i>						
	Kentucky Bluegrass VNS	13.23	16.93	3.70	1.87 *	80	73
	Perennial Ryegrass VNS	19.64				90	92
	Annual Ryegrass VNS	29.59				90	92
	total ryegrass	49.23	47.40	-1.83	4.17		
	Creeping Red Fescue VNS	34.35	31.65	-2.70	3.29	85	83
The Charles C. Hart Seed Co.	<i>Hart's Tee and Fairway #22</i>						
	Victory II Chewings Fescue	68.92	38.14	8.77	6.30 *	85	94
	Ninety-six Two Creeping Bentgrass	9.88				85	95
	Cato Creeping Bentgrass	9.84				90	95
	Mariner Creeping Bentgrass	9.65				85	95
	total bentgrass	29.37	61.30	-7.62	6.30 *		

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