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Seed Germination
and Purity
Analysis 1999

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Official samples of 343 vegetable and 11 lawn seed were collected by inspectors from the Bureau of Regulation and Inspection of the Connecticut Department of Agriculture for testing in 1999. 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 18 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. All tests were replicated twice. In addition, seedlings must also 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 343 vegetable seeds tested, two did not meet their claims for germination. Four additional samples did not meet label claims but were not retested because of insufficient numbers of seeds. Seed samples were also examined for prohibited noxious weed seeds. 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 labelled 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 11 lawn seed samples tested met label claims for both purity and germination. Six samples did not meet claims for purity but passed label claims for germination. No samples failed label claims for both purity and germination.

In addition to germination and purity tests, label claims for the percentages of inert matter, crop seed (other than lawn seed), weed seed, and the presence of noxious weeds were also evaluated. All samples met label claims for these criteria.

Analyses were performed by Mary K. Inman and Dr. Sharon M. Douglas. Samples were collected by Alton Van Dyke, Seed Control Official. 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	Germination	
			Standard	Found
Artichoke	Green Globe Improved	Comstock, Ferre and Co.	60	51
Asparagus	Mary Washington	Comstock, Ferre and Co.	70	96
Bean	Derby	Agway, Inc.	70	92
Bean	Golden Butterwax	Agway, Inc.	70	96
Bean	Kentucky Wonder 191	Agway, Inc.	70	68
Bean	Blue Lake Symphony	Ferry-Morse Seed Co./Better Homes&Gardens	70	93
Bean	Kentucky Wonder Pole	Ferry-Morse Seed Co./Better Homes&Gardens	70	100
Bean	Blue Lake 274 Bush	Ferry-Morse Seed Co./D. M. Ferry	70	92
Bean	Top Crop	American Seed	70	97
Bean	Bountiful	Chas. C. Hart Seed Co.	70	98
Bean	Brittle Wax	Chas. C. Hart Seed Co.	70	98
Bean	Yellow Eye	Chas. C. Hart Seed Co.	70	96
Bean	Tendergreen	Comstock, Ferre and Co.	70	98
Bean	Roma II	Comstock, Ferre and Co.	70	96
Bean	Navy	Comstock, Ferre and Co.	70	76
Bean	Kentucky King	W. Atlee Burpee and Co.	70	89
Bean	Spanish Miralda Pole	Shepherd's Garden Seeds	70	94
Bean	Kentucky Wonder Wax	New England Seed Co.	70	98
Bean	Straight N ^o Narrow	New England Seed Co.	70	97
Bean	Red Kidney	New England Seed Co.	70	95
Bean	Roma II	New England Seed Co.	70	84
Bean	Earliserve	Livingston Seed Co.	70	91
Bean	Blue Lake 274	Lake Valley Seed	70	94
Bean	Green Crop	NK Lawn and Garden Co.	75	76
Bean, lima	Burpee Improved	Chas. C. Hart Seed Co.	70	56*
Bean, lima	Baby Fordhook	W. Atlee Burpee and Co.	70	40*
Beet	Detroit Dark Red	Agway, Inc.	65	76
Beet	Detroit Dark Red,Morse Strain	Ferry-Morse Seed Co./Better Homes&Gardens	65	86
Beet	Chioggia	Plantation Products, Inc.	65	78
Beet	Early Wonder	Chas. C. Hart Seed Co.	65	78
Beet	Detroit Dark Red	Comstock, Ferre and Co.	65	75
Beet	Cylindra	New England Seed Co.	65	91
Beet	Detroit Dark Red	Livingston Seed Co.	65	71
Beet	Chioggia	Thompson&Morgan	65	82
Beet	Ruby Queen	NK Lawn and Garden Co.	65	96
Beet	Early Wonder	Greene Valley Seeds/The Page Seed Co.	65	84
Broccoli	Southern Comet	Agway, Inc.	75	86
Broccoli	Barbados Hybrid	Ferry-Morse Seed Co./Better Homes&Gardens	75	96
Broccoli	Waltham	Chas. C. Hart Seed Co.	75	99
Broccoli	Green Goliath	W. Atlee Burpee and Co.	75	94
Broccoli	Early Green	Seeds of Change	75	94
Broccoli	Premium Crop Hybrid	New England Seed Co.	75	97
Broccoli	Waltham 29	NK Lawn and Garden Co.	75	96
Broccoli raab		Plantation Products, Inc.	75	99
Brussels sprouts	Catskill	Agway, Inc.	70	95
Brussels sprouts	Long Island Improved	Chas. C. Hart Seed Co.	70	94
Brussels sprouts	Bubbles	Comstock, Ferre and Co.	70	98
Brussels sprouts	Jade Cross Hybrid	New England Seed Co.	70	91
Cabbage	Gourmet	Agway, Inc.	75	80
Cabbage	Red Acre	Agway, Inc.	75	92
Cabbage	Ferry's Round Dutch	Ferry-Morse Seed Co./Better Homes&Gardens	75	95
Cabbage	Early Golden Acre	American Seed	75	96
Cabbage	Early Jersey Wakefield	Chas. C. Hart Seed Co.	75	94
Cabbage	Mammoth Red Rock	Chas. C. Hart Seed Co.	75	92
Cabbage	Copenhagen Market	Comstock, Ferre and Co.	75	97
Cabbage	Danish Ball Head	New England Seed Co.	75	96
Cabbage	Copenhagen Market	NK Lawn and Garden Co.	75	88

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

Plant	Variety	Seed Company	Germination	
			Standard	Found
Cantaloupe	Sierra Gold	Ferry-Morse Seed Co./Better Homes&Gardens	75	90
Cantaloupe	Iroquois	Chas. C. Hart Seed Co.	75	96
Cantaloupe	Saticoy	Comstock, Ferre and Co.	75	93
Cantaloupe	Alaska	New England Seed Co.	75	99
Cantaloupe	Honey Rock	Livingston Seed Co.	75	98
Cantaloupe	Iroquois	NK Lawn and Garden Co.	75	98
Cantaloupe	Golden Delicious	Greene Valley Seeds/The Page Seed Co.	75	99
Carrot	Nandrin	Agway, Inc.	55	86
Carrot	Red Cored Chantenay	Ferry-Morse Seed Co./Better Homes&Gardens	55	81
Carrot	Danvers Half Long	American Seed	55	87
Carrot	Red Core Chantenay	Chas. C. Hart Seed Co.	55	66
Carrot	Gold Pak	Comstock, Ferre and Co.	55	88
Carrot	Red Core Chantenay	W. Atlee Burpee and Co.	55	83
Carrot	Red Core Chantenay	Seeds of Change	55	75
Carrot	Danvers Half Long	New England Seed Co.	55	85
Carrot	Danvers Half Long	Livingston Seed Co.	55	84
Carrot	Minicore	Thompson&Morgan	55	80
Carrot	Tendersweet	NK Lawn and Garden Co.	55	86
Carrot	Nantes Coreless	Greene Valley Seeds/The Page Seed Co.	55	84
Cauliflower	Snow Crown	Agway, Inc.	75	59*
Cauliflower	Self Blanching	Chas. C. Hart Seed Co.	75	92
Cauliflower	Early White Hybrid	W. Atlee Burpee and Co.	75	97
Cauliflower	English Winter Purple Cape	W. W. Johnson & Son Ltd.	75	98
Cauliflower	Early Snowball	New England Seed Co.	75	100
Cauliflower	Snowball Improved	NK Lawn and Garden Co.	75	91
Celeriac	Giant Prague	Comstock, Ferre and Co.	55	56
Celery	Giant Pascal	Chas. C. Hart Seed Co.	55	89
Celery	Giant Pascal	Comstock, Ferre and Co.	55	80
Chicory	Radicchio, Palla Rosa	Chas. C. Hart Seed Co.	65	76
Chicory	Catalogna	Comstock, Ferre and Co.	65	89
Chicory		New England Seed Co.	65	80
Chinese cabbage	Jade Pagoda	Agway, Inc.	75	96
Chinese cabbage	Bok Choi	Chas. C. Hart Seed Co.	75	96
Chinese cabbage	Orient Express	W. Atlee Burpee and Co.	75	97
Chinese cabbage	Michili	New England Seed Co.	75	99
Collards	Vates	Agway, Inc.	80	94
Collards	Vates	Chas. C. Hart Seed Co.	80	96
Collards	Georgia	Comstock, Ferre and Co.	80	96
Collards	Georgia	W. Atlee Burpee and Co.	80	98
Collards	Georgia	New England Seed Co.	80	98
Corn	Early Choice	Agway, Inc.	75	96
Corn	Ecstase II	Agway, Inc.	75	95
Corn	Fortune	Agway, Inc.	75	100
Corn	Silver Queen	Agway, Inc.	75	100
Corn	Silver Bullet	Ferry-Morse Seed Co./Better Homes&Gardens	75	98
Corn	Golden Cross Bantam	Ferry-Morse Seed Co./Better Homes&Gardens	75	98
Corn	Sugar Dots	Ferry-Morse Seed Co./D. M. Ferry	75	99
Corn	Silver Bullet	Ferry-Morse Seed Co./D. M. Ferry	75	98
Corn	Early Golden Bantam	American Seed	75	98
Corn	Butter and Sugar	Chas. C. Hart Seed Co.	75	100
Corn	Silver Queen	Chas. C. Hart Seed Co.	75	100
Corn	Sunglow	Chas. C. Hart Seed Co.	75	98
Corn	Platinum Lady	Comstock, Ferre and Co.	75	98
Corn	Bodacious	Comstock, Ferre and Co.	75	99
Corn	Honey and Cream	W. Atlee Burpee and Co.	75	97

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

Plant	Variety	Seed Company	Germination	
			Standard	Found
Corn	Early Sunglo	W. Atlee Burpee and Co.	75	100
Corn	Kandy Korn	Shepherd's Garden Seeds	75	91
Corn	Stowell's	Seeds of Change	75	98
Corn	Kandy Korn EH	New England Seed Co.	75	100
Corn	Silver Queen	New England Seed Co.	75	100
Corn	Pride and Joy	New England Seed Co.	75	94
Corn	Peaches & Cream	Livingston Seed Co.	75	100
Corn	Silver Queen	Lake Valley Seed	75	98
Corn	Sugar Dots	NK Lawn and Garden Co.	75	98
Cowpea	Pink Eye Purple Hull	Ferry-Morse Seed Co./Better Homes&Gardens	75	73
Cress	Upland Curled	Chas. C. Hart Seed Co.	60	99
Cucumber	Marketmore 76	Agway, Inc.	80	98
Cucumber	Dasher II	Agway, Inc.	80	94
Cucumber	Armenian Yard Long	Ferry-Morse Seed Co./Better Homes&Gardens	80	90
Cucumber	Sumter	Ferry-Morse Seed Co./Better Homes&Gardens	80	98
Cucumber	National Pickling	American Seed	80	94
Cucumber	Poinsett 76	Plantation Products, Inc.	80	99
Cucumber	Boston National Pickling	Chas. C. Hart Seed Co.	80	98
Cucumber	Marketmore 76	Chas. C. Hart Seed Co.	80	100
Cucumber	Lemon	Comstock, Ferre and Co.	80	100
Cucumber	Slicemaster	Comstock, Ferre and Co.	80	95
Cucumber	Straight Eight	W. Atlee Burpee and Co.	80	98
Cucumber	Mideast Prolific	Seeds of Change	80	89
Cucumber	Spacemaster	New England Seed Co.	80	98
Cucumber	Pioneer Hybrid	New England Seed Co.	80	96
Cucumber	Boston Pickling	Livingston Seed Co.	80	98
Cucumber	Muncher Burpless	Livingston Seed Co.	80	100
Cucumber	Straight Eight	Lake Valley Seed	80	97
Cucumber	Poinsett 76	NK Lawn and Garden Co.	80	97
Cucumber	Marketmore 76	Greene Valley Seeds/The Page Seed Co.	80	99
Cucumber	Wisconsin SMR 58 Pickling	Greene Valley Seeds/The Page Seed Co.	80	94
Dill	Boquet	Chas. C. Hart Seed Co.	60	82
Dill		W. Atlee Burpee and Co.	60	70
Eggplant	High Bush Select	Agway, Inc.	60	81
Eggplant	Black Beauty	Chas. C. Hart Seed Co.	60	90
Eggplant	Dusky	Comstock, Ferre and Co.	60	89
Eggplant	Long Purple	New England Seed Co.	60	89
Endive	Florida Deep Heart	Agway, Inc.	70	90
Endive	Salad King	Comstock, Ferre and Co.	70	89
Endive	Tres Fine Maraicher	Botanical Interests, Inc.	70	96
Endive	Batavian Full Heart	Greene Valley Seeds/The Page Seed Co.	70	88
Kale	Blue Scotch	Agway, Inc.	75	83
Kale	Vates, Blue Curled	Chas. C. Hart Seed Co.	75	93
Kale	Red Russian	Comstock, Ferre and Co.	75	99
Kale	Dwarf Blue Curled	Botanical Interests, Inc.	75	96
Kale	Vates, Dwarf Blue Curled	NK Lawn and Garden Co.	75	72
Kohlrabi	White Vienna	Agway, Inc.	75	96
Kohlrabi	White Vienna	Chas. C. Hart Seed Co.	75	98
Kohlrabi	Grand Duke	Comstock, Ferre and Co.	75	85
Kohlrabi	Grand Duke	New England Seed Co.	75	90
Leek	Carina	Agway, Inc.	60	91
Leek	American Flag	Comstock, Ferre and Co.	60	90
Leek	Broad London	W. Atlee Burpee and Co.	60	70
Leek	American Broad Flag	New England Seed Co.	60	85
Lettuce	Black Seeded Simpson	Agway, Inc.	80	98

Table 1. Germination of vegetable seeds. Standards are provided by the rules and regulations of the Federal Seed Act (continued). *=Does not meet label claim. H=Seeds remained hard at the end of the test period because they did not absorb water due to an impermeable seed coat.

Plant	Variety	Seed Company	Germination	
			Standard	Found
Lettuce	Summertime	Agway, Inc.	80	100
Lettuce	Parris Island Cos	Ferry-Morse Seed Co./Better Homes&Gardens	80	94
Lettuce	Grand Rapids	American Seed	80	98
Lettuce	Lollo Rosa	Plantation Products, Inc.	80	91
Lettuce	Buttercrunch	Chas. C. Hart Seed Co.	80	87
Lettuce	Iceberg	Chas. C. Hart Seed Co.	80	94
Lettuce	Cimmaron Red Romaine	Comstock, Ferre and Co.	80	94
Lettuce	Oak Leaf	Comstock, Ferre and Co.	80	97
Lettuce	Little Caesar Romaine	W. Atlee Burpee and Co.	80	99
Lettuce	Deer Tongue	Shepherd's Garden Seeds	80	97
Lettuce	Red Sails	Botanical Interests, Inc.	80	99
Lettuce	Paris Island Cos	New England Seed Co.	80	100
Lettuce	Buttercrunch	New England Seed Co.	80	94
Lettuce	Big Boston	New England Seed Co.	80	99
Lettuce	Black Seeded Simpson	Livingston Seed Co.	80	97
Lettuce	Grand Rapids	NK Lawn and Garden Co.	80	95
Lettuce	Romaine	Greene Valley Seeds/The Page Seed Co.	80	94
Mustard	India	Ferry-Morse Seed Co./Better Homes&Gardens	75	94
Mustard	Southern Giant Curled	Chas. C. Hart Seed Co.	75	91
Mustard	Greenwave	Comstock, Ferre and Co.	75	99
Mustard	Florida Broadleaf India	NK Lawn and Garden Co.	75	97
New Zealand Spinach		Agway, Inc.	40	85
New Zealand Spinach		Comstock, Ferre and Co.	40	20*
New Zealand Spinach		NK Lawn and Garden Co.	40	66
Okra	Clemson Spineless	Agway, Inc.	50	77
Okra	Emerald	Ferry-Morse Seed Co./Better Homes&Gardens	50	24+64H
Okra	Clemson Spineless	Chas. C. Hart Seed Co.	50	75
Okra	Clemson Spineless	W. Atlee Burpee and Co.	50	79
Okra	Cajun Delight	New England Seed Co.	50	92
Onion	Long White Bunching	Agway, Inc.	70	90
Onion	Sweet Spanish	Agway, Inc.	70	80
Onion	White Lisbon Bunching	American Seed	70	88
Onion	Southport Red Globe	Chas. C. Hart Seed Co.	70	93
Onion	White Ebenezer	Comstock, Ferre and Co.	70	93
Onion	Evergreen Long White Bunch.	W. Atlee Burpee and Co.	70	98
Onion	Cippolini Borettana	Shepherd's Garden Seeds	70	81
Onion	Paris Silver Skin	W. W. Johnson & Son Ltd.	70	34*
Onion	Red Burger Master	New England Seed Co.	70	88
Onion	White Lisbon	Lake Valley Seed	70	64
Onion	Utah Sweet Spanish	NK Lawn and Garden Co.	70	96
Onion	Yellow Sweet Spanish	Greene Valley Seeds/The Page Seed Co.	70	70
Parsley	Italian Plain Leaf	Agway, Inc.	60	61
Parsley	Extra Triple Curled	Ferry-Morse Seed Co./Better Homes&Gardens	60	88
Parsley	Plain Leaf	Chas. C. Hart Seed Co.	60	77
Parsley	Krausa Moss Curled	W. W. Johnson & Son Ltd.	70	84
Parsley	Moss Curled	Thompson&Morgan	60	81
Parsnip	All American	Agway, Inc.	60	78
Parsnip	Hollow Crown	Chas. C. Hart Seed Co.	60	87
Parsnip	All American	New England Seed Co.	60	70
Pea	Dwarf White Sugar	Agway, Inc.	80	95
Pea	Progress Number 9	Agway, Inc.	80	98
Pea	Alaska	Ferry-Morse Seed Co./Better Homes&Gardens	80	97
Pea	Sugar Snap	Ferry-Morse Seed Co./Better Homes&Gardens	80	97
Pea	Wando	Ferry-Morse Seed Co./Better Homes&Gardens	80	98
Pea	Melting Sugar	Ferry-Morse Seed Co./D. M. Ferry	80	80
Pea	Alaska	American Seed	80	99
Pea	Dwarf Telephone	Chas. C. Hart Seed Co.	80	88

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

Plant	Variety	Seed Company	Germination	
			Standard	Found
Pea	Sugar Daddy	Chas. C. Hart Seed Co.	80	79
Pea	Wando	Comstock, Ferre and Co.	80	93
Pea	Mammoth Melting Sugar	Comstock, Ferre and Co.	80	82
Pea	Snowbird	W. Atlee Burpee and Co.	80	100
Pea	Knight	Shepherd's Garden Seeds	80	99
Pea	Cascadia Snap	Botanical Interests, Inc.	80	94
Pea	Sugar Snap	New England Seed Co.	80	91
Pea	Laxton's Progress	New England Seed Co.	80	97
Pea	Oregon Sugar Pod II	Livingston Seed Co.	80	97
Pea	Sugar Snap	Lake Valley Seed	80	96
Pea	Little Marvel	NK Lawn and Garden Co.	80	93
Pepper	Fajita Bell	Agway, Inc.	55	93
Pepper	Staddon's Select	Agway, Inc.	55	75
Pepper	Jalapeno M	Agway, Inc.	55	87
Pepper	Sweet Banana	Ferry-Morse Seed Co./Better Homes&Gardens	55	62
Pepper	Long Thin Cayenne	Ferry-Morse Seed Co./Better Homes&Gardens	55	62
Pepper	California Wonder	American Seed	55	72
Pepper	Cubanelle	Plantation Products, Inc.	55	64
Pepper	California Wonder	Chas. C. Hart Seed Co.	55	62
Pepper	Jalapeno	Chas. C. Hart Seed Co.	55	90
Pepper	Ancho	Comstock, Ferre and Co.	55	81
Pepper	Thai	Comstock, Ferre and Co.	55	80
Pepper	Jalapeno	W. Atlee Burpee and Co.	55	96
Pepper	Sweet Banana	W. Atlee Burpee and Co.	55	55
Pepper	Santaka Hot Asian	Botanical Interests, Inc.	55	92
Pepper	Early Calwonder	New England Seed Co.	55	61
Pepper	Habanero, Caribbean Red	New England Seed Co.	55	94
Pepper	Jalapeno	NK Lawn and Garden Co.	55	76
Pepper	Early Calwonder	Greene Valley Seeds/The Page Seed Co.	55	55
Pumpkin	Baby Pam	Agway, Inc.	75	90
Pumpkin	Thomas Halloween	Agway, Inc.	75	93
Pumpkin	Jack O'Lantern	Ferry-Morse Seed Co./Better Homes&Gardens	75	98
Pumpkin	Big Max	Chas. C. Hart Seed Co.	75	81
Pumpkin	Small Sugar	Chas. C. Hart Seed Co.	75	97
Pumpkin	Jack O'Lantern	Comstock, Ferre and Co.	75	72
Pumpkin	Small Sugar	New England Seed Co.	75	97
Pumpkin	Jack O'Lantern	Livingston Seed Co.	75	99
Pumpkin	Big Max	NK Lawn and Garden Co.	75	44*
Radish	Champion	Agway, Inc.	75	93
Radish	Icicle	Ferry-Morse Seed Co./Better Homes&Gardens	75	96
Radish	Early Scarlet Globe	American Seed	75	94
Radish	Black Spanish Round	Chas. C. Hart Seed Co.	75	97
Radish	Easter Egg Mixture	Comstock, Ferre and Co.	75	97
Radish	Salad Rose	W. Atlee Burpee and Co.	75	100
Radish	French Breakfast	New England Seed Co.	75	94
Radish	Sparkler	NK Lawn and Garden Co.	75	93
Radish	Early Select Globe	Greene Valley Seeds/The Page Seed Co.	75	95
Rutabaga	American Purple Top	Agway, Inc.	75	98
Rutabaga	American Purple Top	NK Lawn and Garden Co.	75	98
Spinach	Melody	Agway, Inc.	60	90
Spinach	Bloomsdale Longstanding	Ferry-Morse Seed Co./Better Homes&Gardens	60	84
Spinach	Giant Noble	American Seed	60	94
Spinach	Correnta Hybrid	Plantation Products, Inc.	60	93
Spinach	Bloomsdale	Chas. C. Hart Seed Co.	60	74
Spinach	Hybrid # 7	Comstock, Ferre and Co.	60	86
Spinach	Melody	W. Atlee Burpee and Co.	60	91
Spinach	Dark Green Bloomsdale	New England Seed Co.	60	94
Spinach	Bloomsdale Longstanding	Livingston Seed Co.	60	89

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

Plant	Variety	Seed Company	Germination	
			Standard	Found
Spinach	Bloomsdale Longstanding	Greene Valley Seeds/The Page Seed Co.	60	86
Squash	Black Beauty	Agway, Inc.	75	83
Squash	Early Prolific Straightneck	Agway, Inc.	75	90
Squash	Puritan Butternut	Agway, Inc.	75	91
Squash	Table Ace	Agway, Inc.	75	99
Squash	Black Beauty	Ferry-Morse Seed Co./Better Homes&Gardens	75	89
Squash	Waltham Butternut	Ferry-Morse Seed Co./Better Homes&Gardens	75	78
Squash	Buttercup Burgess	Chas. C. Hart Seed Co.	75	100
Squash	Early Crookneck	Chas. C. Hart Seed Co.	75	97
Squash	Zucchini, Dark Green	Chas. C. Hart Seed Co.	75	84
Squash	Early Summer Crookneck	Comstock, Ferre and Co.	75	95
Squash	Peter Pan	Comstock, Ferre and Co.	75	92
Squash	Spaghetti	Comstock, Ferre and Co.	75	94
Squash	Waltham Butternut	Comstock, Ferre and Co.	75	93
Squash	Burpee's Hybrid Zucchini	W. Atlee Burpee and Co.	75	97
Squash	Waltham Butternut	W. Atlee Burpee and Co.	75	97
Squash	Spaghetti	New England Seed Co.	75	94
Squash	Blue Hubbard	New England Seed Co.	75	100
Squash	Goldrush	New England Seed Co.	75	87
Squash	Eight Ball	New England Seed Co.	75	76
Squash	Buttercup	Livingston Seed Co.	75	94
Squash	Zucchini, Dark Green	Livingston Seed Co.	75	76
Squash	Buttercup	NK Lawn and Garden Co.	75	82
Squash	Early Prolific Straightneck	Greene Valley Seeds/The Page Seed Co.	75	96
Swiss chard	Fordhook Giant	Agway, Inc.	65	91
Swiss chard	Large Ribbed Dark Green	Ferry-Morse Seed Co./Better Homes&Gardens	65	81
Swiss chard	Rhubarb	Chas. C. Hart Seed Co.	65	89
Swiss chard	Rhubarb	Comstock, Ferre and Co.	65	89
Swiss chard	Bright Light	New England Seed Co.	65	78
Tomatillo	Toma Verde	Plantation Products, Inc.	75	93
Tomato	Burpee Big Boy	Agway, Inc.	75	95
Tomato	Roma VF	Agway, Inc.	75	95
Tomato	Heinz 1370	Agway, Inc.	75	94
Tomato	Rutgers	Ferry-Morse Seed Co./Better Homes&Gardens	75	93
Tomato	Red Cherry Large Fruited	Ferry-Morse Seed Co./Better Homes&Gardens	75	88
Tomato	Italian Beefsteak	Plantation Products, Inc.	75	98
Tomato	Red Cherry	Plantation Products, Inc.	75	95
Tomato	Jetstar	Chas. C. Hart Seed Co.	75	91
Tomato	Marglobe	Chas. C. Hart Seed Co.	75	95
Tomato	Big Beef	Comstock, Ferre and Co.	75	96
Tomato	Patio	Comstock, Ferre and Co.	75	78
Tomato	Rutgers	W. Atlee Burpee and Co.	75	96
Tomato	Big Beef	New England Seed Co.	75	78
Tomato	Husky Gold	New England Seed Co.	75	93
Tomato	Better Boy	New England Seed Co.	75	92
Tomato	Super Marmande	NK Lawn and Garden Co.	75	93
Tomato	Delicious	Greene Valley Seeds/The Page Seed Co.	75	91
Tomato	San Marzano	Greene Valley Seeds/The Page Seed Co.	75	92
Turnip	Seven Top	Ferry-Morse Seed Co./Better Homes&Gardens	80	98
Turnip	Purple Top White Globe	Chas. C. Hart Seed Co.	80	97
Turnip	Hamburg Globe	Comstock, Ferre and Co.	80	91
Turnip	Golden Ball	W. W. Johnson & Son Ltd.	80	94
Turnip	Purple Top White Globe	New England Seed Co.	80	98
Turnip	Tokyo Cross Hybrid	Thompson&Morgan	80	81
Watercress		Comstock, Ferre and Co.	40	89
Watermelon	Sugar Baby	Agway, Inc.	70	87
Watermelon	Jubilee	Ferry-Morse Seed Co./Better Homes&Gardens	70	84

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

Plant	Variety	Seed Company	Germination	
			Standard	Found
Watermelon	Yellow Doll	Comstock, Ferre and Co.	70	92
Watermelon	Sugar Baby	New England Seed Co.	70	86

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

Seed Company Company	Total Claims	% Meeting Claims	% Not Meeting Claims
Agway, Inc.	50	98	2
American Seed Co.	11	100	0
Botanical Interests, Inc.	5	100	0
Comstock, Ferre and Co.	45	100	0
Ferry-Morse Seed Co./ Better Homes & Gardens	31	100	0
Ferry-Morse Seed Co./D. M. Ferry	4	100	0
Greene Valley Seeds/The Page Seed Co.	14	100	0
Lake Valley Seed Co.	5	100	0
Livingston Seed Co.	13	100	0
New England Seed Co.	45	100	0
NK Lawn and Garden Co.	21	95	5
Plantation Products, Inc.	9	100	0
Seeds of Change	4	100	0
Shepherd's Garden Seeds	5	100	0
The Chas. C. Hart Seed Co.	50	98	2
Thompson & Morgan	4	100	0
W. Atlee Burpee and Co.	23	96	4
W. W. Johnson & Son, Ltd.	4	75	25
Thompson & Morgan	4	100	0

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

Plant	Samples Tested	Standard	Average Germination
Artichoke	1	60	51
Asparagus	1	70	96
Bean	22	70	92
Bean, Lima	2	70	48
Beet	10	65	82
Broccoli	7	75	95
Broccoli raab	1	75	99
Brussels sprouts	4	70	95
Cabbage	9	75	92
Cantaloupe	7	75	96
Carrot	12	55	82
Cauliflower	6	75	90
Celeriac	1	55	56
Celery	2	55	85
Chicory	3	65	82
Chinese cabbage	4	75	97
Collards	5	80	96
Corn	24	75	98
Cowpea	1	75	73
Cress	1	60	99
Cucumber	20	80	97
Dill	2	60	76
Eggplant	4	60	87
Endive	4	70	91
Kale	5	75	89
Kohlrabi	4	75	92
Leek	4	60	84
Lettuce	18	80	96
Mustard	4	75	96
New Zealand Spinach	3	40	57
Okra	5	50	81
Onion	12	70	81
Parsley	5	60	78
Parsnip	2	60	78
Pea	19	80	93
Pepper	18	55	75
Pumpkin	9	75	86
Radish	4	75	95
Rutabaga	2	75	98
Spinach	10	60	88
Squash	23	75	91
Swiss chard	5	65	86
Tomatillo	1	75	93
Tomato	18	75	92
Turnip	6	80	93
Watercress	1	40	89
Watermelon	5	70	87

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 is calculated according to the rules for seed testing published by the Association of Official Seed Analysts (AOSA). Variance is calculated as: Purity Found minus Purity Claimed.

Seed Company / Seed Mixture	Purity		Variance	Tolerance	Germination	
	Claim	Found			Claim	Found
<i>EAST HAVEN LANDSCAPE PROD. / A Mixture</i>						
Kentucky Bluegrass	39.54	43.23	3.69	4.53	85	85
Pennant II Perennial Ryegrass	39.77	38.95	-0.82		90	94
Creeping Red Fescue	19.69	17.06	-2.63	3.83	85	78
<i>CHAS. C. HART SEED CO. / Wear 'N Tear Lawn Seed Mixture</i>						
Kentucky Bluegrass	30.27	34.37	4.1	3.51*	80	83
Cutter Perennial Ryegrass	14.63				90	97
Elf Perennial Ryegrass	14.61				90	97
total ryegrass	29.24	27.38	-1.86	4.88		
Creeping Red Fescue	34.13	27.22	-6.91	4.31*	85	90
<i>NEW ENGLAND SEED CO. / New England Shade Lawn Seed</i>						
Boardwalk Perennial Ryegrass	29.66	32.92	3.26	3.78	90	96
Creeping Red Fescue	39.50				85	84
Chewings Fescue	29.58				85	84
total fine fescue	69.08	65.29	-3.79	3.81		
<i>NEW ENGLAND SEED CO. / Putnam Co-Op Landscape 85 Mix</i>						
Kentucky Bluegrass	17.17	19.47	2.3	5.12	80	94
Manhattan II Perennial Ryegrass	19.57				90	90
Annual Ryegrass	14.49				90	90
total ryegrass	34.06	34.02	-0.04	4.31		
Creeping Red Fescue	19.67				85	89
Chewings Fescue	24.68				85	89
total fine fescue	44.35	42.89	-1.46	3.79		
<i>AGWAY, INC. / Agway Sunny Green Grass Seed Mixture</i>						
Aaron Kentucky Bluegrass	34.00	42.92	8.92	3.94*	80	91
Premier II Perennial Ryegrass	28.00	26.78	-1.28	4.84	85	95
Boreal Fescue	9.65				85	97
Creeping Red Fescue	24.18				85	97
total fine fescue	33.95	28.33	-5.50	4.31*		
<i>LEBANON SEABOARD CORP. / Mackey's Premium Finest Mixture</i>						
Baron Kentucky Bluegrass	24.81	27.67	2.86	3.02	85	90
Affinity Perennial Ryegrass	19.39				90	89
Statesman Perennial Ryegrass	19.38				90	89
Allstar Perennial Ryegrass	9.91				90	89
total perennial ryegrass	48.68	48.84	0.16	4.66		
Franklin Creeping Red Fescue	24.35	21.72	-2.63	3.54	85	83

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 is calculated according to the rules for seed testing published by the Association of Official Seed Analysts (AOSA). Variance is calculated as: Purity Found minus Purity Claimed.

Seed Company / Seed Mixture	Purity		Variance	Tolerance	Germination	
	Claim	Found			Claim	Found
<i>LEBANON SEABOARD CORP. / Mackey's Economy Mixture</i>						
Kentucky Bluegrass	8.50	12.93	4.43	1.47*	80	92
Perennial Ryegrass	9.99				90	94
Annual Ryegrass	77.83				90	94
total ryegrass	87.82	82.16	-5.66	1.86*		
<i>LESCO, INC. / Lesco Shade Seed Mixture</i>						
Shamrock Kentucky Bluegrass	14.79	18.75	3.96	2.09*	85	96
Legacy Perennial Ryegrass	14.70	15.56	0.86	3.69	90	96
Shaderock Creeping Red Fescue					90	92
Brittany Chewings Fescue					90	92
total fine fescue	69.25	63.86	-5.39	3.18*		
<i>LESCO, Inc. / Lesco Eagle Blend Plus Blue Seed Mixture</i>						
Shamrock Kentucky Bluegrass	25.06	32.71	7.65	3.32*	80	91
Stardance Perennial Ryegrass					90	94
Linedrive Perennial Ryegrass					90	94
Legacy II Perennial Ryegrass					90	94
total perennial ryegrass	73.09	66.01	-7.08	3.68*		
<i>LESCO, INC. / Lesco Park and Athletic Seed Mixture</i>						
Shamrock Kentucky Bluegrass	32.73	39.10	6.37	3.94*	90	89
Linedrive Perennial Ryegrass	31.51	31.79	0.28	4.88	90	98
Creeping Red Fescue	32.75	26.70	-6.05	4.28*	90	87
<i>SALEM COUNTRY GARDENS / Salem Country Gardens Contractor's Mix</i>						
Kentucky 85 Kentucky Bluegrass	13.25	4.60	8.65	1.19*	80	91
Perennial Ryegrass					85	96
Annual Ryegrass					85	96
total ryegrass	83.32	79.68	-3.64	2.24*		
Creeping Red Fescue	9.79	3.05	-6.74	1.4*	85	90

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