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Seed Germination
and Purity
Analysis 2001

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Official samples of 325 vegetable, 12 lawn, and 6 crop seed were collected by inspectors from the Bureau of Regulation and Inspection of the Connecticut Department of Agriculture for testing in 2001. 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 13 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 325 vegetable seed samples tested, one did not meet the label claim for germination. One additional sample did not meet the label claim but was not retested because of an 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 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. Three of the 12 lawn seed samples tested met label claims for both purity and germination. Nine 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.

Table 5 shows the results of purity and germination tests for crop seed samples. All six samples met label claims for germination and purity.

Analyses were performed by Mary K. Inman and Dr. Sharon M. Douglas. Samples were collected by Alton Van Dyke, Seed Control Official and John Schneider. 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. 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	Standard	Found
Artichoke	Green Globe	Charles C. Hart Seed Co.	60	62
Artichoke	Green Globe	Comstock, Ferre and Co.	60	64
Asparagus	Mary Washington	Comstock, Ferre and Co.	70	90
Bean	Blue Lake Bush	Charles C. Hart Seed Co.	70	95
Bean	Pencil Pod Wax	Charles C. Hart Seed Co.	70	97
Bean	Blue Lake Bush	New England Seed Co.	70	94
Bean	Roma II Bush	New England Seed Co.	70	94
Bean	Cherokee Wax	New England Seed Co.	70	98
Bean	Blue Lake Bush 274	W. Atlee Burpee and Co.	70	93
Bean	Kentucky Wonder Pole	W. Atlee Burpee and Co.	70	96
Bean	Tendergreen Improved	Ferry-Morse Seed Co./Better Homes and Gardens	70	95
Bean	Nugget Bush Wax	Ferry-Morse Seed Co./Better Homes and Gardens	70	94
Bean	Pencil Pod Wax	Comstock, Ferre and Co.	70	98
Bean	Kentucky Wonder	Comstock, Ferre and Co.	70	88
Bean	Northstar Navy	Comstock, Ferre and Co.	70	94
Bean	Red Kidney	Comstock, Ferre and Co.	70	99
Bean	Top Crop	Livingston Seed Co.	70	99
Bean	Greencrop	NK Lawn and Garden Co.	70	83
Bean	Royal Burgundy	Agway, Inc.	70	95
Bean	Butterwax	Agway, Inc.	70	97
Bean	Black Seeded Blue Lake	Seeds of Change	70	89
Bean	Spanish Musica Pole	Renee's Garden	70	98
Bean	Shepherd's Bush 3 Color Mix	Shepherd's Garden Seeds	70	95
Bean	Montpellier French	Botanical Interests, Inc.	70	96
Bean	Scarlet Emperor	Botanical Interests, Inc.	70	85
Bean, lima	Henderson	Charles C. Hart Seed Co.	70	84
Bean, lima	Baby Fordhook	W. Atlee Burpee and Co.	70	82
Bean, lima	Fordhook 242	Agway, Inc.	70	65
Beet	Red Ace	Charles C. Hart Seed Co.	65	89
Beet	Scarlet Supreme Hybrid	New England Seed Co.	65	88
Beet	Detroit Dark Red	W. Atlee Burpee and Co.	65	79
Beet	Cylindra	Comstock, Ferre and Co.	65	92
Beet	Ruby Queen	NK Lawn and Garden Co.	65	95
Beet	Detroit Dark Red	American Seed	65	87
Beet	Red Ace	Agway, Inc.	65	79
Broccoli	Green Calabrese	Charles C. Hart Seed Co.	75	79
Broccoli	Premium Crop Hybrid	New England Seed Co.	75	93
Broccoli	Green Goliath	W. Atlee Burpee and Co.	75	94
Broccoli	Green Comet	Ferry-Morse Seed Co./Better Homes and Gardens	75	86
Broccoli	Waltham 29	NK Lawn and Garden Co.	75	98
Broccoli	Calabrese	American Seed	75	77
Broccoli	Super Blend Mix	Shepherd's Garden Seeds	75	90
Broccoliraab	Spring	Comstock, Ferre and Co.	75	97
Brussels sprouts	Long Island Improved	Charles C. Hart Seed Co.	70	95
Brussels sprouts	Jade Cross Hybrid	New England Seed Co.	70	87

Table 1. Germination of vegetable seeds. (continued). Standards are provided by the rules and regulations of the Federal Seed Act. * = 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	Standard	Found
Brussels sprouts	Bubbles	Comstock, Ferre and Co.	70	98
Brussels sprouts	Catskill	Agway, Inc.	70	94
Cabbage	Chieftain Savoy	Charles C. Hart Seed Co.	75	98
Cabbage	Dynamo	New England Seed Co.	75	94
Cabbage	Ireland Hybrid	W. Atlee Burpee and Co.	75	76
Cabbage	Copenhagen Market Early	Ferry-Morse Seed Co./Better Homes and Gardens	75	90
Cabbage	Red Acre	Comstock, Ferre and Co.	75	82
Cabbage	Gourmet	Agway, Inc.	75	87
Cantaloupe	Delicious 51	Charles C. Hart Seed Co.	75	95
Cantaloupe	Alaska Hybrid	New England Seed Co.	75	97
Cantaloupe	Burpee Hybrid	W. Atlee Burpee and Co.	75	99
Cantaloupe	Hale's Best Jumbo	Ferry-Morse Seed Co./Better Homes and Gardens	75	94
Cantaloupe	Iroquois	Comstock, Ferre and Co.	75	88
Cantaloupe	Imperial 45	NK Lawn and Garden Co.	75	98
Carrot	Danvers Half Long	Charles C. Hart Seed Co.	55	89
Carrot	Danvers Half Long	New England Seed Co.	55	79
Carrot	Nantes Half Long	W. Atlee Burpee and Co.	55	75
Carrot	Imperator # 58	Ferry-Morse Seed Co./Better Homes and Gardens	55	80
Carrot	Gold Pak	Comstock, Ferre and Co.	55	85
Carrot	Nantes	Livingston Seed Co.	55	88
Carrot	Candy Stick Hybrid	NK Lawn and Garden Co.	55	90
Carrot	Danvers Half Long	American Seed	55	81
Carrot	Royal Chantenay	Agway, Inc.	55	71
Carrot	French Babette	Renee's Garden	55	60
Carrot	Parmax Baby Round	Shepherd's Garden Seeds	55	79
Carrot	Scarlet Nantes	Botanical Interests, Inc.	55	72
Cauliflower	Early Snowball	Charles C. Hart Seed Co.	75	95
Cauliflower	Snow Crop	New England Seed Co.	75	96
Cauliflower	Early White Hybrid	W. Atlee Burpee and Co.	75	96
Cauliflower	Snowball Improved	Comstock, Ferre and Co.	75	95
Cauliflower	Candid Charm Hybrid	NK Lawn and Garden Co.	75	89
Cauliflower	Snowball X	American Seed	75	98
Cauliflower	Snow Crown	Agway, Inc.	75	99
Celery	Giant Pascal	Charles C. Hart Seed Co.	55	81
Celery	Utah	New England Seed Co.	55	54
Celery	Green Pascal	Comstock, Ferre and Co.	55	71
Chicory	Italian Dandelion	Charles C. Hart Seed Co.	65	87
Chicory	Italian Dandelion	New England Seed Co.	65	81
Chicory	Verona Red	Comstock, Ferre and Co.	70	85
Chinese cabbage	Michihli	Comstock, Ferre and Co.	75	98
Chinese cabbage	Jade Pagoda	Agway, Inc.	75	96
Collards	Georgia Green	Charles C. Hart Seed Co.	80	96
Collards	Georgia	New England Seed Co.	80	92
Collards	Georgia	Comstock, Ferre and Co.	80	98
Collards	Vates	Agway, Inc.	80	89

Table 1. Germination of vegetable seeds. (continued). Standards are provided by the rules and regulations of the Federal Seed Act. * = 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	Standard	Found
Corn	Butter and Sugar	Charles C. Hart Seed Co.	75	98
Corn	Silver Queen	Charles C. Hart Seed Co.	75	97
Corn	Kandy Korn	Charles C. Hart Seed Co.	75	97
Corn	Butter and Sugar	New England Seed Co.	75	99
Corn	Mini Ear	New England Seed Co.	75	97
Corn	Early Sunglow	New England Seed Co.	75	98
Corn	Honey and Cream	W. Atlee Burpee and Co.	75	97
Corn	Early Sunglow	W. Atlee Burpee and Co.	75	98
Corn	Golden Cross Bantam	Ferry-Morse Seed Co./Better Homes and Gardens	75	97
Corn	Golden Bantam	Comstock, Ferre and Co.	75	99
Corn	Bodacious	Comstock, Ferre and Co.	75	92
Corn	Peaches and Cream	Livingston Seed Co.	75	97
Corn	Sugar Dots	NK Lawn and Garden Co.	75	89
Corn	Twice as Nice	Agway, Inc.	75	97
Corn	Silver Queen	Agway, Inc.	75	98
Corn	Stowells Heirloom	Seeds of Change	75	94
Corn	Casino Early	Renee's Garden	75	98
Corn	Sugar Snow	Shepherd's Garden Seeds	75	95
Cornsalad	Mache	Botanical Interests, Inc.	70	85
Cowpea	Pink Eye Purple Hull	Ferry-Morse Seed Co./Better Homes and Gardens	75	72
Cress	Upland Curled	Charles C. Hart Seed Co.	60	97
Cucumber	Bush Crop	Charles C. Hart Seed Co.	80	94
Cucumber	Straight Eight	Charles C. Hart Seed Co.	80	98
Cucumber	Wisconsin SMR	Charles C. Hart Seed Co.	80	99
Cucumber	Burpless Hybrid	New England Seed Co.	80	91
Cucumber	Pioneer Hybrid	New England Seed Co.	80	96
Cucumber	Straight Eight	W. Atlee Burpee and Co.	80	97
Cucumber	Marketmore 76	Ferry-Morse Seed Co./Better Homes and Gardens	80	95
Cucumber	Armenian Yard Long	Comstock, Ferre and Co.	80	98
Cucumber	West Indian Gherkin	Comstock, Ferre and Co.	80	95
Cucumber	Spacemaster Bush	Livingston Seed Co.	80	95
Cucumber	Poinsett 76	NK Lawn and Garden Co.	80	93
Cucumber	National Pickling	American Seed	80	96
Cucumber	Dasher II	Agway, Inc.	80	97
Cucumber	Wisconsin SMR-58	Agway, Inc.	80	100
Cucumber	Champion Bush	Seeds of Change	80	96
Cucumber	Homemade Pickles	Botanical Interests, Inc.	80	93
Dill	Boquet	Charles C. Hart Seed Co.	60	82
Dill	Boquet	New England Seed Co.	60	89
Dill	Mammoth	W. Atlee Burpee and Co.	60	83
Dill	Long Island Mammoth	American Seed	60	75
Dill	Dukat	Shepherd's Garden Seeds	60	85
Eggplant	Black Beauty	Charles C. Hart Seed Co.	60	88
Eggplant	Long Purple	New England Seed Co.	60	81
Eggplant	Black Beauty	Ferry-Morse Seed Co./Better Homes and Gardens	60	88
Eggplant	Long Purple	Comstock, Ferre and Co.	60	83

Table 1. Germination of vegetable seeds. (continued). Standards are provided by the rules and regulations of the Federal Seed Act. * = 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	Standard	Found
Eggplant	Dusky Hybrid	NK Lawn and Garden Co.	60	91
Eggplant	Black Beauty	American Seed	60	95
Eggplant	High Bush Select	Agway, Inc.	60	84
Eggplant	Black Beauty	Botanical Interests, Inc.	60	85
Endive	Escarolle	Charles C. Hart Seed Co.	70	81
Endive	Batavian Full Heart	Comstock, Ferre and Co.	70	91
Endive	Green Ruffle	Agway, Inc.	70	92
Endive	Tres Fine	Shepherd's Garden Seeds	70	96
Kale	Vates Blue Curled	Charles C. Hart Seed Co.	75	98
Kale	Vates Dwarf Blue Curled	W. Atlee Burpee and Co.	75	97
Kale	Red Russian	Comstock, Ferre and Co.	75	95
Kale	Blue Scotch	Agway, Inc.	75	95
Kale	Red Winder	Botanical Interests, Inc.	75	93
Kohlrabi	Early White Vienna	Ferry-Morse Seed Co./Better Homes and Gardens	75	97
Kohlrabi	Early Purple Vienna	Comstock, Ferre and Co.	75	97
Kohlrabi	Early White Vienna	NK Lawn and Garden Co.	75	98
Kohlrabi	Early Purple Vienna	Agway, Inc.	75	94
Leek	American Flag	Charles C. Hart Seed Co.	60	95
Leek	American Broad Flag	New England Seed Co.	60	95
Leek	American Flag	Comstock, Ferre and Co.	60	96
Leek	Otina	Shepherd's Garden Seeds	60	90
Lettuce	Bibb	Charles C. Hart Seed Co.	80	96
Lettuce	Red Sails	Charles C. Hart Seed Co.	80	94
Lettuce	Salad Bowl	Charles C. Hart Seed Co.	80	97
Lettuce	Oak Leaf	New England Seed Co.	80	97
Lettuce	Parris Island Cos	New England Seed Co.	80	99
Lettuce	Black Seeded Simpson	New England Seed Co.	80	99
Lettuce	Burpee Bibb	W. Atlee Burpee and Co.	80	95
Lettuce	Little Caesar Romaine	W. Atlee Burpee and Co.	80	94
Lettuce	Great Lakes # 118	Ferry-Morse Seed Co./Better Homes and Gardens	80	98
Lettuce	Winter Density	Comstock, Ferre and Co.	80	96
Lettuce	Parris Island Cos	Comstock, Ferre and Co.	80	94
Lettuce	Cimmaron Red	Comstock, Ferre and Co.	80	87
Lettuce	Buttercrunch	Livingston Seed Co.	80	97
Lettuce	Iceberg	NK Lawn and Garden Co.	80	97
Lettuce	Salad Bowl	NK Lawn and Garden Co.	80	90
Lettuce	Grand Rapids	American Seed	80	93
Lettuce	Black Seeded Simpson	Agway, Inc.	80	97
Lettuce	Prizehead	Agway, Inc.	80	96
Lettuce	Rouge D'Hiver	Seeds of Change	80	97
Lettuce	Long Standing Batavia	Seeds of Change	80	96
Lettuce	Spring Boquet Mix	Renee's Garden	80	97
Lettuce	Speckles Amish Butterhead	Shepherd's Garden Seeds	80	90
Lettuce	Galactic Looseleaf	Shepherd's Garden Seeds	80	98
Lettuce	Kraganer Sommer	Botanical Interests, Inc.	80	99
Lettuce	Summertime	Botanical Interests, Inc.	80	98

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Plant	Variety	Seed Company	Standard	Found
Mustard	Southern Giant Curled	Charles C. Hart Seed Co.	75	89
Mustard	Green Wave	New England Seed Co.	75	22*
Mustard	Green Wave	Comstock, Ferre and Co.	75	75
Mustard	Florida Broadleaf	NK Lawn and Garden Co.	75	81
Mustard	Tendergreen	American Seed	75	98
Mustard	Mizuna	Botanical Interests, Inc.	75	98
New Zealand spinach		Charles C. Hart Seed Co.	40	29
New Zealand spinach		New England Seed Co.	40	53
New Zealand spinach		Agway, Inc.	40	92
Okra	Dwarf Stalk Long Green	Charles C. Hart Seed Co.	50	85
Okra	Clemson Spineless	New England Seed Co.	50	82
Okra	Louisiana Green Velvet	NK Lawn and Garden Co.	50	18+78H
Okra	Clemson Spineless	Agway, Inc.	50	84
Onion	Evergreen White Bunching	Charles C. Hart Seed Co.	70	98
Onion	Yellow Sweet Spanish	Charles C. Hart Seed Co.	70	93
Onion	Utah Yellow Spanish	New England Seed Co.	70	86
Onion	Evergreen White Bunching	W. Atlee Burpee and Co.	70	98
Onion	Evergreen Bunching	Ferry-Morse Seed Co./Better Homes and Gardens	70	99
Onion	Walla Walla	Comstock, Ferre and Co.	70	92
Onion	White Lisbon Bunching	NK Lawn and Garden Co.	70	95
Onion	White Lisbon Bunching	American Seed	70	89
Onion	Candy	Agway, Inc.	70	96
Parsley	Hamburg	Charles C. Hart Seed Co.	60	68
Parsley	Moss Curled	New England Seed Co.	60	61
Parsley	Hamburg	Comstock, Ferre and Co.	60	85
Parsley	Italian Plain Leaf	Agway, Inc.	60	72
Parsnip	Hollow Crown	Charles C. Hart Seed Co.	60	92
Parsnip	Hollow Crown	W. Atlee Burpee and Co.	60	90
Parsnip	All American	Agway, Inc.	60	91
Pea	Sugar Daddy Snap	Charles C. Hart Seed Co.	80	90
Pea	Freezonia	Charles C. Hart Seed Co.	80	98
Pea	Laxton's Progress	New England Seed Co.	80	97
Pea	Tall Telephone	New England Seed Co.	80	91
Pea	Sugar Snap	W. Atlee Burpee and Co.	80	96
Pea	Melting Sugar	Ferry-Morse Seed Co./Better Homes and Gardens	80	80
Pea	Dwarf Gray Sugar	Comstock, Ferre and Co.	80	97
Pea	Telephone	Comstock, Ferre and Co.	80	97
Pea	Sugar Snap	Livingston Seed Co.	80	98
Pea	Little Marvel	NK Lawn and Garden Co.	80	94
Pea	Sugar Sprint	NK Lawn and Garden Co.	80	88
Pea	Mr. Big	Agway, Inc.	80	95
Pea	Sugar Snap	Agway, Inc.	80	98
Pea	Cascadia Bush Snap	Seeds of Change	80	95
Pea	French Citadel	Renee's Garden	80	99
Pea	Sugar Sprint	Shepherd's Garden Seeds	80	99
Pea	Progress No. 9	Botanical Interests, Inc.	80	98

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Plant	Variety	Seed Company	Standard	Found
Pepper	California Wonder	Charles C. Hart Seed Co.	55	65
Pepper	Marconi Rosso	Charles C. Hart Seed Co.	55	58
Pepper	Red Cherry Hot	Charles C. Hart Seed Co.	55	56
Pepper	Garden Salsa	New England Seed Co.	55	76
Pepper	Red Beauty	New England Seed Co.	55	71
Pepper	Large Red Cayenne	New England Seed Co.	55	83
Pepper	Jalapeno	W. Atlee Burpee and Co.	55	91
Pepper	Sweet Banana	W. Atlee Burpee and Co.	55	73
Pepper	Serrano Chili	Ferry-Morse Seed Co./Better Homes and Gardens	55	76
Pepper	Cubanelle	Comstock, Ferre and Co.	55	87
Pepper	Scotch Bonnet	Comstock, Ferre and Co.	55	65
Pepper	Mulato Isleno	Comstock, Ferre and Co.	55	83
Pepper	Jalapeno	NK Lawn and Garden Co.	55	72
Pepper	Jupiter	NK Lawn and Garden Co.	55	51
Pepper	Staddon's Select	Agway, Inc.	55	73
Pepper	Sweet Banana	Agway, Inc.	55	62
Pepper	Jalapeno	Seeds of Change	55	78
Pepper	Cayenne Mix (red and yellow)	Renee's Garden	55	78
Pepper	Serrano Tampiqueno	Botanical Interests, Inc.	55	83
Pepper	Marconi Golden	Botanical Interests, Inc.	55	86
Pumpkin	Connecticut Field	Charles C. Hart Seed Co.	75	91
Pumpkin	Jack Lantern	New England Seed Co.	75	92
Pumpkin	Howden	Comstock, Ferre and Co.	75	87
Pumpkin	Big Max	Comstock, Ferre and Co.	75	87
Pumpkin	Big Max	NK Lawn and Garden Co.	75	87
Pumpkin	Ichabod	Agway, Inc.	75	95
Radish	White Icicle	New England Seed Co.	75	100
Radish	French Breakfast	New England Seed Co.	75	96
Radish	Cherry Belle	Ferry-Morse Seed Co./Better Homes and Gardens	75	96
Radish	China Rose	Comstock, Ferre and Co.	75	99
Radish	Sparkler White Tip	Livingston Seed Co.	75	95
Radish	Sparkler White Tip	American Seed	75	96
Radish	Champion	Agway, Inc.	75	100
Rutabaga	Imp. Purple Top Yellow	New England Seed Co.	75	93
Rutabaga	American Purple Top	Agway, Inc.	75	97
Sage	Broad Leaf	New England Seed Co.	60	92
Soybean	Edamame Tohya	Botanical Interests, Inc.	75	59*
Spinach	Melody Hybrid	New England Seed Co.	60	90
Spinach	Bloomsdale Long Standing	Ferry-Morse Seed Co./Better Homes and Gardens	60	71
Spinach	Bloomsdale	Comstock, Ferre and Co.	60	84
Spinach	Bloomsdale Long Standing	Livingston Seed Co.	60	77
Spinach	Indian Summer Hybrid	NK Lawn and Garden Co.	60	84
Spinach	Noble	American Seed	60	95
Spinach	Melody	Agway, Inc.	60	94

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Plant	Variety	Seed Company	Standard	Found
Spinach	Catalina	Renee's Garden	60	88
Spinach	Nordic IV	Shepherd's Garden Seeds	60	92
Squash	Buttercup Bush	Charles C. Hart Seed Co.	75	94
Squash	Straightneck	Charles C. Hart Seed Co.	75	94
Squash	Table Queen	Charles C. Hart Seed Co.	75	81
Squash	Buttercup	New England Seed Co.	75	90
Squash	Goldrush	New England Seed Co.	75	83
Squash	Zucchini, Ambassador	New England Seed Co.	75	81
Squash	Patty Pan, Early White Bush	W. Atlee Burpee and Co.	75	97
Squash	Dixie Hybrid	Ferry-Morse Seed Co./Better Homes and Gardens	75	84
Squash	Zucchini, Black Beauty	Ferry-Morse Seed Co./Better Homes and Gardens	75	90
Squash	Spaghetti	Ferry-Morse Seed Co./Better Homes and Gardens	75	90
Squash	Early Prolific Straightneck	Comstock, Ferre and Co.	75	94
Squash	Zucchini, Ambassador	Comstock, Ferre and Co.	75	85
Squash	Blue Hubbard	Comstock, Ferre and Co.	75	76
Squash	Early Crookneck Summer	Livingston Seed Co.	75	92
Squash	Buttercup	NK Lawn and Garden Co.	75	88
Squash	Early Summer Crookneck	NK Lawn and Garden Co.	75	95
Squash	Ambercup	Agway, Inc.	75	70
Squash	Zucchini, Black Beauty	Agway, Inc.	75	90
Squash	Enterprise	Agway, Inc.	75	97
Squash	Zucchini, Italian Romanesco	Renee's Garden	75	85
Swiss chard	Bright Lights	Comstock, Ferre and Co.	65	81
Swiss chard	Fordhook Giant	Agway, Inc.	65	82
Tomatillo	Toma Verde	Comstock, Ferre and Co.	50	96
Tomato	Red Cherry	Charles C. Hart Seed Co.	75	86
Tomato	Jet Star	Charles C. Hart Seed Co.	75	96
Tomato	Big Beef	Charles C. Hart Seed Co.	75	90
Tomato	Lemon Boy	New England Seed Co.	75	78
Tomato	Big Boy	New England Seed Co.	75	86
Tomato	Super Beefsteak	W. Atlee Burpee and Co.	75	94
Tomato	Roma	W. Atlee Burpee and Co.	75	82
Tomato	Rutgers	Ferry-Morse Seed Co./Better Homes and Gardens	75	88
Tomato	Red Cherry, Large Fruited	Ferry-Morse Seed Co./Better Homes and Gardens	75	93
Tomato	Better Boy	Comstock, Ferre and Co.	75	95
Tomato	Marglobe Supreme	Comstock, Ferre and Co.	75	66
Tomato	Jubilee	NK Lawn and Garden Co.	75	76
Tomato	Beefsteak	American Seed	75	82
Tomato	Heinz 1370	Agway, Inc.	75	91
Tomato	Roma VF	Agway, Inc.	75	88
Tomato	Amish Paste	Botanical Interests, Inc.	75	91
Turnip	Purple Top White Globe	Charles C. Hart Seed Co.	80	95
Turnip	Purple Top White Globe	W. Atlee Burpee and Co.	80	98
Turnip	Seven Top	Ferry-Morse Seed Co./Better Homes and Gardens	80	100
Turnip	White Egg	Comstock, Ferre and Co.	80	96

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Plant	Variety	Seed Company	Standard	Found
Turnip	Purple Top White Globe	American Seed	80	97
Turnip	Seven Top	Botanical Interests, Inc.	80	98
Watercress		New England Seed Co.	40	89
Watercress		Shepherd's Garden Seeds	40	79
Watermelon	Sugar Baby	Charles C. Hart Seed Co.	70	95
Watermelon	Sugar Baby	New England Seed Co.	70	94
Watermelon	Sugar Baby	Ferry-Morse Seed Co./Better Homes and Gardens	70	97
Watermelon	Crimson Sweet	Comstock, Ferre and Co.	70	92

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, Inc.	39	100	0
American Seed	14	100	0
Botanical Interests, Inc.	16	94	6
Charles C. Hart Seed Co.	50	100	0
Comstock, Ferre & Co.	50	100	0
Ferry-Morse Seed Co./ Better Homes & Gardens	24	100	0
Livingston Seed Co.	9	100	0
New England Seed Co.	48	98	2
NK Lawn and Garden Co.	24	100	0
Renee's Garden	8	100	0
Seeds of Change	7	100	0
Shepherd's Garden Seeds	12	100	0
W. Atlee Burpee and Co.	25	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
Artichoke	2	60	63
Asparagus	1	70	90
Bean	22	70	94
Bean, lima	3	70	77
Beet	7	65	87
Broccoli	7	75	88
Broccoliraab	1	75	97
Brussels sprouts	4	70	94
Cabbage	6	75	88
Cantaloupe	6	75	95
Carrot	12	55	79
Cauliflower	7	75	95
Celery	3	55	69
Chicory	3	65	84
Chinese cabbage	2	75	97
Collards	4	80	94
Corn	18	75	97
Cornsalad	1	70	85
Cowpea	1	75	72
Cress	1	60	97
Cucumber	16	80	96
Dill	5	60	83
Eggplant	8	60	87
Endive	4	70	90
Kale	5	75	96
Kohlrabi	4	75	97
Leek	4	60	94
Lettuce	25	80	96
Mustard	6	75	77
New Zealand spinach	3	40	58
Okra	3	50	87
Onion	9	70	94
Parsley	4	60	72
Parsnip	3	60	91
Pea	17	80	95
Pepper	20	55	73
Pumpkin	6	75	90
Radish	7	75	97
Rutabaga	2	75	95
Sage	1	60	92
Soybean	1	75	59
Spinach	9	60	86
Squash	20	75	88
Swiss chard	2	65	82
Tomatillo	1	50	96
Tomato	16	75	86
Turnip	6	80	97
Watercress	2	40	84
Watermelon	4	70	95

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 (Purity F) minus Purity Claimed (Purity C). Germination Claimed (Germ C); Germination Found (Germ F); H=Seeds remained hard at the end of the test period because they did not absorb water due to an impermeable seed coat.

Seed Company/Seed Mixture	Purity		Var.	Tol.	Germ.	
	C	F			C	F
<i>Lebanon Seaboard Corp. Mackey's Premium Finest Mixture</i>						
Raven Kentucky Bluegrass	24.80	27.27	2.47	3.12	85	92
Affinity Perennial Ryegrass	19.64				90	95
Dimension Perennial Ryegrass	19.38				90	95
Elegance Perennial Ryegrass	19.01				90	95
total Ryegrass	58.03	57.59	-0.44	4.53		
Red Creeping Fescue	14.56	13.36	-1.20	2.95	85	83
<i>Lebanon Seaboard Corp. Proscape Equus Pasture Mixture</i>						
Kentucky Bluegrass	25.50				85	86
Raven Kentucky Bluegrass	14.98				85	86
total Kentucky Bluegrass	40.48	41.91	1.43	3.83		
Granddaddy Tetraploid Perennial Ryegrass	19.61	14.03	-5.58	4.97*	90	90
Timothy	19.98	21.88	1.90	2.86	90	91
Alfalfa	14.93	15.79	0.86	4.80	80+5	93+1H
White Clover	4.96	4.91	-0.05	1.91	80+5	92+6H
<i>New England Seed Co. Putnam Co-op Conservation Mix</i>						
Perennial Ryegrass	19.26				90	96
Annual Ryegrass	19.97				90	96
total Ryegrass	39.23	42.02	2.79	3.79		
Creeping Red Fescue	19.70	20.00	0.30	2.76	85	87
Tall Fescue	33.96	29.08	-4.88	3.78*	85	94
White Clover	4.95	5.21	0.26	1.11	85	96+2H
<i>Pennington Seed Inc. Frank's Dense Shade Premium Grass Mixture</i>						
South Dakota Kentucky Bluegrass	9.50	14.38	4.88	1.55*	85	84
Shining Star Perennial Ryegrass	24.00	22.50	-1.50	4.12	90	96
Boreal Red Fescue	44.00				85	84
Flyer Creeping Red Fescue	9.50				85	84
Tiffany Chewings Fescue	9.50				85	84
total Fine Fescue	63.00	61.30	-1.70	3.33		
<i>Chas. C. Hart Seed Co. Harts Evergreen Lawn Seed Mixture</i>						
Kentucky Bluegrass	17.72	22.90	5.18	2.44*	80	71
Elf Perennial Ryegrass	19.71				90	97
Express Perennial Ryegrass	19.56				90	97
Annual Ryegrass	19.67				90	97
total ryegrass	58.94	56.77	-2.17	4.19		
Creeping Red Fescue	19.49	18.09	-1.40	2.76	85	87
<i>Chas. C. Hart Seed Co. Harts Northeastern Lawn Seed Mixture</i>						
Kentucky Bluegrass	17.71	23.92	6.21	2.49*	80	75
Perennial Ryegrass	38.98				90	94
Annual Ryegrass	29.37				90	94
total Ryegrass	68.35	65.37	-2.98	3.51		
Creeping Red Fescue	9.80	8.88	-0.92	2.06	85	90

Blue Seal Feeds, Inc. <i>Blue Seal Early Green Lawn Mixture</i>						
	Kentucky Bluegrass	10.41	18.43	8.02	1.87*	85 91
	Top Hat Perennial Ryegrass	51.13				90 94
	Annual Ryegrass	10.43				90 94
	total Ryegrass	61.56	56.09	-5.47	4.19*	
	Creeping Red Fescue	26.23	24.34	-1.89	3.04	85 93
Blue Seal Feeds, Inc. <i>Blue Seal Classic Lawn Mixture</i>						
	Kentucky Bluegrass	34.61	41.02	6.41	3.94*	85 90
	Accent Perennial Ryegrass	19.29				85 96
	Top Hat Perennial Ryegrass	19.73				90 96
	total Ryegrass	39.02	36.13	-2.89	5.38	
	Creeping Red Fescue	24.92	21.06	-3.86	4.12	85 92
Barenbrug, USA <i>Landscape Mixture</i>						
	Kentucky Bluegrass	8.65	13.23	4.58	1.50*	80 76
	Perennial Ryegrass	44.42				85 97
	Pirouette Perennial Ryegrass	19.36				85 97
	total Ryegrass	63.78	60.93	-2.58	3.46	
	Creeping Red Fescue	24.61	22.76	-1.85	2.96	85 85
Lesco, Inc. <i>Team Mates Mixture</i>						
	Allsport Perennial Ryegrass	19.46	20.19	0.73	2.76	90 96
	Titan II Tall Fescue	29.87				90 89
	Bravo Tall Fescue	24.83				90 89
	Cimarron Tall Fescue	24.68				90 89
	total Tall Fescue	79.38	78.46	-0.92	2.86	
The Scotts Co. <i>Scotts Fall Seeding Mix</i>						
	Kenblue Kentucky Bluegrass	9.85	13.21	3.36	1.47*	85 86
	Grasslands NUI Perennial Ryegrass	59.03				90 95
	Gulf Perennial Ryegrass	9.85				90 95
	total Perennial Ryegrass	68.88	67.49	-1.39	3.34	
	Boreal Creeping Red Fescue	19.24	17.76	-1.48	2.76	85 87
Agribiotech <i>Connecticut Mixture</i>						
	Kentucky Bluegrass	17.00	18.79	1.79	2.07	80 81
	Palmer II Perennial Ryegrass	66.85	68.14	1.29	3.51	90 88
	Chewings Fescue	9.80	8.36	-1.44	1.96	85 87

Table 5. Germination and purity of crop seed.

Seed Mixture	Seed Company	Purity Claim	Purity Found	Germ. Claim	Germ. Found
Wheat	Agway, Inc.	99.1	97.6	85	98
Rye	Crop Production Services	97.6	98.9	75	93
Rye	Agway, Inc.	97.0	96.7	94	87
Rye	Agway, Inc.	97.0	99.5	94	95
Rye	Semican International	99.6	99.1	90	95
Rye	Agriculver, Inc	99.0	99.9	85	96

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