

*The
Connecticut
Agricultural
Experiment
Station,
New Haven*

Seed Germination
and Purity
Analysis 1993

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Official samples of 354 vegetable and 10 lawn seed were collected by inspectors from the Bureau of Regulation and Inspection of the Connecticut Department of Agriculture for testing in 1993. 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 claim, germination found, and compliance with the standards for germination. These 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. If a seed lot failed, it was retested. In addition, seedlings from the seeds 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 354 vegetable seeds tested, six did not meet their claims for germination. Three of these samples were not retested due to unavailability of seed for retest. 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 in each category for compliance are summarized for each vegetable seed company in Table 2. Table 3 summarizes the average percent germination claimed, that found, and the standard 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. Of the 10 lawn seed samples tested, all samples met label claims for purity and two did not meet label claims for 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 Melanie J. Attwater and 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. * = does not meet label claims within allowable tolerance

| Plant | Variety | Seed Company | Germination | |
|------------|-------------------------------|-------------------|-------------|-------|
| | | | Claim | Found |
| Artichoke | Green Globe | Hart | 57 | 61 |
| Asparagus | Mary Washington | Hart | 78 | 74 |
| Bean | Blue Lake 274 Bush | Lake Valley Seed | 75 | 20* |
| Bean | Blue Lake Bush | Comstock Ferre | 85 | 90 |
| Bean | Blue Lake FM 1 Pole | Lake Valley Seed | 75 | 28* |
| Bean | Bountiful | Hart | 81 | 79 |
| Bean | Bountiful Green Bush | Comstock Ferre | 95 | 91 |
| Bean | Brittle Wax | Hart | 88 | 86 |
| Bean | Burpee's Stringless Green Pod | Burpee | 75 | 95 |
| Bean | Cherokee Wax Bush | New England Seed | 75 | 93 |
| Bean | Colt Bush | Northrup King | 75 | 73 |
| Bean | Commodore Improved | Fredonia | 75 | 69 |
| Bean | Derby Bush | Ferry-Morse | 75 | 76 |
| Bean | Eastern Butterwax Bush | Michael Leonard | 75 | 98 |
| Bean | Golden Butterwax | Agway | 75 | 91 |
| Bean | Greencrop Bush | Burpee | 75 | 86 |
| Bean | Greencrop Bush | Northrup King | 75 | 80 |
| Bean | Kentucky Wonder 191 Pole | Agway | 75 | 81 |
| Bean | Kentucky Wonder Pole | Ferry-Morse | 75 | 96 |
| Bean | Kentucky Wonder Pole | Lake Valley Seed | 75 | 76 |
| Bean | Long Tendergreen | Agway | 75 | 96 |
| Bean | Pencil Pod Black Wax | Hart | 89 | 99 |
| Bean | Pencil Pod Black Wax | Lake Valley Seed | 75 | 93 |
| Bean | Prince Dwarf Bush | Thompson & Morgan | 75 | 100 |
| Bean | Radar Dwarf Bush | Thompson & Morgan | 75 | 100 |
| Bean | Red Kidney | Hart | 85 | 93 |
| Bean | Roma II Bush | Northrup King | 75 | 88 |
| Bean | Romano Italian Pole | Comstock Ferre | 93 | 99 |
| Bean | Romano Pole | New England Seed | 75 | 95 |
| Bean | Royal Burgundy | Agway | 75 | 86 |
| Bean | Tendergreen Bush | Michael Leonard | 75 | 98 |
| Bean | Tendergreen Bush | New England Seed | 75 | 95 |
| Bean | Tendergreen Improved Bush | Ferry-Morse | 75 | 96 |
| Bean | Tendergreen Bush | Lake Valley Seed | 75 | 95 |
| Bean | Yellow Eye | Comstock Ferre | 80 | 92 |
| Bean, Lima | Fordhook Bush | Comstock Ferre | 85 | 79 |
| Bean, Mung | | Hart | 85 | 76 |
| Beet | Burpee's Red Ball | Burpee | 65 | 84 |
| Beet | Cylindra | Agway | 65 | 88 |
| Beet | Detroit Dark Red | Agway | 65 | 91 |
| Beet | Detroit Dark Red | American Seed | 65 | 73 |
| Beet | Detroit Dark Red | Comstock Ferre | 90 | 94 |
| Beet | Detroit Dark Red | Greene Valley | 65 | 91 |
| Beet | Detroit Dark Red | Michael Leonard | 65 | 81 |
| Beet | Detroit Dark Red | New England Seed | 65 | 85 |

Table 1. Germination of vegetable seeds (continued).

| Plant | Variety | Seed Company | Germination | |
|------------------|-------------------------|------------------|-------------|-------|
| | | | Claim | Found |
| Beet | Detroit Dark Red | Northrup King | 65 | 65 |
| Beet | Early Wonder | Agway | 65 | 93 |
| Beet | Early Wonder | Hart | 90 | 92 |
| Beet | Early Wonder | Lake Valley Seed | 65 | 88 |
| Beet | Lutz Green Leaf | Burpee | 65 | 84 |
| Beet | Red Ace | Hart | 82 | 85 |
| Beet | Red Ace | New England Seed | 65 | 84 |
| Beet | Ruby Queen | Michael Leonard | 65 | 90 |
| Beet | Tall Top Early Wonder | Ferry-Morse | 65 | 82 |
| Broccoli | Broccoli Blend | Agway | 75 | 93 |
| Broccoli | Calabrese | American Seed | 75 | 87 |
| Broccoli | Calabrese | Hart | 90 | 88 |
| Broccoli | DeCicco | Ferry-Morse | 75 | 94 |
| Broccoli | Green Goliath | Burpee | 75 | 80 |
| Broccoli | Green Sprouting | Greene Valley | 75 | 95 |
| Broccoli | Premium Crop | Comstock Ferre | 85 | 76 |
| Broccoli | Premium Crop Hybrid | New England Seed | 75 | 89 |
| Broccoli | Southern Comet | Agway | 75 | 96 |
| Broccoli | Super Blend | Burpee | 75 | 85 |
| Broccoli | Waltham | Hart | 90 | 97 |
| Broccoli | Waltham 29 | Agway | 75 | 90 |
| Broccoli | Waltham 29 | Michael Leonard | 75 | 99 |
| Broccoli | Waltham 29 | New England Seed | 75 | 87 |
| Broccoli | Waltham 29 | Northrup King | 75 | 96 |
| Brussels sprouts | Catskill | Agway | 70 | 74 |
| Brussels sprouts | Catskill | Ferry-Morse | 75 | 89 |
| Brussels sprouts | Long Island Improved | Comstock Ferre | 85 | 86 |
| Brussels sprouts | Long Island Improved | Hart | 86 | 91 |
| Cabbage | Chieftain Savoy | Comstock Ferre | 92 | 87 |
| Cabbage | Copenhagen | Hart | 90 | 97 |
| Cabbage | Copenhagen Market | Northrup King | 75 | 97 |
| Cabbage | Danish Ball Head | Hart | 86 | 87 |
| Cabbage | Earliana | Burpee | 75 | 76 |
| Cabbage | Early Jersey Wakefield | Michael Leonard | 75 | 91 |
| Cabbage | Ferry's Round Dutch | Ferry-Morse | 75 | 95 |
| Cabbage | Golden Acre | Greene Valley | 75 | 80 |
| Cabbage | Gourmet | Agway | 75 | 89 |
| Cabbage | Premium Late Flat Dutch | Michael Leonard | 75 | 82 |
| Cabbage | Red Acre | Agway | 75 | 90 |
| Cabbage | Red Acre | Hart | 90 | 98 |
| Cabbage | Rio Verde | Agway | 75 | 91 |
| Carrot | Chantenay | Michael Leonard | 55 | 84 |
| Carrot | Danvers 126 | Agway | 55 | 86 |
| Carrot | Danvers 126 | Ferry-Morse | 55 | 80 |
| Carrot | Danvers Half Long | Michael Leonard | 55 | 78 |
| Carrot | Danvers Half Long | New England Seed | 55 | 62 |

Table 1. Germination of vegetable seeds (continued).

| Plant | Variety | Seed Company | Germination | |
|-----------------|--------------------------|------------------|-------------|-------|
| | | | Claim | Found |
| Carrot | Gold Pak | Comstock Ferre | 92 | 94 |
| Carrot | Little Finger | Burpee | 55 | 90 |
| Carrot | Little Finger | Comstock Ferre | 89 | 95 |
| Carrot | Little Finger | Hart | 88 | 82 |
| Carrot | Nantes Coreless | American Seed | 55 | 76 |
| Carrot | Nantes Coreless | Greene Valley | 55 | 84 |
| Carrot | Nantes coreless | New England Seed | 55 | 69 |
| Carrot | Nantes Long | Agway | 55 | 89 |
| Carrot | Red Core Chantenay | New England Seed | 55 | 68 |
| Carrot | Royal Chantenay | Agway | 55 | 77 |
| Carrot | Scarlet Nantes | Hart | 79 | 82 |
| Carrot | Scarlet Nantes | Lake Valley Seed | 55 | 75 |
| Carrot | Thumbelina | Burpee | 55 | 61 |
| Cauliflower | Early Snowball | Greene Valley | 75 | 77 |
| Cauliflower | Purple Giant | Comstock Ferre | 87 | 75* |
| Cauliflower | Self-Blanche | Agway | 75 | 91 |
| Cauliflower | Self-Blanche | Hart | 89 | 89 |
| Cauliflower | Snow Crown | Agway | 75 | 84 |
| Cauliflower | Snow King | New England Seed | 75 | 96 |
| Cauliflower | Snowball 34 | Agway | 75 | 96 |
| Cauliflower | Snowball Y Improved | Northrup King | 75 | 81 |
| Celery | Giant Pascal | Comstock Ferre | 87 | 89 |
| Celery | Golden Blanche | Hart | 80 | 81 |
| Celery | Tall Utah 52-70 R | Burpee | 55 | 84 |
| Chinese cabbage | Jade Pagoda | Agway | 75 | 93 |
| Collards | Georgia | Comstock Ferre | 85 | 95 |
| Collards | Morris Heading | Burpee | 80 | 97 |
| Collards | Vates | Agway | 80 | 95 |
| Collards | Vates | Hart | 90 | 94 |
| Corn | Bodacious | Comstock Ferre | 90 | 95 |
| Corn | Butter & Sugar | Hart | 90 | 98 |
| Corn | Butter & Sugar | New England Seed | 75 | 93 |
| Corn | Comstock's Pride and Joy | Comstock Ferre | 90 | 95 |
| Corn | Double Delight | Comstock Ferre | 90 | 96 |
| Corn | Early Sunglow | Lake Valley Seed | 75 | 98 |
| Corn | Golden Beauty | Greene Valley | 75 | 98 |
| Corn | Golden Cross Bantam | Hart | 81 | 95 |
| Corn | Golden Cross Bantam | Lake Valley Seed | 75 | 97 |
| Corn | Golden Cross Bantam T-51 | Ferry-Morse | 75 | 94 |
| Corn | Iochief | Hart | 90 | 99 |
| Corn | Jubilee | Comstock Ferre | 92 | 100 |
| Corn | Pride and Joy | New England Seed | 75 | 95 |
| Corn | Silver Queen | Agway | 75 | 98 |
| Corn | Silver Queen | Hart | 80 | 97 |
| Corn | Silver Queen | Lake Valley Seed | 75 | 99 |

Table 1. Germination of vegetable seeds (continued).

| Plant | Variety | Seed Company | Germination | |
|----------|--------------------------|------------------|-------------|-------|
| | | | Claim | Found |
| Corn | Sugar & Gold | Hart | 75 | 94 |
| Corn | Sugar Dots | Ferry-Morse | 75 | 99 |
| Cress | Curled | Hart | 90 | 96 |
| Cucumber | Boston Pickling | Comstock Ferre | 90 | 94 |
| Cucumber | Bush Crop | Agway | 80 | 99 |
| Cucumber | Marketer | Comstock Ferre | 92 | 98 |
| Cucumber | Marketmore | Hart | 90 | 99 |
| Cucumber | Marketmore 76 | Agway | 80 | 89 |
| Cucumber | Poinsett 76 | Ferry-Morse | 80 | 98 |
| Cucumber | Poinsett 76 | Northrup King | 80 | 98 |
| Cucumber | Straight Eight | Agway | 80 | 99 |
| Cucumber | Straight Eight | Comstock Ferre | 94 | 93 |
| Cucumber | Straight Eight | Hart | 90 | 99 |
| Cucumber | Straight Eight | Lake Valley Seed | 80 | 90 |
| Cucumber | Straight Eight | Michael Leonard | 80 | 95 |
| Cucumber | Straight Eight | New England Seed | 80 | 99 |
| Eggplant | Black Beauty | American Seed | 60 | 97 |
| Eggplant | Dusky | New England Seed | 60 | 93 |
| Eggplant | Dusky Hybrid | Comstock Ferre | 80 | 88 |
| Eggplant | High Bush Select | Agway | 60 | 95 |
| Endive | Batavian Full Hearted | Greene Valley | 70 | 94 |
| Endive | Florida Deep Heart | Agway | 70 | 87 |
| Endive | Full Heart Batavian | Fredonia | 70 | 92 |
| Endive | Green Curled | Burpee | 70 | 94 |
| Endive | Green Curled | Hart | 90 | 96 |
| Endive | Salad King | Agway | 70 | 93 |
| Kale | Blue Scotch | Agway | 75 | 88 |
| Kale | Dwarf Siberian | Hart | 90 | 88 |
| Kale | Vates, Dwarf Blue Curled | Burpee | 75 | 96 |
| Kohlrabi | Early Purple | Hart | 83 | 78 |
| Kohlrabi | Early Purple Vienna | Agway | 75 | 95 |
| Kohlrabi | White Vienna | Agway | 75 | 92 |
| Kohlrabi | White Vienna | Comstock Ferre | 90 | 97 |
| Leek | American Flag | Fredonia | 60 | 93 |
| Leek | American Large Flag | Hart | 87 | 87 |
| Leek | Carina | Agway | 60 | 91 |
| Lettuce | Bibb | Hart | 90 | 99 |
| Lettuce | Bibb | Michael Leonard | 80 | 98 |
| Lettuce | Big Boston | New England Seed | 80 | 95 |
| Lettuce | Black Seeded Simpson | Agway | 80 | 98 |
| Lettuce | Black Seeded Simpson | Greene Valley | 80 | 96 |
| Lettuce | Black Seeded Simpson | Lake Valley Seed | 80 | 98 |

Table 1. Germination of vegetable seeds (continued).

| Plant | Variety | Seed Company | Germination | |
|---------------------|-------------------------------|-------------------|-------------|-------|
| | | | Claim | Found |
| Lettuce | Burpee Bibb | Burpee | 80 | 91 |
| Lettuce | Burpee's Iceberg | Burpee | 80 | 98 |
| Lettuce | Buttercrunch | Agway | 80 | 97 |
| Lettuce | Buttercrunch | Comstock Ferre | 82 | 90 |
| Lettuce | Buttercrunch | Fredonia | 80 | 93 |
| Lettuce | Buttercrunch | Hart | 85 | 98 |
| Lettuce | Grand Rapids | Ferry-Morse | 80 | 99 |
| Lettuce | Grand Rapids | Ferry-Morse | 80 | 99 |
| Lettuce | Grand Rapids | Michael Leonard | 80 | 97 |
| Lettuce | Grand Rapids | Northrup King | 80 | 81 |
| Lettuce | Great Lakes | Comstock Ferre | 85 | 99 |
| Lettuce | Great Lakes | New England Seed | 80 | 100 |
| Lettuce | Ithaca | Agway | 80 | 96 |
| Lettuce | Prizehead | Agway | 80 | 95 |
| Lettuce | Red Sails | New England Seed | 80 | 98 |
| Lettuce | Romaine/Cos | Greene Valley | 80 | 96 |
| Lettuce | Romaine/Cos | Hart | 90 | 87 |
| Lettuce | Salad Bowl | Agway | 80 | 93 |
| Lettuce | Salad Bowl | Hart | 90 | 96 |
| Lettuce | Wheeler's Tom Thumb | Comstock Ferre | 94 | 93 |
| Muskmelon | Delicious 51 | Comstock Ferre | 95 | 93 |
| Muskmelon | Hale's Best | Hart | 89 | 100 |
| Muskmelon | Hale's Best | Michael Leonard | 75 | 92 |
| Muskmelon | Iroquois | Hart | 90 | 82 |
| Mustard | Burpee's Fordhook Fancy | Burpee | 75 | 96 |
| Mustard | Southern Giant Curled | Michael Leonard | 75 | 72 |
| Mustard | Tendergreen | Comstock Ferre | 85 | 99 |
| New Zealand Spinach | | Agway | 40 | 84 |
| New Zealand Spinach | | Fredonia | 40 | 84 |
| New Zealand Spinach | | Hart | 63 | 77 |
| Okra | Clemson Spineless | Fredonia | 50 | 78 |
| Okra | Clemson Spineless | Hart | 78 | 75 |
| Okra | Clemson Spineless | Michael Leonard | 50 | 85 |
| Onion | Utah Sweet Spanish | Comstock Ferre | 85 | 82 |
| Onion | Evergreen Long White Bunching | Burpee | 70 | 96 |
| Onion | Green Bunching | Michael Leonard | 70 | 81 |
| Onion | Green Scallions | Greene Valley | 70 | 95 |
| Onion | Lancastrian | Thompson & Morgan | 70 | 98 |
| Onion | Long White Bunching | Agway | 70 | 77 |
| Onion | Spartan Banner | Agway | 70 | 89 |
| Onion | Sweet Spanish | Agway | 70 | 96 |
| Onion | Utah Sweet Spanish | New England Seed | 70 | 91 |
| Onion | Wethersfield Red | Comstock Ferre | 85 | 90 |
| Onion | White Portugal | Hart | 88 | 72* |
| Onion | Yellow Globe | Hart | 77 | 85 |

Table 1. Germination of vegetable seeds (continued).

| Plant | Variety | Seed Company | Germination | |
|---------|----------------------|-------------------|-------------|-------|
| | | | Claim | Found |
| Onion | Yellow Sweet Spanish | Fredonia | 70 | 91 |
| Onion | Yellow Sweet Spanish | Greene Valley | 70 | 88 |
| Onion | Yellow Sweet Spanish | Hart | 90 | 91 |
| Parsley | Hamburg Rooted | Agway | 60 | 87 |
| Parsley | Moss Curled | Agway | 60 | 80 |
| Parsley | Moss Curled | Hart | 77 | 85 |
| Parsnip | All American | New England Seed | 60 | 79 |
| Pea | Alaska | Hart | 90 | 100 |
| Pea | Alaska | Michael Leonard | 80 | 98 |
| Pea | Dwarf Gray Sugar | Comstock Ferre | 90 | 98 |
| Pea | Dwarf White Sugar | Agway | 80 | 96 |
| Pea | Early Snap | Agway | 80 | 87 |
| Pea | Freezon | Hart | 82 | 94 |
| Pea | Lincoln | Hart | 82 | 96 |
| Pea | Little Marvel | Ferry-Morse | 80 | 95 |
| Pea | Little Marvel | Lake Valley Seed | 80 | 94 |
| Pea | Little Marvel | Northrup King | 80 | 98 |
| Pea | Oregon Sugar Pod II | Lake Valley Seed | 80 | 93 |
| Pea | Progress No. 9 | Agway | 80 | 95 |
| Pea | Sparkle | New England Seed | 80 | 94 |
| Pea | Sugar Ann | Ferry-Morse | 80 | 92 |
| Pea | Sugar Bon Snap | Hart | 89 | 94 |
| Pea | Sugar Snap | Agway | 80 | 88 |
| Pea | Sugar Snap | Comstock Ferre | 90 | 92 |
| Pea | Sugar Snap | Lake Valley Seed | 80 | 93 |
| Pea | Sugar Snap | New England Seed | 80 | 89 |
| Pea | Tall Telephone | New England Seed | 80 | 96 |
| Pea | Wando | Agway | 80 | 97 |
| Pea | Wando | Burpee | 80 | 96 |
| Pea | Wando | Hart | 81 | 93 |
| Pepper | Anaheim Chili | Hart | 90 | 87 |
| Pepper | California Wonder | American Seed | 55 | 91 |
| Pepper | California Wonder | Burpee | 55 | 82 |
| Pepper | California Wonder | Hart | 90 | 88 |
| Pepper | California Wonder | Michael Leonard | 55 | 75 |
| Pepper | California Wonder | Thompson & Morgan | 55 | 84 |
| Pepper | Cubanelle | Comstock Ferre | 93 | 86 |
| Pepper | Cubanelle | Hart | 83 | 78 |
| Pepper | Early Calwonder | Agway | 55 | 76 |
| Pepper | Early Calwonder | Comstock Ferre | 84 | 87 |
| Pepper | Early Calwonder | Greene Valley | 55 | 88 |
| Pepper | Early Calwonder | New England Seed | 55 | 85 |
| Pepper | Jalopeno | Burpee | 55 | 69 |
| Pepper | Large Red Cherry Hot | New England Seed | 55 | 84 |
| Pepper | Sweet Banana | Agway | 55 | 75 |
| Pepper | Sweet Banana | Hart | 90 | 81 |

Table 1. Germination of vegetable seeds (continued).

| Plant | Variety | Seed Company | Germination | |
|----------|------------------------------|------------------|-------------|-------|
| | | | Claim | Found |
| Pepper | Sweet Banana | Northrup King | 55 | 79 |
| Pumpkin | Big Max | Hart | 89 | 74* |
| Pumpkin | Big Max | Michael Leonard | 75 | 63* |
| Pumpkin | Connecticut Field | Comstock Ferre | 96 | 98 |
| Pumpkin | Connecticut Field | Hart | 90 | 97 |
| Pumpkin | Howden | Comstock Ferre | 90 | 99 |
| Radish | Champion | Agway | 75 | 97 |
| Radish | Champion | Comstock Ferre | 85 | 99 |
| Radish | Champion | Hart | 89 | 97 |
| Radish | Cherry Belle | New England Seed | 75 | 95 |
| Radish | Chinese White Winter | Agway | 75 | 98 |
| Radish | Early Scarlet Globe | Agway | 75 | 98 |
| Radish | Early Scarlet Globe | American Seed | 75 | 92 |
| Radish | Early Scarlet Globe | Comstock Ferre | 96 | 97 |
| Radish | French Breakfast | Burpee | 75 | 93 |
| Radish | Icicle | Michael Leonard | 75 | 97 |
| Radish | Plum Purple | Fredonia | 75 | 93 |
| Radish | Red Devil | Ferry-Morse | 75 | 98 |
| Radish | Scarlet Turnip White Tipped | Michael Leonard | 75 | 94 |
| Radish | Sparkler | Greene Valley | 75 | 97 |
| Radish | Sparkler | Northrup King | 75 | 97 |
| Radish | White Icicle | Agway | 75 | 94 |
| Radish | White Icicle | Greene Valley | 75 | 97 |
| Radish | White Tipped | Hart | 90 | 96 |
| Rutabaga | American Purple Top | Agway | 75 | 82 |
| Rutabaga | Improved Purple Top | Comstock Ferre | 96 | 97 |
| Spinach | America | New England Seed | 60 | 92 |
| Spinach | Bloomsdale | Burpee | 60 | 99 |
| Spinach | Bloomsdale | Ferry-Morse | 60 | 95 |
| Spinach | Bloomsdale | Hart | 90 | 99 |
| Spinach | Bloomsdale Longstanding | Greene Valley | 60 | 91 |
| Spinach | Bloomsdale Longstanding | Michael Leonard | 60 | 85 |
| Spinach | Melody | Agway | 60 | 90 |
| Spinach | Melody Hybrid | Comstock Ferre | 84 | 88 |
| Spinach | Winter Bloomsdale | Agway | 60 | 95 |
| Squash | Blue Hubbard | Comstock Ferre | 97 | 98 |
| Squash | Buttercup | Comstock Ferre | 96 | 95 |
| Squash | Cucozzi Caravazzi | Hart | 62 | 78 |
| Squash | Early Crookneck | Hart | 86 | 85 |
| Squash | Early Prolific Straight Neck | Ferry-Morse | 75 | 96 |
| Squash | Greyzini | Comstock Ferre | 85 | 86 |
| Squash | Straightneck, Early Prolific | New England Seed | 75 | 99 |
| Squash | Sun Drops | Comstock Ferre | 90 | 90 |
| Squash | Table Queen | Hart | 90 | 96 |
| Squash | Waltham Butternut | Comstock Ferre | 90 | 95 |

Table 1. Germination of vegetable seeds (continued).

| Plant | Variety | Seed Company | Germination | |
|-------------|-------------------------|-------------------|-------------|-------|
| | | | Claim | Found |
| Swiss chard | Burpee's Fordhook Giant | Burpee | 65 | 78 |
| Swiss chard | Fordhook G T | New England Seed | 65 | 84 |
| Swiss chard | Fordhook Giant | Agway | 65 | 90 |
| Swiss chard | Fordhook Giant | Comstock Ferre | 90 | 89 |
| Swiss chard | Lucullus | Hart | 90 | 89 |
| Swiss chard | Rhubarb | Hart | 90 | 95 |
| Swiss chard | Ruby Red | Agway | 65 | 91 |
| Tomato | Alicante | Thompson & Morgan | 75 | 100 |
| Tomato | Beefsteak | American Seed | 75 | 82 |
| Tomato | Beefsteak | Michael Leonard | 75 | 84 |
| Tomato | Burpee's Big Boy | Burpee | 75 | 88 |
| Tomato | Cherry | Michael Leonard | 75 | 96 |
| Tomato | Genoa | Northrup King | 75 | 96 |
| Tomato | Jumbo Jim | Agway | 75 | 91 |
| Tomato | Large Red Cherry | Comstock Ferre | 88 | 100 |
| Tomato | Marglobe | Hart | 85 | 92 |
| Tomato | Marglobe | Michael Leonard | 75 | 94 |
| Tomato | Marglobe | New England Seed | 75 | 97 |
| Tomato | Pixie Hybrid II | Burpee | 75 | 94 |
| Tomato | Red Cherry | Agway | 75 | 95 |
| Tomato | Roma VF | Agway | 75 | 90 |
| Tomato | Rutgers | Greene Valley | 75 | 86 |
| Tomato | Rutgers | Michael Leonard | 75 | 90 |
| Tomato | San Marzano | Greene Valley | 75 | 82 |
| Tomato | Supersonic | Comstock Ferre | 86 | 96 |
| Tomato | Sweet 101 Hybrid | Thompson & Morgan | 75 | 99 |
| Tomato | Sweet Chelsea | Comstock Ferre | 90 | 96 |
| Tomato | Tigerella | Thompson & Morgan | 75 | 93 |
| Turnip | Purple Top White Globe | Agway | 80 | 93 |
| Turnip | Purple Top White Globe | Greene Valley | 80 | 94 |
| Turnip | Purple Top White Globe | Michael Leonard | 80 | 99 |
| Turnip | Purple Top White Globe | New England Seed | 80 | 97 |
| Turnip | Seven Top | Hart | 90 | 100 |
| Turnip | Seven Top | Michael Leonard | 80 | 100 |
| Turnip | Tokyo Market Early | Ferry-Morse | 80 | 100 |
| Turnip | White Egg | Hart | 90 | 96 |
| Turnip | Yellow Globe | Comstock Ferre | 85 | 95 |
| Watermelon | Crimson Sweet | Hart | 90 | 89 |
| Watermelon | Kleckley's Sweet | Comstock Ferre | 97 | 94 |
| Watermelon | Sugar Baby | Comstock Ferre | 96 | 96 |
| Watermelon | Sugar Baby | Hart | 90 | 94 |

Table 2. Summary for each seed company of total number of germination claims and the percentage of claims in each compliance category.

| Seed Company | Claims | % Samples in Each Compliance Category* | |
|-------------------|--------|---|----|
| | | 1 | 2 |
| Agway | 64 | 100 | 0 |
| American Seed | 7 | 100 | 0 |
| Burpee | 25 | 100 | 0 |
| Comstock Ferre | 51 | 98 | 2 |
| Ferry-Morse | 19 | 100 | 0 |
| Fredonia | 8 | 100 | 0 |
| Greene Valley | 18 | 100 | 0 |
| Hart | 68 | 97 | 3 |
| Lake Valley Seed | 15 | 87 | 13 |
| Michael Leonard | 28 | 96 | 4 |
| New England Seed | 31 | 100 | 0 |
| Northrup King | 13 | 100 | 0 |
| Thompson & Morgan | 7 | 100 | 0 |

* Compliance Categories: 1= meets label claims 2= does not meet label claims within allowable tolerance.

Table 3. Summary by vegetable type of average percent germination claimed, that found, and set standard.

| Vegetable | No. of Samples | Average % Germination | | |
|---------------------|----------------|-----------------------|-------|------------|
| | | Claimed | Found | Standard * |
| Artichoke | 1 | 57 | 61 | 60 |
| Asparagus | 1 | 78 | 74 | 70 |
| Bean | 33 | 78 | 86 | 75 |
| Bean, Lima | 1 | 85 | 79 | 75 |
| Bean, Mung | 1 | 85 | 76 | 75 |
| Beet | 17 | 69 | 85 | 65 |
| Broccoli | 15 | 78 | 90 | 75 |
| Brussels sprouts | 4 | 79 | 85 | 73 |
| Cabbage | 13 | 79 | 89 | 75 |
| Carrot | 18 | 62 | 80 | 55 |
| Cauliflower | 8 | 78 | 86 | 75 |
| Celery | 3 | 74 | 85 | 55 |
| Chinese cabbage | 1 | 75 | 93 | 75 |
| Collards | 4 | 84 | 95 | 79 |
| Corn | 18 | 81 | 97 | 75 |
| Cress | 1 | 90 | 96 | 75 |
| Cucumber | 13 | 84 | 96 | 80 |
| Eggplant | 4 | 65 | 93 | 60 |
| Endive | 6 | 73 | 93 | 70 |
| Kale | 3 | 80 | 91 | 75 |
| Kohlrabi | 4 | 81 | 91 | 75 |
| Leek | 3 | 69 | 90 | 60 |
| Lettuce | 26 | 82 | 95 | 80 |
| Muskmelon | 4 | 87 | 92 | 75 |
| Mustard | 3 | 78 | 89 | 75 |
| New Zealand Spinach | 3 | 48 | 82 | 40 |
| Okra | 3 | 59 | 79 | 50 |
| Onion | 15 | 75 | 88 | 70 |
| Parsley | 3 | 66 | 84 | 60 |
| Parsnip | 1 | 60 | 79 | 60 |
| Pea | 23 | 82 | 94 | 80 |
| Pepper | 17 | 67 | 82 | 55 |
| Pumpkin | 5 | 88 | 86 | 75 |
| Radish | 18 | 78 | 96 | 75 |
| Rutabaga | 2 | 86 | 90 | 75 |
| Spinach | 9 | 66 | 93 | 60 |
| Squash | 10 | 85 | 92 | 75 |
| Swiss chard | 7 | 76 | 88 | 65 |
| Tomato | 21 | 77 | 92 | 75 |
| Turnip | 9 | 83 | 97 | 80 |
| Watermelon | 4 | 93 | 93 | 70 |

* Standards are provided for by the rules and regulations of the Federal Seed Act.

Table 4. Germination and Purity of Lawn Seed

| Seed Company | Seed Mixture | Purity | | Germination | |
|----------------------|---|--------|-----------|-------------|----------|
| | | Claim | Found 1&2 | Claim | Found1&2 |
| LOFTS | <i>TriPlex</i> | | | | |
| | Caliente Perennial Rye | 49.50 | | 90 | |
| | Regal Perennial Rye | 24.50 | | 90 | |
| | Repell II Perennial Rye | 24.50 | 99.01 | 90 | 94 |
| LOFTS | <i>Shady Mix</i> | | | | |
| | Baron Kentucky Bluegrass | 7.60 | 8.84 | 80 | 83 |
| | Sabre Rough Bluegrass | 6.65 | 5.01 | 80 | 75 |
| | Palmer Perennial Rye | 14.70 | 14.33 | 90 | 91 |
| | Jamestown Chewings Fescue | 48.50 | | 85 | |
| | Penlawn Red Fescue | 19.60 | 68.43 | 85 | 90 |
| LOFTS | <i>Fairway Mixture</i> | | | | |
| | Kentucky Bluegrass | 8.50 | 8.93 | 80 | 57* |
| | Perennial Rye | 24.75 | | 85 | |
| | Gulf Annual Rye | 49.50 | 75.02 | 90 | 96 |
| | Creeping Red Fescue | 14.55 | 14.19 | 85 | 82 |
| GREENVIEW | <i>Greenview Kentucky Bluegrass</i> | 91.26 | 90.56 | 85 | 76 |
| AGWAY | <i>Shady Green Grass Seed Mixture</i> | | | | |
| | Kentucky Bluegrass | 19.78 | 23.97 | 85 | 90 |
| | Riviera Perennial Rye | 19.61 | 19.61 | 90 | 93 |
| | Creeping Red Fescue | 34.29 | | 88 | |
| | Chewings Fescue | 14.62 | | 85 | |
| | Pennlawn Red Fescue | 9.85 | 55.24 | 88 | 90 |
| AGWAY | <i>Wear Green Seed Mixture</i> | | | | |
| | Kentucky Bluegrass | 14.78 | 14.56 | 85 | 88 |
| | Riviera Perennial Rye | 19.70 | 17.79 | 90 | 97 |
| | Cochise Tall Fescue | 17.87 | | 88 | |
| | Chieftain Tall Fescue | 17.75 | | 88 | |
| | Arid Tall Fescue | 13.91 | 50.92 | 88 | 93 |
| | Creeping Red Fescue | 14.57 | 15.33 | 88 | 91 |
| HOLDRIDGE | <i>Holdridge Special Front Lawn Mixture</i> | | | | |
| | Kentucky Bluegrass | 34.40 | 39.58 | 85 | 85 |
| | Aquarius Perennial Rye | 24.58 | | 90 | |
| | Patriot II Perennial Rye | 9.76 | 32.97 | 90 | 98 |
| | Creeping Red Fescue | 29.44 | 26.25 | 90 | 90 |
| HOLDRIDGE | <i>Holdridge Contractors Mix</i> | | | | |
| | Kentucky Bluegrass | 8.81 | 9.59 | 85 | 74* |
| | Perennial Rye | 19.40 | | 85 | |
| | Annual Rye | 68.60 | 88.13 | 85 | 97 |
| NEW ENGLAND SEED CO. | <i>New England Athletic Lawn Mix</i> | | | | |
| | Manhattan Annual Rye | 9.81 | 10.89 | 90 | 93 |
| | Creeping Red Fescue | 19.88 | 20.26 | 85 | 93 |
| | Fawn Tall Fescue | 66.66 | 67.18 | 85 | 89 |

| | | | | | |
|---------------------|--|-------|-------|----|----|
| STONINGTON FEED CO. | <i>Soil Conservation Lawn Seed Mix</i> | | | | |
| | Kentucky Bluegrass | 13.21 | 16.3 | 80 | 73 |
| | Calypso Perennial Rye | 34.20 | | 90 | |
| | Annual Rye | 8.86 | 41.66 | 90 | 96 |
| | Creeping Red Fescue | 39.53 | 40.05 | 85 | 90 |

1 Results for seeds which were separated by genus and not by species or by variety are reported as the sum for that genus.

2 * = does not meet label claims within allowable tolerance.



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