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AGRICULTURAL EXPERIMENT STATION

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**Garden and Field Seeds Sold in Connecticut  
in 1908-1909.**

BY E. H. JENKINS AND MARY H. JAGGER.

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# GARDEN AND FIELD SEEDS SOLD IN CONNECTICUT IN 1908-1909.

BY E. H. JENKINS AND MARY H. JAGGER.\*

The first requisite to success in growing any crop is pure live seed. The farmer is often deceived even as to the quality of seed, like corn or onion, which he raises himself and knows to be new. Our experience, like that of all observers, has also shown that seeds offered for sale differ greatly both in purity and sprouting power. Often the farmer stocks down his land with pestilent weed seeds as well as grass, and sometimes sows with his clover the seeds of dodder, the greatest enemy of clover, or gets a poor and uneven stand because the seed he used had a low sprouting power. He can afford to pay an extra price for heavy, clean seed, nearly all of which sprouts. He cannot afford to take as a gift, dirty and weakly sprouting seed. The time is coming when seedsmen will give and buyers will require a guaranteed statement of purity and vitality; these to be fixed by laboratory tests and not by results in the field.

This Station undertakes, to the extent of its ability, to test seeds with reference to their purity and vitality, both for farmers and also for growers and dealers within the state, to the end that farm production may not be handicapped at the very start by inferior seed. Directions for sampling are given on page 13.

On following pages are given the results of tests made at this station of seeds from the Connecticut market during 1908-1909. The details of the tests appear in the tables on pages 14 to 26. The asterisks refer to special notes which will be found on page 14, numbered to correspond with the sample number in the table. The whole gives a fair picture of the state of our seed market in 1909 and its study should show the need of using great care in buying seed for the coming year.

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\* All the tests of seeds reported in this paper and the identification of foreign seeds has been the work of Miss Jagger. The Director has assisted in preparing the work for publication.

## THE CLOVERS AND ALFALFA.

Alfalfa, clovers and vetches are being more generally used than formerly by farmers in Connecticut, as it is realized that these, or other legumes, are indispensable to keep and increase the fertility of our land and to reduce the amount of commercial fertilizers and of concentrated feeds which must be bought.

*Red Clover Seed.*

The clover seed sold in the state in 1908, which was grown in 1907, was very inferior. More than 380,000 bushels were imported to make up for a very short domestic crop and part of this, at least, was of low grade, full of weed seeds and often containing dodder, which is the most dangerous pest in clover fields. Of the fifty-one samples examined last year, three were grossly adulterated with the worthless black medic, forty-one contained dodder seed, two others germinated very poorly and only one-sixth of the whole number were fit to use. [Bulletin 160.]

Our domestic crop of red clover seed in 1908 was a good one and, chiefly in consequence of this, the fifty-two samples examined in the early part of 1909 were in general satisfactory. Some of them were sent by buyers and others by dealers. A part of the samples sent were too small to be quite representative. In some cases a determination of the exact amount of foreign matter was not made, because careful examination showed that it was too small to be significant.

The tests are given in detail in the table on page 16. With the exception of 5417, all the samples of medium and mammoth clover seed of which the percentage of purity is not given were fairly clean.

## RESULTS OF TESTS OF MEDIUM RED CLOVER.

	In the Samples tested.			Standard.
	Average.	Highest.	Lowest.	
Weight of 1,000 seeds, grams . . . . .	1.58	1.90	1.38	1.5
Per cent. of pure seed by weight	95.9	99.8	77.2	98.0
Per cent. germinating by number	87.4	96.0	66.7	85.0
Viability* . . . . .	83.8			83.3

\*The viability is the percentage of pure seed which will germinate freely.

The vitality of the seed is somewhat greater than last year and the purity and viability nearly five and a half per cent. higher. Much better is the showing as regards dodder. In 1908, forty-one out of fifty-one samples contained much dodder\* and were on that account alone unfit to use. In 1909 dodder was found in only six of the fifty-two samples. In 1908 three samples were grossly adulterated with a worthless seed, black medic. This year there is no evidence of adulteration. One sample, No. 5468, contains 39 per cent. of alsike and white clover. These would hardly be used as adulterants and were more likely accidental and careless admixtures. Another sample, No. 5437, with 10 per cent. of plantain seed, is unfit to use because poorly cleaned.

Nos. 5365, 5367 and 5369 represent red clover seed offered at the same time for \$10.40, \$10.15 and \$6.75 per 100 pounds respectively. Their viability was nearly alike, 88.1, 88.7, and 92.8 respectively. Samples of each were sown early in the spring to determine whether there was a difference in their growth which would make the higher priced seed more desirable. No difference was seen during the first season in vigor, height or size of the plants.

*Dodder in Clover Seed.* Two species are not uncommonly found, the European, *Cuscuta Epithymum*, and the field dodder, *C. arvensis*. Careful tests here corroborate the statement that the former grows well, but does not perfect seed in this region, while the latter seeds very freely. The former, however, has been, in our experience, more destructive to clover. The field dodder grows well on pigweed and purslane. Several complaints have come to us of damage from dodder in the seedings of 1908.

#### *Alsike Clover.*

The details in the table show that the average per cent. of pure seed was 93.7, a little lower than the provisional standard of 95. One sample, 5360, contained nearly 4 per cent. of sand and 10 per cent. of white clover and timothy, and another nearly 12 per cent. of these seeds.

The others were satisfactory as regards purity.

The average per cent. of germination was high, 85.4, and only one, 4961, was below the standard (75-80), in this regard.

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\* For a description of this weed see Bulletin 160.

*White Clover.*

The five samples tested were quite pure, but two germinated poorly.

*Crimson Clover.*

Six samples were tested and while all were very clean and free from weed seed, one was practically worthless because only 30 per cent. sprouted, and of another only 60 per cent. would sprout.

*Alfalfa.*

In the last two or three years many fields have been sown with alfalfa in this state and in some cases with complete success. Much depends upon the purity and vitality of the seed. It is impossible to remedy a thin stand by patching with a fresh seeding; the whole piece must be turned over and reseeded.

Of the twenty-one samples described in the table, none had over 4.0 per cent. of foreign matter and the average amount was 2.1 per cent., which is very satisfactory. Two samples, however, had too low a germination, 66.7 and 69.8 per cent. respectively, and their use would certainly cause a partial failure.

One of these samples, and two with good germinating power, had dodder in them and on that account alone should be refused.

The average purity and vitality are but very little below the provisional standards which are 98 and 85 per cent. respectively.

The results may be summarized thus:

## RESULTS OF TESTS OF ALFALFA SEED.

	Average.	Highest.	Lowest.	Standard.
Weight of 1,000 seeds, grams ....	2.05	2.22	1.75	
Per cent. of pure seed, by weight	97.9	99.0	96.0	98.0
Per cent. germinating by number	86.6	94.5	66.7	
Viability .....	84.5	93.0	65.9	85.0

## MEADOW GRASSES.

*Red Top.*

Nineteen samples of red top have been examined. In some cases no exact determination was made of the amount of impurity. This work takes a great deal of time, because of the smallness of the seeds, which must be picked over one by

one. It is usually unnecessary, for without going through the tedious work of separating and weighing them, a very careful examination will show whether the seed is fairly pure or is foul with weed seeds or dirt. Red top always contains chaff from the seeds, which cannot be wholly removed by cleaning, but some of the samples examined, as will be seen in the table, contained large percentages of foreign seeds, and two of them, Nos. 4993 and 4994, had 9.8 and 17.4 per cent. respectively, of what looked like finely ground quartz or glass.

Five of the nineteen contained from a quarter to a third of their weight of weed seeds, dirt and sand.

The average per cent. of pure seed was 80.7 (ten samples), but it ranged from 50.5 to 98.0. The average germination of eighteen samples was 79.7, ranging from 50.5 to 93.0.

#### *Timothy Seed.*

When hay is grown as a cash crop, clean timothy is preferred because it is most in demand in cities for horses. Fifty-one samples of timothy seed are reported in the table. They are almost without exception pure and clean. The average purity, 98.0 per cent., is that of the provisional standard for timothy, and the lowest percentage of purity found is 84.6.

Nos. 4945 and 4946 contained Canada blue grass and many weed seeds.

The main trouble with the timothy examined lay in its poor sprouting power. Thus of the fifty-one samples tested, sixteen, or nearly one-third, germinated below the provisional standard of 85 per cent. In three samples less than two-thirds of the seeds sprouted. They were therefore agriculturally worthless.

#### GARDEN SEEDS IN PACKAGES.

Persons having small garden patches commonly buy most or all of their vegetable seeds in small packages from what are known as "commission packages," *i. e.*, boxes put up by dealers in seeds which contain an assortment of the most commonly used garden varieties. The garden, cared for by members of the owner's family, contributes very materially to their support and its partial failure materially increases the cost of living. Fresh seed, true to name, is the first essential of success. Respon-

sibility for the quality of the seed rests primarily with the retail dealer, if he carries over his "commission packages" from one season to the next. Whoever puts up the packages is responsible if he does not take the same pains to put seed of good quality into these packages that he takes in supplying those who buy in larger quantities.

The comparatively few tests made of these seeds during the last season are enough to show that some of these "commission boxes" contain seeds which are agriculturally worthless and can bring only disappointment and loss to those who buy them.

In the spring of 1909 our agent bought eighty-three packages, representing seven varieties of garden seeds. These were put up by seventeen different firms and bought in different parts of the state.

D. M. Ferry & Co. and the D. Landreth Seed Co. state on their packages that the seed is grown as well as put up by them. In the other cases no such statement appears. The seeds of each dealer were taken from a single box. The names and addresses of the firms whose seeds were examined are as follows:

F. T. Blish Hardware Co., So. Manchester.	Lake Shore Seed Co., Dunkirk, N. Y.
Cadwell & Jones, Hartford.	D. Landreth Seed Co., Bristol, Pa.
Crosman Bros., Rochester, N. Y.	E. M. Lyman & Son, Springfield, Mass.
A. H. Dunlap & Sons, Nashua, N. H.	Lyon & Ewald, New London.
D. M. Ferry & Co., Detroit, Mich.	Page Seed Co., Greene, N. Y.
J. H. Gregory & Son, Marblehead, Mass.	F. S. Platt Co., New Haven.
Hamilton Hardware Corp., Waterbury.	J. B. Rice Seed Co., Cambridge, N. Y.
Hart, Welles & Co., Wethersfield.	Ross Bros., Worcester, Mass.
	J. M. Thorburn & Co., N. Y. City.

The results of the tests appear in detail in the table.

#### *Lettuce.*

Not less than 85 per cent. of lettuce seed should germinate. Six out of the fifteen package samples showed inferior germination and four at least were unfit for use. Sample 5501 seemed to be a mixture of fresh and old seed; 85 per cent. of the fresh-looking seed sprouted and only 25 per cent. of the old seed.

*Radish.*

Ninety per cent. of radish seed should germinate. Only four samples germinated as high as this. Of the other thirteen samples, four were fairly good, the others quite inferior and four agriculturally worthless on account of low vitality.

*Onion.*

Seventy-five per cent. of Connecticut grown onion seed should germinate. Half of the samples examined fell below this standard and five were worthless.

*Cucumber.*

Eighty-five per cent. germination is the standard for this seed. Half of the samples equalled or exceeded this, the other half were inferior.

*Muskmelon.*

Of the twelve samples tested, five germinated 85 per cent. or more, and on the other hand, three samples germinated less than 50 per cent.

*Watermelon.*

Only seven samples were tested. Over 80 per cent. of the seed in three packages germinated and three others germinated less than 50 per cent. The package of E. M. Lyman & Son contains seeds of at least two varieties, quite different in size and color.

Examination of the table shows that all the samples tested from a single box of seeds put up by the Lake Shore Seed Co., J. B. Rice Seed Co. and E. M. Lyman & Son, had inferior germinating power. The same is true with a single exception of the box put up by Crosman Bros. On the other hand, all of the seeds put up by Thorburn & Co., Landreth Seed Co., F. S. Platt Co., Cadwell & Jones, were found to have good germinating power as far as tested.

The number of tests is quite too small to justify a judgment as to the general quality of seeds put up by any seedsman.

It is quite possible for the retailer to sell seed which has lain over in his hands from a previous year, and it may be that

some samples were taken from such boxes. It appears, however, that some of the seed boxes from which small quantities of vegetable seeds are sold contain old and worthless stock.

*Quantity of Seed in Packages.*

The Hamilton Hardware Co. and Lyon & Ewald sold by the ounce. All the other seeds were in five-cent packages. The second column of the table, pages 23 to 26, gives the weight of seed in each package, and shows that in four of the varieties some packages contained three times the weight of seed found in others.

TESTS OF THE VITALITY OF VEGETABLE SEEDS  
SENT BY GROWERS, DEALERS OR PURCHASERS,  
1907 TO 1909.

Within the period above named seven hundred and twenty-one samples of field and garden seeds have been tested as to their sprouting capacity. A brief summary only of the results can here be given.

*Comparison of the Vitality of Crops of Connecticut-Grown  
Onion Seed Less than One Year Old in the Years 1894-1908.*

TABLE I.—VITALITY OF CROPS OF ONION SEED.

	No. of Samples tested.	Average Percentage sprouted.
In 1894 .....	25	82.9
1895 .....	13	85.5
1896 .....	44	72.4
1897 .....	39	77.9
1898 .....	68	69.3
1899 .....	62	89.0
1900 .....	77	88.5
1901 .....	60	71.0
1902 .....	60	80.6
1903 .....	59	62.0
1904 .....	42	80.4
1905 .....	37	78.6
1906 .....	62	77.2
1907 .....	24	88.8
1908 .....	119	74.5

Average for 15 consecutive years, 76.1 per cent.

The sprouting capacity of the onion seed raised in 1903 is much lower than that of this crop in any other year of which we have knowledge, and growers explain this by the exceptionally wet and cold summer season of that year.

*The Sprouting Capacity of Different Varieties.*

The average sprouting capacity of five varieties, of which a considerable number of samples have been tested, is as follows (only those samples are here included which were alleged to be less than one year old at the time of testing and were grown in Connecticut):

TABLE II.—SPROUTING CAPACITY OF DIFFERENT VARIETIES OF ONION SEED.

	No. of Samples tested.	Average Percentage of Sprouting Seed.
Yellow Globe .....	321	74.76
Red Globe .....	246	79.52
White Globe .....	172	78.63
White Portugal .....	32	70.02
Wethersfield Red .....	15	79.07

*Vitality of Onion Seed as Affected by the Age of the Seed.*

Since November 1, 1896, the Station has examined 1360 samples of onion seed of the crop of 1896 and of each succeeding crop. The results are summarized in the following table:

TABLE III.—VITALITY OF ONION SEED.

	Connecticut Grown.		Cal. Grown.	
	No. of Samples.	Per cent Sprouted.	No. of Samples.	Per cent Sprouted.
Seed stated to be less than one year old .....	715	75.70	277	86.91
Seed stated to be between one and two years old...	143	64.08	178	75.16
Seed stated to be between two and three years old	24	21.90	2021	57.38
Seed stated to be between three and four years old	1	59.50	1	10.00

It is quite clear that as a rule a larger percentage of California-grown onion seed germinates than of Connecticut-grown seed. It is also quite clear that, as a rule, onion seed one year old has a much lower sprouting capacity than new seed, though there

are many exceptions to this. Seed from a good crop when one year old will sometimes germinate quite as well as new seed from an inferior crop.

*Vitality of Sweet Corn Seed.*

The following table gives the average, maximum and minimum vitality found in tests of Connecticut-grown sweet corn less than one year during the years 1904 to 1908:

	No. of Samples tested.	Average Percentage by number of Seed sprouting.	Maximum.	Minimum.
Country Gentleman .....	18	87.3	100.0	59.0
Early Crosby less than one year old .....	12	93.5	100.0	77.0
Early Crosby one to two years old .....	4	63.6	85.0	42.0
Early Evergreen less than one year old .....	3	87.8	96.0	82.0
Early Evergreen one to two years old .....	1	91.0	....	....
"Evergreen" less than one year old .....	12	88.0	....	....
"Evergreen" one to two years old .....	3	80.7	92.0	73.0
Acme Evergreen one to two years old .....	1	80.0	....	....
Hickox .....	3	89.3	96.0	83.0
Metropolitan .....	3	90.6	99.0	85.0
Old Colony less than one year old .....	4	80.8	95.0	57.0
Old Colony one to two years old .....	1	80.0	....	....
Old Colony two to three years old .....	1	45.0	....	....
Stowell's Evergreen less than one year old .....	25	86.1	100.0	48.0
Stowell's Evergreen one to two years old .....	8	81.7	99.0	62.5
Early Dawn .....	1	96.0	....	....

**SUMMARY.**

At present the grass, clover, alfalfa and vegetable seeds sold in the state differ greatly in quality; some of them being agriculturally worthless.

The use of poor seed dooms the crop to partial or complete failure at the start and the owner to disappointment and loss.

Loss of this kind can be avoided in most cases\* by testing the seed before buying or planting. Some kinds, like corn, can be readily tested at home. Other and smaller seeds need facilities or skill which are not commonly available.

This Station will, to the limit of its ability, do this work of testing for the farmers of this state, when the results are likely to be of any general interest and value.

To give them value to the sender and to the public alike,

1. The sample should represent stock offered for sale in the state. A small sample sent by mail from some dealer at a distance is of no value unless he guarantees that the goods shipped shall be like the sample.
2. The sample should be described on a blank which will be supplied by the Station on request.
3. The sample should be so taken as to fairly represent the stock on hand. Carelessness or inaccuracy in this particular impairs or destroys the value of the Station's work.

#### *Instructions for Sampling Seeds.*

An accurate sample can be taken by following these directions.

1. Mix well together with the hand and arm the contents of the package (bag or barrel) of seed.
2. Take out five or six small handfuls or cupfuls† from various parts of the package, mix these carefully together and take a part of this mixture for the sample.
3. Send of the smaller seeds—red top, white clover, timothy, etc., *at least* two (2) ounces; of beets, turnips, red clover, etc., four (4) ounces; of wheat and cereals, and of peas and other legumes, eight (8) ounces.
4. Samples may be sent by mail, so securely packed as to prevent leakage or loss, prepaid, *plainly labeled* with name and address of the sender, and addressed to

CONN. AGRICULTURAL EXPERIMENT STATION,

New Haven, Conn.

As the test of germinating power requires some time for its completion, a report on samples cannot be ordinarily expected in less than two weeks from the time of their receipt.

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\* Seeds of varieties like the different kinds of cabbage or of carrot cannot usually be distinguished from one another. Occasionally loss comes from planting an inferior variety which has been bought under the name of another and good variety.

† A small cup may be closed with the palm of the hand, forced down to the desired place, then filled and withdrawn.

The examination of *grass-mixtures* can only be undertaken in special cases. It requires a large outlay of time and labor which is not often justified by the results.

NOTES ON SAMPLES OF CLOVER, ALFALFA AND GRASS SEEDS.

- 4847 *Contains dodder.*  
 4869 *Contains dodder.*  
 4913 *Contains dodder.*  
 4920 Pure seed with much chaff.  
 4939 Marked "red top and timothy." Only 1.6 per cent. of timothy found.  
     Germination of red top only given.  
 4945 Much foreign seed. Canadian and Kentucky blue grass, cinquefoil.  
 4946 Much foreign seed. Canadian and Kentucky blue grass, bottle  
     grass, pigweed, etc.  
 4947 Some Canadian and Kentucky blue grass and a few weeds.  
 4953 Clean seed, but worthless. No germination.  
 4954 Worthless because of low germination.  
 4961 The foreign matter is mostly white clover and timothy, no weeds.  
 4966 A few seeds of plantain.  
 4967 *Much dodder.*  
 4974 Eight kinds of weed seeds *and much dodder.*  
 4981 Seven kinds of weed seeds *and much dodder.*  
 4990 *Much dodder.*  
 4993 } Contain fine quartz grains, 9.8 per cent. in one, 17.4 per cent. in  
 4994 } the other.  
 5332 Few seeds of bottle grass and Russian thistle.  
 5345 Few seeds of sorrel.  
 5360 10 per cent. of white clover and timothy; 3.8 per cent. of sand.  
 5361 Few seeds of bottle grass.  
 5371 3½ per cent. of soft and broken seed.  
 5392 Dirt, chaff, seeds of yarrow and cinquefoil.  
 5399 Few seeds of bottle grass.  
 5404 5 per cent. of red clover.  
 5406 Contains considerable plantain seed.  
 5408 Dirt, chaff, seeds of cinquefoil.  
 5410 Some plantain seed and much cinquefoil; 66,000 weed seeds per  
     pound.  
 5413 No. 1, 7,800 weed seeds to the pound.  
 5413 No. 2, 3,300 weed seeds to the pound. Seeds of alfalfa dodder.  
 5415 Dirt, chaff, seeds of yarrow.  
 5417 *Two species of dodder.*  
 5419 Few seeds of Russian thistle.  
 5422 Few seeds of Russian thistle.  
 5431 Plantain and crab grass; 9,720 weed seeds to the pound.  
 5437 16,435 seeds of plantain to the pound.  
 5438 Seeds of five weeds.

- 5440 Rather dirty, seed of cinquefoil, pepper grass and plantain.  
5448 Dirty, much seed of cinquefoil.  
5454 38.4 per cent. of dirt; 11.1 per cent. of seed of sedge.  
5459 Few seeds of sorrel.  
5460 *Two species of dodder*; 38,000 weed seeds to the pound.  
5468 This is clearly an accidental mixture of 42 per cent. of mammoth  
clover, 39.4 per cent. of white clover and some alsike.
- 5571 }  
5572 } Clean seed but old.

## EXAMINATIONS OF SEEDS SOLD OR OFFERED IN CONNECTICUT, 1908-1909.

Station No.	Sent by	Dealer.	1000 seeds weigh, grams.	Pure seed, per cent.	Impurities, per cent.	Pure seed germination, per cent.	Viability, per cent.
	<i>Red Clover Seed.</i>						
4966	Hitchcock Hardware Co., Watertown		1.38	94.9	5.1*	81.2	77.0
4974	J. H. Fay, West Cheshire	D. B. Wilson Co., Waterbury	1.54	86.4	13.6*	66.7	57.6
4981	A. T. Pattison, Simsbury		1.39	89.8	10.2*	82.7	74.2
4990	Comstock, Ferris & Co., Wethersfield	H. Nungesser & Co., N. Y.	1.90	96.6	3.4*	85.0	82.1
5055	J. F. Messell, Suffield	Northrop, King & Co., Minn.	1.65	97.7	2.3	90.2	88.1
5056	S. D. Woodruff & Sons, Orange		1.50			75.3	
5134	T. Griswold & Co., So. Wethersfield		1.57			86.8	
5270	A. J. Pierpont, Waterbury		1.58			88.5	
5323	C. F. Taylor, Burnside	J. A. Salzer Seed Co., LaCrosse, Wis.	1.61			87.5	
5327	F. Lyman, Manchester		1.56	98.8	1.2	88.5	87.4
5329	F. S. Platt, New Haven		1.60			90.0	
5330	" " "		1.68			92.0	
5337	A. M. Lewis, Southington	J. E. Wing Bro. Seed Co., M'ch'csb'g, O.	1.70	99.4	0.6	95.0	94.4
5338	" " "	" " "	1.64	98.4	1.6	96.0	94.4
5359	J. H. Elwood, Greens Farms	Wheeler & Co., Bridgeport	1.68	98.3	1.7	91.0	89.4
5362	F. S. Bidwell, Windsor Locks		1.56	98.9	1.1	88.0	87.0
5365	E. K. Dean, Amenia Union, N. Y.	H. Nungesser & Co., N. Y.	1.67	99.6	0.4	88.5	88.1
5367	" " "	" " "	1.52	99.2	0.8	89.5	88.7
5369	" " "	Willson & Eaton Co., Wassaic, N. Y.	1.65	99.8	0.2	93.0	92.8
5371	F. S. Platt, New Haven		1.41	94.0	6.0*	92.5	86.9
5372	" " "		1.70	99.5	0.5	94.0	93.5
5391	J. D. Avery, North Stonington	C. W. Campbell & Co., Westerly, R. I.	1.63	98.4	1.6	90.5	89.0
5394	C. S. Child, Woodstock		1.41	98.8	0.2	89.5	89.3
5395	" " "		1.42	98.2	1.8	87.0	85.4
5400	G. H. Alford & Son, Willimantic		1.53	99.1	0.9	91.5	90.6
5413	No. 1, G. S. Anthony, Wallingford	E. W. Conklin & Son, N. Y.	1.43	96.6	3.4*	89.5	86.4
5413	No. 2, " " "		1.88	96.5	3.5*	91.0	87.8

\* See note on page 14.

EXAMINATIONS OF SEEDS SOLD OR OFFERED IN CONNECTICUT, 1908-1909—Continued.

Station No.	Sent by	Dealer.	1000 seeds weighing grams.	Pure seed, per cent.	Impurities, per cent.	Pure seed germination, per cent.	Viability, per cent.
<i>Red Clover Seed—Concluded.</i>							
5417	William R. French, Highland Park	F. T. Blish H'd'w. Co., So. Manchester	1.68	---	---	78.5	---
5420	Cadwell & Jones, Hartford	"	1.49	---	---	91.0	---
5421	"	"	1.65	---	---	92.5	---
5425	F. T. Blish H'd'w Co., So. Manchester	"	1.62	---	---	88.0	---
5426	C. D. Stillson, Stepney Depot	"	1.67	---	---	85.5	---
5427	William R. French, Highland Park	B. S. Carrier, Highland Park	1.51	---	---	92.0	---
5428	"	"	1.61	---	---	90.5	---
5430	F. T. Blish H'd'w Co., So. Manchester	Whitney Eckstein Seed Co., N. Y.	1.67	---	---	86.5	---
5431	Lockwood & Palmer, Stamford	W. H. Small & Co., Evansville, Ind.	1.46	97.2	2.8*	91.0	88.4
5434	Perry & Brown, Putnam	Ross Bros. & Co., Worcester, Mass.	1.61	---	---	84.5	---
5437	Lyon & Ewald, New London	Whitney Eckstein S'd Co., Buffalo, N. Y.	1.38	89.3	10.7*	90.0	80.3
5445	Hitchcock Hardware Co., Watertown	E. W. Conklin & Son, N. Y.	1.38	---	---	88.5	---
5457	Fred Lyman, Manchester	S. Bash & Co., Fort Wayne, Ind.	1.51	---	---	88.0	---
5460	S. J. Logan, Washington	F. F. Hitchcock, Woodbury	1.44	77.2	22.8*	79.0	60.9
5464	E. R. Dunn, Southampton	H. Phillips Seed Co., Toledo, O.	1.63	---	---	89.0	---
5548	E. K. Dean, America Union	Willson & Eaton, Wassauc, N. Y.	1.60	---	---	64.0	---
<i>Mammoth Clover Seed.</i>							
4967	L. H. Bates, East Granby	F. C. Bidwell & Co., Windsor Locks	1.46	88.3	11.7*	79.0	69.7
5132	T. Griswold & Co., So. Wethersfield	"	1.59	---	---	87.3	---
5322	C. F. Taylor, Burnside	"	1.67	---	---	87.5	---
5335	A. M. Lewis, Southampton	J. E. Wing Bro. Seed Co., M'ch'csb'g. O.	1.54	98.4	1.6	92.5	91.0
5336	"	"	1.84	99.6	0.4	95.5	95.1
5401	G. H. Alford & Son, Willimantic	E. W. Conklin & Son, N. Y.	1.60	99.1	0.9	91.5	90.6
5458	Fred Lyman, Manchester	S. Bash & Co., Fort Wayne, Ind.	1.67	---	---	96.5	---
5468	D. L. Talcott, Torrington	"	1.62	57.9	42.1*	90.0	52.1

\* See note on page 14.

## EXAMINATION OF SEEDS SOLD OR OFFERED IN CONNECTICUT, 1908-1909—Continued.

Station No.	Sent by	Dealer.	1000 seeds weigh. grams.	Pure seed. per cent.	Impurities. per cent.	Pure seed. Remain- tion. per cent.	Viability. per cent.
<i>Alsike Clover.</i>							
4851	J. B. Lewis, Southington.	Cadwell & Jones, Hartford.	.73	94.1	5.9	90.7	85.3
4863	H. T. Child, Woodstock.	Ross Bros., Worcester, Mass.	.76	92.9	7.1	93.5	86.8
4928	E. R. Dunn, Southington.	Meriden Grain & Feed Co., Meriden.	.66	97.2	2.8	86.5	84.0
4961		F. S. Platt Co., New Haven.	.58	88.1	11.9*	60.7	53.4
4962	S. D. Woodruff & Sons, Orange.		.62	91.6	8.4	88.2	80.7
4963	S. D. Woodruff & Sons, Orange.		.60	94.0	6.0	82.0	77.0
5345	E. R. Dunn, Southington.	C. N. Codner, Oswego, N. Y.	.66	91.0	9.0*	77.5	70.5
5360	F. S. Bidwell & Co., Windsor Locks.		.72	86.2	13.8*	87.0	74.9
5366	E. K. Dean, Amenia Union, N. Y.	H. Nungesser & Co., N. Y.	.71	98.6	1.4	87.5	86.2
5423	Cadwell & Jones, Hartford.		.71	98.2	1.8	92.8	91.1
5459	F. Lyman, Manchester.	S. Bash & Co., Fort Wayne, Ind.	.71	94.6	5.4*	84.3	79.7
5466	E. R. Dunn, Southington.	H. Phillips Seed Co., Toledo, O.	.65	98.6	1.4	94.3	92.9
<i>White Clover.</i>							
4735		F. S. Platt Co., New Haven.	.53	92.8	7.2	85.2	79.1
4960		E. E. Burwell, New Haven.	.51	97.4	2.6	65.2	63.5
4965		Wheeler & Co., Bridgeport.	.51	96.0	4.0	57.0	54.7
5402	G. H. Alford & Son, Willimantic.	E. W. Conklin, N. Y.	.55	97.8	2.2	79.0	77.2
5436	Lyon & Ewald, New London.	Whitney, Eckstein S'd Co., Buffalo, N. Y.	.56	95.7	4.3	84.0	80.3
<i>Crimson Clover.</i>							
5566	W. A. Henry & Son, Wallingford.		---	---	---	97.0	---
5567	" " " "		---	---	---	89.5	---
5568	" " " "		---	---	---	96.5	---
5570	" " " "		---	---	---	87.0	---
5571	" " " "		---	---	---	60.0	---
5572	" " " "		---	---	---	30.5	---

\* See note on page 14.

## EXAMINATIONS OF SEEDS SOLD OR OFFERED IN CONNECTICUT, 1908-1909—Continued.

Station No.	Sent by	Dealer.	1000 seeds weight, grams.	Pure seed, per cent.	Impurities, per cent.	Pure seed germination, per cent.	Viability, per cent.
<i>Alfalfa.</i>							
4847	A. J. Benedict, Colebrook	W. W. Rawson & Co., Boston, Mass.	2.22	97.9	2.1*	83.7	81.9
4862	H. T. Child, Woodstock	J. P. Barstow & Co., Norwich	1.93	98.6	1.4	94.0	92.6
4869	J. K. Hall, Norwich	Thos. Halton Co., Chinook, Mont.	2.02	98.1	1.9*	85.2	83.5
4913	G. E. Lummis, Southington		1.75	98.9	1.1*	66.7	65.9
4927	E. R. Dunn, Southington		2.07	99.0	1.0	87.5	86.6
4977	W. E. Frost, Bridgewater	H. Nungesser & Co., N. Y.	1.95	97.5	2.5	84.7	82.5
4979	A. J. Pierpont, Georgetown	U. S. Department of Agriculture	2.00	98.0	2.0	69.8	68.4
5324	Chas. F. Taylor, Burnside	J. A. Salzer Seed Co., LaCrosse, Wis.	1.96	---	---	93.0	---
5325	A. M. Lewis, Southington	J. E. Wing Bro. Seed Co., Ohio.	2.14	97.5	2.5	89.5	87.2
5331	F. S. Platt Co., New Haven		2.18	97.7	2.3	88.0	85.9
5332	" " " "		2.07	96.7	3.3*	89.5	86.5
5333	" " " "		2.15	98.8	1.2	90.5	88.5
5334	" " " "		2.16	97.8	2.2	90.5	88.5
5351	F. S. Bidwell & Co., Windsor Locks.	J. E. Wing Bro. Seed Co., Ohio.	2.00	96.0	4.0*	84.5	81.1
5373	F. S. Platt Co., New Haven		2.00	97.5	2.5	88.0	85.8
5374	" " " "		2.06	99.0	1.0	90.0	89.1
5399	A. M. Lewis, Plantsville	S. D. Woodruff & Sons, Orange.	1.85	96.3	3.7*	81.5	78.4
5419	F. S. Platt Co., New Haven	J. E. Wing Bro. Seed Co., Ohio	2.07	98.5	1.5*	94.5	93.0
5422	Cadwell & Jones, Hartford		2.17	98.4	1.6*	88.5	87.0
5456	Fred Lyman, Manchester	S. Bash & Co., Fort Wayne, Ind.	2.11	98.6	1.4	89.0	87.7
5569	W. H. Lee, Orange	J. E. Wing Bro. Seed Co., Ohio.	2.21	98.0	2.0	92.0	90.1
<i>Red Top.</i>							
4866	H. T. Child, Woodstock	W. W. Rawson & Co., Boston, Mass.	.10	98.0	2.0	75.2	73.6
4919	Phelps Montgomery, New Haven	E. B. Clark Co., Milford	.10	92.8	7.2	70.5	65.4

\* See note on page 14.

## EXAMINATIONS OF SEEDS SOLD OR OFFERED IN CONNECTICUT, 1908-1909—Continued.

Station No.	Sent by	Dealer.	1000 seeds Weight, grams.	Pure seed, per cent.	Impurities, per cent.	Germination, per cent.	Viability, per cent.
	<i>Red Top—Concluded.</i>						
4939	J. D. Avery, North Stonington.....	Thos. Griswold & Co., Wethersfield.....	.10	84.8	†13.6*	60.5	51.3
4993	F. W. Martin, Clark's Corners.....	.....	---	---	---	50.5	---
4994	Stanley Svea Gr'n & Coal Co., New Britain.....	.....	---	---	---	82.5	---
5053	J. F. Messell, Suffield.....	Northrop, King & Co., Minn.....	---	---	---	85.0	---
5358	J. H. Elwood, Greens Farms.....	Wheeler & Co., Bridgeport.....	.120	---	---	93.3	---
5392	J. D. Avery, North Stonington.....	Sample from C. W. Campbell & Co., Westerly, R. I., but not sold by them.....	.095	69.3	30.7*	90.3	62.5
5398	C. S. Child, Woodstock.....	E. W. Conklin & Son, N. Y.....	.10	96.7	3.3	93.0	89.8
5408	G. H. Alford, Willimantic.....	".....	.10	76.8	23.2*	84.5	64.8
5409	".....	".....	.10	90.4	9.6	86.5	78.1
5410	".....	".....	.10	71.2	28.8*	87.3	62.1
5415	C. D. Stillson, Stepney Depot.....	H. B. Coger, Botsford, Conn.....	.095	75.1	24.9*	85.8	64.4
5433	Perry & Brown, Putnam.....	Ross Bros. & Co., Worcester, Mass.....	---	---	---	85.8	---
5439	Lyon & Ewald, New London.....	Whitney, Eckstein Seed Co., Buffalo, N. Y.....	---	---	---	84.8	---
5440	".....	".....	---	---	---	89.3	---
5448	Hitchcock Hardware Co., Watertown.....	E. W. Conklin & Son, N. Y.....	---	---	---	51.8	---
5454	Fred Lyman, Manchester.....	S. Bash & Co., Fort Wayne, Ind.....	.10	50.5	---	78.3	39.5
4920	Montgomery Phelps, New Haven.....	E. B. Clark Co., Milford.....	1.65	79.3	20.7*	36.8	29.1
4917	Montgomery Phelps, New Haven.....	F. S. Platt & Co., New Haven.....	1.93	94.0	6.0	42.2	39.6

\* See note on page 14.

† Other than timothy.

## GARDEN AND FIELD SEEDS.

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## EXAMINATIONS OF SEEDS SOLD OR OFFERED IN CONNECTICUT, 1908-1909—Continued.

Station No.	Sent by	Dealer.	1000 seeds weigh, grams.	Pure seed, per cent.	Impurities, per cent.	Pure seed remaining, per cent.	Viability, per cent.
	<i>Timothy.</i>						
4859	E. F. Elwood, Greens Farms	Wheeler & Co., Bridgeport	.40	99.0	1.0	72.5	71.7
4864	H. T. Child, Woodstock	Ross Bros., Worcester, Mass.	.360	98.8	1.2	91.0	89.9
4865	"	W. W. Rawson & Co., Boston	.377	99.2	0.8	88.2	87.4
4918	Montgomery Phelps, New Haven	E. B. Clark Co., Milford	.40	99.0	1.0	90.7	89.7
4945	"	F. Burr & Co., Middletown	.42	84.6	15.4*	82.2	69.5
4946	"	D. B. Wilson & Co., Waterbury	.40	86.6	13.4*	65.0	56.2
4947	"	Lyon & Ewald, New London	.382	91.4	8.6*	90.5	82.7
4948	"	J. P. Barstow & Co., Norwich	.440	98.9	1.1	77.5	76.0
4949	"	T. H. Eldredge, "	.345	98.3	1.7	87.5	86.0
4950	"	Jordan Hardware Co., Willimantic	.370	99.0	1.0	82.2	81.3
4951	"	Stanley Svea Gr. & C. Co., New Britain	.350	98.2	1.8	68.0	66.7
4952	"	Lockwood & Palmer, Stamford	.395	98.0	2.0	77.7	76.1
4953	"	Wheeler & Co., Bridgeport	.365	98.2	1.8*	2.5	24.5
4954	"	E. E. Burwell, New Haven	.40	99.6	0.4*	37.5	37.3
4955	"	O. H. Meeker, Danbury	.40	99.7	0.3	96.0	95.7
4956	"	Meech & Stoddard, Middletown	.35	99.3	0.7	82.0	81.4
4957	"	Cadwell & Jones, Hartford	.305	99.0	1.0	95.7	94.7
4958	"	Birdsey & Raven, Meriden	.44	98.1	1.9	69.7	68.3
4959	"	Meriden Grain & Feed Co.	.390	99.4	0.6	86.7	86.1
4970	John H. Fay, West Cheshire	D. B. Wilson Co., Waterbury	.370	97.7	2.3	89.0	86.9
4980	Hitchcock Hardware Co., Watertown	E. W. Conklin & Son, Binghamton, N. Y.	.36	97.5	2.5	70.0	68.2
4986	R. N. Peck, Newtown	"	.355	97.5	2.5	66.7	65.0
4992	F. W. Martin, Clark's Corners	"	.32	99.4	0.6	71.7	71.2
5054	J. F. Messell, Suffield	Northrop, King & Co., Minn.	.42	99.7	0.3	96.3	96.0
5133	T. Griswold & Co., South Wethersfield	"	.41	99.6	0.4	89.8	89.4
5346	E. R. Dunn, Southington	C. N. Codner, Oswego, N. Y.	.412	99.8	0.2	96.0	95.8
5357	J. H. Elwood, Greens Farms	Wheeler & Co., Bridgeport	.410	99.7	0.3	98.5	98.2

\* See note on page 14.

## EXAMINATIONS OF SEEDS SOLD OR OFFERED IN CONNECTICUT, 1908-1909—Concluded.

Station No.	Sent by	Dealer.	1000 seeds weight, grams.	Pure seed, per cent.	Impur- ity, per cent.	Pure seed germina- tion, per cent.	Viability, per cent.
<i>Timothy—Concluded.</i>							
5363	F. S. Bidwell & Co., Windsor Locks	-----	.45	98.9	1.1	98.3	97.2
5368	E. K. Dean, America Union, N. Y.	H. Nungesser & Co., New York	.40	99.6	0.4	96.8	96.4
5370	" " " " " "	Willson & Eaton, Wassaic, N. Y.	.44	99.8	0.2	97.8	97.0
5375	F. S. Platt Co., New Haven	-----	.40	99.8	0.2	96.5	96.3
5393	J. D. Avery, North Stonington	-----	.38	97.3	2.7	88.0	85.6
5398	C. S. Child, Woodstock	C. W. Campbell & Co., Westerly, R. I.	.405	98.9	1.1	95.8	94.7
5397	" " " " " "	-----	.43	99.1	0.9	92.5	91.6
5403	G. H. Alford & Son, Willimantic	E. W. Conklin, Binghamton, N. Y.	.42	99.9	0.1	97.5	97.4
5404	" " " " " "	" " " " " "	.42	94.0	6.0*	94.8	89.1
5405	" " " " " "	" " " " " "	.375	99.6	0.4	97.3	96.9
5406	" " " " " "	" " " " " "	.365	95.3	4.7*	92.3	87.9
5407	" " " " " "	" " " " " "	.392	99.4	0.6	95.8	95.2
5414	C. D. Stillson, Stepney Depot	E. W. Conklin, Binghamton, N. Y.	.38	99.3	0.7	84.3	83.7
5424	F. T. Blish H'd'w. Co., So. Manchester	H. B. Coger, Botsford	.41	99.7	0.3	97.0	96.7
5429	" " " " " "	Whitney, Eckstein Seed Co., Buffalo, N. Y.	.42	99.7	0.3	97.0	96.7
5432	Lockwood & Palmer, Stamford	W. H. Small & Co., Evansville, Ind.	.39	97.5	2.5	84.5	82.3
5435	Perry & Brown, Putnam	Ross Bros. & Co., Worcester, Mass.	.35	96.5	3.5	90.8	87.6
5438	Lyon & Ewald, New London	Whitney, Eckstein Seed Co., Buffalo, N. Y.	.37	93.0	7.0	94.3	87.6
5446	Hitchcock Hardware Co., Watertown	J. Breck & Sons, Boston, Mass.	.34	99.6	0.4	91.3	90.9
5447	" " " " " "	E. W. Conklin & Son, Binghamton, N. Y.	.38	99.4	0.6	96.5	95.9
5455	Fred Lyman, Manchester	S. Bach & Co., Fort Wayne, Ind.	.40	99.3	0.7	97.3	96.6
5461	Farmer's Supply & Roofing Co., Bridgeport	-----	.39	99.9	0.1	90.3	90.2
5465	E. R. Dunn, Southington	H. Phillips Seed Co., Ohio	.36	99.7	0.3	94.5	94.2
5469	E. K. Dean, America Union, N. Y.	Willson & Eaton, Wassaic, N. Y.	.42	99.8	0.2	96.5	96.3

\* See note on page 14.

## VEGETABLE SEEDS IN PACKAGES, 1909.

Number.	Variety.	Put up by	Bought from	Germina- tion per cent.	Weight of sample, grams.	Weight of 100 seeds, grams.
<i>Cucumber.</i>						
5470	Page's Everbearing	Page Seed Co.	J. H. Cone, Hartford.	67.0	3.96	2.62
5475	Long Green	Cadwell & Jones	Cadwell & Jones, Hartford	88.5	9.51	2.75
5480	Early Cluster	Hart, Welles & Co.	Woolley Hardware Co.	85.0	7.41	2.13
5485	Early White Spine	D. M. Ferry & Co.	Hotchkiss Bros., Ansonia	89.5	9.37	2.68
5490	Improved Long Green No. 56	Ross Bros.	W. H. Ackley, East Hartford	90.1	7.12	2.66
5495	Early White Spine	J. B. Rice Seed Co.	G. M. Williams Co., New London	55.0	7.81	2.39
5500	Improved Long Green	Lake Shore Seed Co.	T. R. Sudd & Co., Willimantic	73.0	5.99	2.36
5505	White Spine	Lyon & Ewald	Lyon & Ewald, New London	97.5	9.14	2.08
5509	Early White Spine	Crosman Bros.	E. W. Hubbell Co., Saugatuck	42.0	7.52	2.71
5514	Improved White Spine	J. M. Thorburn & Co.	Farmers' Supply and Roofing Co., Bridgeport	88.0	4.63	2.35
5517	Dunlap's Early Perfection	A. H. Dunlap & Sons	Birdsey & Raven, Meriden	63.0	6.99	2.71
5528	Early White Spine	E. M. Lyman & Son	P. H. Callahan, Southington	69.0	6.54	2.49
5534	Long Green	D. Landreth Seed Co.	Hull's Hardware Co., Danbury	93.0	9.24	2.66
5538	Everbearing	F. T. Blish Hardware Co.	F. T. Blish Hardware Co., South Manchester	63.5	9.57	2.53
5542	Boston Pickling	F. S. Platt Co.	F. S. Platt Co., New Haven	96.0	5.45	3.07
5549	Cucumber	Hamilton Hardware Corp.	Hamilton H'd'w Corp., Waterbury	70.5	20.83	2.88
<i>Lettuce.</i>						
5471	Early Prizehead	Page Seed Co.	J. H. Cone, Hartford	99.0	6.28	.12
5476	Silver Ball	Cadwell & Jones	Cadwell & Jones, Hartford	100.0	3.24	.11
5481	Early Prizehead	Hart, Welles & Co.	Woolley Hardware Co., Hartford	82.5	4.99	.17
5491	Tennis Ball, Black Seeded, No. 19	Ross Bros.	W. H. Ackley, East Hartford	95.0	3.35	.12
5496	Tennis Ball, White Seeded	J. B. Rice Seed Co.	G. M. Williams Co., New London	62.5	2.83	.11
5501	Green Drumhead	Lake Shore Seed Co.	T. R. Sudd & Co., Willimantic	71.0	9.71	.13

## VEGETABLE SEEDS IN PACKAGES, 1909—Continued.

Number.	Variety.	Put up by	Bought from	Germination, per cent.	Weight of sample, grams.	Weight of residue, grams.
	<i>Lettuce—Concluded.</i>					
5506	Simpson Curled	Lyon & Ewald	Lyon & Ewald, New London	100.0	8.42	.17
5510	Big Boston	Crosman Bros.	E. H. Hubbell Co., Saugatuck	49.5	3.28	.13
5518	Dunlap's Home Garden Large Early Head	A. H. Dunlap & Sons	Birdsey & Raven, Meriden	88.0	4.29	.12
5523	Crosman's New Improved	Crosman Bros.	O. H. Meeker, Danbury	55.0	3.16	.14
5529	Early Curled Silesia	E. M. Lyman & Son	P. H. Callahan, Southington	46.5	3.03	.14
5535	Hanson	D. Landreth Seed Co.	Hull's Hardware Co., Danbury	99.5	9.77	.14
5539	Tomhannock	F. T. Blish Hardware Co.	F. T. Blish Hardware Co., South Manchester	98.5	3.81	.14
5543	Early Curled Silesia	F. S. Platt Co.	F. S. Platt Co., New Haven	98.5	4.26	.14
5550	Lettuce	Hamilton H'dware Corp.	Hamilton H'd'w Corp., Waterbury	100.0	8.47	.15
	<i>Radish.</i>					
5472	Early Scarlet Turnip	Page Seed Co.	J. H. Cone, Hartford	92.0	9.13	.98
5477	Extra Deep Scarlet Turnip	Cadwell & Jones	Cadwell & Jones, Hartford	87.5	9.16	1.01
5482	Early Round Scarlet	Hart, Welles & Co.	Woolley Hardware Co., Hartford	96.0	8.76	.72
5486	French Breakfast	D. M. Ferry & Co.	Hotchkiss Bros., Ansonia	75.0	8.93	.86
5492	Early Scarlet Turnip, No. 27	Ross Bros.	W. H. Ackley, East Hartford	53.0	8.21	.87
5497	New White Tipped Scarlet Turnip	J. B. Rice Seed Co.	G. M. Williams Co., New London	50.5	8.00	.85
5502	Early Scarlet Short Top	Lake Shore Seed Co.	T. R. Sudd & Co., Willimantic	13.0	9.62	.88
5508	Large Black Spanish?	Lyon & Ewald	Lyon & Ewald, New London	66.0	9.15	.77
5511	Early Round Deep Scarlet	Crosman Bros.	E. W. Hubbell Co., Saugatuck	45.5	8.12	.76
5515	French Breakfast	J. M. Thorburn & Co.	Farmer's Supply and Roofing Co., Bridgeport	97.0	4.05	.78
5519	Early Scarlet Turnip	A. H. Dunlap & Sons	Birdsey & Raven, Meriden	68.5	9.25	.92
5524	Early Deep Scarlet, Olive-shaped	Crosman Bros.	O. H. Meeker, Danbury	86.0	8.43	.84

## VEGETABLE SEEDS IN PACKAGES, 1909—Continued.

Number.	Variety.	Put up by	Bought from	Germination, per cent.	Weight of sample, grams.	Weight of 100 seeds, grams.
	<i>Radish—Concluded.</i>					
5530	Early Long Scarlet	E. M. Lyman & Sons	P. H. Callahan, Southington	67.5	4.27	1.35
5536	Charter or Long Rose	D. Landreth Seed Co.	Hull's Hardware Co., Danbury	94.5	10.37	.92
5540	French Breakfast	F. T. Blish Hardware Co.	F. T. Blish Hardware Co., South Manchester	84.0	15.89	.85
5544	Early Long Scarlet	F. S. Platt Co.	F. S. Platt Co., New Haven	86.0	7.24	1.19
5551	Radish	Hamilton H'dware Corp.	Hamilton H'dw Corp., Waterbury	62.5	17.15	.91
5489	Premium Large Late Flat Dutch <i>Cabbage.</i>	D. M. Ferry & Co.	Hotchkiss Bros., Ansonia	80.0	5.73	.43
	<i>Onion.</i>					
5473	Sp't Red Globe	Page Seed Co.	J. H. Cone, Hartford	75.5	5.63	.34
5478	Wethersfield Large Red	Cadwell & Jones	Cadwell & Jones, Hartford	92.5	4.58	.41
5483	Danvers Yellow Globe	Hart, Welles & Co.	Woolley Hardware Co., Hartford	71.0	3.13	.28
5487	Sp't Red Globe	D. M. Ferry & Co.	Hotchkiss Bros., Ansonia	81.5	4.72	.35
5493	Yellow Globe Danvers, No. 18	Ross Bros.	W. H. Ackley, East Hartford	52.0	4.76	.30
5498	Yellow Globe Danvers	J. B. Rice Seed Co.	G. M. Williams Co., New London	42.0	6.31	.36
5503	Large Yellow Danvers	Lake Shore Seed Co.	T. R. Sudd & Co., Willimantic	6.0	3.48	.32
5507	Sp't Red Globe	Lyon & Ewald	Lyon & Ewald, New London	88.0	6.23	.36
5512	Danvers Yellow	Crosman Bros.	E. W. Hubbell Co., Saugatuck	7.5	7.17	.31
5520	Danvers Early Red Globe	A. H. Dunlap & Sons	Birdsey & Raven, Meriden	57.0	4.26	.32
5525	Wethersfield Red	Crosman Bros.	O. H. Meeker, Danbury	41.0	6.60	.31
5531	Wethersfield Large Red	E. M. Lyman & Son	P. H. Callahan, Southington	10.0	3.36	.38
5537	Bermuda Island, White	D. Landreth Seed Co.	Hull's Hardware Co., Danbury	91.5	2.63	.32
5541	Sp't Red Globe	F. T. Blish Hardware Co.	F. T. Blish Hardware Co., South Manchester	88.0	6.20	.36

## VEGETABLE SEEDS IN PACKAGES, 1909—Concluded.

Number.	Variety.	Put up by	Bought from	Germination, per cent.	Weight of sample, grams.	Weight of 100 seeds, grams.
	<i>Onion—Concluded.</i>					
5545	Large Red Wethersfield	F. S. Platt Co.	F. S. Platt Co., New Haven	81.5	3.66	.35
5552	Onion	Hamilton H'dware Corp.	Hamilton H'd'w Corp., Waterbury	98.0	6.93	.35
	<i>Musk Melon.</i>					
5474	Golden Netted Gem	J. H. Gregory & Son	J. H. Cone, Hartford	97.5	5.15	---
5481	Skillman's Fine Netted	Hart, Welles & Co.	Woolley Hardware Co., Hartford	68.5	4.34	---
5488	Defender	D. M. Ferry & Co.	Hotchkiss Bros., Ansonia	88.5	4.83	---
5499	Burpee's Golden Gem	J. B. Rice Seed Co.	G. M. Williams Co., New London	48.5	5.64	---
5504	Chicago Nutmeg	Lake Shore Seed Co.	T. R. Sudd & Co., Willimantic	37.0	5.66	---
5516	Rocky Ford	J. M. Thorburn & Co.	Farmer's Supply and Roofing Co., Bridgeport	87.5	4.02	---
5521	New Rocky Ford Early Netted Gem	A. H. Dunlap & Sons	Birdsey & Raven, Meriden	87.5	4.77	---
5526	Large Hackensack	Crosman Bros.	O. H. Meeker, Danbury	47.0	5.54	---
5532	Osage or Miller's Cream	E. M. Lyman & Son	P. H. Callahan, Southington	78.4	3.47	---
5547	Rocky Ford	F. S. Platt Co.	F. S. Platt Co., New Haven	93.0	4.06	---
5553	Muskmelon	Hamilton H'dware Corp.	Hamilton H'd'w Corp., Waterbury	82.0	24.15	---
	<i>Watermelon.</i>					
5479	Mountain Sweet	Cadwell & Jones	Cadwell & Jones, Hartford	86.7	7.37	---
5494	Phinney's Early	Ross Bros.	W. H. Ackley, East Hartford	88.4	5.86	---
5513	Peerless or Ice Cream	Crosman Bros.	E. W. Hubbell Co., Saugatuck	21.3	6.81	---
5522	Early Sweetheart	A. H. Dunlap & Sons	Birdsey & Raven, Meriden	43.3	6.34	---
5527	Prize Jumbo or Jones	Crosman Bros.	O. H. Meeker, Danbury	78.0	5.63	---
5533	Ice Cream or Peerless	E. M. Lyman & Son	P. H. Callahan, Southington	14.0	5.00	---
5546	Kolb's Gem	F. S. Platt Co.	F. S. Platt Co., New Haven	100.0	4.47	---