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P.B. MINGLE & Co's
ALMANAC
AND
GARDEN MANUAL
1902

Geodes Print, 716 Chestnut St. Phila.

103 Market St., Philadelphia.

TAKE NOTICE

Ladies and Gentlemen coming to the City, and finding themselves encumbered by Waterproofs, Overcoats, Satchels, &c., can leave such articles at our Store until their return home.

Also, Ladies shopping can have their bundles sent to the Store, taking them up as they go to the Ferries or Cars.

We shall be glad to accommodate our friends in this way.

Very respectfully,

P. B. MINGLE & CO.

1902.

	Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
JAN.	..	..	..	1	2	3	4
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APR.	..	..	1	2	3	4	5
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JUNE	1	2	3	4	5	6	7
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1902.

STREETS OF PHILADELPHIA

No.	North.	No.	South.
1	Market,	1	Market, Jayne
100	Arch, Cherry,	100	Chestnut,
200	Race, New,	200	Walnut,
300	Vine, Wood,	300	Spruce, Union
400	Callowhill,	400	Pine,
500	Buttonwood,	500	Lombard,
	Spring Garden	600	South,
600	Green Mt Vern	700	Bainbridge,
	Wallace	800	Catherine,
700	Fairmount,	900	Christian,
800	Brown,	1000	Carpenter,
900	Poplar,	1100	Washington,
1200	Girard Ave.,	1200	Federal,
1300	Thompson,	1300	Wharton,
1400	Master,	1400	Reed,
1500	Jefferson,	1500	Dickerson,
1600	Oxford,	1600	Tasker,
1700	Columbia Ave	1700	Morris,
1800	Monigomery,	1800	Moore,
1900	Berks,	1900	Mifflin,
2000	Norris,	2000	McKean,
2100	Diamond,	2100	Snyder,
2200	Susquehanna,	2200	Jackson,
2300	Dauphin,	2300	Wolf,
2400	York,	2400	Ritter,
2500	Cumberland,	2500	Porter,
2600	Huntingdon,	2600	Shunk,
2700	Lehigh Ave.,	2700	Oregon Ave.
2800	Somerset,	2800	Johnson,
2900	Cambria,	2900	Bigler,
3000	Indiana,	3000	Pollock.

JULY

Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
6	7	8	9	10	11	12
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AUG.

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SEP.

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OCT.

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26	27	28	29	30	31	..

NOV.

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23	24	25	26	27	28	29
30	..	..	..	..	..	..

DEC.

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14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	..	..	..

GREETINGS FOR 1902.

A REPUTATION to be lasting must not come accidentally or through trickery, but be based on talent and merit. Such a reputation is built up little by little—built to endure, and to give one wealth that cannot be wholly represented by the money he earns. Yet it must be a large part of his working capital.

The only way to secure it is by firm and persistent reliance on merit.

P. B. Mingle & Co. has striven for sixty-four years to acceptably answer to their patrons, and with what success their large list of customers attests. Through the consistent application of business principles they stand second to none in their ability to furnish FARM AND GARDEN SEEDS of better quality for price, or greater promptness in filling orders.

Prime germinative qualities can only be expected of good seed. Cheap seed never pays.

Trust P. B. Mingle & Co. to so adjust the relations of seeds to cost and charges that you shall in consequence receive a full and fair return for the expenditure made.

Yours, truly,

P. B. MINGLE & CO.

EVERY MERCHANT

who gets or wants to get the farmer's trade—the best trade in the world—must be quick to see and appreciate just the goods needed.

Most farmers keep cows, and most cows have, at some time one or more of the diseases that is easily cured by

KOW-KURE

THE GREAT COW MEDICINE

If you have Kow-Kure in stock you have one more hold on the farmer's trade, and a big one. If you have not it. GET IT. This merchant has it, he knows.

Morgantown, Pa., Nov. 21, 1900.

. B. Mingle & Co., Dear Sirs:—

Please find check for 2 doz. small Kow-Kure. Ship as soon as you can. I am entirely out. It beats anything, to bring good reports, that we ever had.

Yours respectfully,

S. Deichley.

If you will put Kow-Kure in stock the Association will do local advertising for you. We have handled thousands of packages of this medicine and advise you to try it.

P. B. MINGLE & CO., Phila., Pa.

EVERY - FARMER -

Who Keeps One or More Cows
Should Know That

KOW-KURE cures abortion (slinking).
KOW-KURE cures barrenness (failure to breed).

KOW-KURE prevents tuberculosis.
KOW-KURE removes retained afterbirth
KOW-KURE cures scouring in cows and calves.

KOW-KURE cures bunches and swelling in bag.

KOW-KURE cures milk fever.
KOW-KURE enriches the blood.
KOW-KURE improves the appetite.
KOW-KURE increases the milk.
KOW-KURE is a medicine, not a food.
KOW-KURE is for cows only.
KOW-KURE has stood the test for ten years.

KOW-KURE is a complete success.

To know these facts and act upon them is to insure dairy against profit-destroying diseases, and guarantee a uniform standard of excellent health.

Kow-Kure makes healthy cows, and healthy cows pay.

Sayles, Pa., April 3, 1900.

Dairy Association,
Lyndonville, Vt.

Dear Sirs:—I have used Kow-Kure for the removal of afterbirth in cows and for scours in calves and it works nicely. I also know that it is a grand thing for a cow that is off its feed.

Yours truly,
D. B. BOYCE.

Kow-Kure is put up in two sizes. Enough medicine in one package to treat one cow from five to eight weeks, according to the disease. Directions for use with every package. The price is 50 cents and \$1.00.

Made Only by the Dairy Association, Lyndonville, Vt.

1902

1902

1st Month,

31 Days.

MOON'S PHASES.

☾ Last Quarter . . . 1d. 11h. 8m. M. ☽ First Quarter . . 17d. 1h. 3^m. M.
 ☾ New Moon . . . 9d. 4h. 14m. A. ☽ Full Moon . . . 23d. 7h. 6m. A.
 Last Quarter, 31d. 8h. 8m. Morn.

Jan. 5th—Day's Length: 9 hours, 25 minutes.

CALENDAR FOR NEW YORK CITY, PHILADELPHIA, Pennsylvania, Connecticut, New Jersey, Ohio, Indiana and Illinois.											
DAY OF YEAR	DAY of MONTH	DAY OF WEEK	Sun Rises.		Sun Sets.		Sun	Moon.		High Water Philadelphia	
			H.	M.	H.	M.	Slow M.	H.	M.	H.	M.
1	1	W	7	22	4	44		Morn		6	42
2	2	Th	7	23	4	45	4	0 45		7	28
3	3	Fr	7	23	4	46	4	1 42		8	21
4	4	Sa	7	23	4	47	5	2 39		9	18
5	5	1	7	23	4	48	5	3 34		10	13
6	6	M	7	23	4	49	6	4 28		11	8
7	7	Tu	7	23	4	50	6	5 18	Even		1
8	8	W	7	23	4	51	7	6 6		0	47
9	9	Th	7	22	4	51	7	Sets		1	28
10	10	Fr	7	22	4	52	8	6 4		2	11
11	11	Sa	7	22	4	53	8	7 4		2	55
12	12	2	7	22	4	54	8	8 7		3	36
13	13	M	7	22	4	55	9	9 11		4	19
14	14	Tu	7	21	4	57	9	10 15		5	3
15	15	W	7	21	4	58	9	11 21		5	46
16	16	Th	7	21	4	59	10	Morn		6	35
17	17	Fr	7	20	5	0	10	0 28		7	30
18	18	Sa	7	20	5	1	10	1 35		8	59
19	19	3	7	19	5	3	11	2 43		9	51
20	20	M	7	19	5	4	11	3 50		11	2
21	21	Tu	7	18	5	5	11	4 52		11	35
22	22	W	7	17	5	6	12	5 47	Morn		7
23	23	Th	7	17	5	7	12	Rises		1	1
24	24	Fr	7	16	5	8	12	6 18		1	49
25	25	Sa	7	16	5	9	12	7 25		2	36
26	26	4	7	15	5	10	13	8 30		3	20
27	27	Mo	7	14	5	11	13	9 32		4	2
28	28	Tu	7	13	5	13	13	10 33		4	43
29	29	W	7	13	5	14	13	11 32		5	25
30	30	Th	7	12	5	16	13	Morn		6	5
31	31	Fr	7	11	5	17	14	0 29		6	49

Conjectures of the Weather.

The 1st—3rd, changeable; 4th—6th, variable; 7th—9th, cloudy and snow; 10th, 12th, clear and cold; 13th, 14th, cold and cloudy; 15th—17th, fair and cool; 18th 20th, changeable; 21st, 22d, stormy; 23d—24th, clear; 25th, 26th, cloudy and snow; 27th, 28th; changeable; 29th—31st, windy.

PERMANENT PASTURE GRASS SEED.

Having given our attention to grasses for this purpose for many years, and after practical results and experience, we have succeeded in creating a mixture which we can highly recommend.

If there is any land you wish to set in permanent pasture, we can supply you with a mixture of any description required or a special mixture admirably suited for this purpose at a very reasonable cost. We are headquarters for all kinds of grass seeds and can save you money on your purchases.

TWO CROPS IN ONE YEAR.

There are several crops that can be made to do service, not only in covering the land, but in destroying weeds. Millet, which grows rapidly, crowds the weeds out, while Hungarian grass, which may be mowed two or three times and then plowed under, is the best cleaner of the soil of weeds that can be used. Buckwheat is a crop that will grow on the poorest sandy soil, and even if corn or oats are broadcasted and turned under when high enough they will be serviceable. While the cow pea may be regarded as the best crop for adding nitrogen to the soil in summer, there is nothing to prevent the growing of two crops on the same land for enriching the soil, as it may not be necessary for such crops to mature. They can be turned under at any stage of growth. It is maintained that the crops can add nothing to the soil other than the amount derived therefrom. This claim is true so far as the mineral elements are concerned, but there is a decided gain of nitrogen by the use of the leguminous plants. As the soil contains a large proportion of inert mineral matter, the plants gradually change it to an available condition and, though not adding mineral matter to the soil, they bring it within reach of succeeding crops. In winter the soil loses its fertility rapidly, especially if there is frequent freezing and thawing, with abundant rain, for which reason rye or crimson clover serve to prevent loss. It will therefore, pay the farmers to grow crops on every square foot of ground, as they will be serviceable on the land if not profitable for market.

FALL-SOWN RED CLOVER.

In the southern half of the State one sees many fields of new red clover. It can be sown later than the crimson, and is surer to make a good sod. In the West we prefer a wheat crop the first harvest after the clover is sown, but here a clover hay crop and a more rapid growth of the clover plants for sake of the soil are preferable. Some of this fall-sown clover is now very small, and would not endure the severity of an Ohio winter, while other fields, seeded earlier, are covered with a mat of green. Others farmers are using rye for a winter crop, to be plowed under in the spring. They sow more rye because experience has taught that the rye sod in the spring increases the productive power of the land.

SCARLET CLOVER.

Pre-eminently the place to seed scarlet clover is our cornfields, and that should be done immediately after the cultivation of the corn. If left until after a rainfall there will be a crust form on the ground upon which the seed will lay and the next rain will carry it in bunches to the bottom of the field and the catch be spoiled. The seed, if sown immediately after the harrow, does not need be covered. Bear in mind, the more the ground is shaded, as in the orchard or corn field, the earlier the seed may be sown, as the young plant is in a measure protected from the sun, but for clean culture August or September is soon enough.

1902
2nd Month,

1902
28 Days.

MOON'S PHASES.

☾ New Moon . . . 8d. 8h. 21m. M. ☽ First Quarter . . . 15d. 9h. 56m. M.
☾ Full Moon . . . 22d. 8h. 3m. M.

Feb. 2nd—Day's Length: 10 hours, 10 minutes.

DAY OF YEAR	DAY OF MONTH	DAY OF WEEK	CALENDAR FOR NEW YORK CITY, PHILADELPHIA, Pennsylvania, Connecticut, New Jersey, Ohio, Indiana and Illinois.				
			Sun Rises.	Sun Sets.	Sun Slow M.	Moon. H. M.	High Water Philadelphia
33	1	Sa	7 10	5 18	14	1 24	7 38
34	2	5 M	7 9	5 19	14	2 17	8 46
35	3	M	7 8	5 21	14	3 9	9 36
36	4	Tu	7 7	5 22	14	3 51	10 33
37	5	W	7 6	5 23	14	4 45	11 30
38	6	Th	7 5	5 24	14	5 28	Even 21
39	7	Fr	7 4	5 25	14	6 6	1 5
40	8	Sa	7 2	5 27	14	Sets	1 45
41	9	6 M	7 1	5 28	14		2 29
42	10	M	7 0	5 29	14	8 6	3 13
43	11	Tu	6 59	5 30	14	9 12	3 56
44	12	W	6 58	5 31	14	10 20	4 42
45	13	Th	6 56	5 33	14	11 28	5 29
46	14	Fr	6 55	5 34	14	Morn	6 21
47	15	Sa	6 54	5 35	14		7 17
48	16	7	6 53	5 36	14	1 41	8 26
49	17	M	6 52	5 37	14	2 42	9 40
50	18	Tu	6 50	5 39	14	3 33	10 47
51	19	W	6 49	5 40	14	4 28	11 49
52	20	Th	6 48	5 41	14	5 12	0 16
53	21	Fr	6 47	5 42	14	5 51	Morn 41
54	22	Sa	6 45	5 43	14	Rises	1 24
55	23	8 M	6 44	5 44	14		2 7
56	24	M	6 42	5 45	13	7 16	2 48
57	25	Tu	6 41	5 46	13	8 17	3 29
58	26	W	6 39	5 47	13	9 17	4 9
59	27	Th	6 38	5 48	13	10 15	4 50
	28	Fr	6 36	5 50	13	11 11	5 50
						Morn	5 32

Conjectures of the Weather.

The 1st-3d. windy; 4th-6th, cloudy and snow; 7th, 8th, clear and cold; 9th-11th, changeable; 12th-14th, cold and stormy; 15th, 16th, clear and cold; 17th, 18th, snow; 19th-21st, pleasant; 22d-24th, variable; 25th, 26th, clear and pleasant; 27th, 28th, stormy and snow.

LUCERNE OR ALFALFA.

This is undoubtedly the most valuable variety for permeable sub soils, as it sends down its tap roots in mellow soils to great depths, having been found in sandy soils thirty feet below the surface, far below the reach of drought. The flowers are a pale blue, somewhat difficult to establish the first year, requiring a fine mellow soil, but will then produce a profitable crop for ten or twelve years. The fall is the best time for sowing in this latitude, though it has done well when sown in the spring; the ground should be thoroughly prepared, and made smooth and fine. Sow twenty-five pounds per acre, harrow in lightly, and follow with a light roller to properly imbed the seed. It should be cut as soon as it begins to blossom, or even a little earlier; if left too late is apt to become coarse and hard, and is less relished by cattle. In no event should it be allowed to go to seed the first season, as it tends to weaken the plant; it improves rather than exhausts the soil, and as a fertilizer it stands at the head of the list. It may be exterminated at any time by simple plowing thoroughly, and removing the crowns to where they may be burned or rotted; it yields an enormous amount of green fodder, and can be cut four or five times during the season.

Green alfalfa and clover are so near alike in composition, as to make but little difference between them. It will do nicely if sowed in rows and cultivated with wheel hoes. Once it gets a firm hold it will thicken and fill all vacant. The main point is to save it from the weeds until it can take care of itself.

CANADA PEAS.

Considerably used for feeding pigeons, being perfectly round and very. They are also used for fodder; when sown in oats and cut green they become very nutritious.

COW PEAS.

The Southern cow pea, (in reality a bean), has been cultivated in the South for many years, but only in recent years has it been demonstrated that most all varieties are adapted to cultivation throughout nearly the entire United States. They now promise to become one of our most valuable farm products.

The yield of hay runs from 1 to 3 tons per acre. The Rhode Island experiment station reporting one year a yield per acre of 35,000 lbs. green vines, making 5½ tons dried hay. The yield of peas range from 15 to 30 bushels per acre, occasionally as high as 50 bushels.

They have been grown by dairymen with very satisfactory results, following winter rye, which was cut green in June for dairy cows, then stubble turned under and sown to mixed peas and oats, furnishing a large amount of forage in August, when grass pastures usually short, and producing a supply of milk as abundant as in early summer months.

As a fertilizer they come next to clover, to be plowed under when they commence to blossom; they will grow on land that will not produce clover.

As a fertilizer crop it excels all others, absorbing from the air more nitrogen than clover, and drawing from the sub soil large amounts of potash and phosphoric acid, depositing these fertilizer elements in the surface soil just where needed for succeeding crops.

Cow peas afford excellent midsummer pasturage, but the best way for using green is to cut and feed to stock.

1902

3rd Month,

1902

31 Days.

MOON'S PHASES.

☾ Las: Quarter, . . 2d. 5h. 39m. M.

☾ New Moon . . . 9d. 9h. 50m M.

☾ First Quarter . . 16d. 5h. 13m. A.

☾ Full Moon . . . 23d. 10h 21m. A

March 2nd—Day's Length: 11 hours, 19 minutes.

DAY OF YEAR	DAY of MONTH	DAY OF WEEK	CALENDAR FOR NEW YORK CITY, PHILADELPHIA, Pennsylvania, Connecticut, New Jersey, Ohio, Indiana and Illinois.									
			Sun Rises.		Sun Sets.		Sun	Moon.		High Water Philadelphia		
			H.	M.	H.	M.	Slow M.	H.	M.	H.	M.	
60	1	Sa	6	35	5	51	13		0	6	6	16
61	2	9	6	33	5	52	12		1	0	7	2
62	3	M	6	31	5	53	12		1	50	7	56
63	4	Tu	6	30	5	54	12		2	37	8	58
64	5	W	6	28	5	56	12		3	20	9	57
65	6	Th	6	27	5	57	12		4	0	10	54
66	7	Fr	6	25	5	58	11		4	37	11	48
67	8	Sa	6	24	5	59	11		5	11	Morn	36
68	9	10	6	22	6	0	11		Sets		1	19
69	10	M	6	21	6	1	11		6	58	2	2
70	11	Tu	6	19	6	2	10		8	7	2	48
71	12	W	6	18	6	3	10		9	16	3	35
72	13	Th	6	16	6	4	10		10	25	4	24
73	14	Fr	6	15	6	5	10		11	32	5	17
74	15	Sa	6	13	6	6	9		Morn		6	11
75	16	11	6	12	6	7	9		0	36	7	9
	17	M	6	10	6	8	9		1	33	8	15
	18	Tu	6	8	6	9	8		2	24	9	14
	19	W	6	6	6	10	8		3	9	10	27
	20	Th	6	5	6	11	8		3	48	11	26
	21	Fr	6	3	6	12	7		4	24	11	52
	22	Sa	6	1	6	13	7		4	57	Morn	16
	23	12	5	59	6	14	7		Rises		0	59
76	24	M	5	58	6	15	7		7	4	1	34
77	25	Tu	5	56	6	16	6		8	3	2	17
78	26	W	5	55	6	17	6		9	1	2	57
79	27	Th	5	53	6	18	6		9	57	3	28
80	28	Fr	5	51	6	19	5		10	50	4	19
81	29	Sa	5	50	6	20	5		11	41	5	2
82	30	13	5	48	6	21	5		Morn		5	46
83	31	M	5	47	6	22	4		0	29	6	31

Conjectures of the Weather.

The 1st--3d, cold; 4th--6th, cloudy and snow; 7th, 8th, clear and cool; 9th--11th, cold and stormy; 12th--14th, changeable; 15th, 16th, cloudy and rain; 17th, 18th, clear; 19th--21st, pleasant; 22d--24th, variable; 25th, 26th, pleasant; 27th, 28th, stormy; 29th--31st, clear and pleasant.

USEFUL TABLES.

TABLE SHOWING THE WEIGHT OF VARIOUS ARTICLES.

Barley	per bushel, 48 lbs.	Oats	per bushel, 32 lbs
Beans	per bushel, 60 lbs.	Onions	per bushel, 57 lbs
Buckwheat	per bushel, 48 lbs.	Osage Orange	per bushel, 33 lbs
Broom Corn	per bushel, 46 lbs.	Orchard Grass.....	per bushel, 12 lbs
Blue Grass.....	per bushel, 14 lbs.	Peas	per bushel, 60 lbs
Clover Seed.....	per bushel, 60 lbs.	Potatoes, Irish	per bushel, 60 lbs
Corn, shelled	per bushel, 56 lbs.	Red Top Seed.....	per bushel, 10 lbs
Corn, on the ear	per bushel, 70 lbs.	Rye	per bushel, 56 lbs
Flax Seed	per bushel, 56 lbs	weet Potatoes.....	per bushel, 55 lbs
Hemp Seed	per bushel, 40 lbs.	mothey Seed	per bushel, 45 lbs
Hungarian Grass.....	per bushel, 48 lbs.	Onions	per bushel, 28 lbs
Millet	per bushel, 50 lbs.	s	per bushel, 55 lbs
German Millet.....	per bushel, 50 lbs.		per bushel, 60 lbs

QUANTITY OF SEED USUALLY SOWN UPON AN ACRE.

Barley, broadcast	2 to 3 bushels	Onion, for sets in drills.....	30 pounds
Beans, Dwarf, in Drills	1½ bushels	Onion sets, in drills.....	6 to 12 bushels
Beans, Pole, in hills	10 to 12 quarts	Parsnips, in drills.....	4 to 6 pounds
Beets, in drills	5 to 6 pounds	Peas, in drills	1½ bushels
Broom Corn, in hills	8 to 10 quarts	Peas, broadcast	3 bushels
Buckwheat	1 bushel	Potatoes, cut tubers	10 bushels
Cabbage in beds to transplant.....	¼ pound	Pumpkin, in hills	4 to 6 pounds
Carrots in drills	3 to 4 pounds	Radish, in drills	8 to 10 pounds
Chinese Sugar Cane	12 quarts	Rye, broadcast	1½ to 2 bushels
Corn, in hills	8 to 10 quarts	Sage, in drills	8 to 10 pounds
Corn, for soiling	3 bushels	Salsify, in drills	8 to 10 pounds
Cucumber, in hills	2 pounds	Spinach, in drills.....	10 to 12 pound
Flax broadcast	1½ bushels	Squash, bush varieties in hills.....	4 to 6 pounds
Hemp	1½ bushels	Squash, Run'g " in hills	3 to 4 pounds
Mustard broadcast.....	½ bushel	Tomato, to transplant.....	¼ pound,
Melon, Musk, in hills	2 to 3 pounds	Turnip in drills	½ to 2 pounds
Melon, Water, in hills	4 to 5 pounds	Turnip broadcast	3 to 4 pounds
Oats broadcast	2 to 3 bushels	Vetches, broadcast.....	2 to 3 bushels
Onion, in drills	5 to 6 pounds	Wheat, broadcast.....	1½ to 2 bushels

GRASS SEEDS TO THE ACRE.

White Clover	10 pounds	Blue Grass	1½ to 3 bushels
Red Clover	10 to 15 pounds	Rye Grass	1½ to 2 bushels
Lucerne Clover	10 to 15 pounds	Orchard Grass	1½ to 2 bushels
Alsike Clover	4 to 6 pounds	Red Top Grass	1½ to 2 bushels
Timothy	12 pounds	Mixed Lawn Grass	2 to 3 bushels
Hungarian Grass	1 bushel	Millet.....	1 bushel

NUMBER OF PLANTS TO THE ACRE.

DISTANCE APART.	NO. OF PLANTS.	DISTANCE APART	NO. OF PLANTS
1 foot by 1 foot.	43,560	6 feet by 6 feet.....	1,210
1½ " 1½ "	19,360	8 " 8 "	680
2 " 1 "	21,780	10 " 10 "	1,435
2 " 2 "	10,890	12 " 12 "	802
2½ " 2½ "	9,959	15 " 15 "	193
3 " 2 "	7,260	18 " 18 "	134
3 " 3 "	4,840	20 " 20 "	103
4 " 4 "	2,722	25 " 25 "	70
5 " 5 "	1,772	30 " 30 "	84

NUMBER OF PLANTS PRODUCED FROM AN OUNCE OF SEED.

PLANTS.		PLANTS.	
Asparagus	about 500	Kale.....	about 2,000
Broccoli	" 2,000	Leek	" 1,000
Cabbage	" 2,000	Lettuce	" 3,000
Caiflower.....	" 2,000	Pepper	" 2,000
Celery	" 3,000	Tomato.....	" 3,000
Egg Plant	" 1,000	Sage.....	" 1,000
Endive.....	" 3,600	Thyme.....	" 5,000

1902

1902

4th Month.

30 Days.

MOON'S PHASES.

☾ Last Quarter . . . 1d. 1h. 24m. M. ☽ First Quarter . . . 15d. 0h. 26m. M.
 ☾ New Moon . . . 8d. 8h. 50m. M ☽ Full Moon . . . 22d. 1h. 49m. A.
 Last Quarter, 3rd. 5h. 56m. A.

April 6th—Day's Length: 12 hours, 51 minutes.

DAY OF YEAR	DAY of MONTH	DAY OF WEEK	CALENDAR FOR NEW YORK CITY, PHILADELPHIA, Pennsylvania, Connecticut, New Jersey, Ohio, Indiana and Illinois.						
			Sun Rises.		Sun Sets.		Sun	Moon.	High Water Philadelphia
			H.	M.	H.	M.	Slow v.	H. M.	H. M.
91	1	T	5	45	6	23	4	1 13	7 20
92	2	W	5	43	6	24	4	1 54	8 17
93	3	Th	5	42	6	25	4	2 32	9 18
94	4	Fr	5	40	6	26	3	3 7	10 15
95	5	Sa	5	39	6	27	3	3 41	11 12
96	6	14	5	37	6	28	3	4 16	Even 5
97	7	M	5	35	5	29	2	4 50	0 54
98	8	Tu	5	34	6	30	2	Sets	1 37
99	9	W	5	32	6	31	2	8 8	2 28
100	10	Th	5	31	6	32	1	9 19	3 20
101	11	Fr	5	29	6	33	1	10 26	4 12
102	12	Sa	5	28	6	34	1	11 28	5 8
103	13	15	5	26	6	35	1	Morn	6 1
104	14	M	5	25	6	36	0	0 21	6 56
105	15	Tu	5	23	6	37	0	1 8	7 56
106	16	W	5	22	6	38	Fast 0	1 50	9 0
107	17	Th	5	20	6	39	1	2 27	9 59
108	18	Fr	5	19	6	40	1	2 59	10 54
109	19	Sa	5	17	6	41	1	3 31	11 44
110	20	16	5	16	6	42	1	4 1	0 7
111	21	M	5	14	6	43	1	4 32	Even 29
112	22	Tu	5	13	6	44	1	Rises	1 9
113	23	W	5	12	6	45	2	7 47	1 47
114	24	Th	5	10	6	46	2	8 43	2 29
115	25	Fr	5	9	6	47	2	9 35	3 10
116	26	Sa	5	8	6	48	2	10 24	3 51
117	27	17	5	7	6	49	2	11 9	4 34
118	28	Mo	5	5	6	50	2	11 51	5 19
119	29	Tu	5	4	6	51	3	Morn	6 1
120	30	W	5	2	6	52	3	0 28	6 47

Conjectures of the Weather.

The 1st—3rd, changeable; 4th—6th, pleasant; 7th—9th, cloudy and rain; 10th, 12th, clear and warm; 13th, 14th, warm and cloudy; 15th—17th, pleasant; 18th 20th, changeable; 21st 22d, showers; 23d, 24th, clear; 25th, 26th, cloudy and warm; 27th, 28th, changeable; 29th, 30th, warm.

JAPANESE BUCKWHEAT.

It is the most desirable and most profitable variety of this grain; the seeds are nearly twice the size of any other, and manufacture a superior flour. It is usually sown 1 bushel per acre, yields a better crop, while the straw is stiffer and stands up better and is more largely planted than the old-fashioned, being about two weeks earlier.

Buckwheat is rapidly becoming a popular feed for birds, being much cheaper than most grains and of a substantial character as food.

Plow the crimson clover under and plant the land to corn. By so doing the cost of fertilizer will be reduced, as the crimson clover will supply all the nitrogen needed for the corn. After the corn is "laid by" it will pay to then broadcast cow peas between the rows, working the seed in with a cultivator. By harvesting the corn and removing the crop to the barn to be shredded, and then turning the pigs on the cow peas, they will not only grow rapidly, but will be fat enough to kill without the aid of corn. All kinds of stock, including poultry, will find a large share of their food in the corn field by this plan, and there will be no cost for harvesting the cow peas, as the stock will attend to that duty. It is simply making the land perform extra service without loss of fertility, as the crimson clover and cow peas will assist the land, and the animals will drop manure on the field.

DWARF ESSEX RAPE.

This plant is extensively grown for forage, especially for sheep and for green manure, for which purpose there is perhaps no better plant adapted where a quick, rank growth is desired. Rape seed may be broadcasted, and it may be seeded in the corn field when the corn is "laid by." Rape is revolutionizing the sheep industry in this country, and it is also excellent for hogs and all kinds of poultry. It will be an advantage to test it on a small plot this year. Farmers who raise much stock and desire to get young cattle, sheep or lambs into favorable condition to be sold advantageously in the fall, can do it most cheaply by growing this rape. Prepare the ground as for turnips and sow in June or July, with a turnip drill, in rows $2\frac{1}{2}$ feet apart, at the rate of 3 lbs. of seed per acre, or broadcast at the rate of 6 lbs. to the acre. An acre of rape will be ready to pasture in six weeks from time of sowing and will carry 12 to 15 sheep six weeks to two months. Its fattening properties are probably twice as great as clover. When sheep are feeding on rape they should at all times have access to salt. Our stock is the true Essex Dwarf, and not the worthless annual.

HANDLING MILK.

Never allow milk to enter the milk supply if it comes from an animal suffering from any diseased udder; never allow any person having any contact with or recovering from typhoid fever, scarlet fever, or diphtheria to have anything to do with the dairy; always insist upon cleanliness in dairy matters; the application of cold to the milk prevents bacterial growth. Milk is an excellent medium for the growth and development of germs. Most of the bowel troubles in children are directly traceable to milk coming from cows with inflamed or diseased udders.

1902

1902

5th Month.

31 Days.

MOON'S PHASES.

☾ New Moon . . . 7d. 5h. 45m. M.

☀ Full Moon . . . 12d. 5h. 46m. M.

☾ First Quarter . . 14d. 8h. 40m. A.

☾ Last Quarter . . . 30d. 7h. 0m. M.

May 4th—Day's Length: 13 hours, 59 minutes.

DAY OF YEAR	DAY OF MONTH	DAY OF WEEK	CALENDAR FOR NEW YORK CITY, PHILADELPHIA, Pennsylvania, Connecticut, New Jersey, Ohio, Indiana and Illinois.									
			Sun Rises.		Sun Sets.		Sun	Moon.		High Water Philadelphia		
			H	M	H	M	Fast M	"	M	"	M	
121	1	Th	5	1	6	53		3	1	4	7	37
122	2	Fr	5	0	6	54	3		1	33	8	35
123	3	Sa	4	59	6	55	3		2	10	9	35
124	4	1S	4	57	6	56	3		2	43	10	34
125	5	M	4	56	6	57	3		3	10	11	32
126	6	Tu	4	55	6	58	3		3	57	Even	28
127	7	W	4	54	6	59	4	Sets			1	18
128	8	Th	4	53	7	0	4		8	6	2	11
129	9	Fr	4	51	7	1	4		9	13	3	6
130	10	Sa	4	50	7	2	4		10	11	4	0
131	11	19	4	49	7	3	4		11	5	4	55
132	12	M	4	48	7	4	4		11	48	5	46
133	13	Tu	4	47	7	5	4	Morn			6	37
134	14	W	4	47	7	6	4		0	27	7	29
135	15	Th	4	46	7	7	4		1	2	8	27
136	16	Fr	4	45	7	8	4		1	34	8	14
137	17	Sa	4	44	7	9	4		2	5	10	8
138	18	20	4	43	7	10	4		2	35	11	9
139	19	M	4	42	7	10	4		3	6	11	58
140	20	Tu	4	41	7	11	4		3	30	0	20
141	21	W	4	40	7	12	4		4	14	Even	42
142	22	Th	4	39	7	13	4	Rises			1	21
143	23	Fr	4	39	7	14	4		8	21	2	2
144	24	Sa	4	38	7	15	3		9	7	2	44
145	25	21	4	38	7	16	3		9	49	3	27
146	26	Mo	4	37	7	17	3		10	28	4	8
147	27	Tu	4	36	7	18	3		11		4	51
148	28	W	4	36	7	18	3		11	39	5	34
149	29	Th	4	35	7	19	3	Morn			6	17
150	30	Fr	4	35	7	19	3		0	11	7	2
151	31	S	4	34	7	20	3		0	43	7	55

Conjectures of the Weather.

The 1st—3rd, pleasant; 4th—6th, cloudy and rain; 7th, 8th, clear and warm; 9th—11th, changeable; 12th—14th, pleasant; 15th, 16th, cloudy and thunder; 17th, 18th, clear; 19th—21st, pleasant; 22d—24th, variable; 25th, 26th, warm; 27th—28th, clear; 29th—31st, pleasant.

SUNFLOWER SEED.

The use of this article as a food for birds and poultry is rapidly increasing. A handful given a horse at meal-time with his other food for three or four days will be found very beneficial, particularly when he is "off his feed." It acts on the kidneys and digestive organs. His appetite will improve and his hair resumes its glossy appearance. No stable should be without them.

CUT STRAW ON THE FLOOR.

It is well to again call attention to the importance of using cut straw on the poultry-house floor after cold weather begins, as it serves to keep the house warm. Leaves are also excellent, but the supply is soon exhausted. It is important to cut the straw short. If only one inch in length, all the better, and use it liberally, spreading it on the floor to the depth of two or three inches. When feeding whole grain to the hens scatter the grains in the cut straw, and do the same with the millet-seed. The hens will be induced to scratch, which will be beneficial to them, promote the appetite and induce laying.

SAND IN THE FOOD.

Sand is no substitute for gravel, and the mixing of sand in the food is useless. When coarse grit is swallowed by the fowl it is voided before it becomes as fine as sand. Grit provides the mechanical appliances for grinding the food in the gizzard. It really cuts the food, hence the sharper the edges the more it is preferred by the poultry. When the grit becomes worn until round and smooth it is passed on as useless. In using grit, therefore, endeavor to secure that which is hard and sharp. Sand is of no value whatever as grit.

STRAWBERRY FERTILIZERS.

Regarding the effects of different fertilizers on strawberries, land plaster, when applied to the bed, is said to make the berries more brilliant, though lighter in color. Nitrate of soda largely increases the size of the leaves and berries, but the berries are said not to be so firm. Sulphate of potash improves the size and flavor of the berries and also the color and firmness, while superphosphate increases the yield. The kind of soil, however, is to be considered, as well as the variety of strawberry. On some soils the muriate of potash gives better results than the sulphate.

Leaves make the best kind of bedding and are an important addition to the manure heap. When used in the stalls during very cold weather, they prevent draughts of air along the floors and retain warmth. They cost nothing but the labor of raking and hauling and a large supply should be stored away for winter use under cover, so as to have them dry.

A charming young lady named Helen
Got away with half a mush-melon;
Her screams for awhile
Could be heard for a mile,
And they say the poor girl is still yellin'.

1902
6th Month,

1902
30 Days.

MOON'S PHASES.

- ☾ New Moon . . . 6d. 1h. 11m. M. ☾ Full Moon . . . 20d. 9h 17m. A.
☾ First Quarter . . 12d. 6h. 54m. A. ☾ Last Quarter, . . 28d. 4h. 52m. A

March 1st—Day's Length : 14 hours, 47minutes.

DAY OF YEAR	DAY of MONTH	DAY OF WEEK	CALENDAR FOR NEW YORK CITY, PHILADELPHIA, Pennsylvania, Connecticut, New Jersey, Ohio, Indiana and Illinois.								
			Sun Rises.		Sun Sets.		Sun	Moon.	High Water Philadelphia		
			H.	M.	H.	M.	Fest M.	H.	M.	H.	M.
152	1	22	4	34	7	21	2		1 14		8 57
153	2	M	4	33	7	22	2		1 49		10 0
154	3	Tu	4	33	7	22	2		2 29		11 5
155	4	W	4	32	7	23	2		3 12	Even	7
156	5	Th	4	32	7	24	2		4 03		1 4
157	6	Fr	4	32	7	25	2		Sets		1 57
158	7	Sa	4	32	7	25	1		8 53		2 53
159	8	23	4	31	7	26	1		9 41		3 46
160	9	M	4	31	7	26	1		10 24		4 37
161	10	Tu	4	31	7	27	1		11 2		5 26
162	11	W	4	31	7	27	1		11 36		6 12
163	12	Th	4	31	7	28	1		Morn		6 58
164	13	Fr	4	31	7	28	0		0 7		7 48
165	14	Sa	4	31	7	29	0		0 38		8 44
166	15	24	4	31	7	29	Sl.		1 10		9 40
167	16	M	4	31	7	29	1		1 42		10 33
168	17	Tu	4	31	7	30	1		2 16		11 26
169	18	W	4	31	7	30	1		2 52	Morn	
170	19	Th	4	31	7	31	1		3 33		0 15
171	20	Fr	4	31	7	31	1		Rises		0 58
172	21	Sa	4	31	7	31	1		7 49		1 37
173	22	25	4	31	7	31	2		8 30		2 20
174	23	M	4	32	7	32	2		9 7		3 2
175	24	Tu	4	32	7	32	2		9 41		3 43
176	25	W	4	32	7	32	2		10 13		4 24
177	26	Th	4	32	7	32	2		10 44		5 6
178	27	Fr	4	33	7	32	3		11 16		5 47
179	28	Sa	4	33	7	32	3		11 50		6 32
180	29	26	4	34	7	32	3		Morn		7 22
181	30	M	4	34	7	32	3		0 25		8 25

Conjectures of the Weather.

The 1st—3d, variable ; 4th—6th, thunder ; 7th—9th, cloudy and warm ; 10th—12th, clear and balmy ; 13th, 14th, warm and thunder ; 15th—17th, pleasant ; 18th—20th, changeable ; 21st. 22d, pleasant ; 23rd; 24th, clear ; 25th, 26th, cloudy and warm ; 27th, 28th, thunder ; 29th, 30th, showers.

PORTLAND CEMENT.

A mixture of one (1) part Portland cement to five (5) parts clean sand and ten (10) parts gravel or broken stone will make a rock showing greater tensile or crushing strength than a mass of one (1) part natural or hydraulic cement, and only one (1) to two (2) parts sand, or any proportions of common cement, and other materials whatsoever. Another fact but slightly understood is that a mixture one (1) cement, two (2) sand and five (5) gravel is slightly stronger in resistance of compression to the square inch than the same mixture without gravel, while the gravel and cement without sand would make a concrete not one-half as strong to the square inch.

GREEN FOOD.

Rye will be perhaps the first green food to start off in early spring. It is also an excellent soiling crop, and may be cut and fed to stock, producing about 20 tons of green food. It contains twice as much crude fibre as pasture grass and also less protein, but gives more green food than grass. If used when too green the rye is laxative in its effects.

EARLY PLOWING.

Well-drained lands can be worked earlier in spring, and the soil will be warmer than when no drainage has been done. This is an important point, as spring work is always pressing, and the earlier the plowing can be done the better.

THE RELATIVE DEGREE OF WARMTH IN THE SOIL FOR PROPER GERMINATION.

It is necessary that the soil be warm in order to secure germination of seeds; yet it has been ascertained by a series of experiments that rye and winter wheat will germinate when the temperature of the soil was 32 degrees, though some seeds failed. Barley, oats, flax, clover, and peas sprouted at 35 degrees, the turnip at 32, carrots at 38, and beans at 40 degrees. The seeds made the initial effort, but did not make satisfactory progress at such low temperatures.

CABBAGE WORMS.

A mixture of equal part of air-slaked lime, salt and wood ashes. This sifted through a meal sieve and well mixed. It kills quicker if it rains soon after it is put on.

Worms in flower pots are sources of uneasiness if not always of injury. They can easily be removed by saturating the soil with lime water, the clear water from slacked lime.

1902

1902

7th Month,

31 Days.

MOON'S PHASES.

☾ New Moon . . . 5d. 7h. 59m. M. ☽ Full Moon . . . 20d. 11h. A. M.
 ☾ First Quarter . . 12d. 7h. 46m. M. ☾ Last Quarter . . . 28d. 0h. 14m. M

June 6th—Day's Length: 14 hours, 53 minutes.

DAY OF YEAR	DAY of MONTH	DAY OF WEEK	CALENDAR FOR NEW YORK CITY, PHILADELPHIA, Pennsylvania, Connecticut, New Jersey, Ohio, Indiana and Illinois.										
			Sun Rises.		Sun Sets.		Sun		Moon.		High Water Philadelphia		
			H.	M.	H.	M.	Slow M.	H.	M.	H.	M.		
182	1	Tu	4	35	7	32	3		1	4		9	34
183	2	W	4	35	7	32	4		1	49		10	42
184	3	Th	4	36	7	31	4		2	41		11	50
185	4	Fr	4	36	7	31	4		3	42	Even		
186	5	Sa	4	37	7	31	4		Sets			0	51
187	6	18	4	38	7	31	4		17			1	43
188	7	M	4	38	7	31	5		8	58		2	36
189	8	Tu	4	39	7	30	5		8	34		3	26
190	9	W	4	39	7	30	5		9	8		4	13
191	10	Th	4	40	7	30	5		10	39		4	59
192	11		4	41	7	30	5		10	11		5	41
193	12	Sa	4	41	7	29	5		11	43		6	24
194	13	19	4	42	7	29	5		11			7	11
195	14	M	4	42	7	28	6		Morn	17		8	2
196	15	Tu	4	43	7	28	6		0	53		9	0
197	16	W	4	44	7	27	6			33		10	50
198	17	Th	4	45	7	27	6		0	16		11	45
199	18	Fr	4	45	7	26	6		1	4	Morn		
200	19	Sa	4	46	7	26	6		3	56		0	33
201	20	20	4	47	7	25	6		3			1	14
202	21	M	4	48	7	24	6		7	43		1	54
203	22	Tu	4	49	7	23	6		8	17		2	36
204	23	W	4	49	7	23	6		8	50		3	17
205	24	Th	4	50	7	22	6		9	21		3	57
206	25	Fr	4	51	7	21	6		9	52		4	40
207	26	Sa	4	52	7	20	6		10	25		5	24
208	27	21	4	53	7	19	6		11	3		6	9
209	28	Mo	4	54	7	19	6		11	45		7	0
201	29	Tu	4	55	7	18	6		Morn			8	2
211	30	W	4	56	7	17	6		0	33		9	15
212	31	Th	4	57	7	16	6		1	27		10	27

Conjectures of the Weather.

The 1st—3rd, thunder; 4th—6th, pleasant; 7th—9th, cloudy and warm; 10th—12th, clear and balmy; 13th, 14th, warm and cloudy; 15th—17th, variable; 18th—20th, rain and sultry; 21st, 22d, pleasant; 23rd, 24th, clear; 25th, 26th, cloudy and warm; 27th, 28th, thunder; 29th—31st, clear.

POULTRY.

The best litter for the poultry house is the refuse from the hayloft. Hay beds are invigorating and the benefit derived from them is due to the work induced by the seeds. Hens in confinement will scratch and work all day in litter from the hayloft, the seeds being a complete change for them. They also relish the leaves from clover.

HEN HOUSE.

Dry earth or plaster is better for the hen house than unslaked lime whose only worth is to absorb moisture, and if so it were better to desert the building used. Slaked lime is most generally used.

The matter of shrinkage of corn after it has been harvested has a most important bearing on the time of marketing that portion of the crop to be sold. There is always more or less loss in holding. Corn dies out rapidly in the crib, and shrinkage often amounting to as much as 30 per cent. in six months; not to mention rats, mice and barnyard fowls. Consequently it may pay to sell soon after the crop is husked. However, in this every farmer must be a law unto himself.

Never buy common soaps—cheap soaps. Soap fat is generally made up of diseased animal matter, from beasts dying from putrescent maladies; perfumes cannot counteract the poison penetrating the pores of the skin. Only use soap made from vegetable oils, petroleum and choice selected fat. Moral—Don't buy common soap.

Many of the pasture fields are grazed too close to the ground. When a herd of cows have free access to pasture they really cut the grass down many times, and much closer than is usually done with the mower. No plants will thrive if not given an opportunity to make growth, and the grass on some pastures is killed by continually checking the growth, while the feet of the animals greatly damage the grass, as the smaller the supply the more trampling by the stock.

Mind takes the color of the complexion. When the latter is rosy, it is safe to infer rose-colored views of life; when it is sallow we know that the flowers and fruits of life are departing—that all food is alike tasteless and all thoughts tainted with decadence. Cheerfulness like a good complexion has to be worked for when it is not natural. Both the products of good food plenty of oxygen active exercise and sound sleep.

It rains alike on the just and the unjust—and on the just mainly because the unjust have borrowed their umbrellas.

GUINEAS.

At least a pair of guineas on every farm, as a hawk, rat, weasel and perhaps even a skunk preventive. In warm weather they will feed themselves, as they are great foragers. They make good chickens for the table. Their eggs are delicious. The average chicken thief will not brave a coop or yard guarded by guinea fowls, with their discordant voices and aggressive tempers.

1902

8th Month,

1902

31 Days.

MOON'S PHASES.

☾ N Moon . . . 3d. 3h. 17m. A.
 ☾ F Quarter . . 10d. 11h. 24m. A.

☾ Full Moon . . . 19d. 1h. 3m. M.
 ☾ Last Quarter . . . 26d. 6h. 4m. M.

A: 3rd—Day's Length: 14 hours, 13 minutes.

DAY OF YEAR	DAY of MONTH	DAY OF WEEK	CALENDAR FOR NEW YORK CITY, PHILADELPHIA, Pennsylvania, Connecticut, New Jersey, Ohio, Indiana and Illinois.						
			Sun Rises.	Sun Sets.	Sun	Moon.	High Water Philadelphia		
			H. M.	H. M.	Slow M.	H. M.	H. M.	H. M.	
213	1	Fr	4 58	7 15	6	2 29		11 37	
214	2	Sa	4 58	7 13	6	3 36		Even 36	
215	3	31	4 59	7 12	6	Sets		1 25	
216	4	M	5 0	7 11	6	7 29		2 14	
217	5	Tu	5 1	7 10	6	8 05		3 00	
218	6	W	5 2	7 9	6	8 38		3 44	
219	7	Th	5 3	7 8	6	9 11		4 27	
220	8	Fr	5 4	7 7	6	9 43		5 10	
221	9	Sa	5 5	7 6	5	10 17		5 52	
222	10	32	5 6	7 5	5	10 53		6 36	
223	11	M	5 7	7 3	5	11 30		7 24	
224	12	Tu	5 8	7 2	5	Morn		8 21	
225	13	W	5 9	7 0	5	0 13		9 20	
226	14	Th	5 10	6 59	5	0 59		10 18	
227	15	Fr	5 11	6 58	4	1 49		11 13	
228	16	Sa	5 12	6 56	4	2 43		Morn	
229	17	33	5 13	6 55	4	3 40		0 05	
230	18	M	5 14	6 53	4	4 38		0 49	
231	19	Tu	5 15	6 52	4	Rises		1 28	
232	20	W	5 16	6 51	3	7 24		2 10	
233	21	Th	5 17	6 50	3	7 55		2 51	
234	22	Fr	5 17	6 48	3	8 29		3 33	
235	23	Sa	5 18	6 47	3	9 5		4 17	
236	24	34	5 19	6 46	2	9 45		5 4	
237	25	Mo	5 20	6 44	2	10 31		5 53	
238	26	Tu	5 21	6 43	2	11 22		6 47	
239	27	W	5 22	6 41	2	Morn		7 50	
240	28	Th	5 23	6 40	1	0 19		9 3	
241	29	Fr	5 24	6 38	1	1 22		10 14	
242	30	Sa	5 25	6 36	1	2 29		11 20	
243	31	35	5 26	6 35	0	3 37		Even	

Conjectures of the Weather.

The 1st—3rd, clear and warm; 4th—6th, cloudy and sultry; 7th, 8th, warm; 9th—11th, changeable; 12th—14th, thunder; 15th, 16th, clear and pleasant; 17th, 18th, changeable; 19th—21st, pleasant; 22d—24th, thunder; 25th, 26th, warm; 27th, 28th, showery; 29th—31st, pleasant.

GLAZE ON LAUNDERED SHIRT.

The glaze on a laundered shirt front is more the result of knack and practice than of any particular secret. Wax, turpentine, gum arabic or borax can be added to the starch with good effect. A good plan when the shirt front has been ironed is to rub it all over with a piece of damp white castile soap and iron it over again. It is to the pressure of the iron that the gloss is in a great measure due.

Young sows should not be bred until of good size, nine to twelve months old. They will give you stronger pigs and make better breeders than if bred too young.

The lawn in winter may be covered with horse manure, and if the manure is free from litter it will be an advantage. Do not scatter the manure in lumps and wait for the frost to pulverize the lumps, but apply the manure evenly. Early in the spring rake the lawn thoroughly, removing all material that is not in fine condition, and then apply a fertilizer composed of 100 pounds nitrate of soda, 125 pounds sulphate of potash, and 100 pounds acidulated phosphate per acre. If the grass was not destroyed by the drought of last summer it will grow rapidly when spring opens if the lawn is treated in the manner suggested. It is always best to freshen a lawn in the spring with new seed, even if grass is growing. There is always some that dies out and this should be replaced.

Acid fruits by many authorities are considered powerful aids to digestion; therefore should be freely eaten. Their beneficial effect is due to malic and other acid which are found in cultivated fruits, such as pears, apples, grapes, etc.

One tablespoonful of coal oil put into a barrel of rain-water full of "wiggles," stirred thoroughly, will destroy them all within an hour, rendering the water even to the taste sweet and pure. A gobletful of the oil will purify an entire cistern.

To find the amount of hay in a mow, allow 512 cubic feet for a ton, and it will come out very near correct.

For hog pasture nothing is better than blue grass, white clover and cow peas.

To make coats last.—Make pants and vest first.

Good resolutions, like fainting ladies, should be carried out.

A man who boasts of nothing but his ancestors is much like a potato, because the best thing belonging to him is under the ground.

Why are seeds sown in the ground like gate posts? They are planted in the earth and propagate.

Hand-writing is like a dead pig—when it is done with the pen.

Why do white sheep eat more than black ones? More of 'em.

Crows are wise birds, for they never complain without cause.

The only resemblance between a colt and an egg is that neither is any good until it is broken.

1902
9th Month,

1902
30 Days.

MOON'S PHASES.

☾ New Moon . . . 2d. 0h. 19m. M.
☾ First Quarter . . 9d. 5h. 15m. A.

☼ Full Moon . . . 17d. 1h. 23m. A.
☾ Last Quarter, . 24d. 11h. 31m. A.

Sept. 7th—Day's Length: 12 hours, 52 minutes.

DAY OF YEAR	DAY of MONTH	DAY OF WEEK	CALENDAR FOR NEW YORK CITY, PHILADELPHIA, Pennsylvania, Connecticut, New Jersey, Ohio, Indiana and Illinois.					
			Sun Rises.	Sun Sets.	Sun.	Moon.	High Water Philadelphia	
			H. M.	H. M.	Fast M.	H. M.	H. M.	
244	1	M	5 27	6 33	0	4 44	Even	
245	2	Tu	5 28	6 32	0	Sets	1 48	
246	3	W	5 29	6 30	1	7 08	2 32	
247	4	Th	5 30	6 28	1	7 42	3 14	
248	5	Fr	5 31	6 27	1	8 15	3 56	
249	6	Sa	5 31	6 25	2	8 50	4 38	
250	7	36	5 32	6 24	2	9 27	5 21	
251	8	M	5 33	6 22	2	10 09	6 04	
252	9	Tu	5 34	6 20	3	10 53	6 50	
253	10	W	5 35	6 19	3	11 42	7 42	
254	11	Th	5 36	6 17	3	Morn	8 41	
255	12	Fr	5 37	6 16	4	0 34	9 40	
256	13	Sa	5 38	6 14	4	1 29	10 35	
257	14	37	5 39	6 12	4	2 26	11 30	
258	15	M	5 40	6 11	5	3 25	Morn	
259	16	Tu	5 41	6 9	5	4 27	0 19	
260	17	W	5 42	6 8	5	Rises 49	1 01	
261	18	Th	5 43	6 6	6	6 30	1 42	
262	19	Fr	5 44	6 4	6	7 06	2 27	
263	20	Sa	5 45	6 3	6	7 45	3 13	
264	21	38	5 46	6 1	7	8 29	4 00	
265	22	M	5 47	6 0	7	9 19	4 50	
266	23	Tu	5 48	5 58	7	10 14	5 43	
267	24	W	5 49	5 56	8	11 15	6 38	
268	25	Th	5 50	5 54	8	Morn	7 39	
269	26	Fr	6 50	5 53	8	0 18	8 49	
270	27	Sa	5 51	5 51	9	1 24	9 57	
271	28	39	5 52	5 49	9	2 31	10 58	
272	29	M	5 53	5 47	9	3 38	11 52	
273	30	Tu	5 54	5 46	10	4 42	Even	

Conjectures of the Weather.

The 1st-3rd, changeable; 4th-6th, sultry and warm; 7th-9th, cloudy; 10th-12th, clear and balmy; 13th, 14th, warm and cloudy; 15th-17th, pleasant; 18th-20th, rain and sultry; 21st, 22d, pleasant; 23rd, 24th, balmy; 25th, 26th, cloudy and thunder; 27th, 28th, rain; 29th, 30th, clear.

The surest way to make hens lay is to cut off their heads.

Why do hens lay eggs in the day time? Because at night they are roosters.

Eve was not afraid of the measles, because she had 'Adam.

Mouse trap spelled with three letters—C A T.

The difference between a toper and temperance woman is that what he drinks is *what* staggers him, and *why* he drinks is what staggers her.

EXAMINE YOUR STOCK OF GARDEN SEEDS.

This is an excellent time to examine the garden seeds, especially peas, which are liable to attack by weevil. Put the seeds in a box, pour on a spoonful or two of bisulphide of carbon, close the lid and in fifteen minutes the pests will be destroyed and the seeds uninjured.

ONE THOUSAND SHINGLES LAID FOUR INCHES TO THE WEATHER.

One thousand shingles laid 4 inches to the weather will cover 100 square feet of surface; and 5 pounds of shingle nails will fasten them on. There are usually 250 shingles in a bunch. Common raths will lay 48 feet to the bundle.

Studding is usually placed 16 inches from centre to centre. A sheet of roofing-tin is 14 x 20 inches; a box of tin contains 112 sheets and costs about \$6. Allowing for side ribs and laps, a box of tin will cover 180 square feet. It will take 10 pounds of solder to a box. One man will lay a box in one and a half days.

Earth worms perform excellent service in enriching the soil. According to Darwin, on meadow land earth worms eject sufficient digested material to greatly change the characteristics of the soil, amounting to as much as eighteen tons per acre, in some cases, and containing over one-third of one per cent. of nitrogen. They also loosen the soil and permit of the better access of water, air and warmth.

Let trouble be the travelling. It is a great piece of folly for a man to be always ready to meet trouble halfway. If he would put all the journey on trouble he might never meet it.

If a domestic animal dies of consumption, rinder pest, hog-cholera, chicken-cholera, or any similar disease, the best and safest way to get rid of the body, instead of burying it as is done in, the carcasses of even a large animal can be effectively disposed of by a incineration over or quickly covering it and the ground around with lime. Over water should be placed sufficient wood and fuel. Perforations or saplings driven into the ground penetrate among earth by the worms bringing to the surface much matter which, drying is blown over the surrounding grass, and when inhaled or taken into the stomach, gives rise to that dread disease. Do not bury dead animals in any locality where manure may be affected.

Barley Water—in prepared by adding a tablespoonful of barley to one pint of scalding hot water, allowing it to stand for an hour or so, and then straining. In infantile dysentery it is often all that is required to effect a cure. Oatmeal made in the same manner is a most efficient laxative for infants, as the cereal is for adults.

1902

10th Month,

1902

31 Days.

MOON'S PHASES.

☾ New Moon . . . 1d. 0h. 9m. A.

☾ Full Moon . . . 17d. 1h. 1m. M.

☾ First Quarter . . 9d. 0h. 21m. A.

☾ Last Quarter, . 23d. 5h. 58m. A.

New Moon . . 31d 3h. 13m. M.

Octt. 5th—Day's Length: 11 hours, 38 minutes.

DAY OF YEAR	DAY of MONTH	DAY OF WEEK	CALENDAR FOR NEW YORK CITY, PHILADELPHIA, Pennsylvania, Connecticut, New Jersey, Ohio, Indiana and Illinois.									
			Sun Rises.		Sun Sets.		Sun	Moon.	High Water Philadelphia			
			H.	M.	H.	M.	F.st M.	H. M.	H. M.			
274	1	W	5	56	5	44	10	Sets		1 21		
275	2	Th	5	57	5	43	10	6 13		2 2		
276	3	Fr	5	58	5	41	11	6 48		2 43		
277	4	Sa	5	59	5	39	11	7 25		3 26		
278	5	40	6	0	5	38	11	8 04		4 07		
279	6	M	6	0	5	36	12	8 48		4 51		
280	7	Tu	6	1	5	35	12	9 34		5 35		
281	8	W	6	2	5	33	12	10 24		6 19		
282	9	Th	6	3	5	31	13	11 17		7 06		
283	10	Fr	6	4	5	30	13	Morn		7 59		
284	11	Sa	6	6	5	28	13	0 12		8 58		
285	12	41	6	7	5	27	13	1 10		9 54		
286	13	M	6	8	5	25	14	2 10		10 50		
287	14	Tu	6	9	5	24	14	3 13		11 43		
288	15	W	6	10	5	22	14	4 17	Morn			
289	16	Th	6	11	5	21	14	5 23		0 33		
290	17	Fr	6	12	5	19	14	Rises		1 17		
291	18	Sa	6	13	5	18	15	6 25		2 4		
292	19	42	6	14	5	17	15	7 12		2 55		
293	20	M	6	15	5	15	15	8 08		3 47		
294	21	Tu	6	16	5	14	15	9 08		4 41		
295	22	W	6	17	5	12	16	10 11		5 35		
296	23	Th	6	18	5	11	16	11 17		6 28		
297	24	Fr	6	19	5	10	16	Morn		7 24		
298	25	Sa	6	20	5	8	16	0 23		8 27		
299	26	43	6	22	5	7	16	1 28		9 30		
300	27	M	6	23	5	5	16	2 33		10 28		
301	28	Tu	6	24	5	4	16	3 36		11 22		
302	29	W	6	25	5	3	16	4 37	Even			
303	30	Th	6	26	5	2	16	5 37		0 54		
304	31	Fr	6	28	5	0	16	Sets		1 33		

Conjectures of the Weather.

The 1st-3rd, clear and cool; 4th-6th, cloudy and rain; 7th, 8th, variable; 9th-11th, pleasant; 12th-14th, stormy and rain; 15th, 16th, clear and pleasant; 17th, 18th, changeable; 19th-21st, cool; 22d-24th, changeable; 25th, 26th, cool; 27th, 28th, showery; 29th-31st, windy.

Forty thousand tons of cucumbers are eaten yearly in the United States and affords an excuse for the employment of one million gallons of vinegar.

"I saw you carrying home a couple of nice looking cucumbers last night, Brown; how much did they cost you?"

"I don't know yet. The doctor is up at the house now?"

Every farm should have a small flock of sheep as scavengers. There are so many things that sheep will consume that they are considered necessary adjuncts to farming if the waste materials are to be utilized. A well managed flock will pay a large dividend on the capital invested the first year.

Formaldehyde as a Milk Preservative, (American Health Asso.): Makes the following conclusions:

1. Used as a preservative it tends at least to impair the nutritive value of milk.
2. It tends to interfere with the digestive processes. In either case it is only a question of dosage, and the limit of safety is difficult to determine.
3. By inhalation it is much less dangerous than other gaseous agents used as disinfectants, the results of test on animals, and one accidental poisoning of a human being indicate that formaldehyde taken into the digestive system may produce dangerous and even fatal results.
4. It would be unwise and unsafe to encourage or to suffer the use of formaldehyde in the public milk supply, even under any possible restrictive regulations.
5. In every State there should be a law prohibiting, with effective penalties, the use in milk of any chemical preservative whatsoever.

Tobacco.—One-fourth of the world's annual product of tobacco is raised in the United States.

Girl.—There was a mouse in the milk pail!

Mother.—Well! didn't you take it out?

Girl.—No, I threw the cat in.

1902

11th Month.

1902

30 Days.

MOON'S PHASES.

☾ First Quarter . . 8d. 7h. 30m. M.

☾ Last Quarter . . . 22d. 2h. 47m. M.

☾ Full Moon . . . 15d. 0h. 6m. A.

☾ New Moon . . . 29d. 9h. 4m. A.

Nov. 2nd—Day's Length: 10 hours, 28 minutes.

DAY OF YEAR	DAY OF MONTH	DAY OF WEEK	CALENDAR FOR NEW YORK CITY, PHILADELPHIA, Pennsylvania, Connecticut, New Jersey, Ohio, Indiana and Illinois.					
			Sun Rises.	Sun Sets.	Sun Fast	Moon.	High Water Philadelphia	
			H. M.	H. M.		H. M.	H. M.	
305	1	Sa	6 29	4 59	16	6 00		2 16
306	2	44	6 30	4 58	16	6 42		2 57
307	3	M	6 31	4 57	16	7 27		3 39
308	4	Tu	6 32	4 56	15	8 16		4 23
309	5	W	6 34	4 54	16	9 7		5 6
310	6	Th	6 35	4 53	16	10 2		5 47
311	7	Fr	6 36	4 52	16	10 58		6 31
312	8		6 .	4 51	16	11 56		7.18
313	9	45	6 38	4 50	16	Morn		8 11
314	10	M	6 39	4 49	16	0 56		9 10
325	11	Tu	6 40	4 48	16	1 57		10 9
326	12	W	6 41	4 47	16	3 1		11 7
327	13	Th	6 42	4 46	16	4 8	Morn	
328	14	Fr	6 43	4 45	15	5 17		0 04
329	15	Sa	6 45	4 45	15	Rises		0 56
330	16	46	6 46	4 44	15	5 55		1 46
321	17	M	6 47	4 43	15	6 55		2 40
3 2	18	Tu	6 48	4 42	15	8 00		3 35
323	19	W	6 49	4 41	15	9 7		4 30
324	20	Th	6 51	4 41	14	10 15		5 22
325	21	Fr	6 52	4 40	14	11 21		6 13
326	22	Sa	6 53	4 39	14	Morn		7 3
327	23	47	6 54	4 38	14	0 23		7 59
328	24	Mo	6 55	4 37	13	1 29		8 58
329	25	Tu	6 56	4 36	13	2 31		9 54
330	26	W	6 57	4 35	13	3 31		10 48
201	27	Th	6 58	4 34	13	4 39		11 41
332	28	Fr	6 59	4 33	12	5 28	Even	
333	29	Sa	6 00	4 32	12	6 25		1 9
334	30	48	6 02	4 36	11	Sets		1 50

Conjectures of the Weather.

The 1st--3rd, changeable; 4th--6th, cool and clear; 7th--9th, cloudy; 10th--12th, clear and windy; 13th, 14th, blustery and cloudy; 15th--17th, pleasant; 18th--20th, rain and cool; 21st, 22d, changeable; 23rd, 24th, frost; 25th, 26th, cloudy and snow; 27th, 28th, blustery; 29th, 30th, clear.

ILLUSTRATED CATALOGUE

WITH GENERAL DIRECTIONS FOR CULTIVATION.

The Terms and Prices of Vegetable Seeds will be found in the Retail Price List in last part of Catalogue.

ASPARAGUS.

Conover's Colossal.

Soak the seed twenty-four hours in warm water, and sow in drills, one foot apart. When the plants are well up, thin to three or four inches in the row, and give frequent and thorough cultivation during the summer. The second season prepare a bed by deep spading or trenching, working in a large quantity of well rotted manure. Dig trenches four feet apart and twelve to sixteen inches deep, and spade in at least four inches of well rotted manure in the bottom. Set the plants in the trench eighteen inches apart, covering them with about two inches of fine soil. After the plants are up, gradually fill up the trenches, and give frequent and thorough cultivation. The second season early in the spring, spade in a heavy dressing of manure and about two quarts of salt to the square rod. Cultivate well. The next season it may be cut for the table two or three times, taking care to cut *all* as fast as it appears. After the final cutting, spade in a liberal dressing of fine manure and sow one quart of salt to the square rod. The next season, and ever after that, the bed should give a full crop, but should be annually manured after the last cutting and well cultivated through the remainder of the summer. The tops should not be cut until dead ripe.

✓ **Conover's Colossal.**—A mammoth variety of vigorous growth, sending up from fifteen to forty sprouts from one to two inches in diameter. Color deep green, and crown very close.

Golden Wax Bean.

✓ **Golden Wax Bean.**—This bean has long been and still continues the standard wax variety for general use, and while many varieties have been introduced claiming to be superior in some respects and aiming to replace it, they have all sooner or later been forced to the rear as not possessing as many good qualities in a high degree. Vines medium size, green, moderately spreading, hardy and productive, with small, smooth leaves, and small white blossoms, pods are long, nearly straight, hard, flat, when yellow, very fleshy and wax-like, with short, fleshy, green point, cooking quickly as soups, shelling well when green, and of the highest quality in both conditions. Beans medium size, oval, white, more or less covered with two shades of purple red.

BEANS—Dwarf, Bush, or Snap.

Under this head are classed all the low growing sorts. They are an extremely sensitive of frost and cold, that it is no less to plant them before the ground has become warm and light. Stir the ground often, but only when dry, be sure earth settles down the leaves when they are wet with dew or rain, will cause them to rust, and greatly injure the crop.

✓ **Round Yellow Six Weeks.**—One of the best green pod beans, while this variety does not differ from the Early Yellow Kidney Six Weeks in size or general appearance of the vine, the pods are shorter, very much thicker, more fleshy, while retaining the vigor and hardness of the old sort, it is fully one week earlier. Dry Bean, color of ordinary six weeks, but it is much shorter, almost round.

✓ **Early China Red Eye.**—Early, and can be used either as a string or shelled Bean.

1902
12th Month,

1902
31 Days.

MOON'S PHASES.

☾ First Quarter . . . 8d. 1h. 26m. M. ☾ Last Quarter, . . . 21d. 3h. 0m. A.
☾ Full Moon . . . 14d. 10h. 47m. A. ☾ New Moon . . . 29d. 4h. 25m. A.

Dec. 7th—Day's Length: 9 hour , 26 minutes.

DAY OF YEAR	DAY of MONTH	DAY, OF WEEK	CALENDAR FOR NEW YORK CITY, PHILADELPHIA, Pennsylvania, Connecticut, New Jersey, Ohio, Indiana and Illinois.									
			Sun Rises.		Sun Sets.		Sun		Moon.		High Water Philadelphia	
			H.	M.	H.	M.	F	st M.	H.	M.	H.	M.
335	1	M	7	3	4	35	11		6	10	2	32
336	2	Tu	7	4	4	35	11		7	1	3	14
337	3	W	7	5	4	35	10		7	54	3	55
338	4	Th	7	6	4	35	10		8	49	4	36
339	5	Fr	7	6	4	34	9		9	45	5	18
330	6	Sa	7	7	4	34	9		10	43	5	58
341	7	49	7	8	4	34	9		11	42	6	42
342	8	M	7	9	4	34	8		Morn		7	29
343	9	Tu	7	10	4	34	8		0	43	8	26
344	10	W	7	11	4	34	7		1	46	9	29
345	11	Th	7	12	4	34	7		2	53	10	33
346	12	Fr	7	13	4	34	6		4	1	11	38
347	13	Sa	7	14	4	34	6		5	10	Morn	
348	14	50	7	14	4	35	5		Rises		0	37
349	15	M	7	15	4	35	5		5	37	1	30
340	16	Tu	7	15	4	36	4		6	45	2	27
351	17	W	7	16	4	36	4		7	56	3	22
352	18	Th	7	17	4	36	4		9	07	4	13
353	19	Fr	7	17	4	37	3		10	15	5	3
354	20	Sa	7	18	4	37	3		11	19	5	50
355	21	51	7	18	4	38	2		Morn		6	37
356	22	M	7	19	4	38	2		0	23	7	26
357	23	Tu	7	19	4	38	1		1	24	8	21
358	24	W	7	20	4	39	1		2	24	9	19
359	25	Th	7	20	4	39	0		3	22	10	14
350	26	Fr	7	21	4	40	Sl.		4	18	11	9
361	27	Sa	7	21	4	40	1		5	11	Even	
362	28	52	7	21	4	41	1		6	2	0	45
363	29	M	7	21	4	42	2		Sets		1	25
364	30	Tu	7	22	4	42	2		5	48	1	7
365	31	W	7	22	4	43	3		6	44	2	47

Conjectures of the Weather.

The 1st-3rd, clear and cold; 4th-6th, cloudy and snow; 7th, 8th, pleasant; 9th-11th, variable; 12th-14th, stormy and snow; 15th, 16th, clear and pleasant; 17th, 18th, changeable; 19t-21st, cold; 22d-24th, changeable; 25th, 26th, windy; 27th, 28th, snow; 29th-31st, clear and cold.

✓ **Ivory Pod Wax.**—New variety, earlier than German Black Wax; long, stringless tender white pods of rich, creamy flavor.

✓ **Early Mohawk.**—This sort is so much hardier than the others that it can be planted earlier and often in this way, will furnish beans fit for use before any other kind. Vines large, stout, with large coarse leaves which will stand a slight frost; blossoms large, purple; pods long straight, coarse, with long tapering point. Beans long, kidney shaped, variegated with drab purple and brown.

✓ **Refuge or Thousand to One.**—Vines large, spreading, exceedingly hardy, with small, smooth leaves and large lilac flowers, very late, and esteemed for late planting and for use as pickles; pods long, cylindrical, green, becoming white, streaked with purple, of good quality as snaps; beans long, light-drab, dotted and splashed with purple.

✓ **Wardwell's Kidney Wax.**—The vines of this variety are very large, strong growing, but are peculiarly liable to blight, but when healthy, yields a large crop of long, nearly straight, handsome, very white and wax-like pod. They are of good quality and on this account, as well as their beauty of form and color, are easily sold. They ripen about the same time as the Golden Wax. The dry beans are large, kidney shaped, white with dark markings about the eye. Market gardeners find this a profitable variety owing to the large size and handsome color of the pods.

✓ **Currie's Rust Proof Wax.**—This variety is claimed to be absolutely rust proof, and is as nearly rust proof as any good wax podded bean can be, vine vigorous and productive, about the same as Kidney Wax. Dry beans bluish-black.

✓ **German Wax Black Seeded.**—We are so thoroughly satisfied with this improved strain of Black wax that we have discarded the old strains altogether, this being more vigorous growing, far more productive, with a longer, whiter, more fleshy pod and unsurpassed in flavor, vines medium sized, very vigorous and hardy, withstanding rust exceedingly well. Flowers reddish white or purple. Pods medium length, borne well up among the foliage, curved, cylindrical, thick, fleshy, and of a clear, waxy-white color, with long, slightly curved point; remain a long time in condition for use as snaps. Beans small, oblong, jet black. No one can afford to plant the old strain, as this is much better in every respect.

✓ **White Seeded Valentine.**—All the characteristics of the Red Valentine, with white seeds.

✓ **Crystal White Wax.**—New variety, long round pods, greenish white, transparent stringless, crisp, tender and slow to harden.

✓ **German Wax (White Seeded).** Ripe beans, clear white; large, handsome pods beautiful white wax color.

✓ **ROYAL DWARF WHITE KIDNEY.**—One of the best late kinds; as a winter bean it has no superior.

✓ **Large White Marrow.**—Excellent quality, either shelled green or dry.

✓ **Dwarf, White Navy.**—Seeds small, round and oval, used exclusively for field culture.

BEANS—Pole or Running.

These require a warm, mellow soil, and should not be planted until settled, warm weather. Form hills three and a half feet apart, by forking in a shovelful of fine manure; set the poles and plant to six to eight beans, and after the beans commence to run, thin to four plants to the hill. Start any that fail to climb around the pole in the same direction as the others (they will go in no other.) Fasten by sticking the end in a cut notch in the pole.

✓ **Improved Extra Large Lima.**—Very superior quality, seed much larger than the ordinary large Lima, of greenish tinge; tender and sweet.

✓ **Large Lima.**—One of the best pole beans for use, shelled either green or dry.

✓ **Indian Chief, or Tall Wax.**—Pods of a fine waxy semi-transparent White color, crisp, tender and succulent.

✓ **Small White Lima, Carolina.**—Similar to large Lima in flavor, beans much smaller but more productive.

✓ **White Dutch Case Knife.**—The earliest variety of Pole Bean, excellent flavor, and good green or dry.

✓ **Horticultural.**—The old favorite, used green or dry. The dry bears are very superior for cooking.

✓ **White Crease Buck.**—Extremely early, very popular in the South.

BEET.

All the varieties succeed best on a deep, rich, sandy loam. For early beets, sow as soon as the ground will admit, in drills fourteen inches apart, and thin to six inches in the row. For winter, sow about the middle of spring. Soak the seed twenty-four hours in luke-warm water before planting, and sow in freshly prepared ground.

The Sugar and Mangel Wurzel varieties are grown for feeding stock and should be sown from April to June in drills two feet apart, and afterwards thinned out to stand one foot apart in the rows; keep them well cultivated and you will have an abundant crop.

✓ **Extra Early Bassano.**—This is the largest of the Earliest varieties, and reaches a size fit for the table amongst the first; will not keep well during the winter. Flesh coarse grained, but tender and sweet.

Extra Early Egg Blood Turnip.

✓ **Extra Early Egyptian Blood Turnip.**—This matures quicker than any other sort. Roots of fine form, medium size, smooth and dark in color, flesh dark red, fine grained, crisp and tender.

✓ **Early Blood Turnip.**—Tops small, roots blood red, turnip shaped and very tender.

✓ **Bastian's Early Turnip.**—One of the best for the market gardener or for family use, early, quick growth, good shape, and bright red color.

✓ **Half Long Blood.**—One of the very best, unsurpassed for its winter keeping qualities.

✓ **Improved Long Dark Blood.**—The best winter variety, but apt to be tough when sown too early.

✓ **Swiss Chard.**—Tops used for Greens.

✓ **White Silesian Sugar.**—Grown extensively for feeding stock; also for extraction of sugar.

✓ **Imperial White Sugar Beet.**—A greatly improved variety of the White Silesian.

Giant Long Red Mangel Wurzel.

✓ **Giant Long Red Mangel Wurzel.**—Very large, growing well out of the ground, top small for its size, straight, smooth, and of fine scarlet color.

✓ **Long Red Mangel Wurzel.**—A large, long variety, for stock feeding, color light red.

✓ **Yellow Globe Mangel Wurzel.**—Large, round, orange colored variety, of excellent quality, which keeps better than the long red, producing better crops on shallow soil.

Yellow Ovoid Mangel Wurzel.

✓ **Yellow Ovoid Mangel Wurzel.**—Root ovoid, intermediate between the long and globe varieties, flesh solid, usually white, zoned with yellow; hardy vigorous and productive.
 ✓ **Red Globe Mangel Wurzel.**—Similar to Yellow Globe, except in color, which is light red or pink.

✓ BRUSSELS SPROUTS.

This is a very desirable vegetable, though very little known in this country. It grows two or three feet high and produces from the sides of the stock numerous little sprouts somewhat resembling cabbages; they are used for Fall and Winter Greens. It can only be grown to perfection in a good soil and with a long season to complete its growth. The seed should be sown in March or April, in a frame and transplant into the open ground and cultivate as cabbage. The plants should be watered and shaded for a week or ten days to give them a good start.

CABBAGE.

There is no vegetable which may be cultivated with more certainty of success than this, and few if any that are so generally useful, as it may be made to follow other crops, and will give some return, no matter how poor the soil or how negligent the cultivation, while it responds so readily to better care, that it claims a place in the finest garden, and the attention of the most skillful gardener.

The requisites for complete success *First*, good seed; there is no vegetable where the seed has more influence on the quality of the product than this, and the gardeners should invariably select the best procurable. *Second*, rich, well prepared ground. *Third*, frequent and thorough cultivation.

For Cabbages, the ground must be highly manured, deeply dug or ploughed, and thoroughly worked to insure good full sized heads. A heavy, moist and fresh loam is most suitable. The early sorts should be sown very early, in hot-beds, hardened off, and transplanted eighteen to twenty-four inches apart, early in the spring. In the south, sow from the middle of September to middle of October, and transplant into cold frames to preserve through winter, setting into open ground as early as possible. In transplanting, *they must be set in the ground up to the first leaf no matter how long the stem may be.*

All through the season the ground should be cultivated *as often as possible*, as success will depend largely upon faithfulness in this particular.

The late autumn winter varieties may be sown in a seed bed, from the middle to the last of spring, and transplanted when about six inches high, three feet apart each way. Shade and water the late sowings in dry weather to get them up. It is important that the plants should stand thinly in the seed bed, or they will run up weak and slender, and be likely to make long stems.

Cabbage should be hoed every week, and the ground stirred deeper as they advance in growth, drawing up a little earth to the plants each time, until they begin to head, when they should be well dug between and hilled up. After they are partly headed, it is the practice of some gardeners to lay them over on one side. Loosening the roots will sometimes retard the bursting of full grown heads.

To preserve cabbages during the winter, pull them on a dry day, and then turn them over on the heads a few hours to drain. Set them out in a cold cellar, or bury them with the head downwards, in long trenches, in a dry situation. In the Middle States, bury the head and part of the stem in the open ground, and place over them a light covering of straw and boards to protect them in severe weather.

✓ **Early Jersey Wakefield.**—Heads very compact, of medium size, varying from nearly round to conical. An early, sure heading sort, very popular with eastern market gardeners.

✓ **Early York.**—Heads small, heart-shaped, firm and tender; of very dwarf growth, and may be transplanted fifteen or eighteen inches apart.

Early Large York *Early Winningstadt.*

✓ **Early Large York.**—Succeeds the Early York, and is equally desirable. It is of large size, about ten days later, more robust, and bears the heat better.

✓ **Early Sugar Loaf.**—A compact growing variety, and the plants may be set as close as sixteen inches each way, early, but is more affected by the heat than other varieties.

✓ **Early Winningstadt.**—One of the best for general use, being a sure header, and will grow a hard head under circumstances where most sorts would fail. Heads of regular conical shape, very hard, and keep well winter and summer.

✓ **Early Dwarf, Flat Dutch.**—Heads of medium size, solid, flat, grows low on stump, and is of good flavor.

✓ **Fottler's Early Drumhead.**—An excellent second early sort, withstands heat, and heads low on stump

Premium Flat Dutch. *Premium Drumhead.*

✓ **Premium Large Late Flat Dutch.**—Superior to any late cabbage in cultivation. Our stock has been grown for us from carefully selected heads, and is equal to any other strain of this popular variety.

✓ **Red Dutch for Pickling.**—An esteemed sort for pickling; it forms very hard, oblong heads, round at the top, and when pure, of a dark blue or purple color.

Improved American Savoy.

✓ **Premium Large Drumhead.**—A large fall or winter variety broad, flat or round head short stump, tender and good flavored, and is an excellent keeper.

✓ **Improved Drumhead Savoy.**—The best of all Savoy for general market or home use. It has a short stump, grows to a large size, is compact and solid, and closely approaches the Cauliflower in delicacy and flavor.

CARROT

The Carrot succeeds best on a light, sandy loam, made rich by manuring the previous year. In freshly manured land, the roots often grow prolonged and ill shaped. It is better to sow as early in the spring as the ground can be made ready, but if planting is necessarily delayed until late in the season, soak the seed twenty four hours in tepid water, dry by mixing in sifted ashes or plaster, and sow on freshly prepared soil.

✓ **Earliest Short Horn** (*for forcing*).—The earliest variety in cultivation, used mostly by market gardeners for forcing.

Large White Belgian.

✓ **Early Scarlet Horn**.—The best early variety, flesh deep red, agreeable flavor, and grows well on shallow soil.

✓ **Danvers**.—Medium length, very large and heavy yielder, rich orange color, smooth and handsome.

✓ **Early Half Long Scarlet** (*Stump Root*).—A popular early variety, medium size; flesh bright scarlet, brittle and of good flavor.

✓ **Improved Long Orange**.—The well known standard; roots long, thickest near the crown, tapering regularly to a point, color deep orange. The best for field crop and table use.

✓ **New Red Coreless**—resembling Danver's half long—Free from any hearts or pith.

✓ **Large White Belgian**.—Grows one-third above the ground; root pure white, green above ground, with small top; raised exclusively for stock.

Improved Long Orange

CAULIFLOWER

Sow for early about middle September, in a bed of rich clean earth. In about four or five weeks afterwards the plants should be pricked out into another bed, at a distance of four inches from each other every other way; these should be encompassed with garden frames, covered with glazed sashes, and boards or shutters. The beds must be so secured, and the tops of the beds so covered as to keep out all frosts, giving them light and air every mild day throughout the winter; transplant in April into a bed of the richest earth in the garden, at a distance of two feet and a half each way. Keep them well hoed, and bring the earth gradually up to the stems.

The late variety matures in the autumn, and is sown and managed similarly to winter cabbage, but is not so certain to succeed in this climate.

✓ **Early White Snowball**.—The most highly flavored variety grown, and always sure to head.

✓ **Le Normand's Short Stem**.—The best late variety; large, well-formed heads, extra quality, and the best late variety in cultivation.

Le Normand's short stem

CELERY

Sow the seed, which is very slow to come up, early in the spring, in rich, mellow ground, in a situation where it can be protected from the parching heat of the summer sun: water freely in dry weather. When the plants are five or six inches high transplant a portion

in trenches well manured; the dwarf varieties three feet and the tall four feet between the rows; plant six inches apart in the rows, pressing the earth to the plants. As they advance in growth blanch by earthing up, which should be performed gradually in fine weather, taking care not to bury the heart of the plants. A light dressing of salt applied when earthing up, is beneficial.

✓ **Silver Giant White Solid.**—The very best tall growing variety, white, very solid, crisp, tender, and superior in flavor.

Boston Market.

✓ **Boston Market.**—The most popular variety is the Boston Market. It forms a cluster of heads, instead of a single large one, and is remarkably crisp and tender. A good variety for light soils.

✓ **Dwarf Golden Heart.**—Very fine; when blanched the heart is of a waxy golden yellow, rendering it a most striking and showy variety for either market or private use.

✓ **Half Dwarf White Solid.**—Is of rather a yellowish white when blanched, and entirely solid, possessing the peculiar nutty flavor of the dwarf kinds, with more vigor of growth.

Dwarf Golden Heart.

✓ **Dwarf White Solid.**—Dwarf, white, or stiff close habit; solid, crisp, and juicy. Keeps in good order later in the season than any other variety.

✓ **White Plume.**—The stalks and heart are white, of good eating quality, crisp, solid, and of nutty flavor; is ornamental, resembling an ostrich feather.

✓ **Giant Paschal Celery.**—Is from the Golden self blanching variety, but is somewhat longer growing. About 2 feet, very hard, thick and crisp, without any bitter flavor.

✓ **Celeriac, or Turnip Rooted.**—The root is cooked and sliced, used with vinegar; makes an excellent salad.

✓ **Soup, or Flavoring Celery.**—For flavoring soups, stews, etc., not for sowing purposes.

COLLARDS.

Very popular in the South, where it is principally grown, and used as a substitute for cabbage.

CORN.

Judging from the long and constantly increasing lists of corn which annually appear in the Catalogues issued by the various Seed Houses throughout the country, the reader would be led to believe that they were in innumerable variety, more especially amongst the Early sweet and other kinds for table use. This, however, is not the case, as upon testing, most of them will be found identical, and the long lists will dwindle down to a few pronounced and distinct varieties; in fact, the difference exists more in name than in anything else. We have, therefore, in the present Catalogue confined ourselves to those distinct and standard varieties, which the practical experience of market and family gardeners has decided to be the best for market and family use. Should other kinds appear which are really valuable they will be placed in stock, and we will gladly procure for our customers any varieties from other Catalogues which they may desire to test.

Corn should not be planted until the ground has become sufficiently warm, as cold and wet causes it to rot. Planted every two weeks, until the middle of July, will give a succession throughout the season.

✓ **FIRST OF ALL**—The very earliest grown for the Philadelphia market.

✓ **EXTRA EARLY ADAMS**.—The old standard, early sort, and its earliness its principal recommendation.

✓ **EARLY MINNESOTA SUGAR**.—New, and reported the best Early Sugar Corn grown.

✓ **CORY**.—An entirely new Extra Early Sugar Corn, ears very large for an early variety, and said to be the earliest sugar corn known.

✓ **EARLY SHAKER SUGAR**.—Introduced by us to the Philadelphia market many years ago; grows fine long ears for an early variety, and is unsurpassed by any of the other early kinds.

✓ **Shoe Peg**.—The kernel is small and very long, white and exceeding sweet and tender. Is becoming more popular every year.

✓ **EARLY LARGE EIGHT-ROWED**.—This is the old market standard; a good corn, but not among the earliest.

✓ **Zig Zag**.—Is one of the sweetest and tasty late corns. Resembles Evergreen except that the kernels are placed zig zag upon the cob.

Naragansett. Early Marblehead Sugar. Early Shaker Sugar.

✓ **COUNTRY GENTLEMAN**.—Resembles the Shoe Peg on a larger scale, surpassing it in its superior qualities, viz: deepness of grain, smallness of cob and richness of flavor. Will produce from three to four ears to stalk. Much larger than the Shoe Peg.

✓ **LARGE MAMMOTH SUGAR**.—The largest of all varieties, productive, fine flavor and sweet. A very desirable variety for the family garden.

✓ **IMPROVED STOWELL EVERGREEN**.—has no superior as a late table variety; ears large, and remains green longer than any other kind.

✓ **EGYPTIAN**.—A new large variety, quite late quality good, and resembles in some respects, the Evergreen.

✓ **EARLY WHITE FLINT**.—An excellent, productive variety, ears good size, and used for making hominy; a good table variety when cut early.

✓ **EIGHT ROWED YELLOW, (Canada)**.—Ears large, and bright yellow color, generally used for re-planting, very early.

✓ **MAMMOTH CHESTER COUNTY**.—One of the very best for field culture; fine large ears, and producing a large quantity of fodder.

✓ **MAMMOTH DENT**.—A cross between the Mammoth Chester County and the Oregon; we think this the most productive variety grown.

✓ **GOLDEN BEAUTY**.—Matures as early as the Golden Dent, and surpasses it in size, beauty of grain and productiveness.

✓ **LEAMING**.—One of the recently introduced varieties, medium, well grained ear, good color, and excellent for grinding.

✓ **SWEET FODDER CORN**.—Sown broadcast two bushels, and in drills three feet apart, one bushel per acre, either sweet or field varieties.

Mammoth Sugar Corn.

✓ **CORN SALAD (Broad Leaved)**

Used as a small salad throughout the winter and spring. Sow early in the spring in drills one foot apart, and keep weeds down by frequent hoeing. For winter and early spring use, sow in drills in August and September. Cover with straw on approach of winter.

✓ **CRESS—Pepper Grass**

CURLED.—WATER. Used as a small salad. Sow very thickly in shallow drills, on a smooth surface, at short intervals throughout the season.

CUCUMBER.

The Cucumber can be grown by any one who has a few square yards of soil with an exposure to the sun. For early use, make rich hills of well rotted manure the latter part of spring planting a dozen or more seeds, covering one-half to an inch deep, pressing the earth firmly over them. When danger from insects is over, pull all but three or four of the strongest plants, make the hills from four to six feet apart. For pickling as late as middle of July,

✓ **Jersey Prolific.**—Earliest and hardiest productive variety. the fruit of small size and produced in pairs.

✓ **EARLY FRAME.**—Fruit is straight and well formed, flesh tender, though somewhat seedy; when young makes excellent pickles.

✓ **IMPROVED EARLY WHITE SPINE.**—The very best sort for table use; vines vigorous, fruit straight and handsome, color light green, with few white prickles; tender, and of excellent flavor.

Long Green. *Early Russian.* *Early Frame.*

✓ **LONG GREEN (Jersey Pickle).**—The best pickling variety, dark green color, tender, crisp and productive.

✓ **SHORT GREEN PICKLE.**—This is the favorite Western pickling variety, and is growing in favor here every season.

✓ **LONG GREEN TURKEY.**—An excellent pickling variety, color dark green, firm and crisp.

✓ **GHERKIN (Burr Pickle).**—Small, oval shaped, prickly variety, used only for pickling.

Improved Egg-Plant. *Early Egg-Plant.*

(See next page)

EGG-PLANT.

Sow in hot-beds early in March; transplant middle of May to first of June, in a rich warm piece of ground, about thirty inches apart. Draw the earth up to their stems when about a foot high. Egg-plant seed will not vegetate freely without substantial heat, and if the plant gets the least chilled in the earlier stages of growth, they seldom recover. Repeated sowings are sometimes necessary. Care should be taken in cutting the fruit so as not to disturb the roots, which injures the plants.

✓ **Early Long Purple.**—This is one of the earliest varieties, hardy and productive; fruit long and of superior quality.

✓ **Improved New York Purple.**—The best variety in cultivation; fruit large, deep purple color, occasional stripes of green around the stem; of very superior flavor.

✓ **Black Pekin.**—Fruit black, large, smooth and glossy. Round to globular.

ENDIVE.

An excellent Fall and Winter Salad, when Lettuce is getting scarce. Sow late in the Spring to middle of Summer in shallow drills, and thin out to a foot apart; blanch by tying the leaves together near the top.

Green Curled.

Broad Leaved Batavian.

✓ **Green Curled.**—Is the hardest variety, with beautifully curled, dark green leaves, which blanch white, and are very crisp and tender.

✓ **Broad Leaved Batavian.**—Has broad, thick, plain or slightly wrinkled leaves. It is principally used for cooking, and making a larger head, is preferred for stews and soups. If the outer leaves are gathered and tied on the top, the whole plant will blanch nicely, and make an excellent salad for the table.

KALE (Borecole.)

Sow from May to June, and set out the plants in July, in good rich soil; cultivate same as cabbage. For Spring use sow in September; protect during Winter with covering of straw.

✓ **Green Curled Scotch.**—About two feet high, leaves dark green, curled and wrinkled, stands winter without protection.

✓ **Dwarf German Greens.**—Makes excellent greens for winter use, dwarf and easily protected during the Winter.

LEEK.

The Leek is hardy and of easy culture; sow early in Spring in trenches eight inches deep, and have soil at the bottom fine and rich; thin six to eight inches apart, and when the plants are twelve inches high, gather the leaves together and fill the trench so as to blanch the lower part of the plant.

✓ **London Flag.**—This is the best variety, and succeeds better in this country than any other.

LETTUCE.

There is no vegetable which is more universally used than this. It is of easy culture, and thrives best in rich, moist soil. Its quality depends largely upon rapid and vigorous growth; to secure this, have the soil rich and mellow, with frequent surface cultivation and an abundant supply of water. For an early crop sow in September in the open ground, transplant when large enough into cold frames; protect during winter in same manner as early cabbage; plant out early in April, or sow in hot-beds in February or March, and afterwards transplant.

Simpson's Early Curled.

✓ **EARLY CURED SILEASIAN**—An early variety of strong growth, leaves large, light yellow and wrinkled. It does not form a head, but is the best variety for cutting when young.

✓ **New Treasure**—This new variety forms a fine large solid head, with leaves of a richly, creamy, yellow color. Is a fine early variety, although very slow in going to seed.

✓ **LARGE DRUMHEAD**—Heads large and fine, pale green without, and white at centre; crisp and tender, fine summer variety.

Philadelphia White Dutch Butter. *Brown Dutch.*

✓ **PHILADELPHIA WHITE DUTCH BUTTER**.—The best variety for cultivation in the latitude of Philadelphia, fine large heads, and stands the heat of Summer well.

✓ **ROYAL CABBAGE**—Large, crisp and tender: a good Summer variety.

✓ **BROWN DUTCH**.—Leaves large, green, tinged with brown; very hardy, and of fine quality.

MELON (Canteloupe.)

Plant early in May, when the ground has become warm and dry, in hills six feet apart each way; use well rotted manure, and if plants grow very rank, finer fruit will be secured by trimming off the ends of the shoots when about three feet long. Do not plant near pumpkins, squashes or cucumbers, as they will mix with and injure the quality of the melons.

✓ **GOLDEN JENNY**.—Small, and very early; globe-shaped, skin green, ribbed and netted, flesh light green and of fine flavor.

✓ **JENNY LIND**.—The earliest green fleshed melon, and the sweetest variety in cultivation; flesh green, quite small, slightly ribbed and well netted.

Hackensack. *Bay View.*

✓ **PINE APPLE**.—Very fine, nutmeg shape, flesh thick and green, very firm, juicy and sweet.

✓ **GREEN NETTED**—The old favorite, nearly round, good sized, well netted, flesh thick, sweet, and fine flavor.

✓ **JENNY LIND IMPROVED.**—Resembles the old variety only that it produces earlier and is better filled out, roughing up better, and keeping fully a week longer than any other variety. Is of a handsome green fleshed sort and invaluable for a first early; and of a delicious quality.

✓ **HACKEN-SACK.**—A popular large size melon, flattened at the poles, deep netted and ribbed flesh green and well flavored. One of the best for shipping, and is a favorite with market gardeners.

Green Netted Melon.

Montreal Citron

✓ **CASABA**—One of the best in cultivation; flesh green, sweet, melting and delicious.

MELON (Water.)

The Water Melon succeeds best on light, sandy soil, but the young plant requires a good start, and for this should have hills of rich earth, made so with well rotted manure.

Cuban Queen.

✓ **MOUNTAIN SWEET.**—The old New Jersey variety, equal to the best.

Ice Cream (See next page.)

✓ **Mountain Sprout.**—Large oblong variety, gray seed, dark green skin, red flesh and good quality.

✓ **Black Spanish**—Large round, dark green skin, flesh red, sweet and delicious, a first class market variety.

✓ **CUBAN QUEEN**—One of the largest melons known; vine vigorous, skin striped, light and dark green; rind medium thick, flesh bright red, solid, crisp and sugary,

Dixie Watermelon.—Destined to supercede the Gen. If you want the best melon grown plant the Dixie. It is unsurpassed in fine eating qualities. Form long to half long, diameter large; rind dark with lighter stripes. Early as the Gen., equally productive. Flesh deep red; unequaled as a shipper. We have had seed grown especially for our trade of the best stock. For price see our price list.

✓ **Gypsy or Rattlesnake.**—One of the large varieties, stands shipments long distances better than any other. Fruit long, smooth, distinctly striped and mottled light and dark green.

✓ **Ice Cream.**—Medium size, scarlet flesh and very sweet; an excellent variety.

✓ **Orange.**—Small size, flesh red, tender and sweet, separates from the rind like an orange.

✓ **The Boss.**—New, handsome oblong variety, skin very dark, deep scarlet flesh, sugary and of excellent flavor.

✓ **Light Icing.**—Very light green skins, flesh bright red, crisp and sugary, excellent quality.

✓ **Dark Icing.**—Skin dark green; in other respects like the preceding melon.

✓ **Kolb's Gem.**—A new introduction. Has a hard rind and is a good shipper. Shape nearly round. Flesh red and of good quality.

Kolb's Gem.

✓ **White English.**—This is the kind usually preferred for salad. The leaves are light green, mild and tender when young; seed light yellow.

✓ **Brown Italian.**—This is a larger plant than the preceding, with much darker leaves; seed brown and more pungent.

MUSTARD

Mustard is not only used as a condiment, but the green leaves are used as a salad, or cut and boiled like spinach.

NASTURTIUM.

Used as a pickle and highly esteemed. Sow in drills two inches deep, in April and May, five or six inches apart, and provide them with rods. It may also be grown to advantage as an ornamental climbing plant.

OKRA. OR COMBO

The green capsules of this plant are used in soups, stews, etc., to which they impart a rich flavor, and are considered nutritious. Plant the seeds about the middle of May, in hills or drills. Plant the seeds thickly, as it is liable to rot in the ground; rich ground is necessary.

✓ **Tall White.**—About four feet high; pods eight to ten inches long.

✓ **Dwarf White.**—Two and a half feet high; pods five inches long; very productive.

ONION

A strong, deep soil is desirable for this crop. The ground should be dressed with well rotted manure.

The Silver-skin and Yellow Strasburg are principally grown (for sets) in this vicinity. Sow the seed early in the Spring, very thickly in beds or drills. As soon as the tops die off in the Summer, remove them to a dry, airy place, and early in the following Spring replant in rows about two inches apart, the rows wide enough apart to admit of hoeing. The Onions by this process, are obtained of a large size early in the season.

The Large Red Wethersfield may be reared to full size during the first season, by sowing in drills early in March, in strong land, and thinning them out to stand two or three inches apart, keeping them well hoed.

Nasturtium.

White Portugal. *Early Red Onion.*

✓ **Extra Early Red.**—A large yielder, of good form and flavor, deep red color, and keeps well. Ten days earlier than the Wethersfield.

✓ **Large Red Wethersfield.**—The standard Eastern variety. Grows to large size directly from the seed; skin deep purplish red; form round, flat; flesh purplish white; and stronger flavored than any of the other kinds.

✓ **Yellow Strasburg.**—The old popular Philadelphia variety; not as strong flavored as the Red; a first rate keeper, and valuable for shipping.

✓ **Yellow Danvers.**—A fine variety, originating in Danvers, Mass.; above the medium size, oval shaped; skin yellowish brown; flesh white, mild and well flavored, very productive

Queen. *Yellow Danvers.*

✓ **Silver Skin or White Portugal.**—Large flat Onion, of mild flavor; fine for early winter use, and very desirable for pickling. It is the best keeper of the white varieties.

✓ **Queen.**—A silver skinned variety, of mild flavor, early, a good keeper, and an excellent pickling Onion.

ONION SETS

The Onion sets grown in the vicinity of Philadelphia are recognized everywhere as the best in the country; they are more solid and brighter, and their keeping qualities much better than those grown elsewhere. The best varieties are the *Early Red*, *Yellow Strasburg*, *Yellow Danvers* and *White Silver Skin*. Onions grown from sets come into market long before those grown directly from the seeds, and in consequence much higher prices are realized from them.

PARSNIPS

This well known culinary vegetable does best on a deep, rich, sandy soil; fresh manure should not be used, as it is apt to make the roots coarse and ill-shaped. The seed is sometimes slow to germinate; it should be sown early as possible, covering half an inch deep, and the soil pressed firmly over the seed; thin out so that the plants will stand four inches apart.

✓ **Long White Dutch.**—Very hardy, and keeps through the Winter without protection

✓ Sugar or Hollow Crowned.--The very best for table use, very productive.

Hollow Crown.

Champion Moss Curled Parsley.

PARSLEY

Sow early in April in rows. Soak the seed a few hours in warm water before sowing, or it may lay two or three weeks in the ground before vegetating. A few Radish Seed mixed with the seed when sowing will mark the rows and facilitate weeding.

✓ PLAIN OR SINGLE—Dark green color, and very hardy.

✓ DOUBLE CURLED—A dwarf curled variety, which is the best for all purposes.

✓ MOSS CURLED—Leaves bright green, curled and crested like fern or moss, very ornamental for garnishing or garden decoration.

PEAS

The Pea is so generally known that it is needless to give any description of it. There are many new varieties coming out every year, most of which turn out to be no better than the older sorts. We have carefully culled them over, and our list will be found to contain that are really valuable.

The Pea matures earliest in a light, rich soil; but for general crop, a rich, deep loam will be found best. The Extra Early varieties should be sown as soon as the ground can be worked in the Spring, and continue every two weeks for a succession. The tall varieties require brush stuck in between rows. The wrinkled varieties are superior, more delicate in flavor, and remain longer in season than the smooth sorts, but are not so hardy.

The dwarf varieties suit best for small gardens, and can be planted in rows one foot apart.

✓ **IMPROVED PREMIER EXTRA EARLY PEA.**—This is undoubtedly the best and earliest Pea grown.

✓ **CLEVELAND'S ALASKA, (NEW).**—See cut on page 41.

✓ **CLEVELAND'S RURAL NEW YORKER, (NEW)**

✓ **MINGLE'S EXTRA EARLY.**—For family use this is probably equal to the Improved Premier; it does not ripen so evenly, but keeps in bearing longer.

Improved Premier

✓ **TOM THUMB.**—Very dwarf, grows only ten inches high, excellent quality and productive.

✓ **MCLEAN'S LITTLE GEM**—Highly recommended for garden cultivation; quite dwarf, and among the earliest.

✓ **MCLEAN'S PREMIUM GEM.**—An improvement on the Little Gem, being larger and more productive. Does not ripen quite so early, is very luscious in flavor, and is general favorite.

✓ **AMERICAN WONDER**—A hybrid between Champion of England and Little Gem; grows eight to ten inches high; it is an enormous cropper, and ripens in about fifty days from germination.

✓ **PRIDE OF THE MARKET.**—Habit of growth and general appearance, both of vine and pod closely resemble the stranger, only deeper in color, and ripening a week later.

✓ **ADVANCER**—A green wrinkled variety maturing in from fifty to sixty days, producing an abundance of well filled broad, long pods, considered one of the best of its kind.

✓ **EARLY KENT.**—An old early variety, ripening about a week later than the Extra Early height three feet.

✓ **SHARPS QUEEN.**—One of the most desirable of the late varieties that have been recently introduced. Being of a vigorous branching habit it needs to be sown thinly. Pods long, slightly curved and well filled. Height 2½ feet, seed dark green and wrinkled.

Telephone

— **TELEPHONE**—One of the recent introductions from England, where it is highly prized, grows about three feet high, and is the best tall Pea in existence, an enormous bearer, producing straight, showy pods, containing from nine to ten peas in a pod.

LONG ISLAND MAMMOTH—Very popular with the farmer in most sections who want a large handsome pod of deep green color that carries well. Is becoming more popular every year. Height 3 feet.

Premium Gem.

Champion of England Peas.

YORKSHIRE HERO.—Vines stout, about two feet high, pods broad and well filled, large Peas; hardy, productive, and superior flavor, and will be preferred to any other, by those who want a rich marrow-like Pea.

MARKET GARDEN.—An old favorite, of delicious flavor; ripens in sixty to sixty-five days, foliage dark, and continues long in bearing, a universal favorite.

DWARF CHAMPION.—Very much liked by those who have tried it. In quality and flavor equal to Champion of England, and the vine much more dwarf. Equal to Little Gem, except that it is ten days later.

CHAMPION OF ENGLAND.—Universally admitted to be one of the richest and best flavored Peas grown; height four to five feet; seed whitish green and shriveled, and a profuse bearer.

FORTY FOLD.—A very fine Pea, grows about the same height as Champion, very superior quality, and very productive.

STRATAGEM.—New late green wrinkled marrow variety, growth one and a half feet high great bearer and of excellent quality. See *Cut next page*.

LARGE BLUE IMPERIAL. About three feet high, pods long, rather flat, containing eight or nine Peas, a good bearer, and one of the best varieties for summer use.

IRISH DWARF WHITE MARROW FAT.—Similar in appearance and general character to the Large White Marrowfat, but of much dwarfer growth, being only about three feet high, it requires no brush, and is much earlier than the Tall Marrowfat; as a late market Pea it has no equal.

Stratagem Peas—See page 43.

✓ **Large White Marrowfat.**—About five feet high, and of strong growth; pods large, round and well filled; is undoubtedly, one of the greatest bearers in field or garden.

✓ **Large Black-Eyed Marrowfat.**—A late variety, well known on the Philadelphia market as a prolific bearer, and is recommended as one of the very best Marrowfat varieties.

✓ **Field Sorts.**—We keep in stock all the varieties used for soiling or ploughing in as green manures; a practice which is becoming quite general in this latitude.

Long Red Cayenne.

PEPPER

Sow in hot beds in March, or in a warm border early in May, transplant and thin out to stand sixteen or eighteen inches apart; hoe frequently, to keep down the weeds.

✓ **Large Sweet Bell or 'Bull-Nose.**—A large sort, of square form, mild, thick and hard; suitable for filling with cabbage, and for a mixed pickle. It is notwithstanding its size, one of the earliest varieties.

✓ **Tomato or Squash.**—Fruit flat, shaped like the Tomato.

✓ **Long Red Cayenne.**—Pod long, slim and pointed; color bright, red and very pungent.

✓ **Sweet Mountain.**—Nearly identical with the Bull-Nose; perhaps somewhat larger.

PUMPKIN

Sow in hills eight or ten feet apart each way, or in fields of corn, about every fourth ill; avoid planting near melon or squash vines, as they will hybridize.

✓ **Sweet Potato.**—Flesh yellow and dry, the very best for family use.

✓ **Cashaw.**—Long Yellow Crook Neck, one of the best among Pumpkins; sometimes weigh as much as sixty to eighty pounds.

✓ **Cheese.**—One of the best for table use; shape flat, like a cheese box; flesh yellow and sweet.

✓ **Common Field.**—Best for cattle feeding.

POTATO.

EARLY VERMONT,

EARLY ROSE,

EARLY SUNRISE,

BUREAU SEEDING,

DAKOTA RED,

WHITE PEACH BLOW,

BEAUTY OF HEBRON,

MAGNUM BONUM,

SNOW FLAKE,

WHITE STAR,

MAMMOTH PEAK,

WHITE ELEPHANT.

Early Tomato.

✓ **Extra Early Rich** Cond.--Almost as early as the **Early Cluster**; larger and smoother, it is a favorite among truckers, and is a good shipper.

✓ **Hathaways' Excelsior**.--Quite early, vigorous growth, vines large, and productive throughout the season. Fruit dark rich color, slightly below medium size, but always round and smooth.

Paragon

✓ **ACME**.--One of the most popular varieties; vines large, and produce abundantly until frost. Fruit in clusters, color maroon or reddish, with slight tinge of purple, invariably smooth and round, of good size and unusually solid, is a good shipper.

✓ **PARAGON**.--Vines large, liberal and productive; fruit large, round, of a dark crimson color, occasionally tinged with purple. The flesh is thick and fine flavored, and taken altogether, it is the best variety yet produced.

✓ **LIVINGSTON'S PERFECTION**.--A handsome new Tomato, so nearly identical with the preceding as to be interchangeable with it.

✓ **TILDEN**.--A well known and favorite variety, rich color, solid flesh, and desirable in every way.

✓ **LIVINGSTON'S FAVORITE**.--This is the most perfect shaped Tomato in cultivation, is smoother than the **Paragon**, and does not crack or rot like the **Acme**. It ripens evenly, and as early as any good variety; very prolific, good flavor, few seeds, solid, and a good shipper.

✓ **TROPHY**.--Well known as one of the best; vines of medium size, but producing large quantities of fruit, which is large, smooth, and bright red in color.

✓ **LARGE RED**.--An old, reliable variety, resembling the **Tilden**.

✓ **LIVINGSTON'S BEAUTY**.--The very latest production of Mr. Livingston, and claimed to be the best; color a bright glossy crimson, slightly tinged with purple, grows in clusters of four or five large fruits, and retains its size until late in the season, and will average more pounds of fruit to the acre than any other variety.

✓ **COOK'S FAVORITE**.--A solid, nearly round Tomato, very desirable, and almost identical with the "**Canada Victor**."

✓ **FEJEE IMPROVED**.--One of the best; color maroon, solid flesh, very productive, and known as the **Beefsteak Tomato**.

✓ **PEAR SHAPED**.--*Yellow and Red*. Used for preserves and pickles; is extraordinarily productive.

SQUASH

Cultivate same as Cucumbers or Melons. The summer varieties should be planted four or six feet apart each way, and the Winter sorts eight feet. Three plants are sufficient for a hill.

Hubbard.

✓ **EARLY WHITE BUSH, OR PATTY PAN**.—The earliest in maturing, and very productive.

✓ **EARLY GOLDEN SCOLLOP Bush**.—Like the preceding, except being of a golden color.

✓ **GOLDEN SUMMER CROOK-NECK**.—The best of the Summer squashes, gold color, profusely covered with warty excrescences; very superior flavor.

✓ **WINTER CROOK NECK**.—Shape like a Cashaw pumpkin, grown for Winter use; is a good keeper.

✓ **BOSTON MARROW**.—A Fall and Winter variety, very popular, oval form, thin skin; when ripe, bright orange color, fine grained, and for sweetness unsurpassed.

Early White Bush, or Patty Pan.

✓ **HUBBARD**.—A very superior variety, flesh bright orange yellow; dry, sweet and rich flavored, good keeper, boils or bakes exceedingly dry.

Golden Summer Crook-Neck Squash.

✓ **WHITE PINEAPPLE SQUASH**.—A superb variety for pies; it cannot be excelled.

✓ **AMERICAN TURBAN**.—Flesh orange yellow, good flavor and excellent for Fall and Winter use.

TOMATO

Tomatoes do best on light, warm, not over rich soil, and success depends upon securing a rapid, vigorous, unchecked growth during the early part of the season. To have them very early the plants should be started in a hot-bed; transplant carefully, and cultivate well as long as the vines will permit. Tying to a trellis or stakes, improves the quality.

EXTRA EARLY. (or Cluster).—The earliest variety, and desirable only on that account.

Long Black Spanish Winter.—One of the latest as well as one of the hardiest of Radishes, and is one of the best for Winter use; roots oblong, black, of large size and firm texture.

LARGE WHITE SPANISH WINTER Differing from the Black Spanish only in color.

Winter China (Page 45.)

RAPE.

Extensively cultivated in England for the seed, from which is manufactured Rape Seed Oil. As a forage plant it yields abundantly. fed green it is eaten by nearly all animals, and is very nutritious. Sow in May ten pounds broadcast and in drills four pounds per acre.

Early Red Turnip (Page 45.)

Rhubarb or Pie Plant.

It is cultivated in gardens for its leaf stalks; used for pies and tarts, it is fit for use before green fruit can be had, and is an excellent substitute. Sow seed in the seed bed early in Spring, and transplant in Autumn or ensuing Spring to any desired situation, allowing plants three feet square space.

Salsify or Vegetable Oyster.

Sow early in the Spring, in deeply dug and richly manured soil, in drills eighteen inches apart. Keep clear of weeds, and when up a few inches, thin out, so as to stand four or five inches apart. This is a hardy vegetable and can remain in the ground all Winter for early Spring use but should be taken out before they start growing. It is excellent for the table, and can be served as Carrots, or, after being parboiled, may be made into cakes and fried like oysters, which they greatly resemble in flavor.

Salsify

SPINACH.

The Spinach is very hardy, wholesome and palatable, and make a delicious dish of greens. Should be planted in rich ground. Sow in drills one foot apart, and commence thinning out when the leaves are an inch wide. For early spring use, the seed should be sown middle of Autumn, and will require through the Winter a slight protection of leaves or straw. For Spring and early Summer use, sow as early as the ground can be tilled, and at short intervals, if a succession is desired.

ROUND LEAVED SUMMER.—(*Extra Curled.*)—This variety is the best and most popular with our market gardeners; leaves large, thick and fleshy, and stands the Winter well.

LARGE LEAVED FLANDERS—Has a very erect habit of growth, and preferred by many on that account.

PRICKLY SEEDED—The hardiest variety, and will withstand the severest weather, with only a slight protection of leaves or straw; seed is prickly, leaves oblong and triangular. It is the best for Fall sowing.

LONG STANDING—New large crimped fleshy leaved variety; stands two weeks longer than any other variety before running to seed. Best kind for seed sowing.

MONSTROUS VIROFLAY—A mammoth variety of good quality, much used in Europe

The soil best suited to the Potato is a rich sandy loam, but it seems to thrive in almost any soil and climate. The best fertilizers are plaster, super-phosphate of lime and bone-ash. Plant as early in the spring as the ground can be worked thoroughly, covering about four inches in warm soil, and in wet soil three inches deep, cultivate to keep down weeds, and draw earth to the plants as they advance in growth.

There are many so called new varieties offered every season, but they disappear quickly. There is really none to be found better than the Early Rose, Snow Flake, and White Peach Pie.

RADISH

Should be sown in a warm, sandy, loam, enriched by well rotted manure, and a liberal dressing of salt, this will have the effect of making them brittle and free from worms. Sow as early as the ground can be worked, and thin to two inches apart as soon as the rough leaves appear.

Radishes must have plenty of room and be grown quickly, otherwise they will be tough and wormy.

✓ **EARLY LONG SCARLET, SHORT TOP (improved).**—The best standard variety for private gardens or market use, is brittle and crisp, and of quick growth; color bright scarlet, small top, and is uniformly straight and smooth.

✓ **EARLY SCARLET TURNIP.**—The earliest of the Turnips varieties; small root and small top.

Early Long Scarlet Short Top (improved).

Early Scarlet Turnip.

✓ **White Tipped Scarlet Turnip.**—Fine French variety; scarlet bulb with white tip, very showy and ornamental.

✓ **Early Red Turnip Rooted.**—This is the old favorite, and there are few that are better. (See *Cut.*)

✓ **Early Deep Scarlet Turnip Rooted.**—An improvement on the former very smooth and rich dark color.

✓ **Early White Turnip Rooted.**—Like the preceding in shape, but pure white in color; bears the heat well without becoming spongy, a few days later than the former.

✓ **EARLY SCARLET OLIVE-SHAPED.**—In form of an olive; fresh rose colored, tender and excellent.

✓ **EARLY YELLOW SUMMER TURNIP.**—Oblong, turnip shaped and russet colored, much larger than the Red and White Turnip varieties; solid and brittle, and stands heat better than any other kind.

✓ **GOLDEN GLOBE.**—A fine French variety, amber colored, mild flavor, and keeps long in eating condition.

✓ **SCARLET CHINA WINTER.**—Form conical, of a bright rose color, flesh firm and pungent flavor.

✓ **WHITE CHINA WINTER.**—Similar in shape to the preceding, flesh piquant, solid and brittle; an excellent sort for late Fall or Winter use.

TURNIP.

✓ **Early Purple Top Munich.**—A handsome early Turnip, decidedly earlier than any other sort; color white with bright purplish red top; of fine quality when young and recommended as the very best for a first crop.

Early Purple Top Munich.

✓ **Early Flat Dutch (Strap Leaved).**—This is the most popular early Turnip for table use; very early, sweet and tender, and sure to bulb.

✓ **Early Purple Top (Strap Leaved)**—Very similar to the preceding except in color, being purple or dark red on top; form round, flat, with but few leaves, which are of upright growth. This is the standard variety, and here is none better for general purposes.

✓ **Large Early Red Top Globe.**—Only recently introduced; very attractive, of large size and rapid growth. It is a very heavy producer, and quite as early as the Flat Red Top.

✓ **Early White Egg.**—A recently introduced variety; color pure white, egg-shaped, of very rapid growth, and of good quality.

✓ **Pomeranian White Globe (Strap Leaved)**—A free-growing, rough-leaved variety, and very productive; will, frequently, in good rich soil grow to ten or twelve pounds in weight; it is a perfect globe in shape, skin white and smooth. A first rate kind for either table use or stock.

✓ **White Norfolk.**—One of the standard field sorts; and is extensively grown everywhere for stock feeding. In shape, round, color white, and often grows to large size. It is an admirable keeper.

Early Purple Top—Strap Leaved.

Improved American Ruta Baga.

✓ **Cow Horn.**—This variety is carrot-shape, and grows nearly half out of the ground; is pure white, except slight shade of green at top. It is well flavored, of rapid growth, and seems to be increasing in favor every year.

✓ **Amber Globe (Strap-Leaved).**—This is one of the best of the rough leaved sorts, for either table use or for stock; flesh yellow, fine grained and sweet; hardy, keeps well, is a good cropper, and grows to a very large size.

✓ **Yellow Aberdeen.**—This is a very nutritious cattle turnip; flesh pale yellow, tender and sugary; is a good keeper, ardy and productive. It is an old favorite, and for stock purposes hard to beat.

✓ **Robertson's Golden Ball (*Orange Jelly*).**—One of the most delicate and sweetest yellow flesh Turnips yet introduced; does not attain a very large size, but is firm and of excellent flavor. Has no superior as a table variety.

✓ **Improved Purple Top Yellow Swede (*Ruta Baga*).**—This is the standard and most important now cultivated for stock purposes; noted for rapid growth, large size and nutritious quality, and cannot be too highly recommended.

White Fleshed Purple Top *Ruta Baga*.—This differs mainly from the preceding in color; possesses most of the good qualities of the yellow, but is of slightly milder flavor. is not as valuable for stock as the yellow.

The above comprise about all the desirable varieties for either table or stock use. There are several others which differ from each other more in name than in anything else, being in most instances identical in their characteristics. We have not noted them here, but any varieties not named, which our customers may desire, we will cheerfully procure, and at such prices as will compare with any other Catalogue.

CLOVER AND GRASS SEEDS.

There are no plants so valuable for fertilizers as the clovers, and as a class they include some of the best forage plants. The common clover is the natural manure of the Northern farmer, and it is the cheapest and best renovator of worn soils. Its full value on poor land is best obtained by securing the first crop for hay, and ploughing under the second crop when in seed in September. The cutting of the growing plants causes the development of a large amount of roots, which extract from the soil large amounts of mineral constituents, which, by the decay of the roots, greatly increase the fertility of the soil; the long roots extend far into the earth, and when they decay leave channels through it for the admission of air and distribution of water. Soils best adapted to clovers are clays and heavy loams, and on such soils lime is the best clover manure. They also do well on soils of lighter character, and when ploughed under as a green manure, add greatly to their fertility. The seed may be sown in Fall or Spring; but in the Eastern and Middle States the best results are usually had from Spring sowing; it should be sown early on a mellow, well prepared soil; plaster will increase the growth remarkably, and should be sown broadcast the season following the seeding.

CRIMSON CLOVER.

Crimson Clover.—Or more commonly called Scarlet, Italian or German Clover, is an annual of French origin, makes a growth from 20 to 30 inches high, has a bright crimson blossom from 1½ to 3 inches long, and when in full bloom with its luxuriant growth of green foliage and its crimson bloom, is a thing of beauty. It is a winter crop, must be sown in July, August and September of each year from which the spring following can be cut for soiling, by the 20th, of April; for Ensilage and hay by the 8th of May, and for seed crop by the 25th of May. It will produce on ordinary soil 12 to 15 tons of green food per acre, 1½ to 2½ tons hay per acre, and 2 to 12 bushels seed per acre. Ploughed under as a manurial crop it is worth as a fertilizer \$30. per acre. Experiments at the Delaware Experiment Station, have shown that \$1 invested in seed per acre added 24 bushels corn. While \$1 worth of nitride soda per acre increased the yield of corn only 6 bushels.

Professor Voorhees, Director of the New Jersey Experimental Station, says, on page 21 of station bulletin no. 100: The average of the matured crops on May 24th and 31st contained per acre 200 lbs. nitrogen and 6,500 pounds of organic matter, or equivalent to that contained in 20 tons of city manure, which would cost in that form \$30. On page 29 of the same bulletin Professor Voorhees says; Used as a manure only the average crop per acre is worth \$25, when used as a feed the value is increased to \$40. This plant provides a good pasture before other crops are available. An early pasture is not only valuable for food contained in it, but also because it helps to insure proper feeding and to prevent too early use of other and later pasture. The crop when 6 inches high contained over 1,300 pounds of digestible food per acre, sufficient to properly nourish 12 cows for one week. When sown in July and August it furnishes excellent pasture in December, can also be pastured some in early spring without injury to either hay or seed crop. When Red Clover failed to give a good stand or blighted on wheat stubble, the stubble can be harrowed over and Crimson Clover sown, which will more than make up the loss of the Red Clover. Crimson Clover weighs sixty pounds to the bushel. Ten to fifteen pounds are necessary to seed an acre properly, and after sowing the seed it should be covered by harrowing with a light harrow. Professor Voorhees and other experimenters of high authority regard it as hardy as red clover. It withstood the winter at the Maine experimental station and attained a growth of 26 inches. Good results have been obtained in Northern New York. Crimson Clover will grow on poor light soils when other grasses fail. By its use poor soils can be improved more rapidly than by any other method. Therefore, it is the cheapest and best fertilizer.

It makes an abundant food of highest quality. As pasture, stock prefer it to other grass. As a soiling crop or for Ensilage it cannot be excelled, and for hay stock not only have a decided preference for it, but they thrive remarkably upon it.

The Delaware Experimental Station sums up its uses as follows:—

1. To Plow down for Green Manure.
2. For Silage.
3. For Soiling.
4. For Haymaking.
5. For Seed Production.
6. For Eradication of Weed.
7. For Reduction of Expenses in Cultivating Orchards.
8. For Winter and Spring Pasture.
9. As a Protection for Falling Fruit in Orchards.
10. For Binding drift Soils and for preventing Washing on Hill Sides.

We make Crimson Clover a specialty and we are prepared to furnish it in large or small quantities. We have in stock choice re-cleaned seed. Prime seed and No. 2 seed which we and furnish at market prices.

MAMMOTH OR LARGE RED.—This variety is best adapted for ploughing under as a green manure; it grows five to six feet high, has large, coarse stalks, which are not liked by cattle. It is not ready to cut for hay until long after the common variety, and when cut leaves the ground bare, making no second growth. Sow at the rate of about ten pounds per acre.

MEDIUM OR COMMON RED—This is the most important of all the varieties of Clover for practical farm purposes; it makes excellent pasturage when sown with Timothy and other grasses, and is one of the best fodders for milch cows or sheep; sow at the rate of ten to fifteen pounds per acre, according to nature of the soil.

ALSIKE OR SWEDISH—This is the most hardy of all the Clovers, it resists the severest cold, and extremes of drought and wet, yields large crops of superior hay, and on rich soils may be cut several times in a season; it is perennial, and its long, strong fibrous roots take a firm, deep hold on the soil, preventing washing away of the extra earth from hillsides. It produces superior pasturage, and is much liked by cattle; grows well on any soil; stalks are fine and palatable, blossoms globular, sweet and fragrant, and much liked by bees. Sow in Spring or Fall, at rate of about six pounds per acre.

CRIMSON TREFOIL (*Scarlet Italian*).—Grows about one foot high, with fine stems and long leaves. Blossoms are long, cone shaped, of a dark red or carmine color, grows rapidly, but being an annual, must be re-sown each season; it yields several crops per year, and makes excellent hay. Sow about ten pounds per acre in Spring.

WHITE DUTCH.—A small, low growing variety, with creeping stems; mixed with Blue grass or Perennial Rye Grass, or Timothy, it makes a permanent pasture of great value. Its blossoms are round, white, tinged with red, and sweet scented; stems fine and palatable, with numerous leaves of bright green color, blotched with white. Sow about six pounds per acre.

TIMOTHY.—This crop to cut for hay, probably surpasses any other grass in cultivation it thrives best on moist, loamy soils, and is not well suited to light, sandy or gravelly soils it should be cut just when the blossom falls. Sow either in Spring or Fall, at the rate of twelve pounds per acre, if alone, but less if mixed with other grasses.

Orchard Grass.—This is one of the most valuable grasses, on account of its quick growth and valuable aftermath. It is ready for pasture in Spring two weeks earlier than most grasses, and when fed off, is again ready for grazing in a week. It is palatable and nutritious, and stock eat it readily when green; it will also withstand severe drought keeping green where many grasses wither, and will endure considerable shade. When sown with Clover it makes excellent hay, as it blossoms at the same time, and they should be cut together; for grazing it has no equal, and should be used more than it is; it has a tendency to grow in tufts, which can be prevented by close cropping and heavy seeding. When sown alone, one and a half to two bushels per acre are required; if sown with clover, half that quantity. It is a perennial, and will last for years, but its habit of growth unfits it for lawns.

Red Top or Herds Grass.—Is a good permanent grass, and makes a good pasture when fed close; is valuable for low, wet meadows, producing large crops of good hay. It is often sown with Timothy and Red Clover, in which case it makes a close sward.

Kentucky Blue Grass.—This makes an excellent pasture grass, producing a most nourishing food for cattle, retaining its qualities till a late period in Winter, and further South affording abundant food during the Winter. In connection with White Clover it affords a fine and close lawn: for this purpose an extra quantity of seed must be used, say, two bushels Blue Grass and six pounds of White Clover per acre. If sown by itself, either in Spring or Fall, two bushels per acre are required.

Natural Green Grass.—This is the grass par excellence for lawns, making a fine close surface of dark green velvety color. It is very sensitive to good treatment, and will in most cases drive out the other grasses and take possession of the soil. Should be sown not less than two bushels per acre.

Perennial Rye Grass.—A very valuable variety for permanent pasture, and makes a large return of hay; it is very nutritious, and stock are very fond of it; succeeds best on moderately moist land, for which it is peculiarly adapted. It is also largely used for lawns, in conjunction with other grasses. Should be sown in the Spring in quantities of one and a half to two bushels per acre.

Sweet Vernal Grass.—An early and exceedingly fragrant variety, and on that account invaluable for Lawn Grass mixtures, presenting a beautiful appearance, and exhaling a delightful odor when in blossom.

Fine Mixed Lawn Grass.—For fine lawns, careful preparation of the ground, with thorough rolling, are absolutely necessary, following which a selection of the seeds of such grasses as will present a luxuriant verdure from early spring till late in Autumn. There should also be frequent mowings with a lawn mower; no matter how much care has been taken with soil and seed, no lawn will be beautiful without frequent mowing and rolling. Too much care cannot be bestowed on the selection of grasses, these we can supply ready mixed, in proper portions of each kind required. We have been exceedingly successful with our mixture, and refer to the many fine lawns around Philadelphia, which have been put down with our mixture. Should be sown two to three bushels per acre.

Common Millet.—Requires a dry, light, rich soil, and grows two and a half to four feet high, with a fine bulk of stalks and leaves, and is excellent for forage. Can be sown in drills or broadcast, from May 1st until last of July. For hay sow one bushel; if for seed one-half bushel per acre.

German, or Golden Millet.—A much improved variety, medium early, growing three to five feet high; the heads are closely condensed, though the spikes are very numerous. It is an enormous cropper; should be sown not less than one bushel per acre, if less will grow coarse and woody, in which state it is not relished by cattle.

Hungarian Grass.—This belongs to the millet family, growing less rank, with small stalks often yielding two to three tons of hay per acre; like millet it is an annual, and requires, to be sown every season, but will produce a larger return than almost any other crop. Sow and cultivate like millet; all kinds of stock eat it with avidity.

For Hay.—Either sown together or separate, are unsurpassable both as to quantity and quality of hay.

German Millet, (and it must be remembered that Tennessee German Millet is the best in the world,) being sown and cultivated for seed and compared to seed grown elsewhere, the Tennessee grown is purer and better in every way.

After all danger of frost is past, break the land and thoroughly pulverize it, then sow at the rate of one to one and a quarter bushels per acre, and roll or harrow in, and cut when seed are in the dough; cure as timothy.

For Hay.—Either sown together or separate, are unsurpassable both as to quantity and quality of hay.

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After all danger of frost is passed, break the land and thoroughly pulverize it, then sow at rate of one to one and a quarter bushels per acre, and roll or harrow in, and cut when seed are in the dough; cure as timothy.

AROMATIC AND SWEET HERBS.

ANISE,
 BASIL, SWEET,
 CARAWAY,
 CORIANDER,

*FENNEL,
 *LAVENDER,
 MARIGOLD, POT,
 MARJORUM, SWEET,

*ROSEMARY,
 *SAGE,
 *SAVORY, SUMMER,
 *SAVORY, WINTER,
 *THYME.

Those marked with * are perennial, and when once obtained in the garden, may be preserved for years with a little attention. Most of the varieties thrive best on rich, sandy soil, which should be carefully prepared and cultivated, as the young plants are for the most part delicate and easily choked out by weeds. Sow as early as the ground can be made ready, in drills sixteen to eighteen inches apart, or sow in beds in April, and set plants out in June, they should be cut when in bloom, wilted in the sun, and then thoroughly dried in the shade.

PERMANENT GRASSES.

We also furnish single grasses, or several kinds in a mixture, for the production of hay or permanent pasture, to suit either heavy or light land.

MISCELLANEOUS FARM SEEDS.

Under this head we keep in stock all kinds of Spring and Winter Wheats, Rye, Common and Silver Hull Buckwheat, Oats, Field Peas, Spring Vetches and Tares, and all other seeds required for the farm.

BIRD SEEDS.

CANARY,
 HEMP,

MILLET,
 RAPE,

MAW,
 LETTUCE.

And other articles required by the Bird Fancier.

PRICE LIST.

LESS QUANTITIES THAN 1-4 lbs. and 1-4 BUSIL ARE CHARGED AT THE PRICES PER OZ. AND QUART.

While we exercise the greatest care to have all Seed pure and reliable, it is hereby mutually agreed that we are not in any respect liable or responsible for the seeds sold by us, either as to quality or kind, nor any loss or damage arising from any failure thereof in any respect.

WRITE US FOR FIRM PRICES.

ASPARAGUS. oz. LB.

✓ Conover's Colossal.....	\$ 10 50
✓ Barr's Mammoth.....	10 50
✓ Palmetto, (new).....	10 50

BEANS, (Bush, or Snap Shorts.) QT. BUS.

✓ Early Mohawk.....	4 50
✓ Early Red Valentine.....	4 00
✓ Cleveland's Improved Round Pod Valentine.....	4 00
✓ Early Long Yellow Six Weeks...	4 25
✓ Early China Red Eye.....	4 00
✓ Refugee or Thousand to One.....	3 00
✓ Currie's Rust Proof Wax.....	4 50
✓ Dwarf German Wax.....	4 50
✓ Golden Wax.....	4 50
✓ Wardwell's Kidney Wax.....	5 00
✓ German Wax, (white seeded).....	4 00
✓ Crystal White Wax.....	4 00
✓ Ivory Pod Wax.....	4 00
✓ White Seeded Valentine.....	5 00
✓ White Cranberry.....	3 25
✓ Royal Dwarf, White Kidney.....	3 25
✓ Large White Marrow.....	3 25
✓ Dwarf White Navy.....	3 25
✓ Henderson Bush Lima.....	3 25
✓ Burpee Bush Lima.....	6 00
✓ Deers Bush Lima.....	6 00

BEANS, (Runners.)

✓ Extra Early Jersey Lima.....	40 600
✓ Improved Extra Large Lima, (Salem Mammoth).....	40 6 00
✓ Dreer's improved Lima.....	30 6 60
✓ Small White Lima or Carolina.....	30 6 50
✓ Horticultural.....	20 5 00
✓ Giant Wax, (Red Seed).....	20 6 00
✓ Tall German Wax.....	20 6 00

BEET. oz. LB.

✓ Extra Early Bassano.....	10 60
✓ Early Egyptian Turnip.....	10 60
✓ Eclipse.....	10 60
✓ Early Blood Turnip.....	10 60
✓ Bastian's Early Turnip.....	10 60
✓ Half Long Blood.....	10 60
✓ Improved Long Dark Blood.....	10 60
✓ Swiss Chard.....	10 60
✓ White Silesian Sugar.....	10 40
✓ Imperial White Sugar.....	10 40
✓ Giant Long Red Mangel Wurzel	10 40
✓ Long Red Mangel Wurzel.....	10 40
✓ Yellow Globe Mangel Wurzel...	10 40
✓ Yellow Ovoid Mangel Wurzel...	10 40
✓ Red Globe Mangel Wurzel.....	10 40
✓ Golden Tankard Mangel Wurzel	10 40

BROCCOLI.

✓ Purple Cape.....	20 2 50
✓ Early Large White.....	20 2 50

BRUSSELS SPROUTS. oz. LB.

✓ Dwarf Improved.....	\$ 15 1 50
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CABBAGE. oz. LB.

✓ Large Early York.....	\$ 15 1 50
✓ Early Jersey Wakefield.....	20 2 00
✓ Early Winningstadt.....	15 1 50
✓ Early Cone.....	15 2 00
✓ Early Sugar Loaf.....	15 2 00
✓ Early Dwarf Flat Dutch.....	15 1 50
✓ Fottler's Early Drumhead.....	15 1 50
✓ Premium Large Late Flat Dutch.	15 1 50
✓ Premium Large Drumhead.....	15 1 50
✓ Improved Drumhead Savoy.....	15 2 00
✓ Red Dutch (for Pickling).....	15 2 00

CARROT.

✓ Earliest Short Horn.....	10 75
✓ Early Scarlet Horn.....	10 75
✓ Danvers.....	10 75
✓ Early Half Long Scarlet, (Stump Root.).....	10 75
✓ Improved Long Orange.....	10 75
✓ Long Red Altringham.....	10 75
✓ Large White Belgian.....	10 75

CAULIFLOWER.

✓ Extra Early Paris.....	35 5 00
✓ Lenormand's Short Stem.....	50 7 00

CELERY.

✓ Giant White Solid.....	15 1 50
✓ Boston Market.....	15 1 50
✓ Dwarf Golden Heart.....	15 1 50
✓ Half Dwarf Solid.....	15 1 50
✓ Dwarf White Solid.....	15 1 50
✓ Flavoring Celery.....	10 40
✓ Matchless Red Solid.....	15 1 50
✓ Celeriac, Turnip Rooted.....	15 1 50
✓ Self Blanching.....	20 4 00
✓ White Plume.....	20 4 00

COLLARDS..... 20 1 50

CORN SALAD..... 10 75

CORN. QT. BUS.

✓ Cory.....	15 2 00
✓ Perkins' Extra Early.....	15 2 00
✓ Extra Early Adams.....	15 2 00
✓ Early Marblehead Sugar.....	15 2 00
✓ Early Shaker Sugar.....	15 2 00
✓ Early Red Naragansett.....	15 2 00
✓ Early Large Eight Rowed.....	15 2 00
✓ Triumph.....	15 2 00
✓ Amber Cream Sugar.....	15 2 00
✓ Crosby's Early.....	15 2 00
✓ Large Mammoth Sugar.....	15 2 00
✓ Improved Stowell Evergreen.....	15 2 00
✓ Longfellow.....	15 2 00

CORN.

	QT.	BUS.
✓ Egyptian.....	\$	15 2 00
Early White Flint.....		15 1 50
Eight Rowed Yellow, (<i>Canada</i>)..		10 1 50
Mammoth Chester Co.....		10 1 50
Mammoth Dent.....		10 1 50
Golden Beauty.....		10 1 50
Golden Dent.....		10 1 50
Blunt's Prolific.....		10 1 50
Leaming.....		10 1 50
Hickory King.....		10 1 50
Sweet Fodder Corn.....		10 1 50

CRESS.

	OZ.	LB.
✓ Curled.....	10	50
✓ Broad Leaved.....	10	60

CUCUMBER.

✓ Early Cluster.....	10	60
✓ Early Frame.....	10	60
✓ Improved White Spined.....	10	60
✓ Long Green Turkey.....	10	60
✓ Jersey Pickle.....	10	60
✓ Short Green Prolific.....	10	60
✓ Boston Market.....	10	60
✓ Gherkin.....	20	2 00

EGG PLANT.

✓ Early Long Purple.....	20	2 00
✓ Improved New York Purple.....	20	2 00
✓ Black Pekin.....	20	2 00

ENDIVE.

Green Curled.....	15	1 50
✓ Broad Leaved Batavian.....	15	1 50

GRASS SEED.

Red Clover Seed.....	} According to Market.
Mammoth Red Clover Seed	
White Clover Seed.....	
Alsike Clover Seed.....	
Crimson Clover Seed.....	
Orchard Grass.....	
Herds Grass.....	
Red Top.....	
Green Grass.....	
Kentucky Blue Grass.....	
Perennial Rye Grass.....	
Lucerne.....	
Alfalfa.....	

	QT.	BUS.
Mixed Lawn Grass, &c., No. 1....	15	2 50

KALE.

	OZ.	LB.
✓ Green Curled.....	10	50
✓ Tall Curled Scotch.....	10	50
✓ Dwarf German Greens.....	10	50
✓ Siberian.....	10	50

LEEK.

Large London Flag.....	15	1 00
✓ Musselburgh.....	15	1 25

LETTUCE.

✓ Early Curled Silesian.....	15	1 25
✓ Simpson's Early Curled.....	15	1 25
✓ Large Curled India.....	15	1 25
✓ Large Drumhead.....	15	1 25
✓ White Dutch Butterhead.....	15	1 25
✓ Royal Cabbage.....	15	1 25
✓ Brown Dutch Butterhead.....	15	1 25

MELON.

	OZ.	LB.
✓ Mountain Sweet.....	10	50
✓ Black Spanish.....	10	50
✓ Cuban Queen.....	10	75
✓ Gipsy, or Rattlesnake.....	10	50
✓ Dixie.....	10	50
✓ The Boss.....	10	50
✓ Ice Cream.....	10	50
✓ Mountain Sprout.....	10	50
✓ Light Iceing.....	10	50
✓ Dark Iceing.....	10	50
✓ Kolb's Gem.....	10	50
✓ Black Italian.....	10	50
✓ Iron Clad.....	10	50
✓ Citron, for preserving.....	10	50
✓ Large Netted Nutmeg.....	10	50
✓ Netted Green.....	10	50
✓ Montreal Green Nutmeg.....	10	50
✓ Pine Apple Citron.....	10	50
✓ Jenny Lind Citron.....	10	50
✓ Little Gem Citron.....	10	50
✓ Hackensack.....	10	50
✓ Golden Jenny.....	10	50
✓ Early Rough.....	10	50
✓ Bay View.....	10	50
✓ Surprise.....	10	50
✓ MUSTARD, White English.....	5	20
✓ Black Italian.....	5	20

NASTURTIUM..... 15 1 00

OKRA, or GOMBO, Dwarf and Tall 10 50

ONION, Extra Early Pearl..... 20 1 00

✓ Extra Early Red..... 20 1 00

✓ Large Red Wethersfield..... 20 1 00

✓ Large Yellow Strasburg..... 20 1 00

✓ Yellow Danvers..... 20 1 00

✓ Silver Skin..... 20 1 50

✓ Italian Queen..... 20 1 50

ONION SETS.

Yellow Strasburg.....	} Prices Variable.
Yellow Danvers.....	
Silver Skin.....	
Early Red.....	

OATS, &c.

Surprise.....	} According to Market.
White and Black Norway	
Welcome.....	
White Belgian.....	
Imported Scotch.....	
Excelsior.....	
White Probsteir.....	
Barley.....	
Seed Wheats, &c., &c.....	

PARSLEY.

	OZ.	LB.
✓ Plain.....	10	75
✓ Double Curled.....	10	75
✓ Moss Curled.....	10	90

PARSNIP.

✓ Sugar, or Hollow Crowned.....	10	50
✓ Long White Dutch.....	10	50

PEAS.

	QT.	BUS.
✓ Mingle's Extra Early.....	15	4 50
✓ Improved Premier, Extra Early..	15	4 50
✓ Philadelphia Extra Early.....	15	4 00
✓ Horsfords Market Garden.....	20	5 00
✓ Pride of the Market.....	30	5 00
✓ Alaska.....	15	5 50
✓ Long Island Mammoth.....	20	4 50

PEAS.	QT.	BUS.
✓ Tom Thumb	20	4 50
✓ Improved Little Gem.....	20	4 00
✓ McLean's Premium Gem	20	4 00
✓ American Wonder.....	25	5 00
✓ Kentish Invicta	25	5 00
✓ McLean's Blue Peter	20	4 00
✓ Advancer.....	20	4 00
✓ Full Basket.....	20	4 00
✓ Early Frame.....	15	3 50
✓ Stratagem	20	4 00
✓ Telephone (new).....	20	4 00
✓ Laxton's Marvel	20	4 50
✓ Yorkshire Hero.....	15	4 00
✓ Eugenie	20	5 00
✓ Dwarf Champion of England.....	15	4 00
✓ Tall Champion of England.....	15	4 00
✓ First and Best.....	15	5 00
✓ Large Blue Imperial.....	15	4 00
✓ Large White Marrowfat (dwarf).....	15	2 25
✓ Large Black Eyed Marrowfat.....	15	2 25
✓ Canada Field.....	10	1 40
PEPPER.	OZ.	LB.
✓ Large Sweet Bell.....	15	1 50
✓ Tomato or Cheese.....	15	1 50
✓ Long Red Cayenne.....	15	1 50
✓ Sweet Mountain.....	15	1 50
POTATO.		
✓ Early Vermont.....	} According to Market.	
✓ Early Rose.....		
✓ Early Sunrise.....		
✓ Bu bank Seedling.....		
✓ Dakota Red		
✓ White Peach Blow.....		
✓ Beauty of Hebron.....		
✓ Magnum Bonum		
✓ Snowflake.....		
✓ White Star.....		
✓ Mammoth Pearl.....		
✓ White Elephant.....		
PUMPKIN.		
✓ Sweet Potato.....	10	50
✓ Cashaw.....	10	50
✓ Cheese.....	10	50
✓ Common Field.....	10	25
RADISH.		
✓ Long Scarlet Short Top.....	10	75
✓ Early Long Scarlet (improved).....	10	75
✓ Early Scarlet Turnip	10	75
✓ White Tipped Scarlet.....	10	75
✓ Early Deep Scarlet Turnip.....	10	75
✓ Early Red Turnip.....	10	75
✓ Early White Turnip.....	10	75
✓ Early Scarlet, Olive Shaped.....	10	75
✓ Wood's Early Frame.....	10	75
✓ Early Yellow Summer Turnip.....	10	75
✓ Golden Globe.....	10	75
✓ Scarlet China Winter.....	10	75
✓ White China Winter.....	10	75
✓ Long Black Spanish Winter.....	10	75
✓ Large White Spanish Winter.....	10	75
✓ French Breakfast.....	10	75
✓ White Strasburg.....	10	75
✓ Red Strasburg.....	10	75
RAPE	QT.	BUS.
✓ Winter and Summer.....	10	2 40

SALSIFY.....	OZ.	LB.
✓ SALSIFY.....	10	1 00
SPINACH.		
✓ Round Leaved Savoy.....	10	40
✓ Long Standing	10	40
✓ Large Leaved Flanders.....	10	40
✓ Prickly Seeded.....	10	40
✓ Virolay.....	10	40
SQUASH.		
✓ Early White Bush.....	10	60
✓ Long Green.....	10	60
✓ Golden Summer Crook-neck.....	10	60
✓ American Turban.....	10	60
✓ Early Golden Bush.....	10	60
✓ Winter Crook-neck.....	10	60
✓ Boston Marrow.....	10	60
✓ Hubbard.....	10	60
✓ Coconut Squash.....	10	60
TOMATO.		
✓ Extra Early Cluster.....	15	1 50
✓ Extra Early Richmond.....	15	1 50
✓ Hathaway's Excelsior.....	15	1 50
✓ Acme.....	15	1 50
✓ Paragon.....	15	1 50
✓ Livingston's Perfection.....	15	1 50
✓ Livingston's Favorite.....	15	1 50
✓ Tilden.....	15	1 50
✓ Trophy, Improved.....	15	1 50
✓ Large Red.....	15	1 50
✓ Cook's Favorite.....	15	1 50
✓ Fejee Improved.....	20	2 00
✓ Pear Shaped, (Yellow and Red).....	20	2 00
✓ Livingston's Beauty, (new) papers only.....	15	1 25
TURNIP.		
✓ Early Purple Top Munich.....	10	60
✓ Early Flat Dutch, (Strap Leaved).....	10	60
✓ Early Purple Top, (Strap Leaved).....	10	60
✓ Large Early Red Top Globe (New).....	10	60
✓ Early White Egg.....	10	60
✓ Pomeranian White Globe, (Strap Leaved).....	10	60
✓ White Norfolk.....	10	60
✓ Cow Horn.....	10	60
✓ Amber Globe, (Strap Leaved).....	10	60
✓ Yellow Aberdeen	10	60
✓ Robertson's Golden Ball (Orange Jelly).....	10	70
✓ Purple Top Yellow Swede, (Ruta Baga).....	10	75
✓ White Fleshed Purple Top Ruta Baga.....	10	75
HERBS.		
✓ Anise.....	15	
✓ Caraway	15	
✓ Fennel.....	15	
✓ Lavender.....	15	
✓ Pot Marigold.....	50	
✓ Sweet Marjorum.....	20	1 75
✓ Rosemary.....	20	
✓ Sage.....	20	2 00
✓ Sweet Basil.....	15	1 50
✓ Summer Savory.....	15	1 50
✓ Winter Savory.....	25	
✓ Thyme.....	25	3 00

FOR DESCRIPTION SEE PAGE 50.